



Estyn

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Arolygiaeth Ei Mawrhydi dros Addysg
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Her Majesty's Inspectorate
for Education and Training in Wales

Training for construction, planning and the built environment

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Contents	Page
Introduction	1
Background	1
Main findings	4
Recommendations	5
Standards	6
Provision	10
Teaching and assessment	12
Literacy, numeracy and support	13
Leadership and management	14
Accommodation and resources	15
Appendix 1: Evidence base	
Appendix 2: Questions for self-evaluation to promote improvement in construction, planning and the built environment programmes	
Appendix 3: Data comparisons	
Glossary, and references	
The remit author and survey team	

Introduction

The purpose of this thematic survey is to provide the Welsh Government (WG) with advice on the current standards and quality of provision for construction, planning and the built environment in further education institutions (FEIs) and work-based learning (WBL) providers, as requested in the annual remit letter to Estyn from the Minister for Education and Skills.

The report is intended for the Welsh Government and leaders, managers and staff of FEIs and WBL providers. It may also be of interest to Sector Skills Councils (SSCs), trade unions, trade bodies and employers from across the construction sector. The report draws on the range of evidence noted in Appendix 1, questions for self-evaluation in Appendix 2 and data comparisons in Appendix 3.

Background

Construction, planning and the built environment are key policy areas for the Welsh Government in promoting economic growth and addressing environmental and sustainable development in Wales. Construction is one of the nine priority economic sectors supported by the work of a Sector Panel made up of key industrialists. The sector also plays a significant role in delivering the Wales Infrastructure Investment Plan and there are significant cross-sector policy areas that link to environmental sustainability.

Construction, planning and the built environment are of significant importance to the economy of Wales. Approximately 10,000 businesses are operating within the construction sector in Wales, employing just under a 100,000 people. Over the last few years, due to the economic downturn and recession, the sector has seen a significant decline in the availability of work contracts. Currently very few substantial, long-term contracts are available and many contracts are small and short-term.

The contribution of the construction sector in Wales to the economy has declined in each of the last four years. During 2012, the construction industry suffered a 13% reduction in activity. In the professional sector, chartered surveyors have experienced a continuing decline in their work in the period from January 2013. Currently private housing is the only sector undergoing a very slight increase in work activity. Infrastructure, in the commercial, industrial and public sectors, has experienced very little increase in work activity.

The construction output in Wales is forecast to grow at an average rate of 2.7% per year over the five years to 2017, which is far higher than the UK average rate of 0.8%. The principal reason for this growth forecast is the planned new nuclear power plant at Wylfa, Anglesey. Without this project, the projected average annual growth rate for construction in Wales falls to just 0.6% over the five years to 2017.

Occupations in the construction sector range from the professional sector of architect, designer and surveyor to trade operatives such as bricklayers, electricians, plumbers and carpenters. The majority of workers are self-employed. Contracts are generally undertaken on a project-by-project basis. These workers often undertake

small to medium projects and may also work as a sub-contractor on large projects such as new residential or commercial developments. Many trades within the sector remain traditional in character, relying upon well-established craft practices and skills.

Females account for about 9% of all employees in the sector, mostly working as professionals, with only approximately 1% working as trade operatives.

Across Wales approximately 94% of construction businesses employ 10 or fewer staff. These small businesses and sole traders cannot easily predict their workload or the type of work they will be asked to do. In most cases work is booked for only a few weeks ahead. As a result, many employers are reluctant to employ apprentices or new staff.

Table 1: The current forecast for recruitment requirements in Wales based on average predicted growth across the construction sector to 2017¹

Selected occupations in construction	Employment 2013	Employment 2017
Wood trades and interior fit out	12,720	12,330
Bricklayers	4,250	3,980
Building envelope specialists	4,330	4,150
Painters and decorators	5,670	5,140
Glaziers	2,270	2,300
Specialist building operators	2,950	2,590
Scaffolders	480	500
Plant operators	1,580	1,420
Plant mechanics/fitters	1,530	1,640
Electrical trades and installation	5,330	4,770
Plumbing and HVAC trades	7,940	7,440
Labourers	5,220	4,870
Logistics	1,190	1,140
Civil Engineers	3,210	3,150
Other construction professional and technical staff	6,770	6,590
Architects	1,040	1,090
Surveyors	1,860	2,000
Senior executives and business process managers	3,560	3,540
Construction managers	5,300	5,510
Technical, IT and other office based staff	7,620	7,720
Plasters and dry liners	1,820	1,940
Roofers	940	880
Floorers	1,280	1,180
Steel erectors and structural	2,250	2,020
Non construction operatives	3,010	2,710
Civil engineering operatives	2,340	2,310
Total (across all occupations)	96,460	92,910

¹ Construction Skills Network, Blueprint for Construction 2013-2017, Labour Market Intelligence

Current figures indicate that the largest area for employment is wood trades, accounting for approximately 13% of those employed in the sector in Wales. Although employment is expected to decline overall, a number of occupations are projected to see employment rise over the 2012-2017 period, with plasterers and dry liners forecast to see average annual growth of 1.4% and surveyors an average increase of 1% per year. In contrast, an average annual decline of 4.3% is forecast for specialist building operatives.

Traditionally the sector has demonstrated a strong commitment to new entrant training. Craft training is generally available at levels 1 to 3 with skilled status being achieved at level 3. Learners undertake a range of on and off-the-job training and assessment activities. In most cases, learners enter training when they are 16-17 years of age though a few undertake taster courses from 14 years of age. In these few cases FEIs and WBL providers deliver school link programmes that generally offer learners a good flavour of working in the construction industry.

A significant number of FEIs provide higher education (HE) programmes. These programmes are taught by college staff, but delivered in association with the HE sector. These programmes give learners the opportunity to progress from level 3 to higher national certificate (HNC) and higher national diploma (HND) programmes. The range of provision offered by FEIs and WBL providers across Wales is generally good and provides learners with a comprehensive range of courses and training programmes. This report has focused on training programmes and qualifications up to and including level 3.

In FEIs learners generally follow a main qualification, but in many cases they can also access good opportunities to achieve additional work-related skills and qualifications related to the needs of their employers. This includes training in the latest technological and environmental developments in the sector. In WBL, learners complete a framework of qualifications, including a National Vocational Qualification (NVQ), technical certificate and Essential Skills Wales Qualifications (ESW). All parts of the framework must be achieved for the learner to gain framework success.

The two main sector skills councils (SSCs) for the construction sector are CITB-ConstructionSkills and Summit Skills. CITB-ConstructionSkills represents most of the traditional craft skills, excluding electrical installation, plumbing and heating sectors. It is currently one of a very few industry training boards (ITBs) that collects an annual levy from the sector each year and returns it to employers via training and education grants. Summit Skills is the SSC for the electro-technical (electrical installation), heating, ventilation, air conditioning, refrigeration and plumbing industries.

Main findings

- 1 All FEIs and WBL providers that deliver construction, planning and the built environment programmes also continue to deliver the core traditional construction skills qualifications that have been available and in demand for many years. However, whilst there have been recent changes in the content of construction, planning and built environment qualifications they do not always fully meet learners' and local employers' needs. For example, many plumbing learners do not routinely gain experience and assessment opportunities in working on central heating boiler and heating controls. FEIs and WBL providers routinely duplicate provision in the same geographical area and do not take enough account of local labour market information.
- 2 Regardless of the availability of work, construction continues to be a popular choice for training amongst learners. Overall, the rates at which learners achieve their training frameworks and other qualifications have improved over the period from 2009 to 2011. However, performance is only average when compared with that in other learning areas. In the period 2010 to 2011, construction, planning and the built environment programmes in FEIs ranked twelfth out of 19 learning areas for successful learner completion rates. In work-based learning they were ranked in ninth place out of the 11 learning areas for the proportion of learners completing their full qualification framework.
- 3 Overall, the rate at which learners progress from level 1 to level 2 programmes and level 2 to level 3 programmes is similar to that in other vocational craft based programmes. To complete level 3 programmes, learners need to be employed or have substantial workplace experience. However, not all full-time learners in FEIs are guaranteed work experience, and often have to organise their own placements. Too often learners either do not benefit from work-experience or access ad-hoc work experiences that are not always well matched to their training and assessment needs. Learners who do not access work-experience do not develop a comprehensive understanding of the demands and practices of working on-site to industry standards. This includes level 2 full-time learners who are very concerned that they will not have the opportunity to progress to level 3 programmes due to the lack of appropriate work experience. The downturn in the economy and the construction sector has also contributed to fewer work placements being available.
- 4 Too many learners undertaking and completing programmes in FEIs do not go on to gain employment in the construction industry. However, the rate at which apprentices remain employed in the construction sector is good.
- 5 A few learners progress to higher education (HE) programmes. These programmes are generally at level 4 and delivered by FEIs through franchise arrangements with the HE institutions. Currently Wales has the lowest proportion of learners undertaking these programmes in the United Kingdom (UK). This reflects the small number of job opportunities that are available in Wales.

- 6 The majority of FEIs have developed and deliver programmes associated with new environmental technologies. In most cases, these programmes are set-up with good levels of sponsorship from manufacturers and suppliers.
- 7 A minority of FEIs and WBL providers work well in partnership with local secondary schools to deliver construction programmes. These programmes provide vocationally relevant education and training to young people from local schools. These courses provide a good range of introductory programmes that offer progression to craft training and qualifications. However, not all schools use the expertise and resources available in their local FEIs and WBL providers to help deliver these programmes.
- 8 Most learners benefit from trade-related practical sessions, which provide good opportunities for them to develop their basic practical skills in appropriate environments. However, the majority of learners are not effectively challenged by teachers, trainers and assessors to develop higher standards of practical competence. In these cases, learners develop only the practical skills and theory knowledge that will allow them to pass assessments.
- 9 Overall, there is too much variation in the quality of support that FEIs and WBL providers give learners to develop their literacy and numeracy skills. In FEIs and WBL a minority of construction staff do not recognise the benefits of supporting learners to improve their literacy and numeracy. In these cases the majority of learners do not recognise the importance of literacy and numeracy. Learners do not always benefit from constructive written feedback on their work from teachers, trainers and assessors that would enable them to improve their performance. Literacy and numeracy support is not effectively integrated into all programmes.
- 10 Careers guidance is often unclear and often misdirected. In too many cases, school career advisers refer learners, mostly less-able boys, to construction craft training as a suitable career choice. This is often the case with learners who are disruptive in class, have poor attendance records and are generally disillusioned with school. In reality construction may not always be the most appropriate route for these learners. The better schools ensure that there are tasters in other sectors for these individuals so they can have a better informed choice about their future training.
- 11 Providers generally do not do enough to develop and sustain effective links with local industry. Too few providers benefit from effective employer engagement via steering or advisory groups. In FEIs teachers and other staff do not consistently do enough to make sure employer links are maintained to ensure that all learners benefit from programmed, well-organised and structured work experience.
- 12 The majority of teachers, trainers and assessors have not worked in the industry for many years and do not have up-to-date industrial experience.

Recommendations

The Welsh Government should:

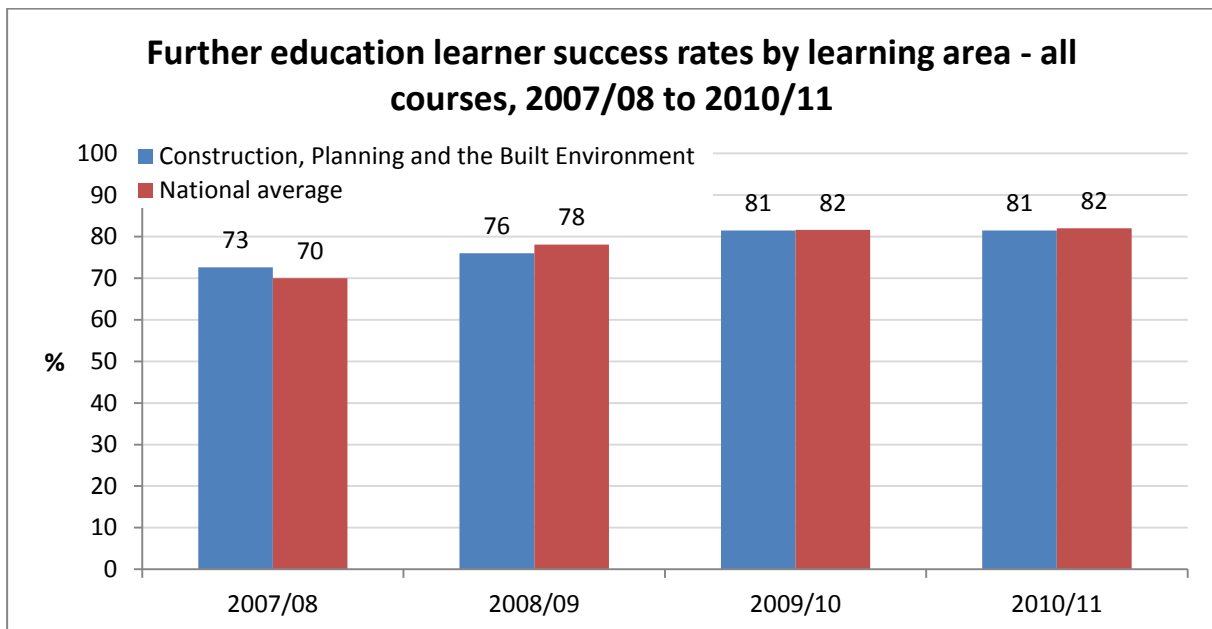
- R1 negotiate with providers to fund programmes that match labour market needs; and
- R2 make the qualifications framework for the construction sector in Wales more relevant to the needs of industry by providing greater choice of optional units in addition to the core elements of the programme and ensure that the framework contains a focus on literacy and numeracy.

Education and training providers should:

- R3 improve the quality of their networks and relationships with local employers;
- R4 improve the rate at which learners complete and attain their qualifications and frameworks;
- R5 fully integrate literacy and numeracy into all programmes and make sure that teachers, trainers and assessors are equipped to support the literacy and numeracy needs of learners;
- R6 challenge learners to develop and achieve higher-level practical skills and theory knowledge;
- R7 programme and organise industrial work experience placements for all full-time FEI learners;
- R8 use labour market intelligence more effectively to match the provision to local employment opportunities, managing learner demand by the use of effective advice and guidance; and
- R9 regularly update the industrial experience and knowledge of teachers, trainers and assessors.

Standards

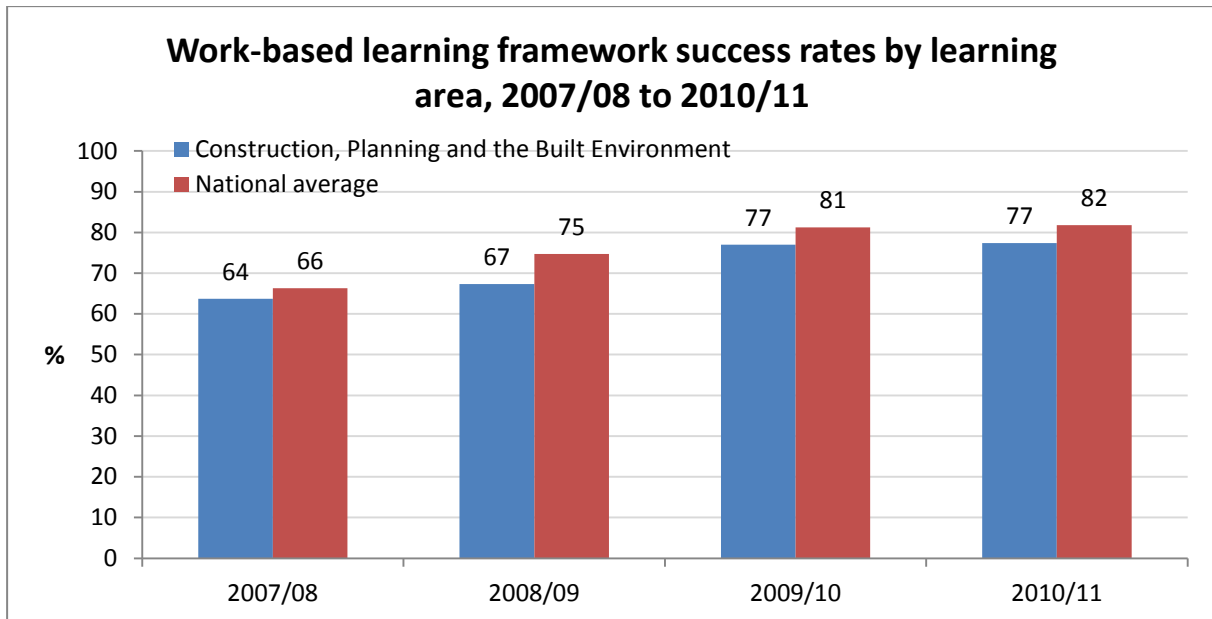
- 13 Overall, the rates² at which learners on construction programmes in FEIs and WBL providers achieved their qualifications improved between 2008 and 2011. However, this was generally consistent with the improvement across all learning areas. The rates at which learners complete and attain level 2 and level 3 programmes are very similar in FEIs and WBL providers.
- 14 In the period 2008 to 2011, the number of learners completing construction programmes at FEIs fell slightly from 12,505 in 2008-2009 to 12,040 in 2010-2011. In 2010-2011, 91% of learners completed their programmes, an increase of three percentage points on 2008-2009. This rate of improvement is similar to the average for all learning areas in the same period. In 2010-2011, the overall attainment³ rate for learners in construction in FEIs was 80%, which is the same as the average for all other learning areas.



- 15 In WBL, learners complete a framework of qualifications, including a National Vocational Qualification (NVQ), technical certificate and Essential Skills Wales Qualifications (ESW). All parts of the framework must be achieved for the learner to gain framework success. Frameworks for construction, planning and the built environment are delivered at two levels, foundation apprenticeship at level 2 and apprenticeship at level 3. In the period 2010 to 2011, the overall achievement, by learners, of the full qualification framework for the various construction, planning and the built environment programmes in WBL was 77%, which was broadly the same as the average for all learning areas. In the period from 2008 to 2011, the overall attainment success rate for frameworks in construction, planning and the built environment improved by 6 percentage points, which is similar to the average improvement for all learning areas.

² See appendix 3 for detailed summary of outcomes.

³ The attainment rate is the proportion of learners who gain the qualification after completing a course. The completion rate is the proportion of learners who complete a course after enrolling on it.



- 16 Overall, the rates at which FEI and WBL learners achieve their qualifications and frameworks are generally consistent across each of the trades. However, not all frameworks or level 3 programmes have equally demanding content. For example, electro-technical (electrical installation) learners need to develop a good understanding of science and mathematics during their course. These learners also have to pass a rigorous practical test at the end of their level 3 training to achieve 'qualified status'. Without achieving all aspects of the programme the learner will not be able to become a 'registered' electrician. Without this they will not be able to work in any domestic or commercial environment. By comparison, carpentry and joinery, bricklaying and painting and decorating learners need to complete the level 3 qualification but do not have to complete any further trade tests at the end of their training to attain 'qualified status'. The level of demand for them is significantly lower.
- 17 Most learners are enthusiastic about their course or training. They are well motivated and many are keen to move on to a higher level of training. Most learners enjoy the practical aspects of their course; the majority develop appropriate practical skills including using a comprehensive range of hand and power tools, to complete their qualifications and training. A few learners participate in the planning of lessons and produce practical work of a high standard.
- 18 However, in FEIs and WBL the majority of learners are not effectively challenged by teachers, trainers and assessors to develop higher standards of practical competence. This is because of the lack of challenge from teachers in the majority of sessions. In these cases learners develop only the practical skills and theory knowledge that are necessary to complete assessments.
- 19 Most employed learners demonstrate a good understanding of the practical work undertaken on or off-the-job. They see a relevance to the work they undertake on-site. However, work completed on-site to a satisfactory professional standard can be sometimes unnecessarily replicated off-the-job in a simulated environment for assessment purposes. Off-the-job learners are not always challenged by trainers to develop and achieve higher-level practical skills and theory knowledge.

- 20 A minority of full-time FEI learners do not have access to work experience. This is of significant concern because learners need to be in employment or have significant work experience to undertake level 3 programmes. Work experience is important for gaining necessary work-related practical skills and experience. It is also vital to enable learners to undertake and complete the essential on-site practical assessments required to complete their qualifications at all levels. Nearly all learners, especially at levels 1 and 2 undertake assessments in realistic work environments (RWE) in college workshops.
- 21 Full-time learners demonstrate the appropriate practical skills to complete assessments in college workshops. In the majority of cases employed learners undertaking part-time programmes in FEIs and those undertaking WBL programmes develop higher levels of practical competence. These skills will often be fault-finding and repair or being able to work unsupervised on a range of more advanced tasks. These learners benefit from undertaking a wide range of tasks on-site.
- 22 Most WBL and employed FEI learners develop a good understanding of working in the construction sector when on-site. For example, they understand the need to complete all work to the appropriate professional standard and within the timescales agreed with the customer. These learners generally receive good instruction and support from their supervisors and assessors.
- 23 The majority of providers now have appropriate literacy and numeracy strategies in place but not all have yet had a positive impact on learners. In a significant minority of cases, learners do not recognise the wider benefits of developing these skills. The numeracy skills that learners develop are those appropriate to completing the programme and insufficient progress is made in achieving an improved general level of literacy competence. For example, few learners improve their spelling, punctuation and grammar to an appropriate standard during their training programmes.
- 24 In the best examples, learners are fully aware of their starting point, what they need to do to improve and the progress they are making in literacy and numeracy.
- 25 Between 2010 and 2013, learners have focused more on their understanding and knowledge of equality and equal opportunities. In the best cases, learners' understanding is developed by case studies relevant to the construction industry. Learners' understanding is reinforced and tested throughout their training programme. Progress reviews incorporate well-planned question and answer sessions to test learners' knowledge.
- 26 Overall, work-based learners demonstrate very good levels of punctuality and attendance. These learners have fully employed status and are aware of the expectations of their employers and clients. In FEIs, the attendance and punctuality of most learners are good.

Provision

- 27 Collaboration between FEIs, WBL providers and the Welsh Government is generally good and focused on funding and contract issues.
- 28 Most FEIs and WBL providers work well with sector skills councils. FEIs generally work particularly well with CITB-ConstructionSkills. They give the FEIs good levels of support, information and intelligence related to the construction sector. This aspect is especially beneficial when the FEI acts as a WBL off-the-job training provider for CITB-ConstructionSkills. This is because CITB-ConstructionSkills is also a WBL provider, contracted to deliver work-based learning programmes in Wales.
- 29 However, across all providers there is not enough negotiation with providers to ensure that funded training matches local labour market needs. Overall, there is a wide range of construction training provision available across all geographical regions in Wales. However, there is too much duplication of provision by FEIs and WBL providers within the same local geographical area. For example, they often deliver the same programmes of carpentry and joinery, electro-technical, plumbing and brickwork. Overall, labour market information (LMI) is not used effectively to match the provision to local employment opportunities. Programmes are often based on traditional historical recruitment and driven by learner demand rather than training and developing an appropriate number of learners to meet employment opportunities. As a result, and in FEIs in particular, too many full-time learners achieve qualifications but do not gain or sustain employment in the construction industry. In general, construction qualifications are not always effective in meeting the needs of employers and learners. Qualifications do not always contain a sufficient number of appropriate optional units to meet the training needs of learners and employers. Frameworks do not, either, contain sufficient focus on developing learners' literacy and numeracy skills.
- 30 Further education institutions and WBL providers work well informally with employers. In the best cases, FEIs establish employer forums, which provide valuable input regarding their current and future staff training needs. In the best cases FEIs and WBL providers use this information well. For example, they gain valuable feedback on learners' and employers' views of the programme and take action as a result of the feedback.
- 31 Further education institutions offer a wide range of full-time and part-time day release courses. In nearly all cases, apprentices attend part-time programmes. In WBL, all learners are employed and undertake a wide range of on-the-job training together with off-the-job education and training. A few providers have established good working relationships with schools and local 14-19 networks. This allows young people to undertake work tasters from 14 years of age and gives them the opportunity to progress into training at a later date. Providers also offer good opportunities for older learners to enter the sector, to upskill or to retrain.
- 32 Most providers offer a wide range of specialist training programmes for individuals and other organisations, in areas such as environmental technology, heritage building work, stonemasonry, gas safe, asbestos removal, solar hot water systems,

domestic roof mounted photovoltaic (PV) panels, ground source heat pumps, biomass boilers, and water harvesting.

- 33 A majority of FEIs now supplement the core construction skills programmes with short or additional courses to reflect local employer needs. This is particularly the case where FEIs are working with local authorities or local employer forums where there is a focus on training people for local employer needs. A need often exists to multi-skill employees in a range of associated tasks because employees and clients benefit from staff who can undertake a range of activities on-site. Currently a few employers recognise the training need for multi-skilled staff and commission training. For example, one WBL provider is also training local authority plumbers in tiling as part of their training. However, in WBL a few learners do not routinely undertake the practical tasks that they need to complete for their qualifications. For example, level 3 plumbing learners do not always get opportunities to undertake significant work on central heating systems.
- 34 Overall, the availability of heritage skills training, such as dry stone walling and slate roofing and new technology programmes meets the needs of learners and employers. Where FEIs and WBL providers deliver new technology and heritage skills courses they are normally the result of employer demand often in association with manufacturers of new technology equipment and resources. A minority of FEIs have established very high-quality new technology training centres, which give experienced construction workers the opportunity to develop their skills and knowledge. These centres also give other learners the opportunity to develop their understanding and knowledge of the latest technology even though it may not be a part of their current course. This knowledge and understanding may not be currently needed by learners or their employers but they benefit learners by making them aware of current technology.
- 35 When undertaking off-the-job activities at an FEI or WBL training centre learners generally spend an appropriate amount of time undertaking practical and theory work. In the majority of cases the time is evenly split between practical and theory sessions. In both FEIs and WBL, classroom-based theory sessions are closely linked to practical activities.
- 36 Overall, the provision for the Welsh dimension and education for sustainable development and global citizenship (ESDGC) is only adequate. It is too variable across FEIs and WBL providers. In the best examples the Welsh dimension and ESDGC are effectively integrated into learners' occupational work. For example, when meeting Welsh language needs one FEI undertakes a robust analysis of the language needs of its learners. The institution is located in an area with a very high proportion of first language Welsh speakers with Welsh being the first choice of language in the work place. Both languages are used appropriately in sessions. All first and second year learners also follow a unit in Welsh culture which includes the traditions of Wales.

Teaching and assessment

- 37 The method of delivery of many construction programmes has not changed for many years. Too few FEIs and WBL providers have developed training and assessment programmes that make effective use of learners' on-the-job experience and fully integrate literacy and numeracy, ESDGC and the language and culture of Wales into training programmes.
- 38 The majority, do not have high enough expectations of their learners. They do not effectively challenge learners to develop high level practical skills and theory knowledge. Individual learning plans are generally appropriately detailed and contain useful personal targets for the completion of learners' written and practical assessments. However, in too many cases the targets are too generic and are common to other learners in the group. In too many cases learning plans do not contain targets on improving learners' literacy and numeracy skills. Most teachers, trainers and assessors keep appropriate learner tracking records. In the best examples tracking clearly monitors the progress learners are making against targets and identifies whether learners are making slower progress than planned.
- 39 Most teachers, trainers and assessors give learners good levels of personal support. In most cases learners are given appropriate levels of supervision. In nearly all practical training environments, appropriate attention is given to health and safety and the wellbeing of learners.
- 40 Overall, assessment practices meet the needs of awarding bodies. However, assessments are not generally graded and learners can only achieve a pass grade. This means that learners who produce higher quality practical work do not get recognition for their higher level practical skills and theory knowledge. However, in a few cases, FEIs and WBL providers have developed and use their own grading system for assessments that recognise the achievement of learners who perform at a higher level. In these examples, learners receive recognition by being awarded certificates from their FEI or WBL provider. In WBL, many learner assessment and progress reviews are carried out regularly and generally well recorded. In the majority of cases, on-site assessments are planned well and motivate learners to complete their training framework in a timely manner. However, assessment planning is not always detailed enough and only short-term targets are set for learners to complete work. Very few learners benefit from clear targets being set and monitored in their individual plans related to how they can improve their literacy and numeracy. Overall, most learners benefit from good oral feedback on their performance from teachers, trainers and assessors.
- 41 In FEIs and WBL off-the-job theory assessment is planned well throughout the year, with the majority of assessors being responsive to meeting the needs of learners and scheduling assessments to meet learners' individual needs. Practical assessments are generally planned to suit the progress of learners. However, in WBL on-the-job practical assessments are often undertaken at short notice due to learners and their employers not always knowing what work has been secured for the following few weeks.
- 42 Most teachers, trainers and assessors have a wide range of industrial experience prior to entering teaching and are suitably qualified. In most cases experience would

have been gained from undertaking training, usually an apprenticeship followed by experience operating as a skilled craft operative. Most staff have appropriate qualifications and use their industrial experience well during practical sessions. However, the majority have not worked in the industry for several years and do not have up-to-date industrial experience. In the majority of classroom-based theory sessions teachers prepare a wide range of activities that fully engage learners. These activities build on their previous experience and knowledge well. In these sessions teachers engage well with learners and make sure learners make good progress towards completing the targets set in their ILPs. However, a minority of sessions are too teacher-centred, resulting in learners being passive for long periods of time. In these sessions teachers and instructors rely too much on hand-outs and learners copying notes.

Literacy, numeracy and support

- 43 Overall, in FEIs and WBL a minority of construction staff do not recognise the benefits of supporting learners to improve their literacy and numeracy skills. Although most FEIs have a detailed literacy strategy a minority of staff do not give learners constructive written feedback that will enable them to improve their future performance. Learners' written work is not marked well and spelling, punctuation and grammatical errors are not corrected. In a minority of cases, there is too much variation in the quality of literacy and numeracy support in and across the construction provision. Literacy and numeracy development and support are not fully integrated into all programmes.
- 44 In FEIs and WBL learners generally benefit from comprehensive initial assessment when starting programmes. Learners with identified learning support needs generally receive good levels of personal support in the institution or when attending off-the-job activities. However, in WBL most providers do not have effective procedures to make sure learners receive support in their workplaces
- 45 Staff who undertake on-site learner reviews or assessments often develop good informal links with the sector through their regular contact with employers. Most construction staff give learners good levels of personal support, especially in practical workshop sessions and when undertaking on-site reviews and practical assessments.
- 46 A minority of teachers, trainers and assessors do not currently demonstrate the skills required to enable them to give learners good levels of literacy and numeracy support. In FEIs and WBL, a minority of managers have been slow to make sure all construction staff are effectively up-skilled to give learners appropriate support. A few WBL staff undertaking on-site assessments or reviews do not do enough to give learners effective literacy and numeracy support in their workplaces.
- 47 Most FEIs and the majority of WBL providers have or are starting to put in place strategies to support teachers, trainers and assessors to develop their skills to enable them to give effective support to learners. In these providers staff are usually supported by a written literacy strategy that is underpinned by continuous professional development (CPD) activities.

Leadership and management

- 48 Overall, FEIs and WBL providers work well with a good range of partners, including sector skills councils, awarding bodies local authorities, schools and industry related groups, such as CITB-ConstructionSkills, Colegau Cymru, and the British Association of Construction Heads (BACH). CITB-ConstructionSkills organise an annual conference and regular meetings to give the opportunity to share best practice and developments in construction craft training. In WBL, providers have similar opportunities to work with networks, including working with the National Training Federation for Wales (NTfW).
- 49 In FEIs managers and staff produce annual self-assessment reports (SAR) and quality development plans (QDP). In the best cases these reports are comprehensive, detailed and analyse the performance of the provision against national benchmarks and set challenging targets for improvement. However, in a few FEIs and a minority of WBL providers SARs are too descriptive and do not contain robust and challenging plans and targets for improvement.
- 50 Although managers generally compare national benchmark data with other FEIs and WBL providers, they do not routinely compare themselves with similar providers within their geographical region. Across the majority of providers too few comparisons are made between performances in the different trades across regions.
- 51 In the minority of FEIs and WBL providers where the management of construction provision is good, managers set and monitor clear targets and standards for staff and learners. They demonstrate effective leadership and establish good communication across their department. They often play a major role in partnership working. They monitor the performance of all learners using a robust range of performance indicators. Underperformance of programmes or staff is quickly identified and corrective action plans put in place. These FEIs and WBL providers have a track record of improvement and consistent high standards across nearly all, if not all, occupational routes.
- 52 However, in FEIs and WBL providers where managers and leaders do not demonstrate clear leadership, underperformance of learners and staff is not effectively addressed and there is wide variation in the performance of occupational routes. These managers do not focus enough on improving the standard of teaching and learning across the provision. In these cases teacher, trainer and assessor observations are not rigorous enough and do not lead to significant improvements in the quality of education and training. These managers do not do enough to identify good practice across the sector to share with their staff. In most cases these managers do not focus enough on developing learners' literacy and numeracy skills, nor do they have sufficient focus on developing the skills of their staff.
- 53 In most cases continual professional development CPD is clearly linked to staff performance reviews. In nearly all FEIs and WBL providers staff have good opportunities to request CPD. However, in too many cases CPD is not having a positive impact on improving learner standards. In a majority of cases CPD relating to the improvement of teachers', trainers' and assessors' literacy and numeracy skills and their ability to develop learners' skills is not robust enough. In these cases

managers and leaders have not been sufficiently challenging and rigorous in securing improvement. In WBL training staff generally have access to adequate CPD opportunities to develop training and assessment skills. However, the majority of teachers, trainers and assessors do not have recent industrial experience.

- 54 The sector faces a challenge to improve the literacy and numeracy ability of construction staff. Overall, few FEIs and WBL providers have rigorous systems in place to measure the impact of CPD on the teacher's, trainer's or assessor's performance and on the learners' experience. For example, many staff have undertaken CPD relating to improving learners literacy skills. However, follow-up activity by managers does not effectively monitor and review the impact on learners of the training.
- 55 A number of providers have established good working relationships with schools to deliver 'link' programmes as well as providing good career advice and progression opportunities when the learner leaves school. For example Yale Institution has an extensive link with local schools with over 600 learners, aged 14 to 16 undertaking training programmes and Grŵp Llandrillo Menai runs a Saturday club for 15-year-olds at its Llangefni Bangor site.
- 56 Overall, in too many cases the working relationship between FEIs and WBL providers with schools is limited. In these cases providers need to do more to engage with schools and make sure school leaders and teaching staff are fully informed about the opportunities the construction sector has to offer young people. Overall, the rates at which schools link learner progress into the next level of education or training at institution or WBL are good.

Accommodation and resources

- 57 Across FEIs and WBL providers, learners generally have access to the resources they need. Most WBL learners work for supportive employers who give them good training and assessment opportunities.
- 58 Overall, accommodation for construction, planning and the built environment training is generally good. The majority of FEIs have invested in developing their accommodation and many learners benefit from the availability of good training resources and tools. In a minority of cases accommodation and resources are of very high quality and provide learners with a wide range of equipment to practise and develop their skills. In a number of cases, FEIs have worked in partnership with manufacturers and suppliers to secure sponsorship. In these cases, manufacturers and suppliers often supply equipment, resources and tools. In a number of examples, manufacturers use the facilities as a 'training centre' for update and product training of their employees.
- 59 The most significant on-going expenditure for FEIs and WBL providers is the purchase of consumables that learners need for practical tasks and assessments. For example, brickwork learners need a constant supply of bricks, carpentry and joinery learners require timber and electro-technical learners need cable and connections.

- 60 The majority of FEIs and WBL providers have an ageing workforce. They do not find it difficult to recruit additional staff when replacing staff who leave or retire.
- 61 Due to the relatively high cost of construction provision Welsh Government funding includes a financial weighting to assist with the additional costs of resources and consumable resources. Currently construction, planning and the built environment programmes in FEIs benefit from a 50% increase in funding when compared with many other programmes that do not require the use of a large amount of consumable resources. In nearly all cases FEIs use this additional funding well to make sure learners have access to the resources they need to complete practical training tasks and assessments.

Appendix 1: Evidence base

In undertaking this survey, inspectors:

- sent a questionnaire to all FEIs and WBL providers that deliver education and training in construction in Wales and received a high level of response with most providers responding;
- visited 15 FEIs and WBL providers during which inspectors observed teaching and learning sessions in a range of environments, including workshops and classrooms, and interviewed learners, staff and managers;
- reviewed and analysed data on the performance of learners; and
- scrutinised learners' written and practical work.

FEIs and WBL providers visited

- Associated Community Training
- Bridgend College
- CITB-ConstructionSkills
- Coleg Ceredigion
- Coleg Gwent
- Coleg Morgannwg
- Coleg Sir Gar
- Employment Training Swansea
- Gower College Swansea
- Grŵp Llandrillo Menai (which comprises Coleg Llandrillo, and Coleg Menai and Coleg Meirion-Dwyfor)
- Mid Wales WBL Consortium
- Neath Port Talbot College
- Pembrokeshire College
- College Ystrad Mynach
- Torfaen Training
- Yale College

Appendix 2: Questions for self-evaluation to promote improvement in construction, planning and the built environment programmes

Do learners:

- achieve their qualifications and training frameworks at high rates across all trades;
- develop high standards of practical competence;
- develop high levels of theory knowledge;
- access good quality work-experience;
- develop appropriate skills to gain and sustain employment;
- have good workplace assessment opportunities;
- develop their literacy and numeracy skills;
- develop their Welsh language skills;
- access good quality careers advice;
- have good opportunities to complete their qualifications faster than expected if appropriate;
- demonstrate a good understanding of their ILP;
- know the progress they are making and what they need to do to complete their course or training;
- develop improved verbal communication and interpersonal skills;
- develop multi-skills; and
- improve their entrepreneurial skills?

Do teachers, trainers and assessors:

- have high expectations for learners;
- challenge learners to achieve higher level practical skills;
- challenge learners to achieve higher level theory knowledge;
- plan on-site assessments to meet learners' skills development;
- give learners constructive written feedback on their written work;
- give learners effective support to improve their literacy and numeracy;
- plan programmes to maximise practical sessions for the integration of theory work;
- link practical to theory sessions;
- use motivational resources that engage learners;
- use learners work place experience to avoid duplication of practical work when attending off-the-job sessions;
- set and monitor clear and challenging targets in learners ILPs;
- use comprehensive progress tracking documentation;
- integrate ESDGC into programmes;
- secure well-planned work experience for all full-time FE institution learners;
- develop effective working relationships with employers; and
- keep up-to-date with current sector practice?

Do leaders and managers:

- match provision to employment opportunities;
- use LMI to target programmes to employment and employer need;
- establish constructive working relationships with employers;
- put a high priority on the standards learners achieve;
- regularly monitor the performance of the provision against national benchmarks;
- monitor and continually improve the quality of teaching, training and assessment;
- challenge all staff to give learners high standards of education and training;
- challenge teachers, trainers and assessors to develop their ability to give learners effective literacy and numeracy support;
- identify and share best practice; and
- use staff performance review effectively?

Appendix 3: Data comparisons

Completion rates for FEI provision by sector subject area and learning aim length, 2010/11

Sector subject area	Long activities		Short activities		All lengths	
	Attained Learning Activities	%	Attained Learning Activities	%	Attained Learning Activities	%
1: Health, Public Services and Care	16,970	85%	20,570	98%	38,785	92%
2: Science and Mathematics	12,880	85%	1,475	92%	14,385	86%
3: Agriculture, Horticulture and Animal Care	4,685	91%	2,725	98%	7,415	93%
4: Engineering and Manufacturing Technologies	11,230	89%	3,685	99%	15,100	91%
5: Construction, Planning and the Built Environment	9,690	89%	2,345	99%	12,040	91%
6: Information and Communication Technology	16,835	91%	14,715	94%	51,110	92%
7: Retail and Commercial Enterprise	18,345	91%	3,905	95%	22,320	92%
7(a): Retailing and Customer Service	1,360	90%	465	99%	1,860	92%
7(b): Hair and Beauty	6,575	86%	875	90%	7,450	87%
7(c): Hospitality and Catering	10,410	95%	2,565	96%	13,010	95%
8: Leisure, Travel and Tourism	7,795	89%	1,905	97%	10,020	90%
9: Arts, Media and Publishing	18,020	87%	8,720	95%	26,795	90%
9(a): Performing Arts	4,430	87%	1,070	95%	5,500	89%
9(b): Art and Design	13,585	88%	7,650	95%	21,290	90%
10: History, Philosophy and Theology	3,930	89%	1,070	94%	5,020	90%
11: Social Sciences	3,200	88%	490	95%	3,685	89%
12: Languages, Literature and Culture	12,110	88%	4,775	92%	18,780	88%
13: Education and Training	6,545	92%	3,905	96%	10,620	93%
14: Preparation for Life and Work	139,515	89%	36,550	96%	183,980	90%
14(a): Independent Living Skills	2,700	92%	1,005	97%	3,855	93%
14(b): Adult Basic Education	12,370	93%	9,075	94%	26,715	93%
14(c): Foundation for Work	119,400	88%	20,235	97%	142,020	89%

14(d): English for Speakers of Other Languages	5,045	87%	6,230	94%	11,390	91%
15: Business, Administration and Law	14,595	89%	8,640	98%	26,460	92%
All sector subject areas	297,285	89%	116,245	96%	448,870	90%

Source: Lifelong Learning Wales Record (LLWR)

Welsh Government | National Comparators for Further Education and Work-Based Learning, 2010/11

Attainment rates for FEI provision by sector subject area and learning aim length, 2010/11

Sector subject area	Long activities		Short activities		All lengths	
	Attained Learning Activities	%	Attained Learning Activities	%	Attained Learning Activities	%
1: Health, Public Services and Care	14,235	90%	16,850	95%	31,180	93%
2: Science and Mathematics	10,795	85%	1,195	91%	12,000	86%
3: Agriculture, Horticulture and Animal Care	3,750	90%	2,290	93%	6,045	91%
4: Engineering and Manufacturing Technologies	9,665	88%	2,185	89%	11,900	88%
5: Construction, Planning and the Built Environment	8,265	89%	1,850	92%	10,115	89%
6: Information and Communication Technology	11,755	87%	11,170	92%	25,780	89%
7: Retail and Commercial Enterprise	16,750	93%	2,895	92%	19,655	93%
7(a): Retailing and Customer Service	1,260	93%	250	93%	1,505	93%
7(b): Hair and Beauty	5,920	92%	590	90%	6,515	92%
7(c): Hospitality and Catering	9,570	94%	2,055	93%	11,635	93%
8: Leisure, Travel and Tourism	7,055	92%	1,555	97%	8,615	93%
9: Arts, Media and Publishing	15,780	92%	7,085	93%	22,880	92%
9(a): Performing Arts	3,805	90%	780	95%	4,580	91%
9(b): Art and Design	11,980	92%	6,310	93%	18,300	93%
10: History, Philosophy and Theology	3,430	92%	505	88%	3,935	92%
11: Social Sciences	2,820	90%	235	95%	3,050	90%
12: Languages, Literature and Culture	9,885	91%	3,875	92%	13,905	91%
13: Education and Training	5,200	88%	2,860	94%	8,080	90%
14: Preparation for Life and Work	109,530	89%	28,030	92%	139,205	90%

14(a): Independent Living Skills	1,285	91%	650	86%	1,935	89%
14(b): Adult Basic Education	6,770	92%	5,480	88%	13,535	91%
14(c): Foundation for Work	97,655	89%	17,275	95%	115,295	90%
14(d): English for Speakers of Other Languages	3,815	88%	4,625	88%	8,440	88%
15: Business, Administration and Law	10,805	84%	4,700	90%	15,635	86%
All sector subject areas	240,080	89%	87,780	93%	332,855	90%

Source: Lifelong Learning Wales Record (LLWR)

Welsh Government | National Comparators for Further Education and Work-Based Learning, 2010/11

Success rates for FEI provision by sector subject area and learning aim length, 2010/11

Sector subject area	Long activities		Short activities		All lengths	
	Attained Learning Activities	%	Attained Learning Activities	%	Attained Learning Activities	%
1: Health, Public Services and Care	14,235	76%	16,850	93%	31,180	85%
2: Science and Mathematics	10,795	72%	1,195	83%	12,000	73%
3: Agriculture, Horticulture and Animal Care	3,750	82%	2,290	91%	6,045	86%
4: Engineering and Manufacturing Technologies	9,665	78%	2,185	87%	11,900	80%
5: Construction, Planning and the Built Environment	8,265	79%	1,850	91%	10,115	81%
6: Information and Communication Technology	11,755	78%	11,170	86%	25,780	82%
7: Retail and Commercial Enterprise	16,750	85%	2,895	87%	19,655	85%
7(a): Retailing and Customer Service	1,260	84%	250	91%	1,505	85%
7(b): Hair and Beauty	5,920	80%	590	79%	6,515	80%
7(c): Hospitality and Catering	9,570	89%	2,055	89%	11,635	89%
8: Leisure, Travel and Tourism	7,055	82%	1,555	94%	8,615	84%
9: Arts, Media and Publishing	15,780	80%	7,085	88%	22,880	82%
9(a): Performing Arts	3,805	79%	780	91%	4,580	80%
9(b): Art and Design	11,980	80%	6,310	88%	18,300	83%
10: History, Philosophy and Theology	3,430	83%	505	82%	3,935	82%

11: Social Sciences	2,820	79%	235	88%	3,050	79%
12: Languages, Literature and Culture	9,885	79%	3,875	84%	13,905	81%
13: Education and Training	5,200	81%	2,860	89%	8,080	83%
14: Preparation for Life and Work	109,530	79%	28,030	88%	139,205	80%
14(a): Independent Living Skills	1,285	86%	650	83%	1,935	85%
14(b): Adult Basic Education	6,770	85%	5,480	83%	13,535	85%
14(c): Foundation for Work	97,655	78%	17,275	92%	115,295	80%
14(d): English for Speakers of Other Languages	3,815	78%	4,625	83%	8,440	80%
15: Business, Administration and Law	10,805	74%	4,700	87%	15,635	78%
All sector subject areas	240,080	79%	87,780	89%	332,855	81%

Source: Lifelong Learning Wales Record (LLWR)

Welsh Government | National Comparators for Further Education and Work-Based Learning, 2010/11

Framework success rates for WBL provision by sector subject area and programme type, 2010/11

Sector subject area	Foundation Apprenticeships		Apprenticeships		All Apprenticeships	
	No. of leavers attaining Full Framework	%	No. of leavers attaining Full Framework	%	No. of leavers attaining Full Framework	%
1: Health, Public Services and Care	1,760	79%	1,430	80%	3,190	80%
3: Agriculture, Horticulture and Animal Care	55	74%	10	*	65	71%
4: Engineering and Manufacturing Technologies	910	82%	850	88%	1,760	85%
5: Construction, Planning and the Built Environment	885	78%	675	76%	1,560	77%
6: Information and Communication Technology	540	84%	210	83%	750	83%
7: Retail and Commercial Enterprise	2,275	81%	825	83%	3,100	82%
7(a): Retailing and Customer Service	1,300	84%	460	86%	1,760	85%
7(b): Hair and Beauty	380	74%	170	75%	550	74%
7(c): Hospitality and Catering	595	81%	200	84%	795	81%
8: Leisure, Travel and Tourism	135	75%	140	86%	275	80%
13: Education and Training	60	91%	315	88%	375	89%
15: Business, Administration and Law	1,060	83%	1,145	86%	2,205	85%
All sector subject areas	7,685	81%	5,600	83%	13,285	82%

Source: Lifelong Learning Wales Record (LLWR)

Welsh Government | National Comparators for Further Education and Work-Based Learning, 2010/11

Glossary

Explanation of specialist terms

Construction, planning and the built environment	The practical skills and theory knowledge delivered by FEIs and WBL providers under the learning area of 'construction, planning and the built environment'
City & Guild	Organisation that develops and awards qualifications, for example in bricklaying or plumbing
BTEC/Edexcel	Organisation that develops and awards qualifications, for example BTEC Higher National Certificate in Construction and the Built Environment
BACH	British Association of Construction Heads; organisation formed by staff managing and delivering construction training
Enrolments	The number of learners who sign up to a programme of study or course
Attainment rates	These show the proportion of learners who gain the qualification after completing a course.
Completion rates	These show the proportion of learners who complete a course after enrolling on it.
Success rates	The proportion of learners who gain the qualification after enrolling on a course
GDP	Gross Domestic Product
GVA	Gross Value Added
HNC	Higher National Certificate
HND	Higher National Diploma
NTfW	National Training Federation for Wales
SME	Small to medium-sized enterprises

Explanation of words and phrases used to describe Estyn's evaluations

The words and phrases used in the left hand column below are those that we use to describe our evaluations. The phrases in the right hand column are the more precise explanations.

nearly all	with very few exceptions
Most	90% or more
Many	70% or more
a majority	over 60%
a half or around a half	close to 50%
a minority	below 40%
Few	below 20%
very few	less than 10%

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