

DUAL EDUCATION IN ENGLAND – FRAMEWORK AND GROWTH Matija Sokola¹, Steven Maggs²

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Abstract: The paper presents the legal and legislative framework related to the development of dual education (Degree Apprenticeships at Levels 6 – Bachelor's and 7 – Master's) in England in the last 8 years. Roles of governmental departments and bodies, professional bodies (Engineering Council and similar Institutes), employers, Further Education Colleges and Universities are shown. Some of the early challenges are discussed, followed by an overview of growth in apprentice numbers (starters and graduates) in a few academic years, up to 2020/21.

Key Words: Dual education, financing, accreditation, educational development, growth, trends

DVOJNO OBRAZOVANJE U ENGLESKOJ – STRUKTURNI ASPEKTI

Kratak sadržaj: U radu se predstavljaju pravne i zakonske osnove razvoja dualnog obrazovanja u Engleskoj u poslednjih 8 godina na nivoima 6 (Bachelor) i 7 (Master). Prikazane su uloge državnih organa, profesionalnih udruženja (inženjerske komore i slične organizacije), poslodavaca, viših koledža i Univerziteta. Prodiskutovani su neki izazovi u pokretanju novih programa, a zatim je dat pregled porasta broja novoupisanih i diplomiranih studenata u nekoliko školskih godina, zaključno sa 2020/21 godinom.

Ključne reči: Dualno obrazovanje, finansiranje, akreditacija, razvoj obrazovanja, rast, trendovi

1. INTRODUCTION

Building on centuries-long tradition of technician-level and college-level apprenticeships, and identifying a shortage of practically trained specialists in the 21st century, the UK Government has extended the apprenticeship scheme to Level 6 and Level 7. The process started sporadically from 2013, with a few Universities providing part-time Bachelor degree programmes for employees, typically in collaboration with large employers and/or local further education (FE) colleges. Many of the learners have been with the employer for several years and it was mostly an up-skilling endeavour, giving a second-chance access to higher education. The process was greatly expanded and accelerated with the financial/taxation tools, announced in 2015 and implemented from April 2017. In Academic 2020/21 approximately 39,000 learners started their Bachelor and Master Degree Apprenticeships [1].

2. NATIONAL-LEVEL BODIES

Apprenticeships are paid jobs, combining practical, on-the-job training with off-the-job learning [2]. The process of extending them to Bachelor and Master levels was started from 2013, by inviting employers as key stakeholders to liaise through the Institute for Apprenticeships and Technical Education [2], an executive non-departmental public body, led by employers and sponsored by the Department (Ministry) for Education. By 2015, the Institute's trailblazer groups (groups of employers in specific industry sectors) had defined approximately 30 Degree Apprenticeship Standards and as of 2021, there are almost 100 Apprenticeship Standards. These specify Knowledge, Skills and Behaviours (KSBs) that professionals need to possess to be successful in their job and also define the assessment plan by which the learners evidence how they meet the Standard's specifications. Typically, the KSBs must be documented by the learners in a portfolio that is submitted after completing the degree programme and orally defended during the end-point assessment. In addition, each Standard is allocated a funding band, typically ranging from £18k to £30k for Bachelor programmes and £11k to £22k for Master programmes [3]. From

2019, there is an additional £3k incentive if the company creates a new job to employ a new apprentice.

The next key moment was in 2016, when the Apprenticeship Levy was included in the **Finance Act** [4], i.e. the Budget. Starting in the 2017/18 tax year, it is payable by all employers (both in private and public sector) with an annual salary bill of more than £3 million, at a rate of 0.5% of their total pay bill. The Levy paid by each employer is held in a 'digital fund' which the employer can use to pay for approved apprenticeship training. If not used up within 24 months, it is not available to the payee company. A 10% Government contribution is added to the fund. The Levy [4] made a **fundamental shift** to the funding model, with huge implications on how employers, colleges and Universities can interact. Both the provision and take-up of Degree Apprenticeships was rather slow in the first few years, due to a combination of several factors: the slowness of Universities' course approval processes (typically 18 to 24 months for full-time programmes); slow buy-in of Level 6 by a wider range of employers; a prejudice towards the word »apprenticeship« of academically-strong learners, their parents and Universities alike and probably the perceived reputation of “new” post-1992 Universities that were offering them.

In addition to the Institute for Apprenticeships and Technical Education, a number of government-level bodies and organisations have an influence on the **approval, accreditation and monitoring** of degree programmes:

- 1) The Office for Students, who grant Degree-awarding Powers and also ensure that every student, whatever their background, has a fulfilling experience of higher education that enriches their lives and careers.
- 2) Education and Skills Funding Agency (ESFA) – an executive agency accountable for funding education and skills for children, young people and adults. The agency monitors the management of public funds, ensures that every educational provider (School, College, University) receives timely and accurate funding but also ensures that learner (apprentice) and employer interests are protected.
- 3) The QAA (The Quality Assurance Agency for Higher Education), who work with sector-specific UK regulatory bodies (for example, Engineering Council for the engineering professions) to define and publish Subject Benchmark Statements – currently 60 statements for Bachelor's and 16 for Master's [5].
- 4) Engineering Council or similar professional bodies, who define the Accreditation framework [6], to whom Universities submit an application to have their undergraduate degrees, MScs or EngDs accredited.
- 5) Accreditation is then undertaken by one or more of the Professional Engineering Institutions (PEIs) that are licensed to do so by the Engineering Council. The list of 39 PEIs affiliated with the Engineering Councils given in [7]. A degree may be accredited by more than one PEI, particularly where it spans several engineering disciplines.

It is interesting to note that some of the Councils and PEIs perform the full Accreditation (documents and site visits) only *AFTER* the first cohort of learners graduates and then grant the Accreditation for 5 or 7 cohorts, but back-dated to the start of teaching on a study programme.

3. UNIVERSITY AND FACULTY BODIES

When a University Faculty, School or Department initiates a new study programme (course), it must design and establish a set of mandatory and optional *modules* whose learning outcomes (LOs) feed into programme-level LOs but also the LOs must assess some of the KSBs of the chosen Apprenticeship Standard. The modules are usually approved on the Faculty level, before progressing towards the University-level bodies, which grant *course-* level approval by a University-level body (Education Strategy Executive, Course Committee or similar). The paperwork must show how the proposed course's programme-level learning outcomes (LOs) are aligned with QAA regulations, with relevant Subject Benchmark statement, with AHEP criteria and with guidance documents of Office for Students. Proposers need also to supply evidence of a market research and consultation with employers as well as a detailed plan related to resources (rooms, labs, staff) and finance aspects.

In the case of Degree Apprenticeships, some Universities have an additional body (Partnership Committee or Apprenticeship Panel) that checks in detail the *planning and provision of practical*

learning needed for fulfilling the Apprenticeship Standard(s) the proposed course is linked with. This includes the additional support for learners coming with non-traditional pre-university qualifications, support for building the KSB portfolio, student well-being and personal tutoring scheme.

4. SOME OPERATIONAL AND PRACTICAL ISSUES

The biggest problem in the initial stages is to *engage* a sufficient number of *employers* that will, in the following several years, commit to send enough apprentices to make a study programme viable. This is a typical chicken-and-egg problem: Departments need to convince University bodies that they will have a steady number of apprentices but companies are reluctant to commit to a not-yet-approved study programmes. However, some large companies take a long-term view and plan their staff development for several years ahead. These companies can use the opportunity of large numbers of learners to work together with Departments in shaping the overall curriculum and possibly contribute to syllabi delivery with case studies relevant to their business. For instance, WMG department at Warwick has closely worked with Jaguar Land Rover since 2012 and with Dyson since 2016.

The second issue is about companies' training managers fully understanding the need for earmarking *time off work* (for study and for apprenticeship) of more than the minimum 20% of »off-the-job-learning«, as prescribed in the Apprenticeship Standards. The time constraints are especially difficult for learners in the weeks leading to exams in January, April and/or June. If the company grants them a few more days for exam revision, both the exam results and academic progression benefit greatly.

The next challenge that has been often encountered is the selection of learners and the admission process. It is more complicated than the already-complex UCAS process for full-time students, because of conflicting aspects:

- 1) advertising the vacancies is not centralised, so awareness and search for Degree Apprenticeships is not easy for 18-year old school leavers,
- 2) the applicants essentially apply for a job, so the selection process must be done by companies – sometimes they have no experience and hence no appreciation how much effort needs to be invested in this phase,
- 3) in line with the policy of widening the participation and access to HE, many applicants will have lower- level academic achievements from secondary schools and/or colleges – or a set of purely vocational qualifications after age of 16. Universities and employers have to work together in advance to specify what minimum entry qualifications are required.

A final point worth noting here is the *duration and intensity of study*. Most of the Master's apprenticeships are specified in their Apprenticeship Standards to last at least 3 years, with Year 3 solely devoted to project/dissertation work. However, many Bachelor's Standards prescribe a minimum of 36 months, which is putting a huge pressure on work-study balance of learners, especially on engineering and technology apprenticeships. The shortest possible duration was very attractive to 18-year old school leavers, who wanted to graduate in 3 years, same as their peers in full-time education. However, the minimal duration has badly impacted the progression and completion rate (normally better than 85%), because the pace and the step to an independent learning at University required a lot of self-study time on evenings, weekends and holidays. Only the very committed apprentices with strong numeracy and literacy managed to quickly become efficient learners and to progress smoothly in 3 years. Therefore many Universities are nowadays offering a slower-paced programme structure, with some examples listed in Table 1.

Table 1 – Examples of part-time Bachelor programme structure (ECTS equivalent)

Academic Year	Y1	Y2	Y3	Y4	Y5
Programme 1 (AEP, EDA, DTS)*	45	45	45	45 (15+ for project)	
Programme 2 (APEP) *	60	60	30	30 (all 30 for project)	
Programme 3	30	30	60	60 (15+ for project)	
Programme 4	37.5	37.5	37.5	37.5	30 – all for project

* please see table 5 for the programme abbreviations

5. SOME NUMBERS AND THE GROWTH

Despite the obstacles listed above and many more operational issues not mentioned here, from 2019 there has been a huge increase of Level 6 and Level 7 provision - there are approximately 170 Bachelor's Degree Apprenticeship programmes offered by approximately 30 Universities, many of whom have gain their University status in 1992 or later [1].

Table 2 lists the number of apprenticeship starters and graduates for the Academic 2020/21. In terms of starters subject areas 1 and 5 dominate s). In terms of graduates, subjects areas 3,4, and 6 are also strong, because their offering was started in 2017 and in 2018.

Analysis of historical data, shown in Table 3 illustrates the tremendous growth in Degree Apprentices starting their studies: from only 100 in 2013 to almost 40 thousand in 2020.

Table 2 – Number of newly-enrolled and graduating Degree Apprentices in 2020/21, per industry sectors [1]

Level	Bachelor's		Master's	
	Starters	Graduates	Starters	Graduates
1. Business, Administration and Law	4470	890	16260	3880
2. Construction, Planning and the Built Environment	1970	90	280	0
3. Education and Training	1060	240	490	190
4. Engineering and Manufacturing Technologies	1350	190	260	60
5. Health, Public Services and Care	8760	370	1350	30
6. Information and Communication Technology	1710	580	690	70
7. Other Sectors (Arts, Media & Publishing; Agriculture; Retail & Commercial Enterprise; Science & Mathematics; Social Sciences)	320	20	260	0
Total	19630	2370	19570	4240

Table 3 – Number of newly-enrolled Degree Apprentices in 2013, 2017 and 2020, per industry sectors [1]

Level	Bachelor's			Master's	
	2013	2017	2020	2017	2020
1. Business, Administration and Law	30	2890	4470	4370	16260
2. Construction, Planning and the Built Environment		1060	1970		280
3. Education and Training			1060		490
4. Engineering and Manufacturing Technologies	70	590	1350	130	260
5. Health, Public Services and Care		410	8760		1350
6. Information and Communication Technology		1310	1710		690
7. Other Sectors (see Table 2, item 7)		90	320		260
Total	100	6360	19630	4500	19570

Within these dominant subject areas, the Apprenticeship Standards with the highest number of starters are given in Table 4. It is interesting to note the dominance of business and financial sectors, but also the tremendous increase of apprentices in professions related to public services (police, health, social work, education).

Finally, Table 5 shows the number of Degree Apprentices at the University of Warwick, a research-led University with excellent reputation in many disciplines and a member of the Russell Group. Most of the Apprenticeships are provided by the WMG department, in close collaboration with Jaguar Land Rover (AEP, DTS, APEP), Thales UK (DTS) and Dyson (EDA), but also encompassing approximately 30 companies.

Table 4 – Number of starters on the most popular professions i.e. popular Apprenticeship Standards [1]

Apprenticeship Standard / Occupation (subject area)	Level	Bachelor's		Master's	
		2017	2019	2017	2019
Chartered Manager (Degree) (area 1)		2310	2610		
Police Constable (Degree) (area 5)			1930		
Digital and Technology Solutions Professional (area 6)		1310	1670		460
Chartered Surveyor (Degree) (area 5)		810	1320		
Registered Nurse - Degree (NMC 2010) (area 5)		300	760		
Civil Engineer (Degree)		160	680		
Social Worker (Integrated Degree) (area 5)			660		
Accountancy or Taxation Professional (area 1)				3710	7560
Senior Leader (Degree) (area 1)				550	5100
Advanced Clinical Practitioner (Integrated Degree) (area 5)					690
Academic Professional (Education & Training)					480
Solicitor				110	240

Table 5 – Degree apprentices at the WMG Department, the University of Warwick (*some Y5 due to Covid)

Course name		2013	2015	2017	2018	2019	2020	2021
Applied Engineering Programme (AEP)	Starters	38	80	132	90	122	91	0
	Total		153	285	379	416	500*	298
Engineering DA (EDA)	Starters			33	44	40	34+20	0
	Total			33	77	114	173	107
Digital and Technology Solutions (DTS)	Starters					76	39	49
	Total					76	109	154
Applied Professional Engineering (APEP)	Starters							62
	Total							62

6. CONCLUSION

The paper has shown the UK framework for dual higher education at Bachelor and Master level, developed over last 8 years. There has been a disparate history of full-time education at traditional Universities, especially research-led ones, and the vocational education & apprenticeships at colleges, university colleges and companies. They have been forced to converge via employer-defined Apprenticeship Standards and the financial instruments of the Apprenticeship Levy.

The initial gap in culture, tradition and understanding has caused the whole scheme to be quite slow in the initial few years, but since 2017 the numbers of learners, companies, Universities and offered degree programmes have been increasing sharply, especially in service-related industry sectors. Despite this, only less than 30% of the chartered Higher

Education institutions are offering the Degree Apprenticeships, as many research-led Universities are keeping their focus on full-time education.

7. LITERATURE

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