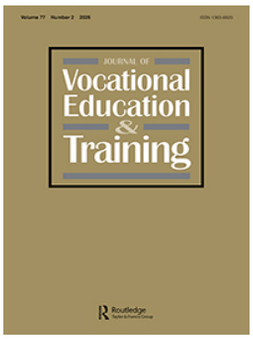

Routledge
Taylor & Francis Group

Journal of Vocational Education & Training

ISSN: (Print) (Online) Journal homepage: www.tandfonline.com/journals/rjve20

‘They gave me an opportunity, and I took it’: motivations and concerns of adult apprentices

Sally Smith, Khristin Fabian, Ella Taylor-Smith, Matthew Barr, Tessa Berg, Andrew Bratton, Mario Kolberg, Jim Paterson & Mark Zarb

To cite this article: Sally Smith, Khristin Fabian, Ella Taylor-Smith, Matthew Barr, Tessa Berg, Andrew Bratton, Mario Kolberg, Jim Paterson & Mark Zarb (2025) ‘They gave me an opportunity, and I took it’: motivations and concerns of adult apprentices, Journal of Vocational Education & Training, 77:2, 465-483, DOI: 10.1080/13636820.2023.2255576

To link to this article: https://doi.org/10.1080/13636820.2023.2255576

JOURNAL OF VOCATIONAL EDUCATION & TRAINING
2025, VOL. 77, NO. 2, 465–483
https://doi.org/10.1080/13636820.2023.2255576

Routledge
Taylor & Francis Group

'They gave me an opportunity, and I took it': motivations and concerns of adult apprentices

Sally Smith [a], Khristin Fabian [a], Ella Taylor-Smith [a], Matthew Barr [b], Tessa Berg [c], Andrew Bratton [a], Mario Kolberg [d], Jim Paterson [e] and Mark Zarb [f]

[a]Centre for Higher Education Research, Edinburgh Napier University, Edinburgh, UK; [b]Centre for Computer Science Education, University of Glasgow, Glasgow, UK; [c]School of Mathematical and Computer Sciences, Heriot-Watt University, Edinburgh, UK; [d]Division of Computing Science and Mathematics, University of Stirling, Stirling, UK; [e]Department of Computing, Glasgow Caledonian University, Glasgow, UK; [f]School of Computing, Robert Gordon University, Aberdeen, UK

ABSTRACT

In the UK context of an ageing population, degree apprenticeships represent a new opportunity to study for a degree while working. Apprentices are full-time employees granted time to study for a degree with a significant workplace learning component. The aim of this study was to focus on whether degree apprenticeships are working for adult apprentices (aged 26 and up in this context). New apprentices ($n = 162$) in six universities in Scotland, UK were surveyed to gain a better understanding of background, prior work and study experience, motivations and expectations. Results show that adult apprentices join apprenticeship programmes with significant work experience and workplace metaskills, together with a consolidated sense of self as a professional. Adult apprentices aimed to gain a degree while remaining in work, thus increasing skills *in situ*. The main barrier identified was the challenge of achieving work-study-life balance. The findings can be used to more closely align apprenticeship provision with adult apprentices' skills needs while reducing barriers to accessing and succeeding in apprenticeships. We make recommendations for more flexibility in terms of advanced entry and Masters-level apprenticeships, with better recognition of prior experience, motivations and anticipated challenges.

ARTICLE HISTORY
Received 19 May 2023
Accepted 24 August 2023

KEYWORDS
Degree apprenticeship; graduate apprenticeship; adult learner; adult apprentice; computing; business management

1 Introduction

The notion of the working life of an individual as a linear path from education to work to retirement at a fixed age has become increasingly outdated in recent years (Barnes et al. 2020). One driver for this in the context of the UK is the extension of the age range of the working population through abolition of the default

CONTACT Sally Smith s.smith@napier.ac.uk
Supplemental data for this article can be accessed online at https://doi.org/10.1080/13636820.2023.2255576

retirement age and the increase in the State Pension Age, along with the introduction of age discrimination legislation (2010 Equality Act). Further factors include the changing nature of workplaces and technological evolution influencing the skills required. These place increasing importance on individuals experiencing transitions within working life, including the necessity of lifelong learning in enabling those transitions (for example, Boerlijst 2020) and the opportunity of vocational education and training for those upskilling in work (for example, Dismore 2014).

Degree apprenticeships in the UK (referred to as Graduate Apprenticeships in Scotland, where this study is based) were designed to meet the needs of employers by providing education to degree level along with work-related skills for job roles in which skills gaps have been reported (BIS 2016). From the outset they have been available to new and existing employees of participating employers. In Scotland, there is a requirement that candidates must be at least 16 years of age, with no upper age limit (SDS 2023). In 2022, 57% of apprentices were aged 25 and over (60% in 2021) (Scottish Funding Council 2022). For many, these apprenticeships represent an opportunity to use this degree study to make a transition rather than an entry point to a lifelong vocation. This transition may take the form of a career change with a new employer, or professional development or upskilling to progress within a current role or take on a new job role with an existing employer.

This study focused on the experience of apprentices for whom a degree apprenticeship represents or enables a transition within their working life, rather than an initial entry point to work (Fuller et al. 2015). The OECD classifies the labour force in terms of three age groups, distinguishing between young people, those in the 'prime' of their working lives, and older workers who are 'approaching retirement' (2021). In this paper, we use the term *adult apprentice* to refer to apprentices over the age of 26 and *younger apprentice* for those aged 26 and under. While we recognise that all our apprentices are adults, this categorisation reflects that used in the literature (for example, Fuller et al. 2015).

A survey was conducted in six universities with new entrants to IT-related or business management apprenticeship courses in 2020 and 2021 which gathered extensive data on the characteristics of people who choose to enrol on degree apprenticeships. A previous study based on the 2020 survey investigated social mobility (Smith et al. 2021). The combined dataset shows that a significant proportion of apprentices surveyed are adults according to the above definition, and the experience of that group is the focus of this paper.

The study posed the following questions:

(1) What are the characteristics of adult apprentices': employment, experience, education?
(2) What are their motivations in undertaking a degree apprenticeship?

(3) What are the anticipated challenges and concerns associated with undertaking an apprenticeship as adults?

2 Literature review

2.1 Context

As implemented in the UK, degree apprentices are employees released from their workplaces to study towards a degree with an apprenticeship provider, while academic credit is also awarded for workplace learning and projects, enabling the degree to be completed within the same timeframe as a traditional full-time degree. Line managers (or mentors) at work negotiate with apprentice and apprenticeship provider to plan for the assessment of work-based learning. For the apprentice, integration of work and study can be relatively seamless and productive, aligned to Fuller and Unwin's 'expansive' approach (Fuller and Unwin 2003). By contrast, some workplaces are 'restrictive', offering fewer opportunities for meaningful work-based learning. Guile and Lahiff (2017) add a dynamism to conceptualising apprenticeships, recognising 'contingent work conditions', adaptations required to fulfil work-based learning (Guile and Lahiff 2017, 169). Billet (2016) explores the integration between workplace affordances and the characteristics and perspectives of the apprentice, moving forward from models of learning on the job, which prepare people for initial occupations, to building individuals' capacities for learning throughout their working lives. An adult apprenticeship represents an opportunity for gaining a degree, with associated learning and development, but also a significant commitment to navigating meaningfully through a workplace.

2.2 Adults' underlying motivations and orientations towards learning

Adult education research suggests that adults are likely to participate in continuing education for multiple and complex reasons. Based on in-depth interviews, Houle (1961) identified three types of motivational orientation that exist among adult learners: (1) goal-oriented, (2) activity-oriented, and (3) learning-oriented. The first type of learner seeks education for specific goals, for example, to change career. Activity-oriented adults participate in learning for reasons that may not have explicit connections with the content or purpose of the learning activity, for example, to expand their professional network. The third type includes adult learners who seek knowledge for its own sake. Following Houle, Dia et al.'s (2005) study itemised six factors for adult participation in continuing education: (1) professional knowledge, (2) career progression, (3) workplace compliance (4) making new friends and contacts, (5) relief from routine, and (6) improvement in social welfare skills. Of these factors, development of professional knowledge is one of the most often-cited aims in engaging

with continuing education as a mature student (Dia et al. 2005). Motivations to embark on a degree apprenticeship have been found to be the goal of securing highly-paid work (Smith et al. 2018), gaining a recognised qualification (Leonard, Fuller, and Unwin 2018) and employment opportunities suiting interests (Malette, Robson, and Thomson 2022). For adult apprentices, Fuller et al. (2015) report as motivations: career change, gaining qualifications, career progression, and employer-supported learning.

Over the last three decades there has been a thread of literature that offers a socio-economic understanding of why adults participate in continuing education. Barnett (1999) situates the rise of life-long adult learning against the background of neoliberalism, characterised by uncertainty and unpredictability, so-called 'super-complexity'. Bratton et al. (2003) identify the contextual changes that give rise to the interest in workplace adult learning, a desire of both managers and workers to remain competitive. Woodall and Douglas (2000) highlight how mainstream approaches to adult learning lack an appreciation of social and political factors, shedding light on the ethical deficiencies associated with the 'manipulation of individuals' into acceptance of the need for continuous learning given 'increased uncertainty and insecurity in the employment relationship' (2000, 133). It is argued that the relentless employer demand for credentials puts power in the hands of the employer (Bills 2003), especially while employer-funded training activity is cut (Winterbotham et al. 2022). The shift to more deregulated labour markets and the individualisation of workplace learning is critical to understanding the context of degree apprenticeships. Therefore, it is important to consider adults choosing an apprenticeship within the context of employers' demands for skills and labour flexibility, while the responsibility (and ensuing risk) of continual learning is shifted onto individuals. Educational debates warn about the wider aims of citizenship and scholarship being somewhat neglected in apprenticeships (*inter alia* Fuller et al. 2015; Höhns 2022; Mazenod 2016), with the identity reconstruction associated with vocational learning hampered by restrictive hierarchies of learning and status associated with vocational education (Brockmann and Laurie 2016; Höhns 2022; Mazenod 2016).

2.3 Barriers and challenges related to being an adult apprentice

While there are many motivating factors to undertake an apprenticeship as an adult, barriers and challenges exist. From a sociological perspective, there is still stigma associated with becoming an apprentice including connotations of working-class masculinity (for example, Brockmann and Laurie 2016) and youth (Fuller et al. 2015). There is also a complex landscape of learning options including upskilling/reskilling/professional accreditations/professional certifications competing alongside a full apprenticeship (Dismore 2014; Jørgensen 2017), while employers understandably lack awareness of this landscape, yet hold the power to approve access, or not.

From the outset, degree apprentices express concern about learning and understanding ('keeping up' and 'academic failure'), achieving a balance between work and study, the academic environment, and staying in their current job for the four years required to complete the degree (Smith et al. 2018). During the apprenticeship, apprentices found the volume and style of academic work challenging, especially combined with their work roles (Hughes and Saieva 2019). Hughes and Saieva found that while some adult apprentices lack experience and confidence studying at Higher Education (HE) level, they have acquired expert knowledge in their field and are often high achievers in their workplace. However, as they enter HE they are no longer considered experts, which combined with the 'alien' environment can lead to them feeling insecure in their new role. As high achievers, they set themselves high targets for HE results which they may initially achieve. Over time, increasing course complexity, mounting work pressures and family commitments can all contribute to a lack of dedicated study time, leading to lower grades and a negative impact on confidence levels. Consequently, given the balance needed between work, study and life, the tension between academic rigour and pragmatic approaches is very real for apprentices (Poole et al. 2023).

The construct of 'work – life balance' (WLB) is increasingly contested, considering the changing nature of working life. WLB can be defined as 'the individual perception that work and non-work activities are compatible and promote growth in accordance with an individual's current life priorities' (Kalliath and Brough 2008, 326). This approach to WLB focuses on perceptions, recognising that perceptions of balance may change over time because of changing life priorities (Chan et al. 2016). The mainstream WLB literature adopts a person-centric approach, where the 'key understanding of WLB comes via the employee's own perception of how they manage the various roles in their life' (Haar and Brougham 2022, 787). Apprentices add study into the mix in a continual process of rebalancing work, family and study (Smith et al. 2020), trying to ascertain 'whether the degree was worth the investment' (Dismore 2014, 399), especially if grades start to suffer. More critical scholarship sheds light on the importance of an intersectional focus in terms of considerations of apprentice's role identities and power in the workplace (Thrasher et al. 2022). Rowe (2019) identifies three categories related to the pressures and concerns of apprentices:

(1) Pressure created by study (e.g. submission deadlines and evidencing academic skills);
(2) Pressure created within the workplace (e.g. workload); and
(3) Pressure created at home.

Meanwhile, apprentices report they are not always able to ring-fence their off-the-job time to deal with such pressures (Poole et al. 2023), especially during periods of assessment (Fuller et al. 2015).

The study presented in this paper was designed to examine the motivations and experiences of adult apprentices as a way of determining how well served they are by current degree apprenticeship provision.

3 Study methodology

3.1 Participants and procedure

An online survey was designed to query apprentices on their prior experience of further education, higher education, and apprenticeships. The study completed the ethical approval process, including a data management plan and privacy impact statement at the initiating university (ENU Education Research Integrity Committee reference 2,764,847). The survey was distributed twice: in 2020, and then again in 2021. In each year, the survey was promoted to degree apprentices studying Computing at the beginning of their first year of study, and Business courses across all years as they had not previously been surveyed, in six universities in Scotland. The apprentices were incentivised by a prize draw for vouchers. A total of 162 valid responses were collected. Participant demographics are shown in Table 1.

For the purpose of the data analysis in this study, apprentices were categorised as 'adult apprentices' if they were over 26 years old. The majority of the respondents to the survey were classified as adult apprentices ($n = 100$; 61.7%), with the majority of these aged between 31 and 40 years old (48%).

Table 1. Participant demographics.

		Younger apprentices % ($n = 62$)	Adult apprentices % ($n = 100$)
Age	18 or under	22.6%	0.0%
	19 to 21	37.1%	0.0%
	22 to 25	40.3%	0.0%
	26 to 30	0.0%	33.0%
	31 to 40	0.0%	48.0%
	Over 40	0.0%	19.0%
Apprentice Framework	Business Management	14.5%	19.0%
	Data science	12.9%	29.0%
	Cyber security	11.3%	5.0%
	ITMB	9.7%	6.0%
	Software	51.6%	40%
Gender	Female	35.5%	34.0%
	Male	59.7%	64.0%
	Other	1.6%	0.0%
	Prefer not to say	3.2%	2.0%
Parents attended uni	Both did	24.2%	9.0%
	One did	33.9%	24.0%
	Neither did	41.9%	63.0%
	Don't know	0.0%	2.0%
SIMD* binary	Below 40% (most deprived)	40.4%	28.0%
	Above 40%	59.6%	59.0%
Entry Route	Started at first year	80.6%	86.0%
	Direct Entrant	19.3%	14.0%

*SIMD – Scottish Index of Multiple Deprivation https://www.gov.scot/collections/scottish-index-of-multiple-deprivation-2020/.

Table 2. Employment status at the start.

	Younger Apprentices % ($n = 61$)	Adult Apprentices % ($n = 100$)	Total	p-value
I joined my employer organisation to do this apprenticeship	65.6%	26%	66	.001
Joined as a Modern Apprentice	26.2%	3%	19	
An existing employee converting to degree apprentice	8.2%	71%	76	

3.2 Instrument and data analysis

The survey asked the apprentices their reasons for choosing the apprenticeship degree and their subject; their aims and existing skills; questions about their employment and professional identity using Likert scale questions; and also included demographic questions. The survey questions are reproduced in Appendix A. The Mann-Whitney U-test was used to compare the responses of young and adult apprentices based on their Likert scale responses. A chi-square test of independence was used to compare distribution of responses (for example, employment at the start of apprenticeship). Repeated testing was taken into account by applying Bonferroni correction. Effect sizes are also reported.

For the 2021 run of the survey, a new free text question was introduced: 'Why now? Why do you think now is the right time for you to start a programme of study?' Free text responses were coded independently by three researchers, using agreed codes under the agreed themes as dichotomies (Boyatzis 1998). The average inter-rater reliability is .78 across codes (Table 2), indicating substantial agreement. Comparison of the responses for each theme was done using a chi-squared test of independence.

4 Findings

The findings section is presented as i) building a picture of adult apprentices: employment status, existing skills, sense of self; ii) their expressed aims and reasons for undertaking the apprenticeship; and iii) areas of concern identified by the apprentices surveyed.

4.1 Building a picture of adult apprentices

Most of the adult apprentices were existing employees (71%), whereas younger apprentices were more likely to have been recruited to do the apprenticeship. Table 3 shows the status of the participants when they started the apprenticeship. A chi-square test of independence shows a significant difference between the employment status of younger and adult apprentices at the start of the programme. The survey also asked how long apprentices had been with their employer: about half (53%) of adult apprentices had been with their employers for 3+ years.

Table 3. Existing skills (Younger $n = 62$, adult $n = 100$).

	Group	Mean Rank	p-value	Effect size
Interpersonal skills (e.g. working as a team, communications)	**Younger apprentices**	**66.65**	**.001**	**.25**
	Adult apprentices	**89.99**		
Technical skills	Younger apprentice	70.31	.019	.18
	Adult apprentices	87.70		
Theoretical knowledge and/or experience of relevant tools or applications	Younger apprentices	72.21	.066	.14
	Adult apprentices	85.74		
Management and project management	**Younger apprentices**	**61.52**	**<.001**	**.34**
	Adult apprentices	**93.20**		
Professional skills (e.g. understanding business processes)	**Younger apprentices**	**56.59**	**<.001**	**.41**
	Adult apprentices	**95.23**		
Writing (e.g. technical writing, report writing)	Younger apprentices	69.79	.017	.19
	Adult apprentices	87.28		
Problem solving and critical thinking	Younger apprentices	69.98	.025	.18
	Adult apprentices	86.08		
Willingness to learn	Younger apprentices	69.98	.177	.11
	Adult apprentices	86.28		

*significant if $p < .006$).

The survey asked about prior education, specifically any previous apprenticeships (sub-degree level), Further Education (sub-degree) or Higher Education (degree level). A higher proportion of younger apprentices had already completed a sub-degree apprenticeship or a similar type of apprenticeship, when compared with adult apprentices. This was expected following a recent expansion of post-school apprenticeships; adult apprentices would not have been exposed to this style of apprenticeship at the start of their working life.

In terms of the apprentices' previous experience of Further Education, there was no discernible difference in the proportion of adult and younger apprentices. The majority of each had *not* completed a Further Education course prior to starting this apprenticeship.

A higher proportion of adult apprentices had already completed a degree in HE (37% vs. 8.1% of the younger apprentices). For the adult apprentices, these previous HE experiences were mostly in a different subject whereas for the younger apprentices, degrees were in a similar or related subject. It should be noted that these apprentices are responding from a Scottish context: funding for apprenticeships is considered separately from funding for a first HE degree, thus offering a reskilling route for those whose first degree did not support their work expectations or needs. Examples included degrees in history and English

Table 4. Professional or apprentice identity (Younger $n = 62$, adult $n = 99$).

	Younger Apprentices Mean Rank	Adult Apprentices Mean Rank	Asymp, sig. (2 tailed)
Professional identity	7.34	87.68	.02
Apprentice identity	103.97	66.62	.00

literature. In spite of considerable prior learning, only 14% of adult apprentices were direct entrants into advanced levels of the degree (Table 1).

4.1.1 Existing skills

Participants were asked about the skills they felt they already had prior to starting the apprenticeship. Adult apprentices self-rated their existing skills higher than the younger apprentices across all categories (Table 4). A higher mean rank for one group indicates that the overall observed values in that group are higher than the other group. Significant differences in the mean rank after Bonferroni correction (highlighted in bold) were found to be: interpersonal skills, project management, and professional skills, likely due to the fact that adult apprentices had pre-existing management and work experience from their careers up to the point of starting the apprenticeship, when compared to a younger cohort (who are more likely to have joined the apprenticeship as a 'first' step into their careers).

4.1.2 Apprentice self-identification

The survey asked whether participants viewed themselves as an apprentice or professional using a seven-point Likert scale (Table 5). Adult apprentices identified more closely as professionals than apprentices, while self-identification as an apprentice was stronger for younger apprentices (who may have applied directly for a role specifically advertised as an apprenticeship).

4.2 Motivation to be an adult apprentice

4.2.1 Aims

Participants were asked what their main aims were in becoming an apprentice by rating the importance of (previously identified) aims using a seven-point Likert scale (0 = not important, 6= highly important) (Table 6). The aims which the adult apprentices ranked more highly were 'For professional and/or personal growth' and 'To benefit my employer organisation', but these differences in scores were not statistically significant compared with younger apprentices. There is a statistical significance reported in the difference between the motivation for young people 'to gain work experience while learning' when compared to adult learners. This is likely because adult learners were at a stage of their career where they were more established and already had extensive work experience.

Table 5. Main aims in choosing apprenticeship (Younger $n = 62$, Adult = 100).

	Group	Mean Rank	p-value (Mann-Whitney Test)	Effect size
To gain a degree qualification	Younger apprentices	88.29	.061	.15
	Adult apprentices	77.29		
To gain knowledge and skill	Younger apprentices	82.19	.826	.02
	Adult apprentices	81.07		
To improve career options and/or achieve career goals	Younger apprentices	85.88	.181	.11
	Adult apprentices	78.03		
For professional and/or personal growth	Younger apprentices	74.03	.125	.12
	Adult apprentices	83.62		
To benefit my employer organisation	Younger apprentices	72.25	.043	.16
	Adult apprentices	87.24		
To gain work experience while learning	**Younger apprentices**	**98.06**	**<.001**	**.30**
	Adult apprentices	**71.24**		
To earn while learning	Younger apprentices	85.89	.240	.09
	Adult apprentices	77.94		

*significant if $p < .007$).

Table 6. Reasons for choosing an apprenticeship (Younger $n = 62$, adult $n = 100$).

	Group	Mean Rank	p-value (Mann-Whitney Test)	Effect size
Why: Financial reasons	Younger apprentices	84.21	.397	.07
	Adult apprentices	78.15		
Can keep current job	**Younger apprentices**	**63.53**	**<.001**	**.29**
	Adult apprentices	**89.28**		
Work experience while studying	Younger apprentices	90.76	.050	.15
	Adult apprentices	75.76		
Increase employability and career opportunities	Younger apprentices	80.50	.900	.01
	Adult apprentices	79.68		
Traditional degree would not suit	Younger apprentice	70.84	.104	.13
	Adult apprentices	82.64		
Enjoy practice-based learning	Younger apprentices	81.18	.613	.04
	Adult apprentices	77.58		

*significant if $p < .008$).

4.2.2 Reasons to choose an apprenticeship

Participants were asked to report on their reasons for choosing to undertake an apprenticeship. A set of criteria were rated using a 7-point Likert scale (Table 7). There is a statistically significant result, showing that adult apprentices were more likely to have chosen an apprenticeship because they could 'keep their current job' (perhaps using the apprenticeship to upskill with their current employer) when compared to the younger learners.

Table 7. 'Why now?'(Younger $n = 36$, adult $n = 62$).

	Younger Apprentices % ($n = 36$)	Adult Apprentices % ($n = 62$)	Fisher's Test p-value
Good timing because I'm young (head start for career, good time to learn)	25%	0%	.000
Children are older	5.6%	8.1%	1.000
Maturity to take on degree/Not getting any younger	19.4%	6.5%	.093
Finance (gain/keep income)	8.3%	14.5%	.526
Combine work and study/work experience	16.7%	12.9%	.766
Just completed school/qualification	25%	4.8%	.008
Career move/skills/confidence	3.6%	50%	.090
Right time/opportunity	11.1%	37.1%	.005

*significant if $p < .007$).

Apprentices were also asked to provide their postcode, which was analysed by Scottish Index of Multiple Deprivation quintile (SMID20-SIMD100) as a proxy for current socio-economic status. The Mean rank in Table 7 was higher for those from <SIMD40 (from postcodes that fall within the 40% most socio-economically deprived areas) on the aspect of gaining a degree qualification ($p = .038$) but this was not significant after Bonferroni correction.

4.2.3 Why now?

The 2021 survey asked the open text question 'Why now?', i.e. why they had chosen this time to start the apprenticeship. Table 8 lists the codes identified together with the percentages of apprentices mentioning them, by age group. Each response could be coded to multiple codes.

For both groups, the apprenticeship was seen as a way to advance their career by gaining skills. Half of the adult apprentices gave this reason, compared

Table 8. Anticipated challenges (Younger $n = 62$, adult $n = 100$).

	Group	Mean Rank	p-value	Effect size
Work-study-life balance (e.g. time management)	**Younger apprentices**	**67.94**	**.002**	**.24**
	Adult apprentices	**89.91**		
Technical skills	Younger apprentices	80.56	.923	.01
	Adult apprentices	81.28		
Maths	Younger apprentices	72.65	.108	.13
	Adult apprentices	84.58		
Understanding theory	Younger apprentices	79.91	.897	.01
	Adult apprentices	80.27		
Back to learning	Younger apprentices	72.42	.097	.13
	Adult apprentices	84.72		
Academic skills (e.g. writing, giving presentations)	Younger apprentices	73.14	.110	.13
	Adult apprentices	85.04		
Stress and/or anxiety	Younger apprentices	82.15	.717	.03
	Adult apprentices	79.46		
Self-study (e.g. focus and/or motivation)	Younger apprentices	78.71	.862	.01
	Adult apprentices	79.98		
Some aspect of your job	Younger apprentices	75.76	.352	.07
	Adult apprentices	82.64		

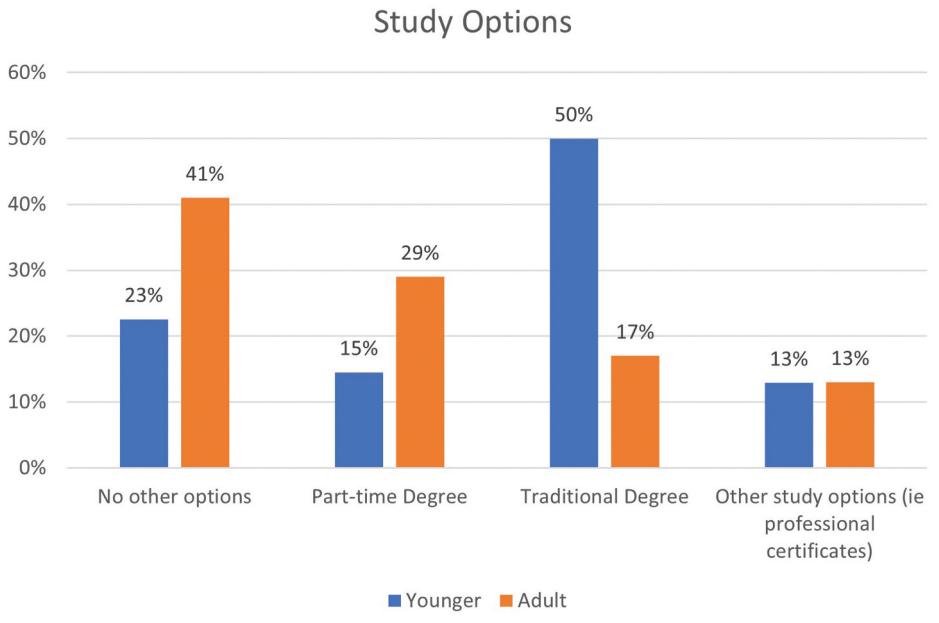

Figure 1. Alternative study options considered.

to under a third of the younger apprentices, possibly reflecting the need for life-long learning in IT and business management careers. For example, as one older respondent explains: 'I'm at a point in my career where I want to progress but may lack the vital skills or experience'. Adult apprentices were also more likely to describe recognising the apprenticeship as an 'opportunity' or specify that it was the 'right time' in their lives (personal or professional). For example: 'I did not wish to leave my current role/employer to start a degree, but this was a fantastic opportunity for me personally' and 'They gave me an opportunity, and I took it'. The equivalent for younger apprentices was that they had just finished a previous qualification, such as school, Further Education, or a sub-degree apprenticeship. For example, as one younger apprentice notes, 'I've just completed my [diploma] in the same field. Now is the time to further my knowledge and get into the working world of software'. Unsurprisingly, only younger apprentices indicated the benefits of being young as their reason for undertaking the apprenticeship, for example: 'I wanted to start now as I feel like I am too young to be in full time employment without doing any extra qualifications'.

4.2.4 Alternative study options

The survey asked if the participants had been considering any other study options. Many of the adult apprentices had not considered other study options (41% vs. 22.6% of younger apprentices) (Figure 1). Only 17% of adult apprentices had considered other degree options (vs. 50% of younger apprentices).

4.3 Anticipated challenges

Most participants were surveyed at the beginning of their course and asked what challenges they anticipated in completing the apprenticeship by rating the items identified in Table 8 on a Likert scale of 0 (not challenging) to 6 (challenging). For adult apprentices, the challenge of being able to balance work-study-life was significantly higher ($p = .002$), echoing Rowe (2019). No other significant differences were found.

5 Discussion

Degree apprenticeships offer a relatively new (and expanding) way of studying for a degree that recognises both the HE environment and workplace as locations for learning. The findings show that apprenticeships appeal to adults already in work as a means of progressing; of taking an opportunity offered. The profile of adult apprentices differs from younger apprentices: our findings show that they were more likely to be upskilling where they were currently employed; they did not want to leave their job and study for a traditional degree or take up an apprenticeship elsewhere; nor had they considered other options, so this presented a unique opportunity. Their agency was bounded by their workplace circumstances (Billett and Choy 2013). As learning at work requires the apprentices to expand their boundaries and transform work practices, needing and making a case for their employers' support is an appropriate start.

Adult apprentices were more confident in their existing skills (inter-personal, project management and professional) than younger apprentices, together with a sense of self as a professional. They were taking the opportunity to gain a degree, though this opportunity came with concerns over work-life balance, as discussed below. Motivations to start the apprenticeship overlapped with professional knowledge/advancement as reported by Dia et al. (2005), while the constraining factor was to do this while remaining in work. Similarly, Schuller and Watson (2009) found that people's aims for learning in the second stage (aged 25–50) were sustaining productivity and prosperity. Adult apprentices in our study were goal-oriented (Houle 1961), identifying goals related to personal and professional growth, but they were also motivated by the benefits their new knowledge would bring for their employer. Our findings reveal a more nuanced picture of motivations compared with Leonard et al.'s (2018) suggestion that the degree certificate is the main motivation; instead, the adult apprentices in our study prioritised gaining knowledge and skill, professional and personal growth, and benefitting their employer organisation. Whereas younger apprentices were more motivated by gaining work experience, adult apprentices showed awareness of and commitment to the alignment between work and study, one of the cornerstones of the apprenticeship, through recognising skills benefits both to themselves and their organisations. This finding is important, as

Felstead (2010) reports employer concerns about declining work commitment among older workers, and older workers being overlooked for learning and development opportunities (Leonard, Fuller, and Unwin 2018). It is also important for the individuals themselves as such alignment between theory and practice is a feature of effective vocational education (Hordern 2014; Mazenod 2016) and has been linked to individuals thriving at work (Conway and Foskey 2015).

The desire of adult apprentices to derive benefit for their employing organisations should be emphasised by apprenticeship providers in discussions with employers, as it could serve to mitigate age discrimination at work which causes de facto upper age limits for participation, promotes beliefs that older workers are unable to adapt and learn new technology (Fuller et al. 2015) and undervalues previous experience (Leonard, Fuller, and Unwin 2018). As a counter to those who argue that apprenticeships should be oriented to younger people (for example, Mazenod 2016) we argue access to apprenticeships for adults should remain. Apprentices from disadvantaged groups and women are more likely to join at a later stage in their careers (Smith et al. 2020, 2021), spending longer in low paid roles, in a position whereby the apprenticeship becomes a unique opportunity for professional advancement. 37% of the adult apprentices in this survey had previously completed unrelated degrees. It is possible that this post-graduation return to study could be achieved more efficiently through an increase in availability of work-based postgraduate courses.

Overall, the return on investment for the apprentice and their organisation will increasingly outweigh the study time commitment as retirement age increases in the face of shrinking pension funds (Felstead 2010), though that does not help the adult apprentices juggling competing priorities in the short term.

5.1 Competing priorities

The main concern for adult apprentices (significant in comparison to younger apprentices) was achieving a balance between work, study, and life. This has previously been reported in relation to adult apprentices (Fabian et al. 2022; Fuller et al. 2015). To some extent, these competing priorities cannot be avoided, as adult apprentices are more likely to embark on the apprenticeship with pre-existing responsibilities, including child-care and higher expectations of ongoing contribution to their day-job. The COVID-19 pandemic may have added further unforeseen responsibilities. To help adult apprentices balance multiple commitments, apprenticeship providers should express expectations of the time commitment clearly to employers to ensure dedicated study time is agreed as set out in the policy documents (Poole et al. 2023); and run development sessions for academic staff ensuring they are 'versed in education and practice' (Dawson and Osborne 2020, 114) to recognise the need for flexibility of timescales for assignments. The work-life-study balance needs to afford time for reflection (Fuller and Unwin 2003).

Could more be done to recognise prior experience and learning? Despite assurances that prior learning could be used for advanced entry, the majority (86%) started in the first year of the four-year apprenticeship. Across Scotland, only 17.5% of apprentices gained advanced entry based on recognition of prior learning (including experiential learning) in 2022 (SFC 2022).

Previous research (Fabian et al. 2023) found that job adverts failed to signpost opportunities for advanced entry, so there may be a lack of awareness on the part of employers. This places the responsibility on the apprenticeship providers, who fall back on 'logistical requirements of institutions' to determine application decisions (Young and Hordern 2022, 82). Focusing on the award/recognition of an undergraduate degree without fully recognising prior learning results in everyone going through a lengthy degree, leaving adult apprentices torn between work, study, and life over an extended period. The adult apprentices in this study brought skills and self-identity as professionals and this self-identification could point towards a new approach that would retain the opportunity while reducing the challenge of a lengthy period of study. Poortman, Illeris, and Nieuwenhuis (2011) recommend a balance of assimilative and accommodative work-based learning. Assimilation of learning entails integration into previously established structures (for example, project management, professional and inter-personal skills). Accommodative learning processes involve requiring the learner to *accommodate* new ways of working as a result of learning. Apprenticeships could take more advantage of experiential/assimilated learning to afford more focus on accommodative learning that could allow for better work-study-life balance. This could be realised through a closer adherence to the recognition of prior experiential learning for advanced entry, combined with more effective promotion of direct entry to later years of the degree apprenticeship. In Scotland, an increase in the range of Masters apprenticeships on offer would be welcomed. Such provision could help support the twin aims of reducing the duration of the work-study-life balance challenge, while still meeting apprentices' aims to increase their professional and personal growth.

6 Conclusion

Adult apprentices start apprenticeships with different motivations from younger apprentices and anticipate different challenges. Adult apprentices seek personal/professional growth, while worrying about their work-study-life balance. They also aimed for the apprenticeship to benefit their employing organisation: i.e. that their work-based learning should improve workplace practice. We make a case for apprenticeship providers to adhere more closely to the principles of recognising prior learning (including work experience) together with an increase in Masters-level apprenticeships to reduce the duration of the apprenticeship for those that bring skills and experience that are not currently fully recognised.

Employers should ensure their signalling of the opportunity reaches employees and recruits: an opportunity for both employer and (at times uniquely) individual.

We recommend that future research is conducted to explore more fully the workplace learning experiences of adult apprentices, in particular the nature of the alignment between work and work-based learning. We also recommend gaining a better understanding of employers' perspectives including the extent to which they would agree that the apprenticeship benefits their organisations, for example, improving employee productivity or service quality. Certainly, further research is required to understand why so few adult apprentices gain advanced entry. In terms of limitations, all universities contributing to this study are located in Scotland where Honours degrees take 4 years and degree apprenticeships are implemented through agreed frameworks based on aggregated employer requests. Both factors could affect generalisability of findings. Apprentices were surveyed early in their apprenticeship, so had limited lived experience of their work contexts. A follow-up study to understand how the workplace context facilitated the degree is recommended.

Disclosure statement

No potential conflict of interest was reported by the author(s).

ORCID

Sally Smith http://orcid.org/0000-0001-8208-3943
Khristin Fabian http://orcid.org/0000-0001-6321-2703
Ella Taylor-Smith http://orcid.org/0000-0003-3407-1029
Matthew Barr http://orcid.org/0000-0002-5147-0673
Tessa Berg http://orcid.org/0000-0003-0786-1738
Andrew Bratton http://orcid.org/0000-0002-4917-5296
Mario Kolberg http://orcid.org/0000-0002-0930-2385
Jim Paterson http://orcid.org/0000-0002-6955-1009
Mark Zarb http://orcid.org/0000-0003-1768-4763

References

Barnes, S. A., J. Bimrose, A. Brown, J. Kettunen, and R. Vuorinen. 2020. *Lifelong Guidance Policy and Practice in the EU: Trends, Challenges and Opportunities. Final Report*. European Commission; Publications Office of the European Union. https://doi.org/10.2767/91185.

Barnett, R. 1999. "Learning to Work and Working to Learn." In *Understanding Learning at Work*, edited by D. Boud and J. Garrick, 29–44. London, UK: Routledge.

Billett, S. 2016. "Apprenticeship as a mode of learning and model of education." *Education+ Training* 58 (6): 613–628.

Billett, S., and S. Choy. 2013. "Learning Through Work: Emerging Perspectives and New Challenges." *Journal of Workplace Learning* 25 (4): 264–276. https://doi.org/10.1108/13665621311316447.

Bills, D. B. 2003. "Credentials, Signals, and Screens: Explaining the Relationship Between Schooling and Job Assignment." *Review of Educational Research* 73 (4): 441–469. https://doi.org/10.3102/00346543073004441.

BIS (Business Innovation and Skills). 2016. Success as a Knowledge Economy: Teaching Excellence, Social Mobility and Student Choice (White Paper). Department for Business Innovation and Skills. https://www.gov.uk/government/publications/higher-education-success-as-a-knowledge-economy-white-paper.

Boerlijst, J. G. 2020. "The Neglect of Growth and Development of Employees Aged Over 40: A Managerial and Training Problem." In *Work and Aging: A European Prospective*, edited by J. Snel and R. Cremer, 251–271. CRC Press. https://doi.org/10.1201/9781003062622-21.

Boyatzis, R. E. 1998. *Transforming qualitative information: Thematic analysis and code development*. sage.

Bratton, J., J. C. H. Mills, and P. Sawchuk. 2003. *Workplace Learning: A Critical Introduction*. Toronto: University of Toronto Press.

Brockmann, M., and I. Laurie. 2016. "Apprenticeship in England–The Continued Role of the Academic–Vocational Divide in Shaping Learner Identities." *Journal of Vocational Education & Training* 68 (2): 229–244. https://doi.org/10.1080/13636820.2016.1143866.

Chan, X. W., T. Kalliath, P. Brough, O. L. Siu, M. P. O'Driscoll, and C. Timms. 2016. "Work–Family Enrichment and Satisfaction: The Mediating Role of Self-Efficacy and Work–Life Balance." *The International Journal of Human Resource Management* 27 (15): 1755–1776. https://doi.org/10.1080/09585192.2015.1075574.

Conway, M. L., and R. Foskey. 2015. "Apprentices Thriving at Work: Looking Through an Appreciative Lens." *Journal of Vocational Education & Training* 67 (3): 332–348. https://doi.org/10.1080/13636820.2015.1054863.

Dawson, S., and A. Osborne. 2020. "Re-Shaping Built Environment Higher Education: The Impact of Degree Apprenticeships in England." *International Journal of Construction Education and Research* 16 (2): 102–116. https://doi.org/10.1080/15578771.2019.1668888.

Dia, D., C. A. Smith, A. Cohen-Callow, and D. L. Bliss. 2005. "The Education Participation Scale–Modified: Evaluating a Measure of Continuing Education." *Research on Social Work Practice* 15 (3): 213–222. https://doi.org/10.1177/1049731504273543.

Dismore, H. 2014. "Experiencing the Transition from an Apprenticeship to Higher Education." *Journal of Education & Work* 27 (6): 585–607. https://doi.org/10.1080/13639080.2013.802831.

Fabian, K., E. Taylor-Smith, S. Smith, and A. Bratton. 2023. "Signalling New Opportunities? An Analysis of UK Job Adverts for Degree Apprenticeships." *Higher Education, Skills & Work-Based Learning* 13 (2): 299–314. https://doi.org/10.1108/HESWBL-02-2022-0037.

Fabian, K., E. Taylor-Smith, S. Smith, D. Meharg, and A. Varey. 2022. "An Exploration of Degree Apprentice Perspectives: A Q Methodology Study." *Studies in Higher Education* 47 (7): 1397–1409. https://doi.org/10.1080/03075079.2021.1897094.

Felstead, A. 2010. "Closing the Age Gap? Age, Skills and the Experience of Work in Great Britain." *Ageing & Society* 30 (8): 1293–1314. https://doi.org/10.1017/S0144686X10000681.

Fuller, A., P. Leonard, L. Unwin, and G. Davey. 2015. *Does Apprenticeship Work for Adults? The Experiences of Adult Apprentices in England*. UCL Institute of Education. https://www.llakes.ac.uk/wp-content/uploads/old/Adult%20Apprenticeship.pdf.

Fuller, A., and L. Unwin. 2003. "Learning as Apprentices in the Contemporary UK Workplace: Creating and Managing Expansive and Restrictive Participation." *Journal of Education & Work* 16 (4): 407–426. https://doi.org/10.1080/1363908032000093012.

Guile, D., and A. Lahiff. 2017. "Apprenticeship for 'Liquid Life': Learning in Contingent Work Conditions for Contingent Employment." *Vocations and Learning* 10 (2): 157–175. https://doi.org/10.1007/s12186-016-9166-3.

Haar, J., and D. Brougham. 2022. "Work Antecedents and Consequences of Work-Life Balance: A Two Sample Study within New Zealand." *International Journal of Offshore and Polar Engineering* 33 (4): 784–807. https://doi.org/10.1080/09585192.2020.1751238.

Höhns, G. M. 2022. "The Social Construction of Vocational Education - Possibilities for Change Towards Status Improvement." *Journal of Vocational Education &training* 1–21. https://doi.org/10.1080/13636820.2022.2138956.

Hordern, J. 2014. "How is Vocational Knowledge Recontextualised?" *Journal of Vocational Education & Training* 66 (1): 22–38. https://doi.org/10.1080/13636820.2013.867524.

Houle, C. O. 1961. *The Inquiring Mind*. Madison, WE: University of Wisconsin Press.

Hughes, C. J., and G. Saieva. 2019. "Degree Apprenticeships–An Opportunity for All?" *Higher Education, Skills & Work-Based Learning* 9 (2): 225–236. https://doi.org/10.1108/HESWBL-10-2018-0113.

Jørgensen, C. H. 2017. "From Apprenticeships to Higher Vocational Education in Denmark–Building Bridges While the Gap is Widening." *Journal of Vocational Education & Training* 69 (1): 64–80. https://doi.org/10.1080/13636820.2016.1275030.

Kalliath, T., and P. Brough. 2008. "Work–Life Balance: A Review of the Meaning of the Balance Construct." *Journal of Management & Organization* 14 (3): 323–327. https://doi.org/10.5172/jmo.837.14.3.323.

Leonard, P., A. Fuller, and L. Unwin. 2018. "A New Start? Negotiations of Age and Chrononormativity by Older Apprentices in England." *Ageing & Society* 38 (8): 1667–1692. https://doi.org/10.1017/S0144686X17000204.

Malette, N., K. Robson, and E. Thomson. 2022. "Academic Interests Mismatch: Undergraduate to Apprenticeship Transfer Among Canadian Students." *Journal of Vocational Education & Training (Ahead-Of-Print)* 1–22. https://doi.org/10.1080/13636820.2022.2126879.

Mazenod, A. 2016. "Education or Training? A Comparative Perspective on Apprenticeships in England." *Journal of Vocational Education & Training* 68 (1): 102–117. https://doi.org/10.1080/13636820.2015.1117521.

OECD 2021. *The Updated OECD Youth Action Plan: Building Blocks for Future Action*. Organisation for Economic Co-operation and Development. https://www.oecd.org/employment/youth/The-Updated-OECD-Youth-Action-Plan.pdf.

Poole, R., F. Cook, S. Sims, and J. Brindley. 2023. "Challenges, Barriers and Strategies for Engaging in Level 7 Apprenticeship Studies." *Journal of Education & Work* 36 (2): 153–168. https://doi.org/10.1080/13639080.2023.2167953.

Poortman, C. L., K. Illeris, and L. Nieuwenhuis. 2011. "Apprenticeship: From Learning Theory to Practice." *Journal of Vocational Education & Training* 63 (3): 267–287. https://doi.org/10.1080/13636820.2011.560392.

Rowe, L. 2019. "Future proofing the degree apprenticeship workforce-an exploratory study of resilience behaviours, resources and risks". PhD diss., University of Chester, UK. https://chesterrep.openrepository.com/bitstream/handle/10034/622937/FINAL%20SUBMISSION%20LISA%20ROWE.pdf?sequence=1.

Schuller, T., and D. Watson. 2009. *Learning Through Life: Inquiry into the Future for Lifelong Learning*. Leicester, UK: National Institute for Adult Continuing Education.

SDS. 2023. *Graduate Apprenticeships*. Skills Development Scotland. Accessed January 20, 2023 https://www.apprenticeships.scot/become-an-apprentice/graduate-apprenticeships/.

SFC. 2022. *Graduate Apprenticeship Report*. Accessed January 20, 2023. Scottish Funding Council. http://www.sfc.ac.uk/news/2022/news-92157.aspx.

Smith, S., M. Caddell, E. Taylor-Smith, C. F. Smith, and A. Varey. 2020. "Degree Apprenticeships - a Win-Win Model? A Comparison of Policy Aims with the Expectations and Experiences of Apprentices." *Journal of Vocational Education & Training* 73 (4): 505–525. https://doi.org/10.1080/13636820.2020.1744690.

Smith, S., E. Taylor-Smith, K. Fabian, M. Barr, T. Berg, D. Cutting, J. Paterson, T. Young, and M. Zarb. 2020. "Computing Degree Apprenticeships: An Opportunity to Address Gender Imbalance in the IT Sector?" In *Proceedings of IEEE Frontiers in Education Conference (FIE 2020)*. IEEE. https://ieeexplore.ieee.org/xpl/conhome/9273681/proceeding.

Smith, S., E. Taylor-Smith, K. Fabian, M. Zarb, J. Paterson, M. Barr, and T. Berg. 2021. "A Multi-Institutional Exploration of the Social Mobility Potential of Degree Apprenticeships." *Journal of Education & Work* 34 (4): 488–503. https://doi.org/10.1080/13639080.2021.1946494.

Smith, S., E. Taylor-Smith, C. F. Smith, and A. Varey. 2018. "From Work-Integrated Learning to Learning-Integrated Work: Motivations and Apprehensions of Graduate Apprentices." In *Proceedings of the 3rd International WACE Research Symposium*. https://waceinc.org/resources/Pictures/pdf/WACE_IRS_2018_Refereed_Conference_Proceedings.pdf.

Thrasher, G. R., K. Wynne, B. Baltes, and R. Bramble. 2022. "The Intersectional Effect of Age and Gender on the Work–Life Balance of Managers." *Journal of Managerial Psychology* 37 (7): 683–696. https://doi.org/10.1108/JMP-03-2021-0169.

Winterbotham, M., G. Kik, S. Selner, O. Gooding, R. Jackson, and M. Cojocaru. 2022. *Employer Pulse Survey: Research Report: April 2022*. Department for Education, UK https://dera.ioe.ac.uk/39214/1/Employer_Pulse_Survey_2021_Report.pdf.

Woodall, J., and D. Douglas. 2000. "Winning hearts and minds: Ethical issues in human resource development. Ethical issues in contemporary human resource management." 116–136.

Young, M., and J. Hordern. 2022. "Does the Vocational Curriculum Have a Future?" *Journal of Vocational Education & Training* 74 (1): 68–88. https://doi.org/10.1080/13636820.2020.1833078.