# AN INVESTIGATION INTO THE LOW FEMALE PARTICIPATION IN APPRENTICESHIPS IN IRELAND:

# A QUALITATIVE STUDY

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**Abstract**

This paper discovers and examines why females have such a low uptake into an apprenticeship in Ireland. The current female numbers showed that a more in-depth analysis was needed to encourage growth in Ireland. This research analysed the obstacles that deter women from the apprenticeship programme. It examined the behaviours and perceptions surrounding females in apprenticeship in Ireland. It leads to a better understanding of the reasons that deter females and may assist with other areas for further research.

By initially focusing on the perceptions of apprenticeship concerning four main areas that exposed themselves from the literature review, awareness, apprenticeship participants, education, and moving forward, the researcher conducted highly informative in-depth interviews with a sample of current female students and female students' parents.
Besides the lack of awareness, another issue recognised during the interview process was the difference between educational subjects for boys and girls based on their gender.

The primary conclusion drawn from this research revealed that many people in Ireland have zero or minimal understanding of apprenticeship, which results in them holding onto old fashioned, misinformed, preconceptions about apprenticeship and its participants. To address this, the author recommends the Apprentice of the year - Change the stereotype. These actions could assist in changing the deep stereotypes in Ireland and internationally. Building on the research that showed that children are unaware of such inequalities or stereotypes, these ambassadors could resonate with primary children and their parents.

Many other benefits could arise from the creation of such awards, and these would need to be explored further; the above are just initial ideas to combat the issues discovered. Having successful real-life examples will build on the value of "see it, be it", especially in female apprentices.

**Declaration**

**Submission of Thesis and Dissertation**

**National College of Ireland**
**Research Students Declaration Form**
*(Thesis/Author Declaration Form)*

**Name: Avril Tunney**

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**Degree for which thesis is submitted: Master's in marketing**

**Title of Thesis: An investigation into the low female participation in apprenticeships in Ireland: a qualitative study**

**Date: 15/08/21**

**Material submitted for award**

A. I declare that this work submitted has been composed by myself.

B. I declare that all verbatim extracts contained in the thesis have been distinguished by quotation marks and the sources of information specifically acknowledged.

C. I agree to my thesis being deposited in the NCI Library online open access repository NORMA.

D. ***Either*** *I declare that no material contained in the thesis has been used in any other submission for an academic award.

## *Avril Tunney*

August 15, 2021

## Acknowledgements

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**List of Abbreviations**

Central Statistics Office (CSO)

Customer Experience (CX)

Education and Training Boards (ETB's)

Federal Statistics Office (FSO)

Further Education Training (FET)

National Framework of Qualifications (NFQ)

Personal protective equipment (PPE)

Quality and Qualifications Ireland (QQI)

The General Data Protection Regulation (GDPR)

The International Centre for Career Development and Public Policy (ICCDPP)

The Organisation for Economic Co-operation and Development (OECD)

Vocational Educational Committees (VEC's)

# Chapter 1 - Introduction

## 1.1 Background to the study

SOLAS is the State agency that coordinate the apprenticeship programme in Ireland. The apprenticeship programme accelerates individuals to develop work-based skills in Ireland (SOLAS, 2021).

An apprenticeship system can be described as a structured education and training programme that combines learning in the workplace with training in an education or training centre. It is a blended combination of on-the-job employer-based training and off-the-job training (SOLAS, 2021). The duration of an apprenticeship ranges between two to four years. Apprenticeships lead to an award from level 5 to 10 on the National Framework of Qualifications (NFQ), (Appendix 1) (Quality and Qualifications Ireland, 2021).

The apprenticeship system in Ireland is underpinned by The Industrial Training Act 1967 (Government of Ireland, 1967). It is a structured programme of education that alternates between workplace learning and education/training centre. A minimum of 50% of the time is on-the-job training (SOLAS, 2021). Employers and apprentices must adhere to the Code of Practice (SOLAS,2018). They are paid throughout their apprenticeship.

Presently there are over sixty apprenticeship occupations on offer. They are categorised as the "craft" that has been in place since pre-2016 or "new" apprenticeships that were launched post-2016, with twenty-five being pre-2016 (craft) and the remainder 2016+ (new apprenticeship). There are also many more in development and for release in due course (SOLAS, 2021).

Craft apprenticeships involve occupations that have craft-related skills under construction, engineering, electrical and motor.  SOLAS runs the administration regionally with the Education and Training Boards (ETB's).

The ETB's were previously the old FÁS training centres and the Vocational Educational Committees (VEC's). They also are the location of the Phase 2 training for all craft apprenticeships (SOLAS, 2021).

The national promotional campaign, Generation Apprenticeship, has been led by the Apprenticeship Council with coordination support from SOLAS. The campaign spans the complete national apprenticeship offering. At the time of the Action Plan 2016-2020 launch, there were only a limited number of new apprenticeships; the offering is now more substantial and spans a broader range of industry sectors (Department of Education and Skills, 2017).

The new apprenticeships are industry-led by consortiums, including arboriculture, biopharma, finance, ICT, logistics, and sales. The Apprenticeship Council was founded in 2014 to achieve Government changes, which prioritised the expansion into newer sectors of the economy. Since the Action Plan 2016-2020, there have been 37 occupations added to the listing (Department of Education and Skills, 2017) (SOLAS, 2021).

The Generation Apprenticeship campaign was a vital expansion project that doubled the number of apprentices of all ages and backgrounds. The apprenticeship program consists of craft apprenticeships and the 2016+ apprenticeships. The newer Work-Based Learning apprenticeships evolve learning into a broad range of new skill sets needed for future skills gaps in the Irish economy (SOLAS, 2021).

In 2015 the apprentice population in Ireland was 8317; the female participants accounted for 26 of these. The introduction of new apprenticeships brought an increase to the female population. By December 2020, the 1000th female was registered to apprenticeship compared to the male population of 18,613(SOLAS, 2021). Most of the 1000 females participating chose traditionally gender-neutral or female lead areas like accounting technicians or hairdressing. These anomalies would indicate a need to investigate why certain occupations continue to be male dominated.

## 1.2 Gaps in the Literature

This literature review focused on the deterrents of work-based learning as a training mechanism among women. It examined the early education, pathways and career guidance on offer. It investigated people's apprenticeship perception and how stereotypes can influence societies views on females in apprenticeship (SOLAS and McSkeane, 2018).

Based on the examination of existing research, coupled with the literature review relevant to the subject, a gap presents itself, and the importance of further investigation is revealed.

The review revealed that females are underrepresented in apprenticeships globally and that other countries have invested in research, while some have not delved deep enough into the reasons. The current Irish female numbers would show that a more in-depth analysis is needed to increase female numbers.

The review demonstrated an awareness of low female numbers and the barriers in the pathway. However, there are limitations in the literature concerning the reasons behind these low numbers. There is a lack of comprehension of the reasons deterring females. There are also too many preconceptions or assumptions about the obstacles, without further research with the relevant females.

All the literature demonstrated that past consultation with stakeholders is not enough; research with the actual female students and their parents is critical to filling the gaps of the previous research. This paper aims to create a better picture of the facts concerning Ireland further.

## 1.3 Research Justification and Rationale

**Apprenticeship Population 2016 - 2020**

| Year | Females | Males |
|------|---------|-------|
| 2016 | 60 | 10385 |
| 2017 | 151 | 12698 |
| 2018 | 341 | 15032 |
| 2019 | 665 | 17164 |
| 2020 | 1017 | 18613 |

Figure 3.2.1 (SOLAS, 2020)

**Apprenticeship Population May 2021**

- Female: 5.58
- Male: 94.42
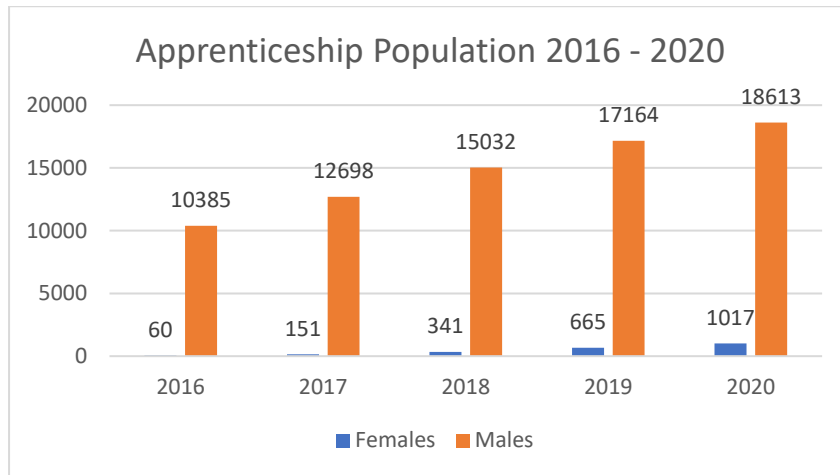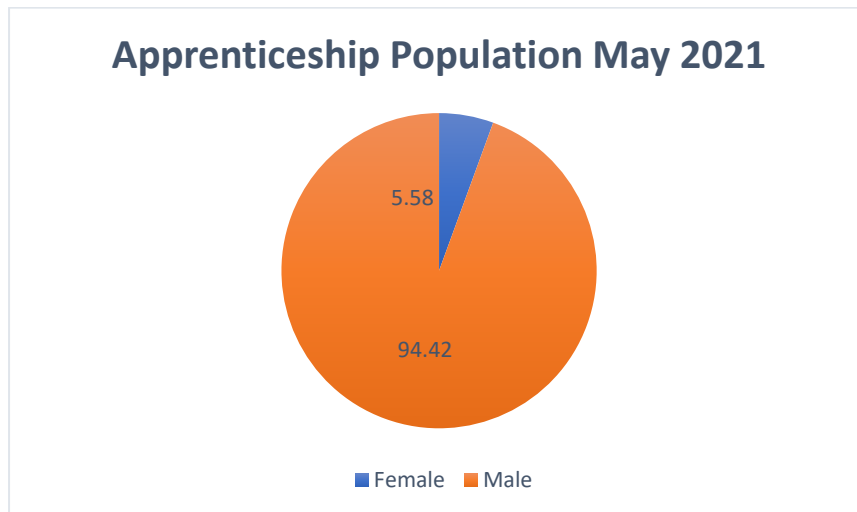
Figure 3.2.2 (SOLAS, 2021)

By the end of May 2021, there were 20,537 apprentices in total, of which only 1,147 were female. Therefore, only just over 5% are female. Of these, over 4%, 959 are in the new 2016+ occupations, traditionally female-dominated areas. There is a need to discover why and what deters women from this education pathway to improve the numbers.

Last year the Irish Government consulted for the new Action Plan 2021 – 2025 (Department of Further and Higher Education, Research, Innovation and Science). A written submission process was launched in July 2020. They asked for feedback from all stakeholders on all aspects of the apprenticeship system.

The findings from the Action Plan are from a vast wealth of all the stakeholder's knowledge, experiences, and perceptions (Department of Further and Higher Education, Research, Innovation and Science,2021). One would find a minor gap with the process, as there is no input from school goers or parents. This age group and cohort are the main potential customers of the apprenticeship program. This can also be found in the Literature Review, which the articles discuss and lead to, but tend not to conduct deep analysis.

A review of research literature finds that reasoning into what deters females has been under-researched to date. Therefore, the present study will focus on actual female students and their parents' primary data collection process as the research sample. This is further explained in more detail in Chapter 3.

**1.4 Aim of the Study**

This research aims to discover why there is low female participation in apprenticeship in Ireland. Previous research demonstrates that female participation is low but does not ascertain the reasoning behind it.

• Explore what barriers/deterrents prevent females from entering specific sectors

• To determine the sectors that do not appeal to females.

• Investigate the reasons behind their choices.

• Examine workplace cultures to see why young women are discouraged from engagement.

• Research which areas need to be improved to market apprenticeships better to females and what incentives are on offer.

• Consider why female participation is higher for new apprenticeships over the craft based.

## 1.5 Research Questions

The main research question to focus the research in this study will be –

**What deters females from taking up an apprenticeship in Ireland?**

This will lead to sub-questions that will include questions from the Australian study replicated in parts with this study in Ireland (Simon and Clarke, 2016).

**Sub Questions:**

• Is there a particular stigma/perception/stereotype regarding females in an apprenticeship?

• Where/what/why specific occupations/sectors have females, and which do not?

• What/when are school goers being made aware of apprenticeship?

• How is the marketing of apprenticeship being perceived by the potential participant and their peer/influence groups?

• What changes in education/sector/training/ would result in a higher level of sustainable female participation (Simon and Clarke, 2016)?

To find answers to these research questions, the following primary research methods are used.

## 1.6 Research Methods

Saunders et al. (2016) describe research as the methodical actions of finding information to expand knowledge on a given subject.

To this extent, the methods adopted in this study were chosen to incorporate the numerous methodological components that motivate the research methods given in the research onion (Saunders, Lewis, and Thornhill, 2016).

Positivism - This branch of epistemology focuses on creating actual data from physical beings through scientific methods. It aligns more with objectivism, claiming that physical reality does not receive influence from social actors (Bryman, 2011).

In opposition, interpretivism understands that personal data offers actual meaning; hence this approach is most suited to this study's research objectives (Saunders et al., 2015).

This research's main objective is to gain people's personal opinions and perspectives; the research philosophy recognised is interpretivism. By highlighting research with people instead of objects, the research will understand this area by comparing humans' perceptions and thoughts of their roles as social actors (Saunders et al., 2015).

Quantitative methods promote truthful measurements and opinions of the participants, aiming to generalise the research findings. Quantitative methods are used when explaining what is occurring in a specific context.

Nevertheless, qualitative methods can be further beneficial if the study explores the "why" something is occurring. Recent studies and the Action Plan discuss the low female participation. However, there is no explanation or study into why (SOLAS, 2018) (Department of Further and Higher Education, Research, Innovation and Science, 2021). Hence, this means the inherent effectiveness of using qualitative methods to investigate specific target groups in this study.

There are vast amounts of statistical data on apprenticeships in the domain that show the low female figures. Surveys were conducted late last year with all stakeholders and current apprentices. The statistical method of quantitative research is therefore unsuitable to the deep investigation of the research subject proposed. Therefore, qualitative research is suitably appropriate for the stated research objectives.

A deductive method collects statistical data from significant samples to draw general scientific outcomes to verify or refute a hypothesis. This matches the way to a more quantitative-based study collection.

Inductive, most generally associated with qualitative research. It supports outcomes to be taken from primary data to be analysed. This process is best suited to examining a unique phenomenon or under-studied research topics to create new pieces of knowledge without using a detailed pre-existing theoretical framework to test (Bryman, 2011). The study explores school goers and their parent's perceptions; instead of drawing or testing a hypothesis, an inductive approach is most appropriate.

The sixth layer of the research onion is called choices. This layer is about how many data types in qualitative or quantitative will be used in the research. There are three choices – mono, mixed, and multi-method.

This study chooses to use a mono-method; there will be one data type – either qualitative or quantitative. To explore why low female numbers, one needs to discuss this with the school goers and their parents individually.

The semi-structured interviews were conducted online due to the restrictions of the pandemic. The same set of semi-structured questions were asked, with added time if the flow changes to increase the input of thoughts and general comments at the end. The interviews were designed with open-ended questions and rambling, permitting the researcher to swerve from the script to enable conversations of unanticipated trends to flow in a comfortable style.

**The sample participants were a selection from:**

- current female leaving certificate students

- current female leaving certificate students' parents

- current female junior certificate students

- current female junior certificate students' parents

The combined factors of the previously discussed gaps led to the sample selection of actual students, comprising leaving certificate students, junior certificate students, and their parents. The participants were recruited through convenience sampling. This general cohort of nonprobability sampling was sampled because they were convenient data sources (Cameron and Price, 2009). They were relative to the research and vital in investigating a deep insight into the female student.

## 1.7 Dissertation Structure and Overview

### Chapter 1 - Introduction

The dissertation starts with a short introduction to the research topic. It briefly discusses the gaps identified in the literature, the justification, and the rationale for the study. The aim, purpose, questions, and structure of the dissertation are presented in this chapter.

### Chapter 2 - Literature Review

This chapter contains in-depth evidence on relevant academic and stakeholder literature. As the study explores the deterrents to females entering an apprenticeship, the relevant literature will be addressed and entailed throughout the literature review.

### Chapter 3 - Research Methodology

The methodology chapter presents a comprehensive insight into the research objectives for this project and the chosen methods for collecting primary research data. Details of the sample, its selection process, and an in-depth review of how the primary research was conducted are provided.

### Chapter 4 - Findings

Chapter 4 presents the preliminary research results through analysis, identifying reoccurring trends and new insights applicable to the objectives outlined in the Research Methodology chapter.

**Chapter 5 - Discussion**

The discussion chapter comprises analytical observation on the study by the author. This involves integrating findings from the primary research with Chapters 2 & 3, allowing for developing a more robust theoretical understanding of the research.

**Chapter 6 - Conclusion and Recommendations**

Finally, this chapter reflects on conclusions from the primary research and assesses whether the research aims, and objectives were fulfilled. Managerial recommendations and recommendations for further research are also presented.

**Chapter 2 - Literature Review**

**2.1 Introduction**

This literature review will focus on the deterrents of work-based learning as a training mechanism among women. It will explore some sectors' attitudes that deter females from entering them (Wright, 2019). It examines the pathways and career guidance on offer. It will look to see if early education to early school goers could assist. It explores the cultural gender perceptions regarding apprenticeship. It investigates if the literature explores people's apprenticeship perception and how stereotypes can influence societies views on females in apprenticeship (SOLAS and McSkeane, 2018).

**2.2 Definitions**

When looking up a definition of an apprenticeship, most dictionaries use the male in their example from the outset. This is not very politically correct or a gender-neutral portrayal of the noun. As discussed in Australian based research, historically, an apprentice is a young male who worked on the job, learning their occupation (Simon and Clarke, 2016). They argue that this first step for a female could be a deterrent. They also noted that this work-based learning model had been expanded to appeal to more of the population with a more extensive range of occupations on offer (Matsuo and Tsukube, 2020; Simon and Clarke, 2016).

The perception of an apprenticeship being for men affects society and results in females being discouraged by teachers and guidance counsellors in starting an apprenticeship. AONTAS notes that a female apprentice discusses how she was put off pursuing a craft apprenticeship during one of their forums and was encouraged to investigate the more traditionally female-dominated industries on offer (AONTAS, 2020). Others noted that the promotional campaigns show women in craft roles, but they were the only females in the class or training centre for craft when attending class.

Regurgitating the stereotypical male outlook for some apprenticeships is detrimental for the sectors involved. Research has shown that including more women leads to more flexible, imaginative, and innovative sectors (SOLAS, 2018, p.9).

The biggest "apprentice" stereotype usually works in a trade or craft in the construction, engineering, or manufacturing sectors. This reflects the actual population of apprentices in most countries. Like in Ireland, where electrical is also one of the largest cohorts making up to two thirds of the registrations in 2020. In 2018 the United States had nearly 50% of their apprentices in construction and 25% in the occupations surrounding the military (DOL, 2018). In the past decade, most countries have been trying to move their apprenticeships towards service occupations, which is currently and, in the future, a significant part of the labour market. They are using apprenticeship to fulfil the needs of growing sectors.

## 2.3 International

In recent data sources for lifelong learning, they analysed the CSO's Labour Force Survey for Ireland (CSO, 2019). They compared this to the European data Eurostat (the EU statistical agency). These findings demonstrate the differences in learning participation broken down by gender in Ireland compared to Europe and what areas require more significant numbers to meet the economic needs (Condon and Burke, 2020). Another article compares the Vocational Educational & Training (VET) variances between 15 European countries (Markowitsch and Hefler, 2018). It also highlights the requirements of the sectors that will need to be populated in Ireland soon. It highlights the areas where females do not participate but without explaining the why.

An analytical study investigates the main factors that impact the employability of young people around work-based learning across Europe (Broek *et al.*, 2017). It examines the barriers, challenges, quality, outcomes, potential mismanagement, and concerns participants encounter. While it touches on the lack of female participants, it has gaps regarding focused research.

The Organisation for Economic Co-operation and Development (OECD) is an intergovernmental economic organisation including 38 member countries, established in 1961 to incite economic advancement and world trade. They believe that a broader comprehensive approach to career guidance in schools is needed, as developed in Canada (OECD, 2004; Watts, 2009). They have an approach of mandatory career development mixed into health education in years 1 – 9, with a mandatory specific course for year 10. This includes hands-on experience out of school. It amalgamates efforts from all stakeholders, specific training for teachers/career guidance and includes a parent coaching programme (ICCDPP, 2015).

The literature shows the importance and influence teachers have on young girls. They trust them and, depending on the subject, looks for guidance concerning a career. If all teachers participated in the coaching programme, they might support better (ICCDPP, 2015). They can also assist by relating work to specific examples from different sectors, depending on the subject matter. Explaining and highlighting how the curriculum is physically used in work can open their minds to reality and better grasp an occupation (Musset and Mytna Kurekova, 2018).

## 2.4 Economic future

International research discusses that the developed world has an ageing population, so there is a need to recruit a younger cohort into an apprenticeship. It could be argued that this could be assisted by encouraging more females. To better appeal to younger people/females in the United Kingdom, they researched how they can improve their programmes and why young people were not finishing their apprenticeships (Daniel *et al.*, 2020). They discuss the issues regarding apprenticeship's perception of being comfortable and a non-educational option for less educated. In contrast, the results show that the dropout rate is high due to the programme's difficulty. Results show that they are not informed enough, and with a lack of guidance, some had chosen the wrong trade to match their enthusiasm.

The literature exudes the need for greater participation in an apprenticeship in all sectors to meet future economic conditions. They are aware that addressing the divide will balance the gender inequality experienced by many sectors, especially the construction sector (Simon and Clarke, 2016). Participants in the research discuss their influence groups and how they perceived apprenticeship to their decision. The findings show the necessity to address the issue in society, to create a culture of equality throughout all occupations (Simon and Clarke, 2016).

## 2.5 Pay and Childcare

The lack of guidance regarding pay is also an issue Internationally. In Ireland, apprentices do not come under the minimum wage act, employers can pay them whatever they wish. They receive a training allowance from the Government when they are on the off-the-job training (Lodovici *et al.*, 2013). Whereas in the United Kingdom, there is a set minimum wage. Young people disregard apprenticeships because of the low pay. They cannot see the long-term earning capabilities if they cannot support themselves during the training period (Daniel *et al.*, 2020).

The Pathways to Apprenticeship and Training report showed that in 2018 the make-up of the available apprenticeships was 85% men under 25 years, and only 2% were women (SOLAS and McSkeane,2018). The Irish Joint Committee examined the issues surrounding the take up of apprenticeships and released their report in September 2019 (Joint Committee on Education and Skills, 2019). They found two main factors hindering female participation. Firstly, occupational division located in the traditionally male-dominated areas. The other being the lack of quality and affordable childcare. Again, this is related to the unclear message surrounding apprentices pay and a possible gender pay gap (Lodovici *et al.*, 2013).

Childcare is also discussed in the National Further Education and Training Learner Forum and the SOLAS FET strategy 2020-2024 (SOLAS, 2020). It is a significant consideration for women who want to participate in an apprenticeship. All programmes are full time and carry on through the summer period. This deterrent was also examined by the Learning and Work Institute (Richmond et al., 2018). They found that woman and lone parents would benefit from a more flexible approach that would allow them to source less childcare. They raised the case that the lack of knowledge or insufficient notice of start date to attend their off-the-job training made it difficult to commit to a programme.

They need to plan their time and know well in advance of changes in their training scheduled to organise their family schedule (Young Women's Trust, 2017). This is especially highlighted for the craft apprenticeship, as they are relocated for their off-the-job training. The young women's trust also discusses the detrimental barrier to young women's children, as most of the free child places for 3-4-year-olds are full (Young Women's Trust, 2017, p7). This is a significant obstacle for women as they cannot leave their responsibilities for long periods. By changing this, it would assist in creating a more diverse and equal apprentice.

The SOLAS Further Education and Training strategy 2020-2024 (SOLAS, 2020) also investigates female participation in the labour market. In 2019 it was just over 56%, while males were nearly 70% (SOLAS, 2020). There were 281,000 females recorded as conducting "home duties". While many of these do not care to enter or re-enter the labour market, research shows that at least 17,000 of these females are or would like to return to work or education (SOLAS, 2020). Even with the increase in female's participation in recent years, they are just 3% of the total population and are needed for specific skills development.

As the perception is that many programmes are not a valid option for women, the marketing can be more targeted towards males. This would maintain the perception that females might not make viable apprentices, thus putting them off. The evidence from recent years shows that expanding the amounts of apprenticeships on offer has seen the female population rise. When examining the statistics, the increase is in the 2016+ more female-dominated sectors, thus not impacting perceptions (SOLAS, 2020). The fact is these apprenticeships have more female participants, like hairdressing, for example, which, when compared to the male-dominated sectors, are paid less and again creating a disadvantage (The Young Women's Trust 2017, p.5).

**2.6 Experiences**

The Customer Experience (CX) incorporate all the experiences, including awareness, career guidance, interaction, website, recruitment, communications, individual businesses, and so forth. Every touchpoint can positively impact the customer to assist in the promotion of apprenticeship. It is discussed that the touchpoints can make the potential learner/employer decide to continue to the point of registration (Buttle and Maklan, 2019). This agrees with literature that discusses that some females in the construction sector may have had negative experiences (Young Women's Trust, 2017). They argue that this could negatively impact the marketing of apprenticeship and women's perceptions in specific workplaces. Maybe this discourages potential female learners from their desired pathway (Simon and Clarke, 2016).

As part of their input to the consultation process for the new action plan, AONTAS highlights the issue of females' health and safety as a barrier (AONTAS, 2020). They note a United Kingdom report stating that some employers do not provide suitable personal protective equipment (PPE) to fit all females body types. They advised that they could not complete their jobs efficiently due to this hindrance. They also noted how their PPE size needed altering during pregnancy or menopause, and this could cause negativity from the employer. If the sector wants or needs more women, they need to address women's needs to manage health and safety before they even begin to work in the company. They should incorporate policies and adjust them accordingly as more females are employed (Union Learn 2018).

Every employer must ensure safe working environments for all. As sexual harassment is more renowned in male-dominated workplaces, it is more likely for female apprentices to experience it in these traditionally male professions. With reports of a high level of sexual harassment in these workplaces, it would be challenging for a woman to put herself into such a hostile situation (Union Learn, 2018, p.15). If employers want to encourage more women to enrol, they must offer a supportive and safe workplace.

They must show to actively implement measures such as a zero-tolerance against sexual harassment for all. Ensure they have quality approved policies and procedures detailing the process of making a complaint anonymously. Conduct open conversations and training to create a safe, anti-harassment working environment (Union Learn, 2018, p.16).

The employer should ensure that the training component of the female's apprenticeship adheres to these standards. All training, on and off the job, must include specific details for all genders. When the apprentice is with the educational provider, they should be treated with the same quality of anti-harassment. For most, they will be with a new cohort of mainly male apprentices. The instructor/lecturer must enforce the same zero tolerance to ensure that everyone is treated equally and fairly. There must be a clear and precise manner to report incidences in the training location (SOLAS 2018). SOLAS must provide assistance if needed to assist the female in changing roles and training locations if necessary (AONTAS, 2020).

## 2.7 Information Technology

Most pieces of literature findings call for an improvement of the programme and the experiences the learner encounters. The learner and employer are the customers to the coordinating providers. The Customer Experience (CX) describes each interaction the customers have during their apprenticeship programme. Coordinating providers, instructors, employers, and marketers need to review all touchpoints to complement each other to improve the learning experience. Within this context, the studies show that all stakeholders need to work better to promote each other (Simon and Clarke, 2016). This includes updating digital and non-digital in all areas to improve the communications within the delivery.

In an ever-changing digital world, the apprenticeship programme's delivery needs to be addressed, especially in the craft-based area, where the practical skills are currently taught in a classroom-based environment (Matsuo and Tsukube, 2020). The web-based programme is a massive part of the new generation apprenticeships, which have the highest female participants. It could be examined if there is a greater desire for online classes or if the male-dominated classroom is a deterrent. There is a need to investigate the technology involved with artificial intelligence (AI) and its use in other countries (Coelho and Primo, 2017).

## 2.8 Education

A key theme in most studies is to create engagement with school goers. This early engagement will generate awareness and knowledge about the programmes on offer (Daniel *et al.*, 2020). They discuss the broader community of parents, friends and peer groups of the opportunities surrounding apprenticeships. They argue that to assist in the recruitment stages, the potential candidate will be aware of the requirements and choose the appropriate training to suit them the most. Behavioural research shows that informing the potential candidate's influence group can improve the perception around apprenticeship and change the male-dominated environment. Some articles describe the stereotypes that differ between countries, but generally, there is a perception among certain occupations generated in schools (Matsuo and Tsukube, 2020; Simon and Clarke, 2016).

The European Commission released reports in 2008 regarding Equal reconciliation and desegregation, the action for this was to reduce gender gaps and support job desegregation. The Danish project used this initiative to develop and encourage young students to think about their dream future careers. The children were aged ten to sixteen, comprising of four classes of the children's parents. They were educated about the current and future economic market trends. There were encouraged to adjust their stereotypes relating to work and educational paths.

This led to family discussions about gender stereotyping and how not to allow them to interfere with choice or desires relating to the child's future (Fuller, A. and Unwin, L. 2014).

In Spain, they decided to develop this teaching in kindergarten and primary school. They perceived that asking the children about stereotypes and examining their responses might show how some people's perceptions can be deep-rooted from such a young age. They conclude that they were unaware of such inequalities and thought both men and women could do anything. The EQUAL group remarked that this would change as their family/peers and society would influence them in the future (Fuller, A. and Unwin, L. 2014).

In Australia, they have seen a decrease in the take up of apprenticeships. They have seen a 5% decrease to 25% in their female intake in 2018, compared to 2014 (Australian Government 2019). To remedy this, they have tried to incorporate more nontrade than trade (Hargreaves, Stanwick and Skujins, 2017). In Switzerland and Germany, their most prevalent occupations are in the business, retail, sales, management, and civil engineering sectors (Federal Statistics Office (FSO), 2018; OECD, 2004). In the United Kingdom, they have a vast, diverse selection. This focus on the perception of "men only" trades limits the take-up and opportunities for females, who could be put off by a male-dominated environment (GOV.UK, 2016).

This trend can be seen in the United States also, where only 1 in 5 apprentices are female (DOL, 2018). This dominance of trades being the only apprenticeship on offer was the same in Ireland till 2016 when they reformed the system (Department of Education and Skills, 2017 B). Since then, they have seen an increase in females, yet mainly in the new occupations. The main consensus of addressing the gender imbalance is to encourage females to enter the "male trades". The countries who have tried to do this come up with the same issues of the perceptions and stereotypes that society holds, with the lack of awareness (SOLAS and McSkeane, 2018).

The literature exposed how schools in the United Kingdom promote university placements over other educational pathways. The lack of information needs to be addressed and career guidance provided for both males and females to incorporate apprenticeships more (Young Women's Trust, 2017). The Baker clause is recent legislation in the United Kingdom to ensure this happens (Daniel *et al.*, 2020). In Australia, they call for the education system to promote the subjects needed for women to enter an apprenticeship from a young age (Simon and Clarke, 2016). This paper highlights the disparities of the career advice given to young boys to that of young women.

The FET strategy report discusses that it is vital to widen the participation of women in training, especially apprenticeships. They understand there is no quick way to address the issues. They explain how they will investigate their stakeholder's strategies to meet desired actions. As part of the Mitigating Educational Disadvantage Working Group work, they will investigate the lack of diversity in all educational groups rather than on apprenticeship only (SOLAS 2020). They consider the links with the second and broader FET and higher education as vital to impacting all areas, enhancing them all.

They will examine all factors that negatively affect learning, like poverty, housing, domestic violence, mental health, and the lack of essential support to deal with these areas. SOLAS is aware that the impact of the COVID19 pandemic had made some of these factors worse. The results of such will not be evident for some time. They want to overhaul the barriers that women and other minorities deal with as a matter of urgency, as they may be the most disadvantaged coming out of the pandemic (SOLAS 2020).

**2.9 Pre apprenticeship**

Recent literature demonstrates that pre-apprenticeship programmes are beneficial for giving the trainee a certain amount of exposure to an informed decision regarding their interests (Daniel *et al.*, 2020). Accordingly, matching the potential apprentice will lead to fewer dropouts, thus saving the Irish taxpayer substantial money. They also experience the programme and gauge the level of involvement. The research in Australia agreed with this thinking that this assists female to engage with the system and expose them to occupations that they would not have experienced (Simon and Clarke, 2016). In the paper "Apprenticeships should work for women too!", Simon and Clarke (2016) discuss the feminist literature that explores this aspect of involvement and opportunity that could arise if utilised to its full potential for women.

**2.10 Conclusion**

Based on the examination of existing research, coupled with the literature review relevant to the subject, a gap presents itself, and the importance of further investigation is revealed.

The review reveals that females are underrepresented in apprenticeships globally and that other countries have invested in research, while some have not delved deep enough into the reasons. The current Irish female numbers would show that a more in-depth analysis is needed to increase female numbers. The literature explains that identifying skills gaps where more apprenticeship enrolments are needed is imperative. It produces a better understanding of the questions to include in the methodology.

A vast amount of literature examines the apprenticeship system, the work-based learning model, or the future's economic needs. Several briefly include expanding frameworks to appeal more to females in specific sectors to balance the gender divide. Most agree with the importance of early education and that educating school goers & their parents is critical in changing perceptions. By making the programme more flexible and other recommendations to attract more females, the combined efforts of doing so could assist in changing stereotypes.

The review demonstrates an awareness of low female numbers and the barriers in the pathway. However, there are limitations in the literature concerning the reasons behind these low numbers. The lack of comprehension of the difficulties deterring females or too many preconceptions or assumptions about the deterrents. There is no point addressing issues from stakeholder consultation if they are not the actual wider deterrents to young females ordinarily.

All the literature demonstrates that past consultation with stakeholders is not enough; research needs to be actioned with the prominent people they target. The consultations with the actual female students and their parents are critical to filling the previous research. This paper aims to create a better picture of the facts concerning Ireland further.

**Chapter 3 Research Methodology**

**3.1 Introduction**

Research is not just the method of accumulating information. It is about a journey of discovery and finding answers to unanswered questions to create a piece of new knowledge (Goddard and Melville 2001, p.1). For this new knowledge to be recognised, the research must prove its validity.

This research methodology chapter displays the methods and the selected plans for the research study. It gives meaning to the research method and the approach used to analyse the issues found in the literature review. It will also present the reasoning and rationale for using the chosen research methods.

The reader will see how the data was gathered and examined using in-depth, semi-structured interviews with crucial individuals. The hypothesis the researcher has presented is "What obstacles present themselves to deter females from taking up an apprenticeship in Ireland"?

**3.2 Research Aim, Objectives, and Purpose**

**Aim**

The aim is to discover and examine why females have such a low uptake into an apprenticeship in Ireland.

The current female numbers would show that more in-depth analysis is needed to encourage growth in certain areas where there are skills gaps. This research aims to give an analysis into the obstacles that deter women from the apprenticeship programme. It will examine the behaviours and perceptions surrounding females in apprenticeship in Ireland. It will also lead to a better understanding of the barriers and may assist with other areas that may need to be considered in the future resulting from this study.

**Objectives**

The overall objective is to learn from the literature review and enhance previous research:

1. Delve more into the findings from the literature review that has not been previously investigated thoroughly.
2. Augment previous findings by incorporating an Ireland based approach.
3. Examine the research and extract any discoveries.
4. Develop recommendations to address any issues.

The literature shows that there is a need to educate people sooner in their school years. This could be explored as to the awareness of females in secondary school regarding apprenticeship. To analyse their thoughts, perceptions, and stereotypes, if any. Investigate their choices regarding the CAO and question if proposed changes to put apprenticeship on the CAO would have assisted them to make other choices.

**Purpose**
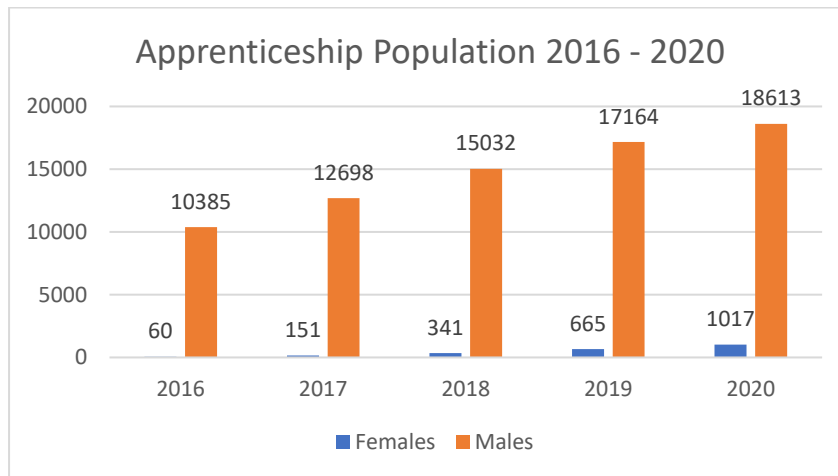


Figure 3.2.1 (SOLAS, 2020)
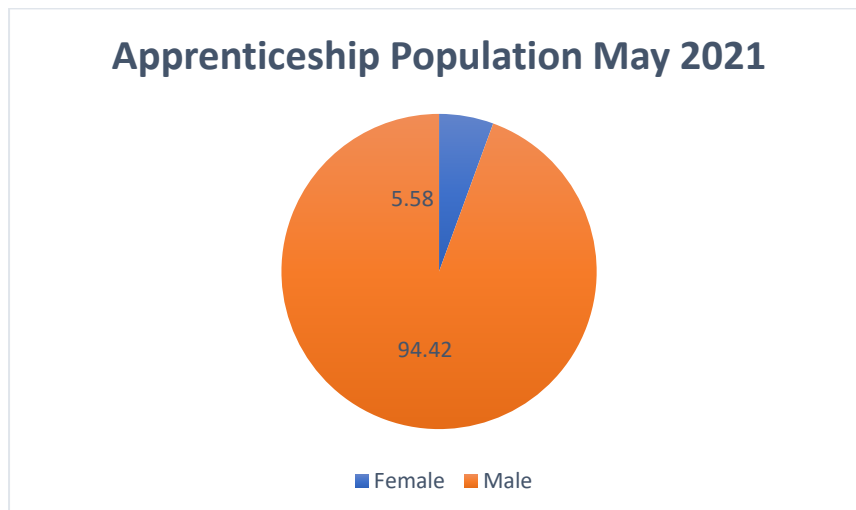


Figure 3.2.2 (SOLAS, 2021)

By the end of May 2021, 1,147 females were participating in apprenticeship of the 20,537 total population (SOLAS, 2021). Therefore, only just over 5% are female. Of these, over 4%, 959 are in the new 2016+ occupations, traditionally female-dominated areas. These figures have recently grown each year, but there is still a huge disparity (SOLAS, 2020).

As stated in the literature, such female dominated areas are often paid less over the duration, when qualified and when compared to the craft occupations (Simon and Clarke, 2016). The purpose of this research is to discover why and what is deterring women from this education pathway.

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## 3.3 Proposed Research Methodology

### Guiding framework for the methodology

Saunders et al. (2016) describe research as the methodical actions of finding information to expand knowledge on a given subject. It is noted that using a precise methodological framework is paramount in conducting the research successfully (Blumberg, Cooper, and Schindler 2011). It outlines each step of the framework and the research needed to gain the most valuable knowledge to answer the initial research question.

To this extent, the methods adopted in this study were chosen to incorporate the numerous methodological components that motivate the research methods given in the research onion (Saunders, Lewis, and Thornhill, 2016).
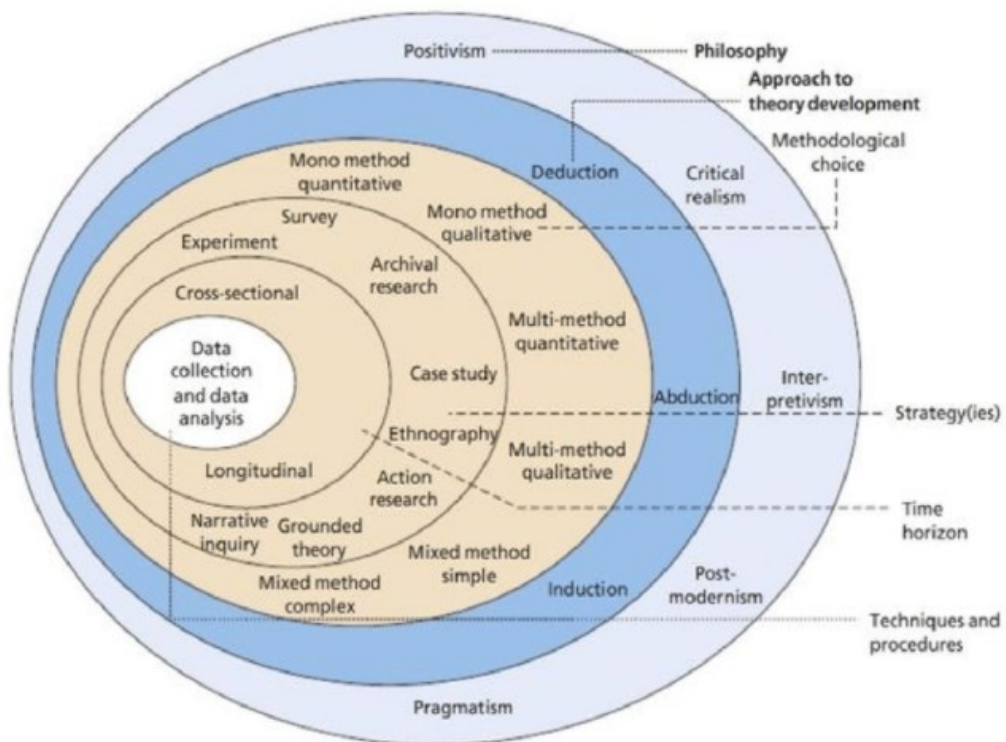


Figure 3.3.1 (Saunders, Lewis, and Thornhill, 2016)

## 3.4 Research Philosophy

The external layer of the research onion shows the purpose of philosophy as a component in the research method. Some state that most research is modified with a philosophical framework, forming the research based on societal views (Quinlan 2011). Some say philosophy is a way to guide the science.

Ontology is associated with the nature of reality (Saunders et al. 2016). Two categorical alternatives can be summarised as objectivism or subjectivism (Bryman, 2011).

Epistemology relates to the nature of knowledge. As a result, the two alternative epistemological orientations are positivism or interpretivism (Bryman, 2011).

Quinlan's (2011) research centres on the performance of the researcher during the research. They were suggesting that the researchers own epistemological and ontological considerations influence the philosophical framework.

**Fundamental differences between quantitative and qualitative research strategies**

| Orientations | Quantitative | Qualitative |
|---|---|---|
| Principles orientation to the role of theory in relation to research | Deductive; testing of theory | Inductive; generation of theory |
| Epistemological Ontological | Positivism Objectivism | Interpretivism Constructivism/ Subjectivism |

Table 3.4.1 Source: Bryman (2011 p. 75)

**Positivist and Interpretivist approaches**

Epistemology is the philosophical study of knowledge regarding its methods, validity, and scope. There is a distinction between justified belief and opinion. The word derives from one Greek, epistēmē, which means "knowledge" and logos, meaning "reason". Therefore, it is known as the theory of knowledge (Bryman and Bell 2011).

This is usually divided into positivism and interpretivism in social research.

Positivism – This branch of epistemology focuses on creating actual data from physical beings through scientific methods. It aligns more with objectivism, claiming that physical reality does not receive influence from social actors (Bryman, 2011).

In opposition, interpretivism understands that personal data offers actual meaning; hence this approach is most suited to this study's research objectives (Saunders et al., 2015).

Interpretivism – This branch is a process to look for answers to the objective world of positivism that researchers felt needing.

Specific social environments move interpretivism. They recognise that reality and knowledge are not accurate yet influenced by personalities in that environment (Saunders et al., 2015).

An interpretivist or subjectivist stance feels as if there is no singular correct answer to questions in the research. Everyone's experiences or opinions of reality within various realities can be very different (Collis & Hussey (2011).

This research's main objective is to gain people's personal opinions and perspectives; the research philosophy recognised is interpretivism.

By highlighting research with people instead of objects, the research will aim to understand this area by comparing humans' perceptions and thoughts of their roles as social actors (Saunders et al., 2015).

## 3.5 Research Approach

### Qualitative research approach

The gaps in the Literature Review show there is a need to find out more about the specifics regarding school goers and their awareness of the topic. Hence, the research is an exploratory study into school goers and their parent's views on the deterrents of females entering the apprenticeship system. Exploratory studies are relevant in investigating new ideas, asking new social groups, proposing new study lines of questioning, and evaluating phenomena with innovative enlightenment (Robson, 2002).

It is said that the research approach must be consistent with the research question that is proposed. It is argued that Quantitative methods are more time effective and remove any bias from the process (Bryman and Bell, 2011).

Quantitative methods promote truthful measurements and opinions of the participants, aiming to generalise the research findings. The method tries to interpret "reality" statistically, working with significant sample sizes and data sets. This ensures authenticity and validates the findings. Quantitative methods are used when explaining what is occurring in a specific context.

Nevertheless, qualitative methods can be further beneficial if the study needs to explore the "why" something is occurring. Recent studies and the Action Plan discuss the low female participation, but there is no explanation or study into why (SOLAS, 2018) (Department of Further and Higher Education, Research, Innovation and Science, 2021). Hence, this means the inherent effectiveness of using qualitative methods in this study to investigate specific target groups.

There are vast amounts of statistical data on apprenticeships in the domain that show the low female figures. Surveys were conducted late last year with all stakeholders and current apprentices. The statistical method of quantitative research is therefore unsuitable to the deep investigation of the research subject proposed. Therefore, qualitative research is suitably appropriate for the stated research objectives.

**Inductive and deductive**

Two approaches to theory development are noted in the next layer of the research 'onion', specifically inductive and deductive research approaches.

A deductive method concentrates on collecting statistical data from significant samples to draw general scientific outcomes to verify or refute a hypothesis. This matches the way to a more quantitative-based study collection.

Inductive, most generally associated with qualitative research. It supports outcomes to be taken from primary data to be analysed. This process is best suited to examining a unique phenomenon or under-studied research topics to create new pieces of knowledge without using a detailed pre-existing theoretical framework to test (Bryman, 2011). The study explores school goers and their parent's perceptions; instead of drawing or testing a hypothesis, an inductive approach is most appropriate.

## 3.6 Research Strategy

The sixth layer of the research onion is called choices. This layer is about how many data types in qualitative or quantitative will be used in the research. There are three choices – mono, mixed, and multi-method.

The mono-method contains only one method for the study.

The mixed method uses two or more research methods and commonly refers to the use of the qualitative and quantitative methodology.

The multi-method uses two or more strategies of research from one of qualitative and quantitative methodology.

Regarding the research onion, the best choice depends on the nature of the study and research objectives. There is also the practical consideration of viability regarding what kind of data is accessible and identifying any constraints (Saunders et al., 2015).

Quantitative research, mixed methods research has already been done, like the Australian study (Simon and Clarke, 2016). The findings demonstrate the areas to be examined further regarding female involvement. The gaps show the relative population figures, present the variances of gender differences but without deep reasoning (Condon and Burke, 2020; Markowitsch and Hefler, 2018; Broek *et al*., 2017; Lodovici *et al*., 2013).

This study chooses to use a mono-method, there will be one data type – either qualitative or quantitative. To explore why low female numbers, one needs to discuss this with the school-goers and their parents individually. In this case, the study will use one qualitative approach only to investigate participants' awareness, opinions, and group perceptions (Saunders et al., 2015).

**3.7 Qualitative Research**

**Qualitative Data Primary Collection**

This research will use primary qualitative methods.

The qualitative approach will be by way of semi-structured interviews. It will adopt a similar Australian study approach with similar questioning styles (Simon and Clarke, 2016). Before conducting the Literature review, one assumed that the interviews would take place with the main stakeholders to get accounts of current activity within the apprenticeship. The findings and gaps in the current literature, is to research more in depth, the school goers, and their parents. The information collected by this cohort will give insights into the research questions and address a better understanding of the current situation. The findings will give useful information regarding solutions to low female participation and improve it (Daniel *et al.*, 2020; Simon and Clarke, 2016).

**Qualitative Methods**

**Semi Structured Interviews**

The semi structured interviews were conducted online, due to the restrictions of the pandemic. The same set of semi structured questions will be asked, with added time if the flow changes to increase input of thoughts, and general comments at the end. These interviews took place in July 2021. They were no longer than thirty minutes and were be recorded on Microsoft Teams for accuracy and for transcripts to be readily available. They will not be published.

The participants were a sample selection from:
- current female leaving certificate students
- current female leaving certificate students' parents
- current female junior certificate students
- current female junior certificate students' parents

**Initial Pilot**

An initial pilot test took place to ensure the questions and timing were correct. A time of convenience was booked to allow for no disruptions for either person and to ensure internet broadband would be sufficient. They took place online on Microsoft Teams. They were recorded, which automatically transcribed the interview. This allowed for post-interview analysis. There was constant eye contact throughout without the need for notetaking. It created a more natural flow of conversation. It allowed for adjustments to be made if necessary.

The pilot test consisted of two participants. One was an employee who works in the apprenticeship unit at SOLAS. This was to ensure that the validity, language, and timing scheduled was sufficient. One with no knowledge of apprenticeship to ensure that the questions make sense allowing the conductor to practice their questioning style and ensure it is followed with ease. It revealed some gaps in the questions and a need for an improved flow or structure to provoke more thoughts of the journey.

Due to the pandemic the interviews needed to be conducted online. The pilot showed a need for good broadband connection and for further interviews to be conducted outside of peak times. The ethical obligation to their anonymity was discussed, and the appropriate ethics forms digitally signed to generate authentic and honest responses. A sample of the Ethics form (Appendix 2).

**Facilitating the semi-structured interviews**

The research chose a sequence of semi-structured interviews as outlined by (Saunders et al. 2007). This enables the interviews to flow better and allows for a lead into more in-depth impressions. It can change the course of questions to lean towards another question or subject. Using semi-structured interviews, one intends to gain insights, thoughts, opinions and possibly some solutions or recommendations from the participants.

The interviews were designed with open-ended questions and rambling, permitting the researcher to swerve from the script to enable conversations of unanticipated trends to flow in a comfortable style.

This method reinforces the interviewee's freedom to answer in their manner without being drawn into a specific predetermined destination. The aim is to gain knowledge of the participants' perceptions, emotions, experiences, and insights in an environment that makes them feel safe (Fisher, 2007). This allows for the collations of the different perceptions.

There was consistency in the interview with the interview question list. This ensured that the relevant topics and issues were addressed. It allowed the flow of the conversation to change with different areas of thought for the participant. The list of questions can be found in Appendix 3.

## 3.8 Population

**Sample Selection Technique and Justification**

Sampling usually is a guiding principle of qualitative research, so the participants were chosen as the gap proved a need for their input from previous research. The findings from the Literature Review and recent previous research with stakeholders were contributing factors in the sample selection process (Robinson 2014).

Last year the Irish Government conducted a consultation process for input into the new Action Plan 2021 – 2025. A written submission process was launched in July 2020. They asked for feedback from all stakeholders on all aspects of the apprenticeship system. They received over sixty written submissions from across the entire apprenticeship stakeholder cohort (SOLAS, 2021).

At the same time, SOLAS conducted an online survey of all registered apprentices in October 2020. The questions revolved around their experiences in the apprenticeship system. They received responses from 20% of the apprenticeship population at the time. Three thousand seven hundred and fifty registered apprentices, also former apprentices responded to the survey (SOLAS, 2021).

The nine Regional Skills Fora Managers targeted small to medium businesses. They did so in collaboration with the Department and undertook to survey three hundred and forty small to medium businesses.  They asked for perspectives of small businesses on apprenticeship and how the specific challenges in apprenticeship might be addressed (SOLAS, 2021).

The findings from the Action Plan are from a vast wealth of all the stakeholder's knowledge, experiences, and perceptions. One would find that there is a minor gap with the process, as there is no input from school goers, or their parents. This age group and cohort are the main potential customers of the apprenticeship programme. This can also be found in the Literature Review, which the articles discuss and lead to, but tend not to conduct deep analysis.

These combined factors led to the sample selection of actual school goers, comprising of leaving certificate students, junior certificate students, and their parents. The participants were recruited through convenience sampling. This general cohort of nonprobability sampling was sampled because they were convenient data sources (Cameron and Price, 2009). They were relative to the research and vital in investigating a deep insight into the female school goer. The specific final participants were chosen based on their availability, accessibility, and quick access due to the study's timeframe. This allowed for the data collection to be prompt and efficient, resulting in clear trends.

**3.9 Analysing Qualitative Data**

Data analysis gives meaning to the collected data concerning the research questions and objectives identified initially (Saunders et al., 2016). All the recordings from the online Microsoft Teams were transcribed in full for each participant.

It is suggested for an interpretive approach to process the data inductively, recognising themes and trends within the data. These can then be cross-referenced with current research in the subject of interest to form different outcomes or hypotheses (Braun & Clarke, 2006).

All responses were recorded and input into an excel spreadsheet. The data was analysed in-depth. The data could then be compared easily to discover any trends or reoccurring themes in the various participant's statements. This type of qualitative data analysis method is universally accepted (Bendassolli, 2013).

**3.10 Ethical Issues**

**Ethical approval**

Researching with the highest ethics allows the participants to be open and honest throughout the research. This continues through the analysing of the results. (Saunders et al., 2016). One must consider any potential issues that may arise and address them or modify them so that ethics are conformed to (Blumberg et al., 2011). All the participant's interactions were conducted ethically, with the National College of Ireland Ethical Review Application Form being completed before each interview.

**Gaining access and informed consent**

To develop a good relationship, one must consider gaining access and having full cooperation when undertaking research (Robson, 2002).

To this extent, an initial email went to each participant before the interview. The email consisted of the topic, scope of the study and how they would be involved. The consent form also accompanied the email. The signed version was returned before the interview. All participants took part on a purely voluntary basis and could withdraw from the study at any time if they so wished.

The open access allowed for video recording, findings, conclusions, and recommendations for the study. The anonymity of the data regained was confirmed by storing all video recordings and transcriptions in an encrypted folder. This folder will be permanently deleted once the study is complete and the research is released. The General Data Protection Regulation (GDPR) was adhered to during the research. Every step of the study adhered to the Ethical Guidelines produced by The National College of Ireland.

## 3.11 Limitations to Research

Due to the Covid-19 pandemic since March 2020, a significant limitation to the study was the lack of face-to-face interviews. In a personal setting, one could say that they may have had a more in-depth conversation, as the participant may have felt more comfortable.

Another limitation was that bias could influence the answers during the interview process without knowing the participant's personal history. There is also no guarantee that the answers were wholly genuine or accurate, so they may not be one hundred percent reliable.

Due to the limited research time frame, follow-up interviews cannot be conducted to discover any differences in their opinions or views since the initial interview (Hiller, 2010). There has been a lot of media surrounding the Action Plan, and maybe the participant's awareness of apprenticeship has increased. If there were a longer time frame, follow up interviews would be considered to revaluate and assess the previous answers to delve deeper into certain aspects, trends, and perceptions.

## 3.12 Chapter Summary

The theory states that this chapter should justify the chosen research methods (Saunders et al., 2016). This was achieved by expressing the research aims, objectives and purpose. Each of these was backed up with the philosophical reasoning to fulfil the desired research.

The qualitative research methods selected were considered the most suitable to the study's exploratory landscape with its inductive, interpretivist and subjective orientation.

The data collecting process of the semi-structured interviews, the assistance in obtaining valuable and in-depth information was briefly discussed. The justification of the use of the participants was explained.

The further in-depth analysis of this data is presented and discussed in the next chapter. The ethical considerations for the participants were explained in detail. To end, the limitations that were experienced throughout the process were discussed regarding the chosen research methodology.

## Chapter 4 - Findings

## 4.1 Introduction

This chapter presents the findings from the ten in-depth interviews conducted in July 2021. The main research objective of the study was to discover what deters females from participating in apprenticeships in Ireland.

The data analysis follows the methodology outlined previously, which identified various trends relevant to the research objective. These trends assist in forming the overall structure of the findings chapter concerning the relevant quotes from each interview participant. The objective is also to connect trends from the literature to the research questions. The trends identified were:

- Awareness
- Apprenticeship participants
- Education
- Moving forward

### Interview Participants

| Participant | Abbreviation |
| --- | --- |
| Leaving Certificate Student | S1 |
| Leaving Certificate Student | S2 |
| Leaving Certificate Student | S3 |
| Junior Certificate Student | S4 |
| Junior Certificate Student | S5 |
| Leaving Certificate Parent | P1 |
| Leaving Certificate Parent | P2 |
| Leaving Certificate Parent | P3 |
| Junior Certificate Parent | P4 |
| Junior Certificate Parent | P5 |

Table 4.1.1

## 4.2 Findings from the in-depth interviews

### 4.2.1 Awareness

When asked about their knowledge of apprenticeships in Ireland, over half of the students' responses were yes; they knew about them from friends or a family friend who is currently doing an apprenticeship (S1,2,3). They mainly considered a person got an apprenticeship if they knew someone who could take them on.
The participants who were not aware of apprenticeships said they comprehended the word and what it meant but had no knowledge of what is on offer in Ireland (S4,5).

They continued to ask questions to the researcher about the subject and were interested in the answers. All said they would look on the website to read about the current listings of occupations.

When the student's parents were questioned about their level of awareness, all the respondents were conscious of apprenticeships. All mentioned at least one of the following examples in their answer - bricklaying, mechanics, electrician, plumber, carpenter, and hairdressing. Some knew of other trades in construction but could not name them (P3,4). One parent knew of "new apprenticeships" being added "mostly for women" like accounting and insurance (P2). A few suggested that apprenticeships were for people who did not like school and dropped out of secondary school (P1,2,4). They felt apprenticeships were beneath them and other snobby parents might look down on their daughters for doing one (P1,2,3,4).

While none of the parents implied their lack of awareness of apprenticeship, the evidence showed that some people did not know very much, not even the basics (P1,2,5). When quizzed about the new apprenticeships on offer, they said they would prefer their daughters to go to college and get a degree. There had not been a suggestion that an apprenticeship could meet their daughters' interests—some being the Arts, Business and Management.

The main focus of the student's parents was that their daughters follow a college path to receive a Degree/Masters (P1,2,4,5).

When students were asked where they heard about apprenticeships, the majority had gathered information about them through family members or friends (S1,2,3,4). One had heard about it in school, as they had asked their career guidance teacher about hairdressing (S5). This led to a discussion regarding career guidance teachers and what information they had received from them. All divulged that they are influenced and pressured by family & school to go down the college route (S1,2,3,4,5). Some had shown interest in other avenues, like post leaving courses, and this was also discouraged (S1,3).

None had received promotional documentation at school regarding apprenticeship and said maybe if they were aware of what was on offer, they would have investigated more. The do not want to read loads of pointless information unless it is necessary. They would want to watch an online video or animation (S1,3,4,5). They would like a quick listing to see if something appeals to their interests, just a one pager would suffice, with all the names of the apprenticeships (S1,2,3,4). None of them noticed the many generation apprenticeship national campaigns or schools' competitions.

Word of mouth was the consensus with students' parents. With many saying, "you hear of a son of a friend doing an apprenticeship" or "my son got an apprenticeship with the ESB". For most, their apprenticeship information came from when they were younger (P1,2,3,5). Many recalled teenage stories like when a boy was interested in a particular area like printing, they went to the local printer and started an apprenticeship (P1).

One was currently looking into the apprenticeship system for their daughter and advised that every parent read Brian Mooney's column in the Irish Times (P4).

"He has a multitude of third level options open to school leavers. He is very explicit and explains every apprenticeship with clarity. "This participant was impressed with the offering and knowledgeable of the apprenticeships in development. They knew of the new action plan and looked forward to future developments (P4).

None of them had heard from their school-going daughters about apprenticeships, nor did they notice the various national campaigns.

## 4.2.2 Apprenticeship participants

When questioned about who partakes in apprenticeship, most students' responses were boys, young boys who had a passion for something they liked in school and wanted to pursue (S1,2,3,4). One said people who like hair and beauty (S5). A couple of others said boys who do not like school and do not want to go to college do an apprenticeship as a job (S1,2). The "family" connections arose again, and they stated it comes about like any other job; it is "who you know". People only hear about opportunities or spark interest to "see it" or "hear about it" (S1,2,3,5).

Conversations led to them being disgruntled and saying, "if you see it, you can be it", and they had not seen it, so how could they be it.

Many students' parents believed that apprenticeship is targeted at males from a very young age (P1,2,4,5). They considered mechanical drawing, woodwork, welding, and alike are on offer in most boys' schools. They observed that boys get to taste practical subjects that may awaken an interest in a particular apprenticeship.

Others perceived it was "whom you know" or "in the family", peoples sons taking over the family business and learning the trade (P1,2,5).

Most included it was "young fellas who do not like school, which are not good with academia, but good with practical stuff." They may have left school early to pursue an apprenticeship (P1,2,3,5). They also may not have been able to afford college, so they go down the apprenticeship route (P3,4).

None had heard of a female apprentice or mentioned it in their responses; it was all the male gender language.

When asked about the reputation of the apprenticeship programme, most of the students said they did not think it was broad enough and that some people look down on the people who do them. When asked why, they answered that it is way cheaper than college, so it was for people who could not afford college (S1,3,5).

Others did not believe and did not hear anything good or bad about this programme (S2,4).

The parents responded the same. They had not heard negative or positive opinions about the apprenticeship system. The majority said no one famous or well known in the public eye was promoting it (P1,2). A couple did not associate apprenticeship with successful businesspeople, even though they might be. They had not read many success stories like those of people with a degree or masters (P2,3,4,5).

The general trend for most was a lack of success stories from qualified apprentices to promote the programme. They expressed their want for someone to look up to follow in their footsteps, and they had not seen this.

When the students were asked what a stereotypical apprentice looks like, the immediate answer from most was a "fella" in caterpillar boots and a hard hat (S1,3,5). A couple went on to say hairdressers came into their minds, sweeping the floors (S2,4). Parents main initial answer was like "a pair of snickers and a toolbox" or the "lads in Spar getting their breakfast rolls" (P1,2,4,5). One said they would not have a generalisation of an apprentice (P3). The consensus regarding the stereotype of an apprentice was very much a hard-working male who works on a building site (P1,2,4,5).

The participants were informed that there are over 21,000 apprentices in Ireland. They expressed their opinion as to why less than 5% of these are females. The students were passionate in their responses to this and stated that there was not much available for girls, noting they did not know much about apprenticeships. They had not heard about them, so lack of awareness. They continued by saying that the lack of promotional information regarding some educational paths could result in them making uninformed decisions about their futures. They were adamant that apprenticeships are aimed at boys, so there is a male stereotype surrounding the programme (S1,2,3,4,5).

A couple of others replied that people look down on apprenticeships, so some might look down on them if they did one (S1,3).

The students' parents believed that the reason was the male-dominated area of work. Some argued that females would feel uncomfortable going into a male-dominated work/training place (P1,2,4). They also remarked that most were labour intensive and that some females would not be physically able for this type of work (P1,5). They suggested girls were more suited to nurses' jobs or teaching vocations, as historically, this was a traditional route for females (P1,4). They said some occupations routes defined by gender were driven by society and culture (P1,2,4,5). Some girls would not want to be "the odd one out" or the "poster girl" for others, and they would want to get on with the training like the others who a male (P2,3,4).

The 5% being a female statistic led to conversations regarding female-only classes or mixed-gender classes. All stating this would be appealing as both genders would feel more comfortable. The primary trend for this line of questions came down to lack of awareness and the feeling of being disadvantaged for not being informed, whilst their male counterparts are from an early age.

Students explained that not knowing enough about the process or the offerings would deter them or someone they know from participating in an apprenticeship (S1,2,3,4,5). They also said other people's perceptions of apprentices would also put them off; they did not want anyone looking down on them (S1,3,5). When questioned further as to why other perceptions are so important to them, they stated, "it just was", from their family to friends, they all influence their educational decisions (S1,3,5).

Students' parents thought maybe the apprentice would not be paid as much as a regular job (P1,2). If the student earns a certain amount, they might not want to decrease this wage to join an apprenticeship. The challenges that may occur from being male-dominated workplaces may deter some (P1,2,5). The manual labour and physical requirements also were deterrents (P1,3,4,5).

### 4.2.3 Education

All the students answered the Junior Certificate as the minimum educational requirements for entry to the apprenticeship system. Some stated they knew an electrician who had to have an excellent leaving certificate for the employer they were going to (S1,3,4). The conversations led to interests in school and what would assist in them pursuing an apprenticeship. Two questioned back and enquired are their specific qualifications needed for a specific apprenticeship (S1,3).

Some students' parents did not think there was any (P1,2). Others assumed it would be the Junior Certificate (P3,4,5). Only a couple thought that it might be subjects like Maths and Science for some trades (P4,5).

The focus here changed from apprenticeships' perception for dropouts to different minimum requirements specific to each apprenticeship.

Students' statements regarding the changes they would make to career education in schools was heartfelt. The interviews sparked some fury as they had not discussed it in such a forum. The majority said they would want the same subjects as the boys (S1,3,4,5). They informed the researcher that they do a swap with the boy's school once a week in their separate schools during transition year, which they felt as patronising (S1,2,3,4,5). For this one year only, out of the six years of secondary school, the boys do home economics, and the girls do woodwork and mechanics. Some found this funny whilst a couple noted that they had enjoyed it and wanted to pursue the subjects for leaving certificate but were told no (S1,4). They questioned the reasoning for offering such a subject for a few weeks, while the boys had the option from 1st year. They also questioned the sexist feeling that they could only do home economics in this situation (S1,3,4,5).

A few said they would love to have career days in school that their parents could attend rather than go to the RDS and gather irrelevant promotional documents (S1,2,3,4). They added that it would be more beneficial for parents to come to the school to talk about their jobs and what they entail in the practical world. They would appreciate real-life examples of females out there doing the jobs presently (S1,2,3,4,5).

The students' parents' thoughts were provoked from the previous discussion on what was on offer in the apprenticeship, and they said they would like their daughter to be aware of everything available to them (P1,2,3,4,5). They would want to see a more effective awareness campaign in schools and talks with current female apprentices. They would want their daughters to be informed of what is precisely involved from day one of the programmes and how it works (P2,3,4).

Others added that students should be informed about the "earn and learn" options (2,3,4). They suggested that instead of getting a job after school, they could do an apprenticeship to see if it suited them and inform them, they would earn from day one. They observed that most young people working so hard at college then working to pay for it do not have a chance to enjoy themselves. They perceived it would be great if the benefits of apprenticeship were more publicised from a young age to encourage them to earn money and get a qualification all at once (P1,2,3,4,5).

The research explained the National Qualifications of Ireland (NFQ) and the levels 1 – 10. The students thought the apprenticeship was at a level 5 (S2,3,4) or a 6 (S1,5). They thought apprentices received a certificate at the end; they knew that they could work straight away (S1,2,3,4,5).

Students' parents had not considered it. After some thought, one said a level 5, and they received a post leaving certificate qualification (P1). A few said a level 6 and acknowledged some people going to college after pursuing a degree in the chosen subject (P2,4,5). One assumed there would be different levels of qualifications between levels 5 to maybe 7 (P3).

The researcher informed them that there are apprenticeships at all levels up to 10 PhD. None of the participants knew this and did not know that one could receive a qualification at those levels. They were very shocked to know a person could earn and learn to accomplish a degree or master's whilst gaining experience at the same time (P1,2,3,4,5).

### 4.2.4 Moving forward

Students felt that the new apprenticeships geared toward women are the 9-5 desk jobs (S1,2,3). They believed that if the girls were more informed of the more active jobs, they would be more interested as they are young and want to be active (S1,2,3,5). The only one they thought of being active was hairdressing. They would like to broaden the occupations to include social care, community work, even personal trainer/fitness that would not be so male dominated, therefore appeal to women more (S1,2,3,4,5).

The mixed classes were also discussed; with them, having a mixed class guarantee would be less daunting for them to join the male-dominated apprenticeships. One replied that it would not bother her as she prepared to do a male-dominated route but could see how others would be put off (S4). The majority female-only classes were not the answer, as this would discriminate against boys, so their preference would be gender-balanced classes (S1,2,3,5).

Students' parents said, "more information needed and maybe calling out to the schools". Show the female students somebody young and dynamic. Get them to give talks and describe the life of a successful female who has gone through the apprenticeship program to sell it to young girls (P1,2,3,4,5). Some added that the information they had received during the interview had created a curiosity to investigate apprenticeships further (P1,2,3,4).

A couple of the students wanted to reiterate previous comments. They said maybe when enrolling, one could give their preferred option regarding mixed classes, as maybe some females would want female-only (S1,3,4). Again, the main focus was more publicity and more engagement with young females who could influence their career path with more real-life examples (S1,2,3,4,5).

They would want their parents educated too on the subject to understand the levels and occupations on offer (S1,2,3,4,5). They perceived that greater awareness could remove some "snobbery" from them and maybe remove some of the pressure surrounding choosing a college course without practical experience in that area (S1,3,5).

The general focuses on final comments from parents were more publicity and awareness (P1,2,3,4,5). Try to defuse or eliminate the snobbery surrounding going to college, especially if they can earn money and come out with the same qualification at the end of an apprenticeship. Promote them as being on par with each other (P1,2,4,5). Alternatively, enhance the message of getting experience and the qualification at the same time (P2,3,4). They all added that society, culture and a "that is just the way it is" attitude is being realigned in most work areas to be more gender-balanced, so would assume these occupations will/must follow (P2,3,5). Their answers made them think more about previous statements and stated that they may have been "sexist" but unintentional(P1,2,3). They added that people's perceptions are hard to change, but they need to be for more females to enrol (P1,2,3,4,5).

## 4.3 Summary of findings

The main key trend appearing throughout the analysis of the primary research data conducted is lack of awareness.

Most interviews started with the participant's opinion of apprenticeship non-existent or low, to by the end, their perceptions had changed somewhat. They had gained some knowledge throughout that, for most, sparked a curiosity to look into apprenticeships further.

The topic of females in education, apprenticeship and the workplace led to sexist tones in some cases, which were not malice, but old fashioned. This was from the younger participants as well as the older interviewees.

One could say it is like unconscious sexism; it is "just the way it is", as was repeated by many. Some realised by the end that their previous statements may have been "sexist" but did not mean anything bad.

Another common trend was "snobbery" or "looking down" on apprentices for their social stance. For most, they did not know why, and just something that was in their heads from a young age.

The students expressed their disappointment at the lack of information they had been given on this subject. They believed that if they or their peers had known more, they might have investigated apprenticeships more. The CAO students were deeply perplexed, as again, they felt the boys had been given another opportunity over them.

Several of the trends recognised during the interview process in this chapter draw connections to the secondary research discussed in Chapter 2. There is also a presence of issues that do not appear in the previous research reviewed. These factors will be discussed in the next chapter, relating to Chapter 2 and the dissertation objectives.

**Chapter 5 - Discussion**

**5.1 Introduction**

This chapter discusses the findings and connects them with the existing literature, relayed in Chapter 2. The chapter also relates the findings to the research question and sub-objectives.

The objective of the research was to discover why and what is deterring women from this education pathway. The research connects a gap in the literature and provides an opportunity for further research on this subject matter.

For the discussion, the findings will be presented based on the previously stated trends:

- Awareness
- Apprenticeship participants
- Education
- Moving forward

**5.2 Awareness**

The participant's lack of knowledge regarding apprenticeship surprised the author; they did not know any of the apprenticeship processes. This was more alarming in the case of the students, as one would assume they would have specific knowledge of all educational pathways on offer. Alternatively, they should at least have access to apprenticeship publicity or knowledge of the website with the offerings.

It was not for the lack of wanting either, as the conversations sparked an interest with interviewees all wanting further information. The author was delighted to educate them on the subject, yet this was not the purpose of the interview session, and they committed to following up afterwards.

The parents' knowledge seemed old fashioned, branding them mostly under a few popular craft occupations and then hairdressing. This information was wrong, as hairdressing only became an official apprenticeship in 2019 (SOLAS,2019). The parent who had looked into 2016+ occupations and thought they were generally targeted to women was also surprising, as most occupations are branded as gender neutral.

There was still a presence of stigma stemming from years ago. The suggestion that apprenticeships were for people who did not like education was disheartening as some occupations involve an extremely high standard of maths and science, with newer ones requiring high, specified results from the Leaving Certificate. All programmes involve education and learning at the highest of standards. The difference being they all involve a practical, hands-on experience within the real world, in real-life jobs. Implying an apprenticeship would be for people who drop out or do not like school unhelpfully creates a false impression.

All the students expressed the pressure about only considering the college route they felt from their family and school. The interviewee found this very worrying. Students should not be generalised and should be encouraged to follow their own path. SOLAS engages with the National Councillors of Ireland to inform them of FET updates, yet the lack of information distributed in school was unexpected. The literature review also noted this, with a female apprentice discussing how she was put off pursuing a craft apprenticeship and was encouraged to investigate the more traditionally female-dominated industries on offer (AONTAS, 2020).

The literature shows the importance and influence teachers have on young girls. They trust them and, depending on the subject, look for guidance concerning a career. If all teachers participated in the coaching programme, as suggested in the literature, their enhanced skills could give better support (ICCDPP, 2015). Depending on the subject matter, they can also assist by relating work to specific examples from different sectors.

This could be a limitation because this information is from five students from four different secondary schools; this element of engagement from career guidance teachers would need to be investigated further, with a larger sample.

Although, when enlightened with information, all five followed up to inquire about the listing of occupations on offer. This was paramount to them; they do not want to be reading endless amounts of information until necessary. Such a listing is available on the apprenticeship website and should be on view in every career guidance office/school in the country (SOLAS, 2021).

What was surprising was the non-engagement with the schools' competitions or the many generation apprenticeship national campaigns in recent years. Maybe the pandemic and other pressures since March 2020 was a reason for this. Many disruptions have taken their toll on school life, and it could have been one of the many overlooked areas as part of that.

The reminiscent stories from the parents of people they knew doing apprenticeships were interesting. Four of the five unknowingly told stories of young "males" who "acted up" in school and did an apprenticeship. The way they had not received information from their daughters or school events was again unexpected. Again, one must think of the restrictions since March 2020 to explain the lack of publicity in schools.

The comments surrounding Brian Mooney's column in the Irish Times were endearing. One would hope most parents would be following such literature to inform their daughters of other educational offerings. Schools could include such readings in their monthly dates as recommended reading and other valuable links to encourage greater involvement from the parents.

## 5.3 Apprenticeship participants

The researcher suspected that the parents would answer in the male context but did not think the students would speak in the same gender bias manner. They all spoke as boys partaking in apprenticeships in whatever stories they were conversing. Previously discussed in the Australian-based research, an apprentice is a young male who worked on the job, learning their occupation. They argue that this initial step for a female could be a deterrent (Simon and Clarke, 2016). Moreover, the observation that apprentices may be looked down on was disheartening.

In all of these conversations, the outcome of this topic was that they did not know or see females as apprentices, so they only used the male pronoun. The reoccurrence of the presence of, "if you see it, you can be it". The thoughts of the young females feeling left out or not informed about something so valuable as apprenticeship was disappointing, as they had a good point, they had not seen it, so how could they be it.

The observation by the parents of apprenticeship being targeted at males in school with mechanical drawing, woodwork, welding, and alike had not been in the researcher's mind previously. The option of these subjects from an early age allows the boys to engage or spark an interest in something they could follow up as a career. They have the advantage over girls who are not aware of such subjects and could benefit them if they decide to do an apprenticeship.

The perception that apprenticeships were for non-academic "young fellas" was again extremely judgemental from the parents. They spoke of snobbery about college, yet they expressed snobby antidotes about the boys who could not afford college, so do an apprenticeship. There was no malice in their tone, as none had known a female apprentice so would not think to use it in their language.

The students did not think the programmes were broad enough, but they also stated earlier that they did not know what was offered. The researcher gathers that they thought it was only craft-based occupations. The feelings about other people looking down on them arose again, with a person's affordability coming into play. The previous research highlighted how females influence groups are very important. This could be a deterrent, especially if their preconceptions surround apprenticeship were negative. The findings showed it was a societal issue, and change was essential to create a culture of equality throughout all occupations (Simon and Clarke, 2016).

The parent's view was that they had not observed anyone famous or well-known publicising apprenticeship was informative. Asking does apprenticeship call for celebrity branding? Would this help parents investigate apprenticeships in more depth for their daughters? The researcher feels that again the "see it, be it" is a factor here. The parents are influenced by others as much as their children are. They need that reassurance of others doing it, succeeding in it, being at the top of their game, to consider it as a path for their daughters. They are inundated with stories about degrees, masters, and PhD's, so they know their value towards success; they want to know the same about apprenticeship.

The apprenticeship reputation is intact, as most individuals had not heard good or bad about the system. This is a positive note for SOLAS as a bad reputation surrounding the programme is not a deterrent from entering an apprenticeship.

This does not agree with the literature that discusses that some females in the construction sector may have had negative experiences and put others off (Young Women's Trust, 2017). Their argument that this could negatively impact the marketing of apprenticeship and women's perceptions in specific workplaces was unfounded in this research. In contrast, positive experiences would encourage potential female learners towards their desired pathway (Simon and Clarke, 2016).

The stereotypical views were the same for nearly all the participants. The view that an apprentice is male and in a pair of boots with a toolbox is outdated and entirely untrue with all the new areas of occupation. The only mention of a female was when a couple of interviewees brought up hairdressing. These occupational gender stereotypes are incredibly misleading and need to change. They were not expressed negatively, with everyone stating they would consider an apprentice a remarkably hard worker. Nevertheless, one could see how this stereotype would deter a young female from expressing the desire to do an apprenticeship without being judged.

Once the female was informed about the 5% participation by females, the researcher witnessed them becoming more irate about the topic, the more informed they became. To see them question the "why" was intriguing. They did not know anything about it nor heard of its values or benefits or all occupations on offer. To see the frustration on their faces as to why they had not was difficult for the researcher. The trends of the male stereotype, aimed at boys, and others looking down on them, occurred again. This contrasts with the amount of work done by SOLAS in recent years to increase female participants. One would question why the message is only getting to some and not to all school goers. Why are some being disadvantaged by the lack of knowledge and understanding surrounding the apprenticeship processes?

The parents reasoning for the 5% females was notably different to the students. Their answers were emotive, like their daughters may feel uncomfortable in a male-dominated work/training place. The students did not express this, nor the intensive labour tasks or the preconceptions that females would not be able physically for that type of work; it never entered the equation.

One would assume parents thought sexual harassment was the issue; as previously discussed, it is more renowned that females experience this in male-dominated workplaces. With evidence of high levels in such workplaces, it would be challenging for a parent to encourage their daughter to put herself into a potentially hostile situation (Union Learn, 2018, p.15). SOLAS should promote zero tolerance among employers and maybe publicise this in their campaigns. Promote open conversations and training to be aware of what creates a safe, anti-harassment working environment (Union Learn, 2018, p.16).

The non-politically correct comments suggesting girls being more suited to nurses' jobs or teaching vocations perplexed the researcher. To hear this type of conversation from adult males and females in 2021 seemed outlandish yet was said in a very matter of fact manner. They all have daughters, and none thought anything of their gender bias language. In their defence, they did not say it consciously, but that most occupations defined by gender are driven by society and the historical culture.

The suggestion that some girls would not want to be "the odd one out" or the "poster girl" and want to get on with the job like the boys was positive. The feeling that young women did not need special attention when they participate was interesting. Although the counterargument is the "see it to be it" desire from the students. They want to see the "poster girls" to see their success. It did not seem to be judged as the "odd one out", as perceived by some parents.

The main issue with the students that would deter them or someone they know from participating in an apprenticeship was a lack of awareness. The perception of others arose again; they did not want anyone looking down on them. When asked why other perceptions are so important to them, they stated, "it just was". This proves that in any awareness campaigns, their family and friends all need to be informed as they influence the educational decisions of the young female.

Money was a factor that only arose with parents, which was unusual. One could understand they may be a drop in wage, but the savings regarding traditional educational costs would far outweigh the difference. The researcher assumes the lack of knowledge surrounding an apprentice's wage, depending on the occupation, was why the parents considered it a negative deterrent. If they knew the actual wage/training allowance that some receive, this perception could change, as some can depend substantially on the apprenticeship and circumstances.

These parents disregarded apprenticeships because of their perceptions of low pay. They cannot see the long-term earning capabilities if they may have to take a cut in salary at the start (Daniel *et al.*, 2020). The lack of guidance regarding pay is an international issue, with SOLAS's guidance being "up to the employer". In contrast, in the United Kingdom, there is a set minimum wage for apprentices. Being more open about wages could entice more females (Lodovici *et al.*, 2013).

The other deterrents readdressed were the challenges that may occur from male-dominated workplaces; the students' manual labour and physical requirements never came as a deterrent.

## 5.4 Education

All the students answered the junior certificate as the minimum educational requirements for entry to the apprenticeship system. The interview sparked more questions regarding exact qualifications needed for a specific apprenticeship, which showed the desire to know more, which was a constant trend with all participants.

With some parents not realising minimum requirements, the conversation changed from apprenticeships' perception as dropouts to potential apprentices working hard in school to achieve the minimum requirements specific to their desired apprenticeship.

The reactions from the students concerning changes to career education in schools were unexpected. They wanted to be offered the same types of subjects as the boy's schools. They felt disadvantaged by their offerings. They then felt patronised that they get to swop once a week with the boy's school to do those subjects in the Transition Year, and a bit silly as the boys got to experience "home economics" as if it was for girls only. This surprised the interviewer as they had not known of this occurrence nor thought about subjects taught in a gender-based manner. The girls were infuriated that they could have a taster of the subjects for a year yet had no potential to pursue them for the leaving certificate, even if they thrived or felt a passion for one of them.

The previous research proves that explaining and highlighting how the curriculum is relatable in the work environment can open young people's minds to reality to understand better an occupation (Musset and Mytna Kurekova, 2018). It raises the question of who decides what is included in the curriculum in boys' schools and why it is different from girls.

The feedback regarding career/educational events was fascinating. The girls shared that they would rather experience smaller events with their parents to learn about opportunities together. This made complete sense; as stated previously, other perceptions are vital to them. So, if they could learn about new educational paths together, it may assist them in looking into broader opportunities. They want and need to see real-life examples arose again, with the desire to talk to thriving women in different career sectors.

This was reflective of the Organisation for Economic Co-operation and Development (OECD) findings, were in Canada, a broader comprehensive approach to career guidance in schools proved successful (OECD, 2004; Watts, 2009). The participants would like to merge experiences from all stakeholders, specific training for teachers/career guidance, and a parent coaching programme in Canada (ICCDPP, 2015).

The student's parents' changes were the need for more awareness and more creative campaigns in schools regarding female apprentices. The desire to chat with actual female apprentices and to be taken through the apprenticeship process from day one was highlighted again.

The parents also zoned in on the wages, again this was unexpected as they had previously stated that they wanted their daughters to go to college but were now contradicting themselves. They would encourage the benefits of apprenticeship to be more publicised to the students to show them they can earn money and get a qualification all at once, so they would not be overstressed/worked trying to combine college/work. The "earn and learn" benefits should be publicised more, to highlight these very concerns.

This led to the question regarding the National Qualifications of Ireland (NFQ) and the levels 1 – 10 (Appendix 1). The answers highlighted a lack of knowledge, with most not being familiar with the levels. This is remarkable as "going to college" was so important that they were not aware of degrees on the levels. They were all in dismay when informed that there are apprenticeships at all levels up to 10 PhD. The perception of apprenticeships being for poorly educated people was defended once more. One could hear thoughts of why not earn and learn to accomplish a degree or Masters, as the benefits were clear, especially when the qualification results could be the same.

## 5.5 Moving forward

The students used non politically correct language again when describing some of the new apprenticeships; they considered those aimed at women as being 9-5 desk jobs. Surprisingly they thought girls would be more interested in active apprenticeships. The students' ideas for other occupations to appeal to females was good, with social care, community work, veterinary, even personal trainer/fitness to attract them.

The discussion around the mixed classes was brilliant. They knew it could not be effective in all cases, but even some could make it more attractive for women. Even with the discrimination they had discussed, they wanted to be fair to the boys and thought the same should be offered for the female-orientated apprenticeships. This exhibited their respect and maturity. The AONTAS research also acknowledged and highlighted that the promotional campaigns that show women in craft roles were not reflected in real life when females went to class, which could deter them (AONTAS, 2020).

The parents were still advocating more information in the schools. The idea of showing off the young, dynamic apprentices was heartfelt. The parent's belief of "see it, be it" agreed with the student's desires. It was impressive that some parents were curious and inspired to investigate apprenticeships further.

The student's additional comments were to reiterate the indication for mixed classes at the time of enrolment and a greater focus on publicity with more engagement with female real-life examples. It is fascinating to discover that the main issue is simply a lack of awareness and knowledge, which could be quickly reviewed and addressed.

The idea to include their parents more, to change their perceptions surrounding apprenticeship was impressive. They understood that they might get more buy in to choose another educational route by educating their parents, therefore removing "snobbery" and people looking down on them.

This method was also used in the Danish project, where bringing children and their parents together for career classes led to family conversations about gender stereotyping. In turn, how not to allow them to interfere with choice or desires relating to the child's future (Fuller, A. and Unwin, L. 2014).

The parents commented that defusing or eliminating the "snobbery" that all students should go to college in the traditional sense. They wanted SOLAS to promote them as being on par with each other; people can earn money and come out with the same qualification, which they felt many did not understand. The realisation that their preconceptions were part of society and culture was informative.

The interview was thought-provoking, so they realised that some of their previous statements might have been "politically incorrect" but unintentional. This was a positive result, as the researcher had been taken aback throughout all the interviews. The participants were either female or had daughters, so this language displayed real deep-rooted discrimination.


## 5.6 Conclusion

Many factors arose in the literature review, while some did not come up in the interviews. It would appear the main point of contention is the Customer Experience (CX) which incorporates all the experiences, including awareness, career guidance, interaction, website, recruitment, communications, individual businesses, and so forth (Buttle and Maklan, 2019).

Improving all of these touchpoints, especially awareness, could positively impact the customer to promote apprenticeship. The literature concurs that touchpoints can entice the potential learner to the point of registration (Buttle and Maklan, 2019).

This engagement with school goers will produce knowledge and familiarity about the available programmes (Daniel *et al.*, 2020). Including the broader influence community of parents, friends and peer groups in this engagement is vital to its success. The behavioural research showed that informing the potential learner's influence group can improve the perception around apprenticeship, thus influencing the male-dominated environment (Matsuo and Tsukube, 2020).

The biggest challenge in Ireland and internationally is the deep stereotypes. These can differ between countries, but commonly, there is a perception among certain occupations generated from a young age (Matsuo and Tsukube, 2020; Simon and Clarke, 2016).

Research shows that children are unaware of such inequalities or stereotypes, with their understanding being that men and women are capable of anything. The EQUAL group observed that this changed as family and peers negatively influenced their future/social perceptions (Fuller, A. and Unwin, L. 2014).

This complements the need to educate young people and to assist in combating stereotypes being pushed onto the children from society. From the analysis of the primary research data conducted, society still has a preconceived opinion of apprentices and base their judgments on that— these perceptions of apprentices are of particular interest to the present research study. They all resonate with a lack of knowledge, understanding and awareness of apprentices and the apprenticeship programme.

## Chapter 6 - Conclusion and Recommendations

### 6.1 Conclusion to the Study

The overall aim of this research project was to identify and examine why females have such a low uptake into an apprenticeship in Ireland.

Following the research objectives outlined and presented previously, the researcher believes that a more thorough understanding of the subject area was achieved, with the research aims sufficiently accomplished as a result. With the qualitative and inductive nature of the primary data, which was then thoroughly analysed, the researcher believes to have obtained a more comprehensive understanding of the reasons that deter females from participating in an apprenticeship.

The interview process enabled the researcher to discover that the main deterrent of the young female students & parents of female students is simply a lack of awareness which entail influences others' perceptions and stereotypes. Based on the analysis of the primary research data conducted, society still has a preconceived opinion of apprentices and base their judgments on that—these perceptions of apprentices are of particular interest to the present research study. It would appear that they all resonate with a lack of knowledge, understanding and awareness of apprentices and the apprenticeship programme.

There was a common consensus among the participants that there is a need for enhanced publicity, awareness, understanding and real-life examples to educate students and their influential peer groups about apprenticeships. It was also expressed that addressing these issues from a young age could assist in changing gender stereotypes and enlighten people's perceptions as non-politically correct language was used time and time again throughout the interview process by all.

By initially focusing on the perceptions of apprenticeship concerning four main areas that exposed themselves from the literature review, Awareness, Apprenticeship participants, Education and Moving forward, the researcher was able to conduct highly informative interviews with the sample.

Besides the lack of awareness, another factor recognised by the participants more so than the literature to date was the difference between educational subjects for boys and girls based on their gender. Like in Australia, Ireland will need to call for the education system to promote the subjects needed from a young age for women to enter an apprenticeship and address disparities of the career advice given to young boys to young women (Simon and Clarke, 2016).

The most encouraging and rewarding part of the research was that all participants contacted the researcher in search of more information regarding the apprenticeship programmes (SOLAS,2021). The desire for these people to arm themselves with information about an apprenticeship to make educated decisions regarding their future, or their daughters future, is commendable. It motivates the author to ensure that this level of awareness is made available to all females.

## 6.2 Managerial Recommendations

Based on the various discussions presented, the author suggests the following recommendations to address the factors discovered from the findings.

### Improve awareness and understanding concerning apprenticeships

This study has revealed that many people in Ireland have zero or minimal understanding of apprenticeship, which results in them holding onto old fashioned, misinformed, preconceptions about apprenticeship and its participants. To address this, the author recommends the following:

### Apprentice of the year - Change the stereotype

SOLAS already runs a successful National Employer of the year competition that is currently widening to be regional throughout Ireland.

The author suggests building on this and creating an Apprentice of the year competition that would consist of the following:

- Regional competition, run locally by SOLAS in conjunction with the relevant local ETB
- Winners of both gender from each sector
- A female and male overall winner (possibly more in larger populated areas)
- As part of their prize, they become ambassadors for the apprenticeship programme with set subsidised duties to perform during their title year
- In agreement with their employers, they would be released from work weekly, to visit schools from primary to secondary, to inform and publicise the apprenticeship programme
- Monthly they could be available for community career education evenings run collectively with schools in each area

- They could attend parents' evenings and local events
- They could be part of the Generation A billboard campaign, which could build their notoriety and make them well known in their locality
- They could be part of all local and social media campaigns to raise the profile and educate people about apprenticeship

These actions could assist in changing the deep stereotypes in Ireland and internationally. There is a perception among certain occupations generated from a young age (Matsuo and Tsukube, 2020; Simon and Clarke, 2016). Building on the research that showed that children are unaware of such inequalities or stereotypes, these ambassadors could resonate with primary children and their parents.

There are many other benefits that could arise from the creation of such awards, and these would need to be explored further; the above are just initial ideas to combat the issues discovered in this Study. Having successful real-life examples will build on the value of "see it, be it", especially in female apprentices.

If addressed, the author hopes that young females will be:

- Informed of the options open to them regarding apprenticeships
- Understand what the apprenticeship process entails from day one
- Possibly have the option of mixed classes
- Be aware of salary/training allowance
- Understand the qualifications received once requirements have been met
- Be aware of progression paths that could follow

Hopefully, the result will be females being proud of their choices and not feeling like anyone is looking down on them for their chosen educational path.

## 6.3 Recommendations for further research

The current study has identified various topics for discussion which justify future research.

The sample could be a limitation because this information is from five students from four different secondary schools; this element of engagement from career guidance teachers would need to be investigated further, with a larger sample to ensure people are fulfilling their roles.

The research was conducted in unprecedented times, and one must consider if the recent Generation Apprenticeship campaigns have gone unnoticed because of the pandemic. The efforts made by SOLAS up to and since March 2020 would have received more notoriety if not for people not being in the right mindset to channel such marketing messages. One could suggest that if repeated at a further stage, the evidence would be different.

This Study revealed that peoples gender stereotypes have underlying repercussions for females choosing their career/education path. The European Commission's research that resulted in families discussing gender stereotyping and how not to allow them to interfere with choice or desires relating to the child's future (Fuller, A. and Unwin, L. 2014). The author recommends this area be researched further concerning Ireland, to improve and develop societies gender stereotypes from a young age.

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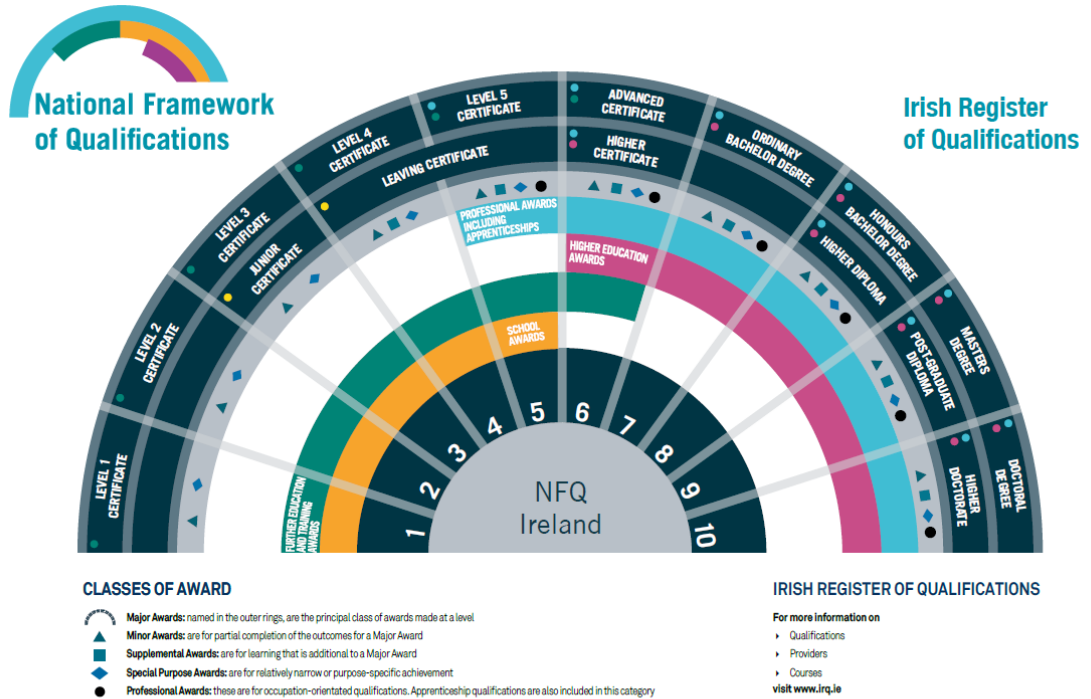
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# Appendices

## Appendix 1.

## The National Framework of Qualifications



(QQI, 2020)

**Appendix 2.**

**A sample of the Ethics form**

**Appendix 1 – Informed Consent Sheet**

National College of Ireland

**INFORMED CONSENT SHEET**

I hereby agree to give my consent for my responses to interview questions to be used and quoted anonymously in this student project at the National College of Ireland.

**Interviewer**

Name _____          Year _____

Module _____          Programme _____

**Interviewee**

Print Name _____

Signature _____

Date _____

MSc Marketing

**Appendix 3.**

**Interview Questions**

**Awareness, Apprenticeship participants, Education and Moving forward**

**Awareness**

Are you aware of the apprenticeships are on offer in Ireland? If yes, which apprenticeships and what do you know about them? If no, why?

Where did you hear about them (media, school, daughter, other)?

**Apprenticeship participants**

Who do you think participates in an apprenticeship and why?

What is your opinion on the reputation of the apprenticeship programme?

In your opinion, what does a stereotypical apprentice look like to you?

There are currently over 21,000 apprentices in Ireland. Why, in your opinion, are less than 5% of these females?

What would deter you or someone you know from participating in an apprenticeship?

**Education**

What do you think are the minimum educational requirements to enter an apprenticeship?

What changes would you make to career education in schools?

Explained the National Qualifications of Ireland (NFQ). What level on the NFQ do you think apprenticeship is at?

What qualifications do you think they receive at the end of their programme?

**Moving forward**

How could the Apprenticeship System be made more attractive for young females?

Any additional comments.