

MAKING CONNECTIONS

PRACTICE

INTERESTS

RELATIONSHIPS



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Making Connections

INTERESTS, RELATIONSHIPS, PRACTICE

Taken as a whole, a vocation or vocations are the best medium for the all-round development of a boy or a girl and, therefore, the syllabus should be woven round vocational training. ... Psychologically, it is desirable, because it relieves the child from the tyranny of a purely academic and theoretical instruction against which its active nature is always making a healthy protest. - Gandhi

This paper has been commissioned by Big Picture Learning and is concerned with how the three keys to successful learning (interests, relationships and practice) are present in Vocational Education and Training (VET) in the Netherlands and Ireland with attention to apprenticeships and apprenticeship experiences. Reference will be made to VET in Europe generally but Ireland and the Netherlands were selected as they provide an interesting contrast. From the 13th and 14th centuries, the Netherlands has a long history of skilled tradesmen's guilds and a culture of providing training in vocational and technical education; on the other hand, despite being a European country and neighbor to the UK, most of Ireland did not experience the Industrial Revolution and, with the exception of the northeast of Ireland, particularly Belfast, most of the Irish economy was based on agriculture and there was little provision for formal training in the skilled trades nor a need for vocational or technical education.

IRELAND

The development of vocational and technical education in Ireland from its inception in the late 1800s to its gradual evolution throughout the 20th century to its current structures and focus today, is neither straightforward nor comparable to CTE in the United States, though it does provide some interesting insights. The first Agriculture and Technical Instruction Act was in 1899, and in 1919 the Irish Education Bill, which was based on the passing of the Education Act in 1918 in England, was introduced. The English Act had, among other provisions, the ending of fees for elementary schools and raising the statutory school age to 14 years. The Irish Education Bill brought education at all levels, including technical instruction under a new Department of Education, and this part of the bill was



opposed by the Catholic Church believing that it would undermine control of their schools. During 1920, parliamentary opposition increased alongside general public hostility until eventually the Government decided not to proceed with it. The War of Independence intervened and matters of policy in education were side-lined.

Cooke (2009) states: “The Irish Government later introduced the Vocational Education Act, 1930 which had many of the features of the former bill, but applied only to Vocational Education and left the full clerical control of primary and secondary schools intact”. The Act took about 40 years as it was based on preparatory work done by Parliament in London in the 1890s, thus showing the persistence of a policy idea in the civil service and a general lack of urgency in providing for VET.

Most commentators in Ireland pinpoint the 1960’s and the 1990’s as significant periods when there was a deliberate linking of education with the needs of the economy and a higher prioritizing of vocational education. Furthermore, there was and continues to be a strong emphasis on the economic importance of training to build skills in the workforce and support the growing economy.

O’Reilly (1998) indicates that following an economic crisis in the late 1950s and after Ireland’s participation in the OECD (Organization for Economic Cooperation and Development) Conference in 1961, there was an important shift in government policy. Economic development and growth became a national goal and there was a push to, “integrate the Irish economy with the larger European and world economy and so to generate growth”. (O’Reilly, 1998, p. 199) These changing priorities happened in the context of vocational and technical education stagnating, an absence of industrial growth and a steep rise in emigration.

Coolahan (1981) and O’Buachalla (1988) suggest that the 1965 Investment in Education report is not only a foundation document for modern Irish education but also the first explicit official connection of education with economic growth.



Following this report, Ireland made significant changes in post-primary schooling and technical education. The governmental view was that, “educational outputs ... (should be) matched in a broad sense to the needs of the economy for scientifically and technically trained manpower”. (Coolahan 1981, p. 11) The report led to ‘free education’ at second level and the establishment of the Regional Technical Colleges. As stated in *Investment in Education*, “the level of trained manpower, given the current level of Irish economic growth, would be insufficient to meet the needs for such personnel in the 1970s without reform of the educational system”. (OECD, 1965, p. 2)

O’Reilly (1998) argues that this trend in education planning continued throughout the 1970s and 80s and was guided largely by wider European thinking and the criteria for the European Social Fund (ESF). To a great extent it was ESF funding that transformed VET in Ireland with pre-employment courses becoming available to all high schools.

Carter and O’Neill (1995) highlight the connection between schooling and the fostering of skills for employment and see this as an international trend taking hold from the early 1990s. Carter and O’Neill suggest that secondary and further education have been geared towards producing specific marketable competencies in the service of the economy. In their critique of the subsequent developments from this point, Gleeson and Ó Donnabháin (2009) complain that the Department of Education in Ireland followed a narrow approach to its strategy by allowing performance indicators and managerialism to dominate and by conforming to the trends in the UK. They argue that Ireland has used models that look primarily at inputs and outputs rather than focusing on the quality of learning outcomes. The connection between the economic view of education as a ‘servant of the economy’ particularly for increased productivity is characteristic of the managerialist perspective. Representing that view, Dustmann et al. (2007) state:

While in the past (and in many Continental European countries possibly until the first PISA¹ study) educational and training institutions were often seen as a providers of necessary skills for national economies, this view has changed dramatically, with education and training now being seen as a key ingredient for international competitiveness, and with institutions that provide education being a main ingredient that help secure competitive positions. (p.255)

THE NETHERLANDS

The Netherlands is one of those Continental European countries and it has a long and enduring history of ‘technical education’ if master craftsmen and guilds are included in this



category. “With the help of archaeological finds and archives, Jan Baart has been able to list the crafts practised in fourteenth century Amsterdam. He arrived at about 50 professions, varying from goldsmith, cross-bow maker and brewer, to cooper ... During the thirteenth and fourteenth centuries ... new professions were protected by the emerging guilds”. (Mak, 1995, p.16) It is interesting to note that the specialization of the trades had important implications for women. Prior to the establishment of guilds in Amsterdam, women participated actively in many of the trades; however, nearly every guild that was established was an exclusively male organization. It has been suggested that, at least in Holland, the guilds lead to a transfer of roles with the balance of power strongly favouring men.

Although the first guild is indicated to have been in India in 3800 B.C. and there were guild-like groups called collegia in Roman times, European guilds emerged first in England in the 1100s. Guilds were associations of craftsmen of the same trade or craft who joined together within a city or town. Guilds had set regulations, rules, and by-laws that every member had to abide by strictly. The rules of the guilds stipulated how things were to be produced, and they set their own prices. Skilled tradesmen's guilds passed on skills through apprenticeships, and they did restrict access not only to young men but to limited and selective numbers. Guilds lasted in Europe for about 700 years. When the guilds were abolished in the Netherlands (along with Germany) in 1794, apprentice numbers increased and new forms of VET education emerged.

In the Netherlands, “From 1860, burgeoning industry needed many more skilled workers, so full-time craft and technical schools were established throughout the country. The State gradually took over the burden of financing these schools, many of which were initially private ‘ambachtscholen’, i.e. vocational schools”. (<https://www.cedefop.europa.eu/files/32-en.pdf>). Dutch VET has been legally part of the education system since 1919 which effectively means that training and learning is not focused only on technical-instrumental skills but also includes personal and social skills.

Since 1973, the Decree on Secondary Education made vocational education two years of schooling and then two years of guided and increased vocational training intended to equip students appropriately and competently in their skill, trade or craft. The current VET in the Netherlands is based on a law adopted in 1996 that stipulates that vocational training has to support an occupational career, citizenship and further learning. “One element of career competences is learner awareness of own qualities, possibilities and values as well of the labour market opportunities; there is also an inter-cultural element”.



ALIGNMENT AND INTEGRATION

In the United States, VET in the formal educational system can be traced back to the First World War. On February 23, 1917, the Smith-Hughes National Vocational Education Act was signed into law. This Act initiated the federal government's investment in vocational and technical education within Secondary Education. The main disciplines that were initially funded by the Act concerned Agriculture, Homemaking, Trade and Industrial trades.

Prior to the Smith-Hughes Act, the Manual Training movement was shaping the direction of what would become formal vocational training in the US. This movement began in the 1870s and was first used to train engineers but expanded quickly including into public schooling. The manual training concept was developed and expounded by Calvin Woodward in St. Louis. The concepts were spread around the country by publications, including 'The Manual Training Magazine' and through the exhibitions of student works. One of the students in the St. Louis school presented his work at the 1893 World's Fair in Chicago. Manual Training focused on both academic and social development in relation to practical training 'of the hand and the eye'.

Philip Magnus, a proponent of Manual Training, described it thus: "The contrast between the listless and often inattentive attitude of children occupied with some ordinary class-lesson, and the eager eyes and nimble fingers of the same children at the carpenter's or modelling bench, is most instructive". Derived from the work of the Swiss educator Pestalozzi, Manual Training influenced the development of the Manual Arts in the 1890s based on the Swedish Sloyd system. Due to the Civil War there was a significant shortage of skilled labor, and industrialists looked to schools to provide training programs that would supplement or even replace the apprenticeship system.

Although originally designed for elementary school (much like the way Froebel, the founder of the kindergarten movement, and later Gustav Kalb, used woodwork with children), the Sloyd method of educational handicrafts provided a progressive and educationally sound alternative to the type of VET that emerged in the States following the Smith-Hughes Act. Otto Salomon, a self-taught educator from Sweden who dropped out of both a Technological and an Agricultural Institute, saw the need to engage student interests and allow students to practice handicrafts. Salomon initiated an international movement that was informed by



both ‘economic and formative’ values. “Economic education involves preparing a student to do a specific task or to learn a specific skill that can provide monetary return to the student and his or her community. Formative education involves the development of character, strength, curiosity, resilience, intellectual capacity and understanding that prepares the student for a meaningful life”. (Stowe, 2009, p.7).

There was tension and division on how VET should be organized and presented in American schools, and, unfortunately, as Charles Bennett acknowledged in his 1937 study, *History of Manual and Industrial Education*, the opportunity for all children to benefit from Manual Training and Arts was lost with the Smith-Hughes Act. The Act was signed into law by Woodrow Wilson, who expressed the following view. “We want one class of persons to have a liberal education, and we want another class of persons, a very much larger class, of necessity, in every society, to forgo the privileges of a liberal education and fit themselves to perform specific difficult manual tasks”. The cause of a person taking such a short-sighted and arrogant view was understood by Salomon. “... persons not manually trained, generally regard the products of manual labour as less than their real value. They think it much more difficult to solve a mathematical problem than to make a table”. (Salomon, 1898, p.6)

“As a nation, we lost our sense of the value of manual training in schools as we ceased to be primarily a manufacturing and agricultural economy. Our understanding of its value was based on what Salomon called ‘economic values’. The clear and widespread understanding of its other, formative values was put aside many years ago along with the passage of the Smith-Hughes and the decline of the Educational Sloyd.” (Stowe, 2009, p.7)

Since the passing of the 1917 Act and over the years, funding and subject diversity increased for VET and it became more theoretical and specialized. In the 1960’s and 70’s equal rights for persons of all abilities and ages and from all communities were written into amendments to the ACT. From 1994-2001 the ‘School-to-Work Act’ attempted to link school and industry learning with varying levels of success. The 1998 Perkins Act continued and deepened a focus on ‘alignment’ and ‘integration’ - CTE programs were to be (more) aligned with labor market needs, and CTE subjects were to be (more) integrated with (so-called) academic subjects. The focus on alignment and integration has persisted with considerable attention being given to how CTE can fit itself to the skill and competency demands of industry while also integrating STEM education into its programs.



Taking a broader perspective on vocational and technical education, whether in Europe or the USA, it is fair to say that it has always been tied to the perceptions of the needs of the economy by governments as well as more recently to how to be competitive in the international market. This linkage, though obvious, has had the perhaps unintended consequence of diminishing the educational status and value of VET and limiting the appreciation of the depth and range of skills and competencies that can be facilitated and developed through its programs.

This in turn has likely contributed, along with the dominant push to send young people to four-year colleges, to the serious shortages in skilled tradespeople across the industrialized nations and the pressing need to enhance, revamp, or transform CTE in schools.

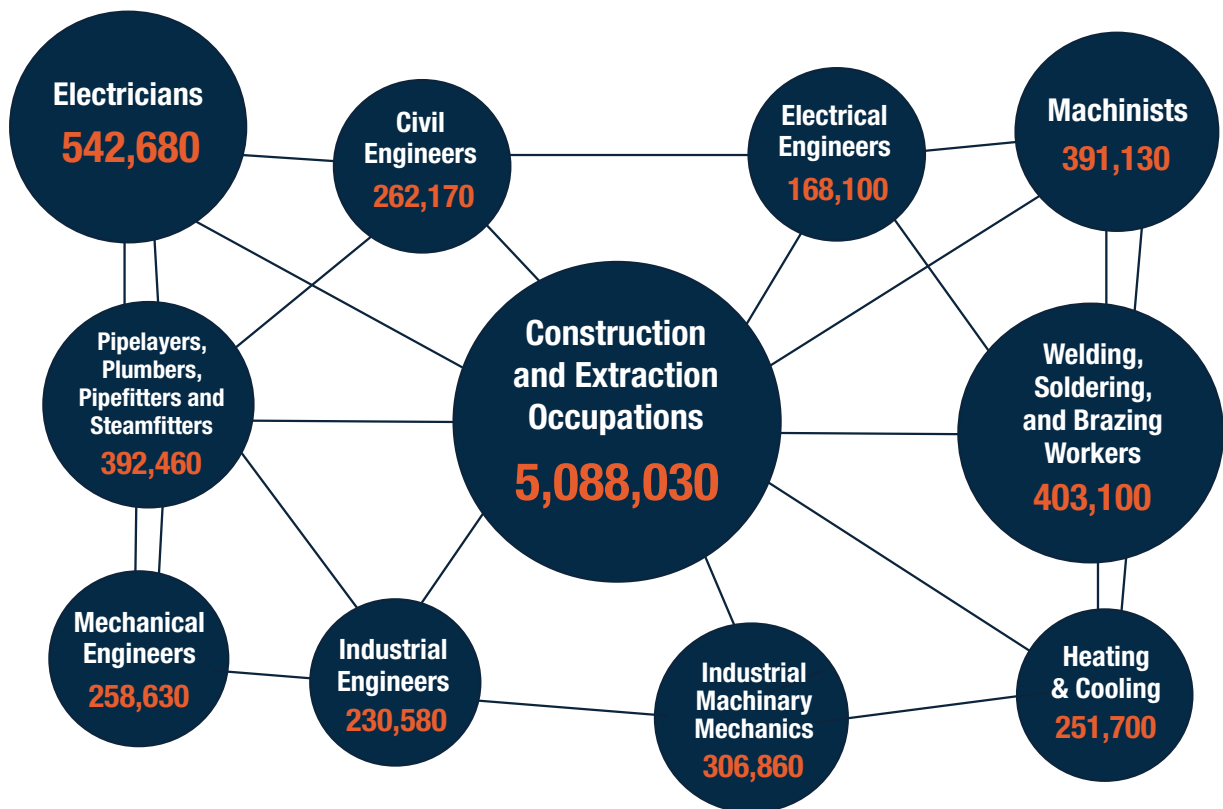
Figure 1 (www.adeccousa.com) shows the situation that is facing the United States in relation to shortages in the skilled workforce. Recent data indicates that nearly two-thirds of businesses are having difficulty in recruiting and hiring skilled tradespeople. Millions of jobs will not be filled, because there are not enough skilled people, and young people, in general, are discouraged from pursuing a skilled trade. Schools and many parents insist that the only way to success is through a college education.

Our country faces a critical shortage of skilled trades workers, now and for years into the future. Demand is high and growing for the electricians, carpenters, plumbers, and others who build, maintain, and repair the infrastructure that supports the entire U.S. economy. But, due to an aging workforce and limited awareness of opportunities in the trades, the supply of workers trained for these jobs is simply not keeping pace. The gap is already slowing down projects, driving up consumer costs, and limiting the ability of American companies to adapt quickly to major changes brought on by new technology or regulations.

Soricone (2020) p. 5.

Figure 1

62% The percentage of firms struggling to fill important skilled trade positions.



Over recent decades, the European Union has given considerable attention in VET to alignment, or it might be said to the negative consequences of misalignment, in vocational education. In 2002, the ‘Copenhagen Process’ was initiated to improve the quality of VET in Europe and to ensure that it is better connected to the needs of the workforce in the context of international competition. As part of the ‘Europe 2020 Initiative,’ the European Commission launched a ten-year plan in 2010 to improve youth employment prospects and VET. ‘An Agenda for New Skills and Jobs’ targeted the relevance of education and training systems across Europe to labor market needs.

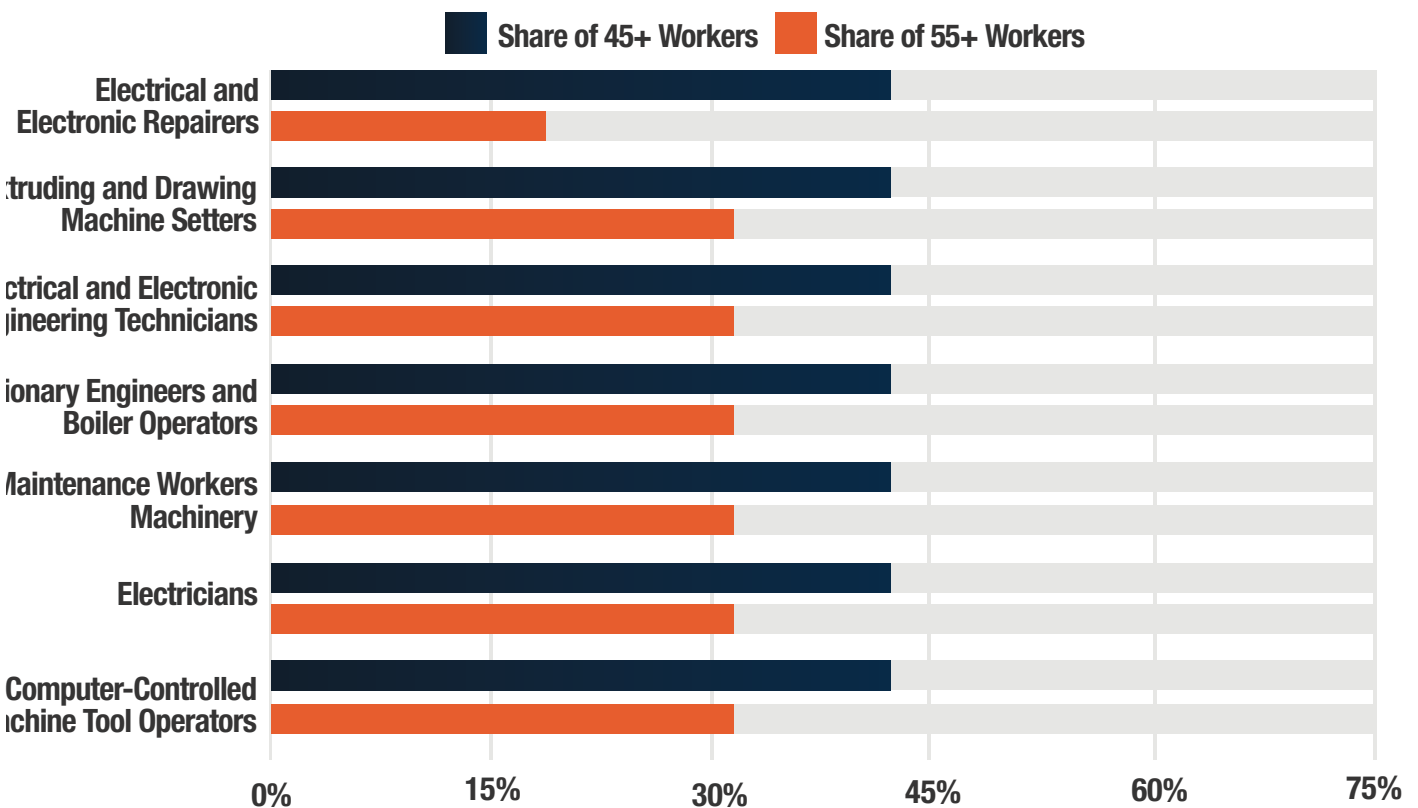
Figure 2 (www.adeccousa.com) explains how this situation has arisen and how it can be addressed with the involvement of young people. In the skilled trades, about 75% of the workers are people aged 45 or older, and about a third of all skilled tradespeople in these categories are over the age of 55.

A 2019 report, “Influences on Occupational Identities in Adolescence,” highlights that these disparities make a difference to young people and their sense of who they are and the work they can do. The report synthesizes research on occupational identity among young people, concerning how they see themselves in the workforce in the future, what skills they believe they possess and where they feel that they belong. Three key findings emerge in the research.

- 1** Exposure to role models, media, and instructional content influences how youth value and identify with different activities and occupations. Stereotypes create associations between occupations and identity categories such as race, class, and gender, creating barriers for many youth.
- 2** Engagement in activities parallel to professional practices in educator-guided projects and hands-on experiences (are very important). Implicit bias poses a barrier to marginalized youth when they get social cues that engagement in high-value fields is not for kids like them.
- 3** Participation in authentic communities of practice through work experiences, internships, and civic action (have great significance). Homophily, or the tendency to associate with others who share culture and identity, can inhibit participation in groups where they feel they do not belong.

Figure 2

The Oldest Skilled Trade Jobs



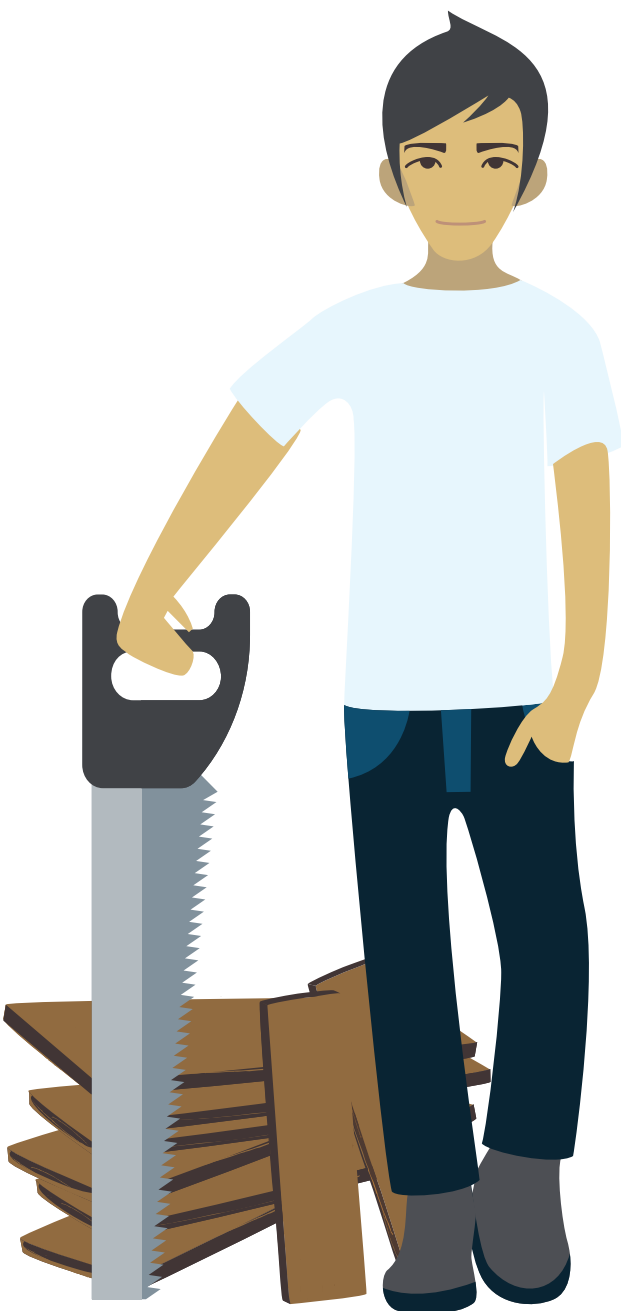
DISCONNECTED

Although they have followed distinctly different paths, VET in Ireland and the Netherlands now share the same general vision for students, and each educational system is effected by and responsive to labor market demands and international competitiveness in organising and designing its vocational provisions. Unlike the Dutch system, most Irish high schools offer a broader curriculum, beginning with the new Junior Cycle (ages 12-15) which features newly developed subjects and short courses, a focus on skills and competencies, and new approaches to assessment. After completing the Junior Certificate, students (ages 15-18) in most schools have a choice in the two-year Senior Cycle program to gain a traditional Leaving Certificate (academic), a Leaving Certificate Vocational or the Leaving Certificate Applied.

In the Netherlands, students will attend separate high schools with clearly defined paths that have either an academic (VWO), vocational (VMBO), or general secondary education (HAVO) curriculum and focus. The VWO and HAVO schools prepare students for higher education while the VMBO schools are aimed at the skilled trades. In addition, there are Practical high schools for students who have not obtained their VMBO diploma; these schools prepare students for specific places in the labor market.

In the 1990s the Irish educational system introduced significant changes to its Leaving Certificate program that were largely the result of EU initiatives in the 1970s. "Some of the most relevant programmes and interventions developed within this framework include: Community Based learning, Career Foundation Courses, Education for Enterprise, Mini Company programme, Work Exploration ..." (Gleeson and Granville, 1995, p.120) Pre-employment courses and Vocational Preparation and Training (VPT) in the 1980s introduced greater connections to the world of work and put pressure on the educational system to diversify its rigidly academic program and to acknowledge the need to serve the full range of students and to give credit to the merits of vocational and technical education. "The Traditional Leaving Certificate programme does not cater adequately for the variety of needs and abilities of students now completing senior cycle. A fundamental objective of the restructuring ... is to cater more effectively for the needs and aptitudes of all students". (Department of Education, 1995, p.50).

The Leaving Certificate Vocational Programme (LCVP) in actual fact did not and does not differ substantially from the established Leaving Certificate; it has remained a theoretical, exam driven course of study. The main difference between them is that the Vocational program includes what are referred



to as Link Modules (Preparation for the World of Work and Enterprise Education) that all the students must follow. As can be seen from this extract from the official LCVP guide, there is little flexibility and not much scope for student ‘voice’, and the development of students’ interests, practice, and relationships.

Requirements for the Leaving Certificate Vocational Programme, which is of two years’ duration, are as follows:

- *LCVP students must take a minimum of five Leaving Certificate Subjects (at Higher, Ordinary or Foundation Level) including Irish*
- *two of the above must be selected from one of the designated Vocational Subject Groupings*
- *they must study the two Link Modules, namely Preparation for the World of Work and Enterprise Education*
- *students are required to follow a recognised course in a Modern European Language (other than Irish or English).*

(National Council for Curriculum and Assessment, p. 10)

For all intents and purposes, the LCVP accords quite closely to the programs offered in the Netherlands to VMBO students. Opportunities and space for relationships, and student interests are rather limited and overall appear to be quite regimented. The emphasis is on the acquisition of theoretical knowledge and the demonstration of that knowledge through academic testing. This does not mean that students have no opportunity to practice and develop skills nor to explore their interests and the world of work; however, these are largely constrained by the school timetable and are prescribed, organized and overseen by the schools.

MARGINS

Where Relationships, Practice and Interests have been fostered and facilitated most in VET in Ireland and the Netherlands are within provision that has been developed for students considered to lack the ability to achieve in an academic program. This is interesting because these alternatives to the mainstream, high status programs and qualifications appear to allow for a richer and more dynamic educational experience for students. There may be many explanations for this but the simpler one is that these programs focus on the learner rather than the curriculum, the learning rather than the teaching and examinations, and the present experience as opposed to the future pathway or destination.





The Leaving Certificate Applied was introduced into the Irish educational system at the same time as the LCVP. The primary reason for this offered at the time by the Department of Education was, “Increased participation rates at second level have broadened the diversity, abilities and aspirations of students ... The challenge of providing an appropriate and beneficial education to all students is considerable ... One of the main objectives of educational policy is to encourage and facilitate as many students as possible to continue in full-time education after the end of the junior cycle” (ibid., p.44). Furthermore, it was ‘universally accepted’ that there was a need for alternatives to the Leaving Certificate to serve students “for whom the preceding academic courses were not suitable” (p.111)

Although dismissed by many commentators, educators, and even parents as a program for kids who could not cope or succeed with the traditional Leaving Certificate, the Leaving Certificate Applied (LCA) represents a sound and innovative educational program. Bray (1996) considered the LCA to be a program capable of motivating students who had not been active in their learning because it recognized their talents and abilities, and encouraged students to be involved in their learning.

The Leaving Certificate Applied has been designed as a two-year programme, with an innovative, modular form of course structure and a specific emphasis on active teaching and learning experiences. A feature of the programme is the strong community dimension, embracing work experience and out-of-school learning. The programme incorporates a common curriculum for all students with a particular weighting on vocational specialisms. (Gleeson and Granville, 1995, p.118).

In the Netherlands, the VMBO is the academic vocational program that is broadly similar to the aim and content of the LCVP in Ireland and has a large proportion of the Dutch student cohort. VMBO is well-funded in the Netherlands and ‘work-based learning’ features prominently; however, the vocational options and the worksites are mostly dictated by the schools with little scope for student-driven interests to be a factor. Furthermore, within VMBO, students are streamed and the lowest stream (MBO 1) with a relatively small number of students, “concentrates young people with disadvantaged backgrounds and yields comparatively poor labour market outcomes”. (Fazekas and Litjens, 2014, p.57) The other VET school option available in the Netherlands is Practical Education (praktijkonderwijs).

Practical Education, like the Leaving Certificate Applied, is considered to be “for pupils who have the ability to learn a trade but for whom VMBO would be too difficult”.

(<https://www.iamsterdam.com/en/living/everyday-essentials/dutch-education-system/secondary-school>)

In the Practical Schools, each student has a personal development plan which includes ‘self-reliance training, personal empowerment, employee skills training, and practical and theoretical subjects’. Many of the students have special needs and are given developmental tasks such as traveling independently, shopping, and cooking. Twelve of these schools have adopted the Big Picture Learning principles and practices that provide for a dynamic learning experience and allow the flexibility needed to serve one-student-at-a-time.

It is at the margins of VET within the formal education systems in Ireland and the Netherlands where there seems to be the most pioneering educational work and where relationships, student interests and practice are more of a priority. In Practical Education, there is a concentrated focus on the needs of the students with the scope to design a program that addresses those needs and serves their interest. There are much greater opportunities for learning outside of school; likewise, alignment and integration are in evidence as students’ are guided toward relevant labor market opportunities and practice meets theory. As one school notes: “The theory courses support the practical courses and are offered in a theme or project form in conjunction. As realistic as possible, as the student develops more and more independently and on the basis of his own passion and choices. The real world is an important starting point. In this way, the pupil ultimately forms his own route within practical education”.

Practical Schools allow students to do apprenticeships from the age of 14. A contract is arranged between the school and a business, and parents/carers agree to the terms. Students can spend a significant amount of time in their internships. In fact, if it is decided that it is better for the student to work at an apprenticeship than to attend school, they are permitted to work up to seven hours a day and 35 hours per week. Such an arrangement is unusual but possible. Most Practical Schools have students begin to consider their apprenticeships when they are 14 through shadow days and internships. At age 15 most schools will have students out one day a week or three times a year for a whole week. There is flexibility in all of that and each subsequent year will involve more time at an internship or apprenticeship.



Where the Netherlands differs from Ireland in VET is that their students have to choose a pre-set direction from about the age of 14, and there is little opportunity to switch from the course they have selected. Ireland does not impose as rigid a choice on students in VET; however, students in Ireland generally do not have the same availability of internships and apprenticeships. Moreover, work experience in Ireland tends to be for a maximum of two weeks at high school level, though this extends up to four weeks per year for LCA students.

The LCA resembles Practical Education in regard to both its program and assessment. It is split into three key parts – Projects (including key assignments and tasks), Work Experience (eight weeks over a two-year period) and written examinations. A student's overall grade consists of a combination of regular assignments and seven key tasks that include Work Experience (one-third), the completion of a student booklet or portfolio along with an interview with a State examiner (one-third), and written examinations (one-third). “Unlike the traditional national certificate programmes, there is a conscious integrative, cross-curricular dimension ... this is manifested in a variety of ways, notably in the Student Tasks” (Gleeson and Granville, p.119) “Tasks may be individual and group and should, in so far as is feasible, be chosen by the students themselves”. (NCCA, 1995, p.7)

This is how one student described his experience of the program.

Instead of everything being concentrated on a single, high-stakes exam, my results were helped in part by class work, project work and work experience over a two-year period. The programme helped me achieve my full potential. I have dyspraxia, a developmental disorder which causes difficulty in activities requiring co-ordination and movement. Along with things that affect me on a daily basis, I found it hard to complete exams. Throughout my school life I found it difficult to achieve, even though I was putting hours of extra work in every week.

(www.irishtimes.com/news/education/why-is-no-one-celebrating-the-applied-leaving-cert-students-1.3191174)

One teacher provided the following insight into the LCA. “I have seen the benefits of the Leaving Certificate Applied approach ... for many students. At its best it is a wonderfully engaging process that enables students to grow and to see, to reflect and to act. It fosters enthusiasm and confidence, co-operation and commitment. It transforms ‘I can’t’ into ‘I can’ by changing the learning agenda”.



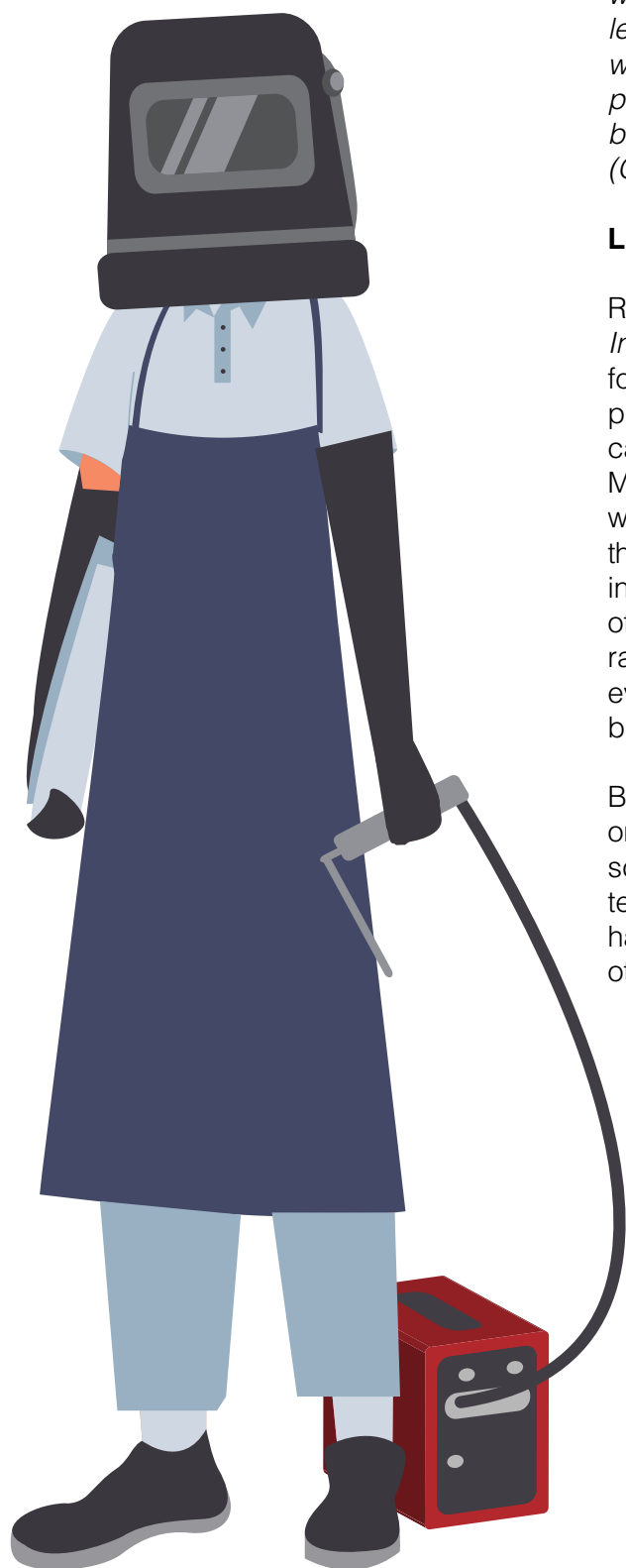
CHALLENGES

One challenge for VET within the educational systems in Ireland and the Netherlands is to add flexibility to the established and higher status vocational programs so that they allow for student interests to be given a standing in the curriculum. A related challenge is ensuring that educators are prepared and able to work differently with students, especially those who are engaged in newer programs that allow for more out-of-school learning, the pursuit of their interests, and the refinement of practices. A teacher of the LCA sums this challenge up well and his insights are reminiscent of a repeated saying by Feldenkrais - "Teaching and learning are two independent processes, and usually they do not correlate."

Consider my difficulty for instance: I am secure in my twenty year expertise as a chalk and talk performer. I get good results with my (LCVP) students. You now ask me to assume a different role, a more improvisatory style. You ask me to include audience participation. In fact, I am now supposed to be part of the audience at times and to switch roles maybe several times in a performance. Instead of using my well-thumbed and annotated script you ask me to rely on a work in progress. I am invited to innovate and be creative. I am encouraged to devise scenarios, to take risks, to relate, empathise, communicate, affirm, challenge, shape, direct, entertain. I am asked to let go when I have been trained to take hold, to participate when I am conditioned to control.

A further challenge for VET and one that needs serious attention is to create many more opportunities for students to practice the trades they are interested in with skilled tradespeople, mentors and professionals in worksites over a long enough period of time to develop meaningful relationships and explore interests at a much deeper level than is available at present. Both countries have been recognized to have good to excellent apprenticeship programs for post high school students, and "work-based learning forms a large part of the Dutch VET both in school-based tracks and apprenticeship programmes". (Fazekas and Litjens, 2014, p. 57) Nevertheless, there are insufficient opportunities for apprenticeship experiences for students in high school even though there is compelling evidence of their benefits.





Apprenticeship is an outstandingly successful model of work-based learning, and a way to develop skills and transition young people into work. It needs to be actively supported, in partnership with industry backed by quality assurance, and developed in novel territory such as in public administration. In apprenticeships, but also more generally, work-based learning has such profound benefits, both as a learning environment and as a means of fostering partnership with employers, that it should be integrated into all vocational programmes and form a condition of public funding. It should be systematic, quality-assured, assessed and credit-bearing. (OECD, 2015, p.7)

LINKAGE

Research in 2018 by Renold et al. entitled *Comparing International Vocational Education and Training Programs* found that, “What differentiates the strongest and weakest VET programs is the level of linkage between actors from the education and employment systems”. (p.1). Buchmann and Mueller (2016) found that employers increasingly value applicants who have had work experience as part of VET, and they assert that substantial workplace experience helps graduates transition into work. These views are strongly supported by the findings of a comprehensive ten-year study by Bolli et al. (2017) which raises serious questions about the value of school-based VET, even suggesting that VET without workplace experiences can be detrimental to labour market outcomes.

Bolli and his colleagues distinguished between VET that was only school-based and VET that was ‘dual work-based and school-based’. They examined data from 35 countries over ten years and found that two programs with identical curricula have very different impacts if one is only school-based and the other is dual-VET.

According to our results, introducing or expanding school-based VET or dual VET will most likely have opposite effects. Despite the fact that both programmes contain a high amount of vocational content, the worsening effects of school-based VET on the youth labour market integration might indicate that such programmes do not meet the needs of the labour market. Van der Velden and Wolbers (2003) thereby argue that dual VET always imparts occupations-specific skills and therefore has a strong vocational specificity, while this does not have to be the case for school-based VET. Additionally, school-based VET programmes do not include much workplace training, where students can apply the skills learned at school in the daily routine, thereby becoming productivity relevant. Furthermore, the institutional link between the education system and the labour market is often weak in school-based VET, which might lead to outdated training standards (Zimmermann et al., 2013). Hence, dual VET programmes prepare young people better for the labour market, thanks to the vocational specificity of the imparted skills and the high amount of workplace training. (Bolli, Egg and Rageth, 2017, p. 36)

This study is highly significant and should inform how CTE/VET is organized and delivered. The researchers did not investigate or speculate on why dual-VET makes such a difference, but it would seem very likely that when students are outside of school in workplaces with professionals practicing work that they are interested in while developing relationships in communities of practice, this ensures ‘vocational specificity’, ‘alignment’, ‘integration’, and ‘productivity relevance’. “When education-system actors have all the power, the result is school-based education or VET that ignores the needs and opinions of employers. This leads to a number of common VET-program struggles, such as a mismatch between education students received and the job market” (Renold et al., 2018, p.4)

VET VIEWS

Notwithstanding the limitations highlighted in the research by Bolli and Renold, VET in both Ireland and the Netherlands is held in reasonably high regard and has gained in status over the years. In a huge study involving 26,840 European citizens in all of the 27 European Union Member States, attitudes towards VET were studied and analyzed. The results provided quite a favorable picture across most countries.

Most people in the EU think that VET has a positive image in their country with Malta and Finland showing the highest levels of approval (92% and 90%). The figure in Ireland was 76% (5% above the average) but surprisingly, in the Netherlands only 50% thought that VET had a positive image (Figures 3 and 4).

Figure 3

QA. Do you think that vocational training has a very positive, fairly positive, fairly negative or very negative image in (OUR COUNTRY)

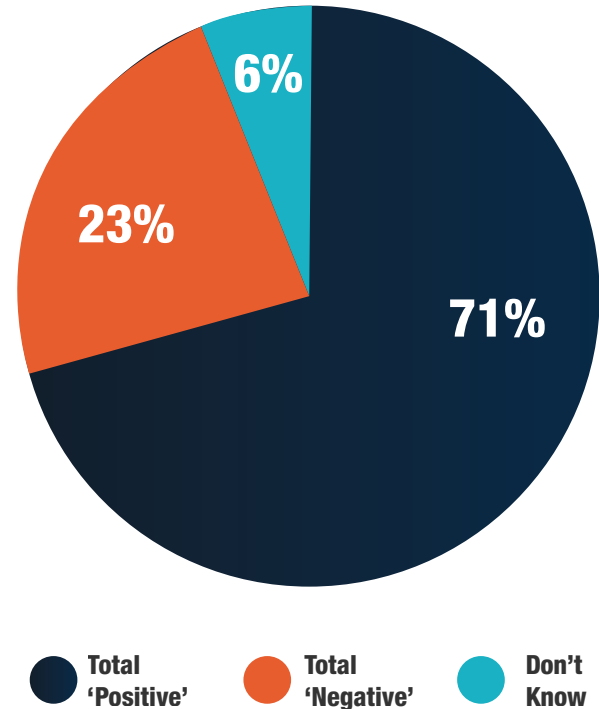


Figure 4

QA. Do you think that vocational education has a very positive, fairly positive, fairly negative or very negative image in (OUR COUNTRY)

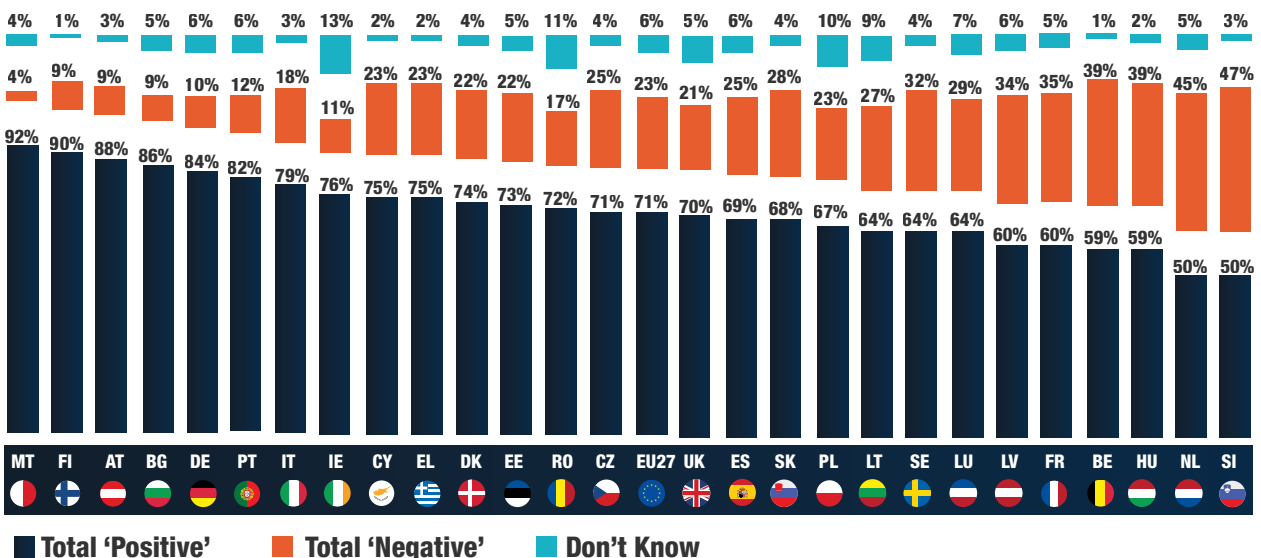
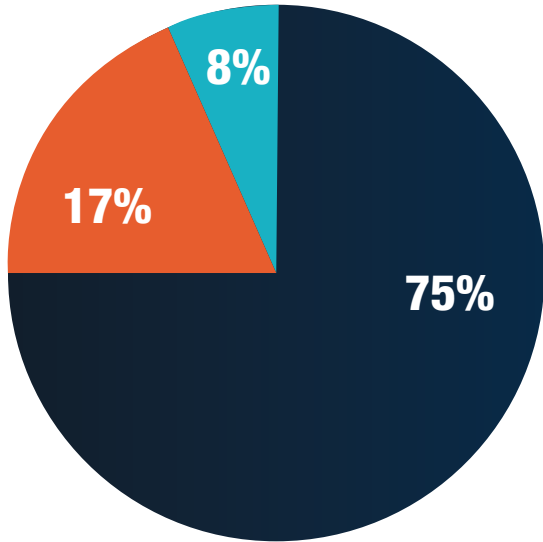


Figure 5

QA. Please tell me to what extent you agree or disagree with the following statements.

Vocational education offers high quality learning.

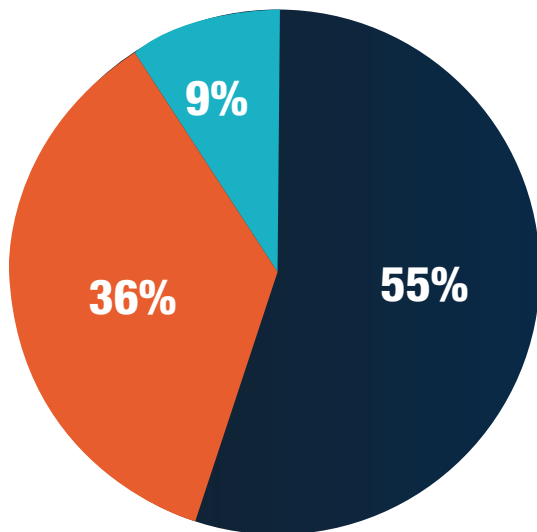


● Total 'Agree'
 ● Total 'Disagree'
 ● Don't Know

Figure 7

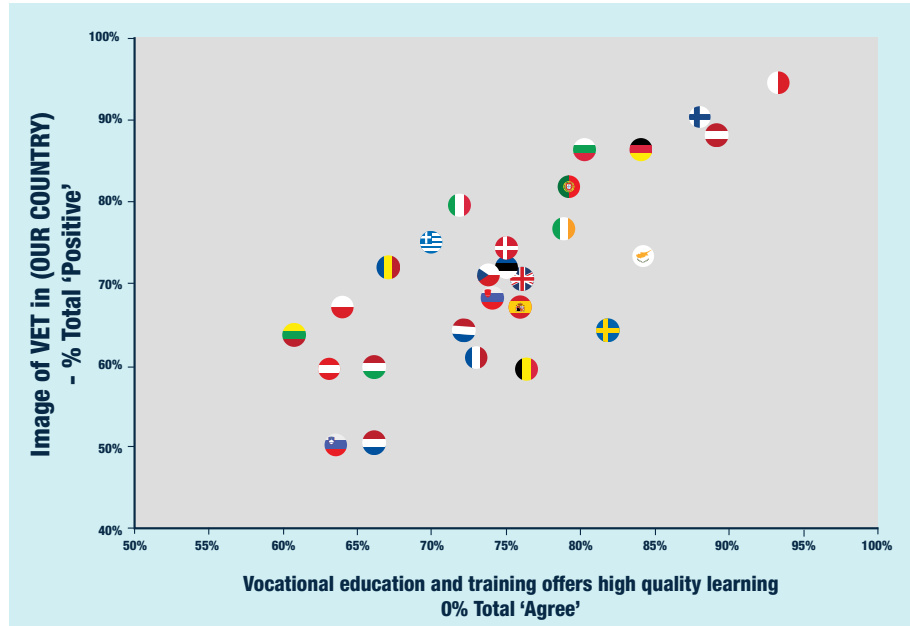
QA. Please tell me to what extent you agree or disagree with each of the following statements.

Vocational education and training lead to jobs that are well paid.



● Total 'Agree'
 ● Total 'Disagree'
 ● Don't Know

Figure 6



Figures 5 and 6 show that a large majority of the sample believe that VET in their country provides high-quality learning. Figure 6 indicates that in the Netherlands, nearly 70% of respondents see VET to be of high quality; in Ireland it is about 80%.

It seems clear that VET in Europe is held in much higher regard than CTE in the United States. Although some skilled trades in Europe may not have a very high status, they enjoy a higher standing compared to the US. The majority of respondents agreed that VET is a route to a well-paid job (Figure 7) and this view no doubt contributes to the positive perception of VET and of the skilled trades.

Two other findings from the EU research that are relevant to this report are 'the sources of information that people cite as influencing their choices in education' and 'the important factors that determined that a person would follow a vocational pathway in school'. Figure 8 indicates that various sources of information influence educational choice, but it shows that the biggest influence (20%) comes from family while 19% claimed that they did not use any source of information. The internet and online social networks were reported as the key information source for 10% but this figure is likely to be much higher today since this survey was carried out almost ten years ago.

It seems noteworthy that 4% of respondents were influenced in their educational choice by their experience of a job; this adds further weight to the need for more work experience, work placements, internships, and apprenticeships. If young people had more exposure to the real world of work, this may very likely shape their educational and career paths.

For people who chose a vocational path in their education, 94% said that 'interest in a subject' was an important factor in their decision-making (Figure 9). The significance of interests should never be overlooked as it is so crucial in making choices, in personal motivation, in readiness to learn, in opening opportunities, making friendships, and providing meaning and fulfilment. 'Future employment opportunities' and 'type of teaching' (89% and 86%) were also very important factors for people choosing to attend VET. 'Type of teaching' refers to 'practical' or 'academic', but because most students will have only been exposed to 'academic' teaching, this may raise some questions about the type of teaching offered to younger students and whether more opportunities for vocational exploration and practical teaching would be beneficial to students prior to high school.

Figure 8

QA. Which of the following sources of information, if any, have you used or are you using to choose your educational path?

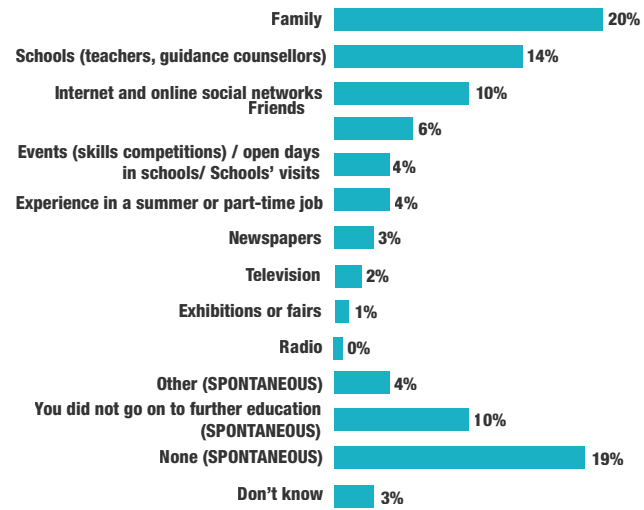
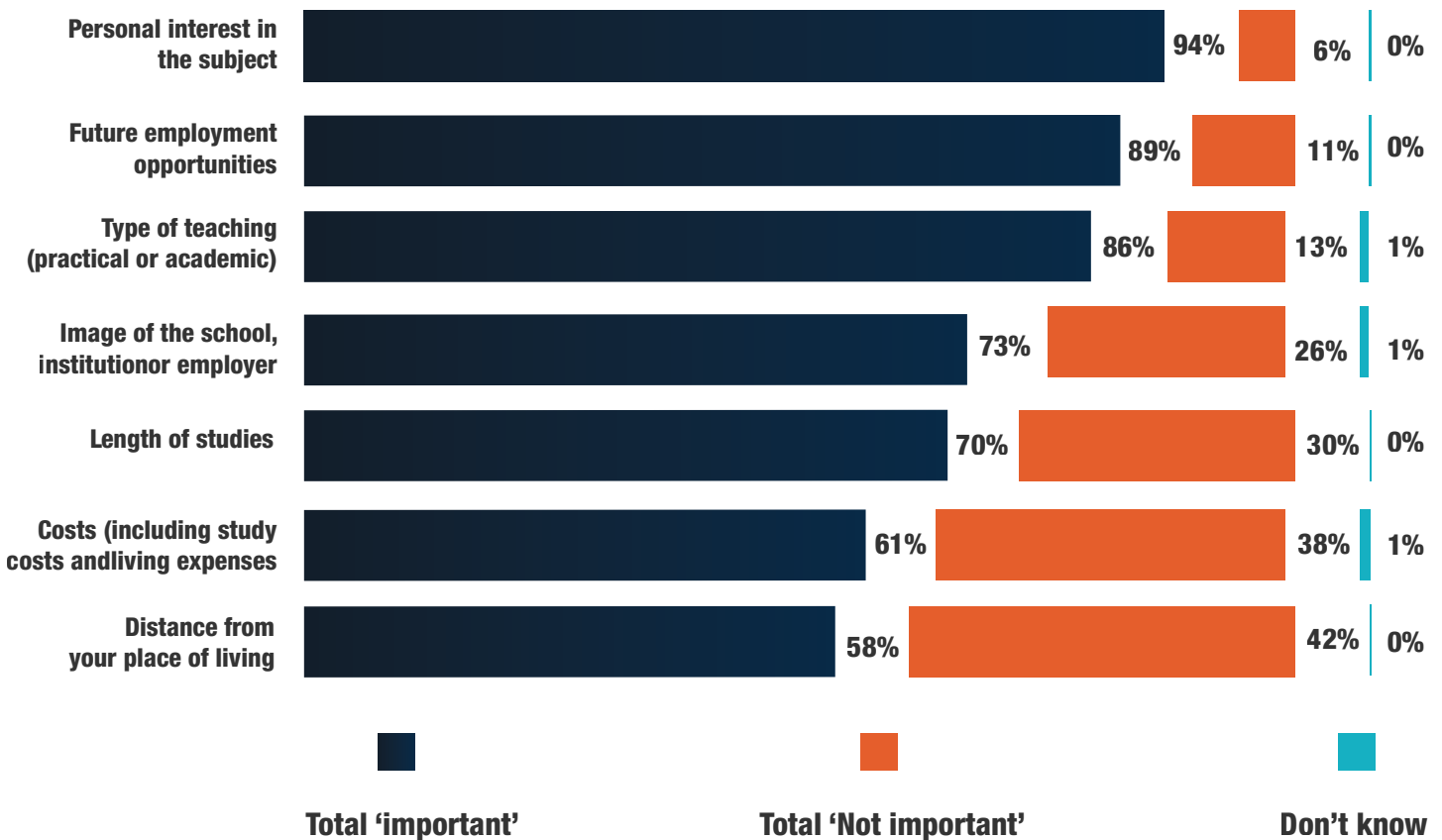
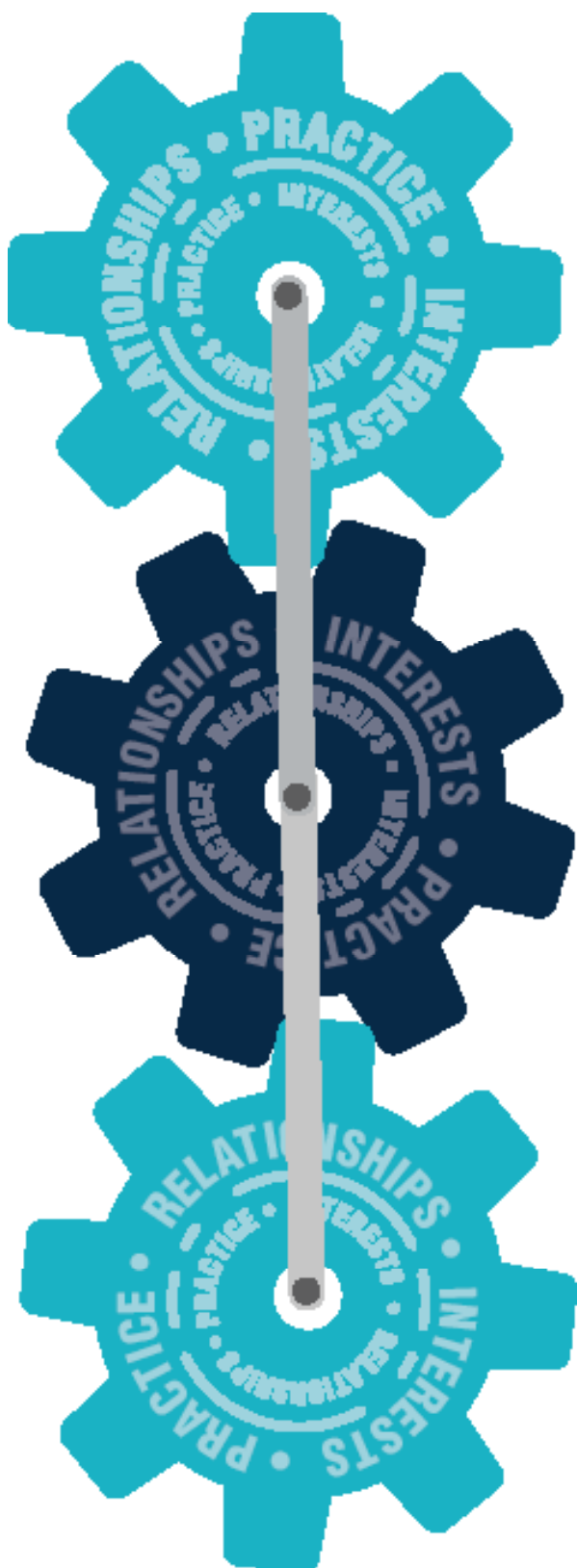


Figure 9

QA. When you decided to follow a vocational pathway, how important was each of the following factors for you?





CONCLUSIONS

My educational method offers to its pupils from the beginning the opportunity to collect their own experiences from things themselves, to look with their own eyes and to learn to know by their own experiments, things and the relations of things to each other, and also the real life of the world of humanity.

– Friedrich Froebel

Interests, Relationships and Practice – students learn best when they are interested in something, and they learn the most from what most interests them. “The true stimulus of attention, we have said, is interest; the greater the interest, the greater the attention”. (Salomon, 1898, p.45) Students learn from other people, in relationships and when they are able to relate to what they are doing. Relationships formed around shared interests are natural and allow the opportunities to deepen learning, expand horizons, open doors, and generate further learning and work possibilities. As Elliot Washor of Big Picture Learning says: “It’s not so much who you know, but who knows that you know”.. When students can practice what they are learning, they learn more; they learn by doing, they connect the theory to what they are practicing, they make connections in the real world, and they connect with others. When schooling is devoid of interest, relationships, and opportunities to practice, it is always diminished because it is disconnected. Where Interests, Relationships and Practice connect, students and student learning flourish.

The purpose of this paper was to see how Interests, Relationships and Practice are part of vocational education and training in high schools in Ireland and the Netherlands. Each country provides VET to students from the age of twelve. In Ireland, it is offered in the Junior Cycle as part of the national curriculum to a limited extent and then available full-time in the Leaving Certificate Vocational and also in the Leaving Certificate Applied. In the Netherlands, VET is delivered in VMBO schools or in Practical Schools. In both countries, the LCV and the VMBO are heavily academic; though there is provision for work experience, work-based learning, internships and (in the Netherlands) apprenticeships. Both the LCA and Practical Schools are, in general, held in lower regard and are viewed as serving students who are not as capable as their peers in LCV or VMBO; yet, it is in these more marginalized programs where there is the greater connection between Interests, Relationships and Practice.

Compared to the USA, VET and the skilled trades are held in higher esteem in Europe. The European Union has endeavored over the past 20 years in particular to raise the standing of VET and the status of the skilled trades. With the significant gaps and shortages in the trades in the United States, it should be a matter of priority across the educational system to enhance the quality, profile, and educational soundness of VET/CTE. The research suggests that the best way to do this is to create linkages between educators and employers, and to make sure that theory (academic learning) is balanced and complemented by practice BUT practice in workplaces with a 'community of practitioners' where students can be mentored, align and integrate their learning, and form relationships with skilled professionals.

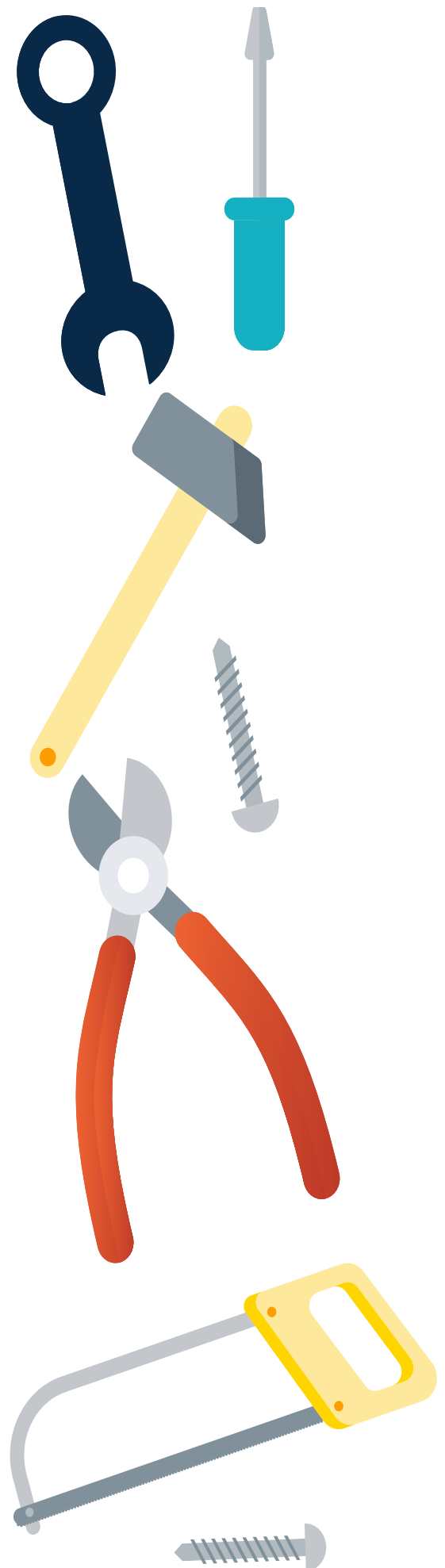
To learn a thing in life and through doing is much more de-veloping, cultivating and strengthening than to learn it merely through the verbal communication of ideas.

- Friedrich Froebel

Salomon looked upon the contemporary elementary school as being too theoretical—and even that in a most insubstantial way since factual knowledge was learned by heart and repeated. This rote learning of pure facts led to the children adopting negative attitudes towards the school and towards each another: vanity, arrogance and bullying behaviour were commonplace. The children also suffered from being seated for long periods without any physical activity. A child has a desire for both knowledge and activity. (Thorbjörnsson, 1994, p.473)

Let the youth once learn to take a straight shaving off a plank, or draw a fine curve without faltering, or lay a brick level in its mortar, and he has learned a multitude of other matters which no lips of man could ever teach him. - John Ruskin

When students are able to explore their interests where they are connected with each other and with their teachers and mentors, and when schools allow them to connect their theoretical learning with practical learning on internships or in apprenticeships with skilled workers, they will be engaged, see their work and learning as meaningful and relevant, and be enabled to pursue their potential in ways that could not have been otherwise available to them.



MAKING CONNECTIONS

