Investigation of Adoption of the Apprenticeship Framework in the Agricultural Sector in England

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Abstract
Agriculture in England is a sector that provides economic wealth for several families and businesses. However, it is noticed that the youth generation whose historical background is directly or indirectly related with farming have the propensity to shift towards studying IT, business administration, law or construction. This is justified with the sacrifices required within the agricultural sector, knowledge acquisition and implementation, and in some cases with a low margin of profits. All these factors are believed that have influenced the escapism from agriculture sector. The disproportion of educational focus will later result in an increase of the socio-economic disbalance. Consequently, the UK government has introduced and promoted the apprenticeship scheme as a strategy to decrease unemployment, equip apprentices with a set of skills that would increase their employability and assists individuals in career changing. As a result this paper highlights the significance of apprenticeship schemes in agricultural sector in England. Additionally, it considers the categories of agricultural apprenticeships schemes and its benefits.

Keywords: Investigation, Agriculture, Apprenticeship framework, England, UK government

Introduction to the UK System of Apprenticeships

According to (Evans and Bosch, 2012; Ryan, 2012; Hogarth et al. 2012) Apprenticeship is a scheme that aims the delivery of a set of skills required to work in a particular sector and is open to the new generation or individuals who consider the changes in career. Apprentices are enrolled in well-structured professional programs that would facilitate their learning and progress towards the desirable
industry or position. Government in England considers apprenticeship scheme as a response to decreasing the level of unemployment among young generation in England. Additionally, due to economic crises, this scheme intends to increase the chances for employment among adults aged above 25 years old by contributing to their personal skills (Higham et al. 2013). According to Thomas et al. (2013) apprenticeship scheme provides solutions to the difficulties that the young generation has in entering into the labour market, and also is another alternative to the higher education system, which due to the rise of fees seem to have accumulated a vast amount of students’ debts. Therefore, students obtain several degrees from high education and being part of unemployment or overqualified causes a mishmash of the system itself, which will later have social consequences.

Furthermore, (Fuller et al. 2013; Steadman, 2010) argue that an apprenticeship is beneficial as it treats the problem of long-standing skills within the UK, and specifically in England where government and/or society cannot depend only on the traditional degrees received in college or university to participate in the sectors of agriculture, manufacturing, engineering, IT and construction. Nevertheless, (Snell, 1996) has studied the historical background of apprenticeships in British history and frames it as the following quotation:

> When historians consider “apprenticeship”, they often generalize in terms of three extended periods. These may broadly be characterized as that of “guild apprenticeship”, from about the 12th century to 1563, with the state underpinning much practice; the period of statutory apprenticeship, from 1563 to 1814 (with guilds slowly attenuating); and finally a great diversity of forms which might be summarised as “voluntary” apprenticeship, often agreements between employers and unions, from 1814 to the present day.

Nowadays, as Fuller et al. (2013) and Steadman (2010) argue that apprenticeship programs are seen as socio-economic regulatory that needs fast and sound implementation to foster the economic development of the country. Participants who have been participating in apprenticeship programs receive higher incomes than individuals of the same industry but do not hold any similar qualification or university degree. Apprenticeships offered by English companies count for about 6 % which compared to German companies (30 %) is relatively low, however has the propensity to increase, which is a positive sign (Higham et al. 2013).

According to a report published by Davies (2014), in the academic year of 2012/2013 in England there were 510,000 apprentices enrolled in several sectors such as business administration, retail, agriculture, IT, construction, arts and music and manufacturing. Another interesting figure consists of participants aged 25 and over whose percentage is almost tripled (18 % in 2009/10 to 45 % 2012-13) compared to three years ago. Several researchers argue that this increase might derive as a result of unemployment and not many options to be employed in subjects they were graduated for. This phenomenon fosters the student to shift their attention to other possible options that would increase the chances for employment.

There are several accreditation bodies throughout the UK and particularly in England that deliver agricultural programs as part of
an apprenticeship scheme. Such programs provide participants with a wide range of agricultural information and skills required for farm activities. It emphasizes efforts on developing, observing and maintaining sound practices related to health, safety and security. Additionally, it implores awareness of environmental issues, promoting good agricultural managerial practices aiming to enhance the overall performance of the farm (Davies, 2014; Whitehead, 2013; Richard, 2012).

Upon their request apprentices receive learning and training on livestock management and crop production as a more professional qualification. Moreover, the usage of tractor, fertilizing and pest control, irrigation, harvesting and post harvesting are additional activities that learners are involved in. Frequenting such agricultural programs, learners are able to progress through the new skills obtained and they can advance into higher job positions or further studies that would shape their skills at a more proficient level (Dustmann and Schonberga, 2012; Pauline and Simon, 2013).

The UK Regulatory Perspective of Defining Apprenticeships

An Apprenticeship is a job with an accompanying skills development program under an Apprenticeship Agreement often designed jointly by employers in the sector and a sector skills council appointed by the UK Government, Sector Skills Council (2014). Sector Skills Councils (SSCs) are independent, employer-led, UK-wide organisations. A UK modern apprenticeship allows the apprentice to gain technical knowledge and real practical experience, along with functional and personal skills, required for their immediate job and future career (Hirtt, 2014; Brynin, 2013; Allen and Ainley, 2013; Imdorf and Leemann, 2012; Ainley and Rainbird, 1999). The makeup of an apprenticeship program is a broader mix of learning in the workplace, formal off the job training and the opportunity to practice and embed new skills in a real work context. That broader mix of experiences for the apprentice differentiates the Apprenticeship experience from just training delivered to meet narrowly focused job needs (Abdel-Wahab, 2012; Ainley, 2013).

All apprentices commencing their Apprenticeship must have an Apprenticeship Agreement between the employer and the apprentice. This can be used to reinforce the understanding of the requirements of the Apprenticeship. The requirement for an Apprenticeship Agreement between an employer and an apprentice, under the Apprenticeships, Skills, Children and Learning Act [ASCL (2009)] sections 32-36, came into force on the 6 April 2012. The Apprenticeship Agreement must state that the apprentice will be undertaking an Apprenticeship in a particular skill, trade or occupation. The Apprenticeship Agreement can be in the form of a written statement of particulars under the Employment Rights Act (1996); or a document in writing in the form of a contract of employment or a letter of engagement where the employer's duty under the 1996 Act is treated as met [ASCL Act (2009)]. On completion of the Apprenticeship the apprentice must be able to undertake the full range of duties, in the range of circumstances appropriate to the job, confidently and competently to the standard set by the industry.
Introduction to the Agricultural Sector in England

The Agriculture, Horticulture and Animal Care sector in England employs over 858,000 people and with many workers needed in the next ten years there are plenty of opportunities in the sector. Currently, there are 7,000 apprentices enrolled in agricultural apprenticeship scheme, 1000 less than the previous year. However, considering the participation for the last 5 years (2009-2014) figures have been varying from 7,000 to 8,000, demonstrating stability in terms of demand. It offers a wide range of jobs depending on levels of skills and qualifications, from hands-on to supervisory roles. There is also great need for skilled managerial, high tech and specialist people who seek exciting, dynamic and highly responsible roles that are well rewarded financially (Apprenticeships 2014; Agriculture England, 2014; Gottwald, 2012).

The agricultural apprenticeship provides a wide range of possibilities related to livestock management, poultry, dairy production, crop production, vineyard and winery and landscaping. The size of farms varies from small family owned to commercialized farms involved in several sub-categories of agriculture (Davies, 2014; Apprenticeship, 2014; Agriculture England, 2014; Edet and Etim, 2013). The enrolment of an apprentice will rely on the size and management style of the farm. Participating in small farms might require an involvement in several responsibilities starting from hands on to the low and fast decision making activities (Edet and Etim, 2013; Oultram, 2013; Webster et al.2013). Being part of commercialised farms gives the opportunity to start from the bottom level and gain understandings of the process and steps followed, which later on can set the apprentice in a specific role. Participation in agricultural farms or companies allows learners to future develop themselves and consider where would prefer to focus without spending money on education and at the same time gaining financial benefits. This approach automatically readjusts and enhances the socio-economical patterns of the country (Furbish, 2012; Hauschildt et al.2013).

Dawson (2012) and Akoojee et al. (2013) argue that considering an individual’s background and capabilities might be relatively better for him/her to go through a real experience prior to deciding what subject to study in university. This will clarify his/her thoughts and contribute to a higher commitment. Additionally, after already gaining some experience and building business connections it will be easier to progress and succeed in the long-run (Hauschildt et al.2013). The agricultural apprenticeships are delivered in three levels consisting of the following job roles:

1 Intermediate Level Apprenticeship
   Farm worker, Tractor driver, Stock person, Pig technician, Hatchery staff.

2 Advanced Level Apprenticeship
   Section head (pigs, dairy or beef), Agriculture machinery operator, Assistant farm manager, Livestock technician, Hatchery supervisor/charge hand (poultry), Shepherd.

3 Higher Level Apprenticeship
   Unit Manager, Farm Manager, Assistant Farm Manager.
   (Agriculture England, 2014)
This framework demonstrates the diversity of activities an apprentice can be involved with. At a given period of time, usually 1-4 years, the participant is capable of understanding, processing and achieving the required results by following a “hands on” approach (Akoojee et al. 2013; Gabriel et al. 2013).

![Figure 1: Apprenticeship starts by sector areas in England](source)

Source: Davies, 2014

Although, agriculture has a high presence in everyday life is not one of the most common sectors where apprentices focus. Considering the development of business and technology these sectors seem to be capturing the immediate attention of the new urban generation. This is also argued due to the annual earnings that a person in agriculture and business or IT receives. However, future development in technology and business assures an enlargement of agriculture in terms of production and services and as a result of annual income (Gottwald, 2012; Edet and Etim, 2013; Oultram, 2013). Additionally, issues in agriculture will require and foster the participation of a larger number of individuals in the following years argues Davies (2014). 75% of the starters in England in the academic year of 2012/13 are enrolled in business administration, health and the retail sector. However, agricultural apprenticeship scheme is expected to extend as a consequence of people awareness on the quality of the products and services. Organic farming is seen as a pathway that has already been promoted as a higher level of quality and consumers are continuously seeking to obtain such products even at a higher price (Davies, 2014; Sutherland and Darnhofer, 2012; Leifeld, 2012). This tendency is expected to indicate the choice of several new apprenticeships who will be focusing on such an agricultural approach where the margin of income is expected to be higher. Furthermore, governmental incentives and international agreement will influence the young generation to consider the participation into the agricultural sector.
Categorising Agricultural Apprenticeship Schemes

The National Apprenticeship Service in England is part of The Government Skills Funding Agency, UK and they have categorized a number of types of apprenticeships within the Agriculture, Horticulture and Animal Care sector. These types of apprenticeships are covered within four distinct areas of management and 15 sub-categories (see table 1).

Table 1: Categories of Agricultural Apprenticeship Schemes

<table>
<thead>
<tr>
<th>General Farm Management</th>
<th>Animal Husbandry</th>
<th>Ecology Management</th>
<th>Plant Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>Animal Care</td>
<td>Environmental</td>
<td>Floristry</td>
</tr>
<tr>
<td>Fish Husbandry and Fisheries Management</td>
<td>Animal Technology</td>
<td>Conservation</td>
<td>Trees and Timber</td>
</tr>
<tr>
<td>Game and Wildlife Management</td>
<td>Equine</td>
<td>Fencing</td>
<td>Horticulture</td>
</tr>
<tr>
<td></td>
<td>Farriery</td>
<td>Land-based</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Veterinary</td>
<td>Engineering</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nursing</td>
<td>Environment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Veterinary</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nursing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Assistant</td>
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</tbody>
</table>

The expanse of those categories across agricultural, horticultural and animal care apprenticeship schemes shows that there is a whole range of career opportunities available from husbandry, caring for animals and wildlife to managing the home turf of a sports ground or looking after the planet in environmental conservation.

The following section of this paper will examine the structure of a UK driven sector skills council, approved and managed agricultural apprenticeship, and therefore discuss the elements that make up one of the above list of Apprenticeship Programs. This research recognizing that the apprenticeship structure created by the sector skills councils predominantly has the same framework across programs, which includes the following contents explained in table which shows the contents of an apprentice framework and provides a description of each area of the framework.

Table 2: The Contents of an Apprentice Framework

<table>
<thead>
<tr>
<th>Section</th>
<th>Description of Each Section</th>
<th>Purpose of Each Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Framework summary</td>
<td>Overview of framework</td>
<td>Provide understanding of the pathways and levels of qualifications available within the framework</td>
</tr>
<tr>
<td>Framework information</td>
<td>Information on the issuing authority of this framework</td>
<td>Provide identification and document control. Provide a short descriptor of the apprenticeship frameworks offered within.</td>
</tr>
<tr>
<td>Contact information</td>
<td>Information on the developer and the authority issuing the framework</td>
<td>Provide contact details for interested parties requiring further information or clarification on any aspect of the framework. To identify participating partners in the developing of the framework.</td>
</tr>
<tr>
<td>Revising a framework</td>
<td>Revision control information</td>
<td>To identify what recent revisions, removals and additions to the framework have been made and indicate why changes have been</td>
</tr>
</tbody>
</table>
### The Implementation of the Current UK Apprenticeship Model

The implementation of apprenticeship model in the UK has been explained by Lawrence (2014) at a recent event in China and accordingly table 3 aims to identify the different perspectives from the trainer, the employer and the apprentice. Table 3 summarises the expectations and requirements on those stakeholder parties within the apprenticeship framework and what is expected of them during the delivery and completion of the apprenticeship scheme.

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<table>
<thead>
<tr>
<th>Purpose of the Framework</th>
<th>Summary of the purpose of the framework</th>
<th>To give a summary of the framework and contextualise the apprenticeship. Provide aims and objectives of the framework.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry conditions</td>
<td>Identify entry conditions for the framework.</td>
<td>To state the entry requirements for each level of apprenticeship offered and the duration of each. Indicate the possible recognition of prior learning for the apprentice on entry. Provide guidance on initial assessment of candidates. Indicate qualifications offered within the framework and show pathways.</td>
</tr>
<tr>
<td>Level 2: Agriculture</td>
<td>Identify pathways at level 2 and level 3. Identify transferable skills. Show progression routes into and from the pathway. Employee rights and responsibilities.</td>
<td>To provide a detailed description of the knowledge and skill requirements to complete the apprenticeship. Identify the choices for combined competence and knowledge qualifications required. Identify the necessary transferable (Functional Skill Levels) English Language, Mathematical and ICT skill the apprentice must attain. Clearly show progression routes to and from the pathways. To outline learning outcomes and standards required of the apprentice to demonstrate understanding of employee rights and responsibilities.</td>
</tr>
<tr>
<td>Level 3: Agriculture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equality and diversity</td>
<td>How equality and diversity will be met.</td>
<td>To indicate why and how the apprenticeship framework is important for encouraging and facilitating a greater diversity of individuals into the industry.</td>
</tr>
<tr>
<td>On and off the job guided learning</td>
<td>Identifies on the job and off the job guided learning hours requirements.</td>
<td>For each pathway describes the guided learning hours required and specifically states how this requirement will be met. To indicate the evidence mechanisms expected to be in place for verifying guided learning hours have been met.</td>
</tr>
<tr>
<td>Personal learning and thinking skills</td>
<td>Summary of the personal learning and thinking skills and recognition.</td>
<td>To set out the requirements for completion of the personal learning and thinking skills (PTLS) outcomes and to detail how each one is evidenced: [Creative thinking; independent enquiry; reflective learning; team working; self-management; and effective participation].</td>
</tr>
<tr>
<td>Additional employer requirements</td>
<td>Identifies additional employer requirements.</td>
<td>Identifies, relevant but not necessarily mandatory, employer requirements for the apprenticeship. These are usually accredited, legislative or nationally recognised occupational tests relevant to the industry.</td>
</tr>
</tbody>
</table>

*Adapted from Analysis of the Apprenticeship Framework: Agriculture (England), 2014*
Table 3: Perspectives of Stakeholders [Adapted from Lawrence (2014)]

<table>
<thead>
<tr>
<th>The Apprenticeship Stakeholder</th>
<th>The Stakeholder Perspective and Offers</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Training provider or college</td>
<td>Independent Advice and Guidance to potential apprentices</td>
</tr>
<tr>
<td></td>
<td>Initial assessment of apprentice to test academic abilities</td>
</tr>
<tr>
<td></td>
<td>Support to the apprentice for finding suitable employment</td>
</tr>
<tr>
<td></td>
<td>Checks on the potential employer (Health &amp; Safety, contract of employment)</td>
</tr>
<tr>
<td></td>
<td>In addition to the training and assessment of the apprentice</td>
</tr>
<tr>
<td>The Employer</td>
<td>A job with training - 30 hours per week and minimum pay of £2.68 per hour</td>
</tr>
<tr>
<td></td>
<td>Workplace mentoring and support</td>
</tr>
<tr>
<td></td>
<td>In some instances the employer provides some of the formal training and assessment</td>
</tr>
<tr>
<td></td>
<td>It is expected that the employer offers a job which at least lasts for the duration of the apprenticeship (minimum 12 months) and ideally a permanent position</td>
</tr>
<tr>
<td>The Apprentice</td>
<td>Works in a job role that is relevant to their studies and gets paid</td>
</tr>
<tr>
<td></td>
<td>Agrees to undertake all of the components of an apprenticeship:</td>
</tr>
<tr>
<td></td>
<td>• Technical certificate</td>
</tr>
<tr>
<td></td>
<td>• Competence elements</td>
</tr>
<tr>
<td></td>
<td>• Functional Skills (Mathematics / English / ICT)</td>
</tr>
<tr>
<td></td>
<td>• Employee Rights and Responsibilities certificate</td>
</tr>
</tbody>
</table>

The Role of the UK Government in the Implementation of an Apprenticeship

Apprenticeships are significant to UK Government and treated as a priority, also sponsored to a greater or lesser extent subject to the apprentice’s age and the type of program of study. Additionally, the UK government distributes funds to the registered and approved colleges or training providers (Oultram, 2013; Whitehead, 2013). Through continuous auditing government contracts are examined and quality assured. In cases were training providers fail meet or maintain the required standards funding is immediately withdrawn. Alternatively, large employers have their own training contracts, therefore may or may not select a college or training provider to deliver the apprenticeships (Richard, 2012).

Apprenticeships have been going under a revitalisation process and government is highly utilising it as technique to decrease unemployment and equip a new generation with skills needed for sustainable personal development (McIntosh, 2007; Anderson et al. 2012; Heyes, 2013). The new approach of apprenticeships has a specific characteristic as it can be offered in and out of the workplace. Almost 85% of the apprentices have signed an employment contract with the sponsoring firm and combine learning and working at the same time. Nowadays, apprentices are required to achieve a set of academic criteria in order to be awarded the certificate which is known as National Vocational Qualification (NVQ) at level two or three for an apprenticeship.
Conclusions

The agricultural sector in the UK provides a huge contribution to the health of the nation, the economy and employment throughout the country. With 7,000 apprentices entering into the agricultural sector each year the skills required are being provided through sector led structured apprenticeship frameworks, government financial funding, regulation and control. In the UK, employer involvement is seen as essential in creating and delivering the apprenticeship model. Employer involvement through the sector skills councils and employer led development ensures that apprenticeships are relevant and current for each sector. Within the Agriculture, Horticulture and Animal Care sector there are many types of apprenticeships which are to be found within 15 sub-categories. The four categories of apprentice skill development are common across all of the apprenticeship frameworks, which are: Technical certification, Competence elements, Functional Skills (Mathematics / English / ICT) and Employee Rights and Responsibilities certificate, which ensures that employees completing their apprenticeship have attained sector competencies and transferable skills thus increasing their opportunities for career development and improving their employability.

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