



Building Vocational Identity in VET learners

Warren Guest

Victorian Skills Authority Fellowship, 2024

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The International Specialised Skills Institute

1/189 Faraday St,
Carlton VIC 3053
info@issinstitute.org.au
+61 03 9347 4583

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02

Executive summary

Apprenticeships play a crucial role in Victoria's industrial, social, and economic growth. Skilled tradespeople are crucial for the states plans for rapid expansion and population growth into the future. However, Australia is currently grappling with a significant issue of low apprenticeship participation and completion rates (NCVER, 2022). This fellowship project has sought to address this challenge by exploring potential solutions in the Swiss and German Vocational Education and Training (VET) systems.

The research builds on a previous study conducted by this author which examined the VET curriculum used to train apprentices within the Victorian food trades (Guest, 2022). The study's findings identified that apprentices with a low sense of vocational affiliation were more likely to leave their training before completing. The study further identified that some employers and VET Registered Training Organisations (RTOs) were able to design an engaging curriculum that developed a learner's sense of identity, presenting an insight into the important role that curriculum systems play in developing identity and belonging. However, the topics of vocational identity and curriculum are under researched, and little understood within the state of Victoria and more broadly Australia, prompting the need for a study which examines successful international models which incorporate identity building in their curriculum.

The Swiss and German apprenticeship training systems are internationally celebrated for their high rates of learner participation and completion

(Hoffman & Schwartz, 2015). Both countries integrate classroom learning with on-the-job training, fostering a strong link between curriculum and practice. The close collaboration between industry, business, educational institutions and apprentices ensures that the two countries curricula reflect the interests and requirements of all stakeholders. Both nations attribute the effectiveness of their training programs to the cultural notion of 'beruf' and the development of vocational identity. The research for this fellowship examines these two curricula systems conceptualisation and application of beruf and its development of vocational identity in their apprentice learners. The research study framework is designed to examine both ethos and praxis. It examines the values and purposes that shapes the concept of beruf, and further, how the concept informs these two countries VET training curricula. Data has been collected qualitatively through interviews, observations, and document analysis over a two-week study tour in both countries. The research identifies important conceptual findings with practical applications. These are identified below:

Conceptual Findings

1. Vocational identity is embedded within the Swiss and German systems through the concept of Beruf. Beruf is a multi-dimensional construct consisting of three core elements: the individual element relating to self-knowledge and informed desire, leading to informed choice; a social element concerning the recognition and acceptance of one's role and contribution to society; and an economic element

which delivers the graduate with a ticket to practise and a place in the workforce. (Gerick, 2022)

2. The individual element of beruf is achieved through the apprentice identifying their own field of study and finding their own apprenticeship. In both countries apprenticeship training is embedded in the secondary education system, with extensive resources available to help learners investigate individual aptitude and personal proclivity towards an occupation.

3. Both systems contain social and moral purposes which are written into the VET curriculum as learning objectives. The Australian training curriculum of Training packages and units of competency are focused on tasks, standards of performance and outputs. The Swiss and German systems are extended further, emphasising the important role and social contribution that all trades make to society.

4. The Swiss and German governments actively valorise their apprenticeship systems. Apprenticeships are respected and considered a form of high-quality education which is supported through federal education and industry support. In contrast, Australian apprenticeships and VET qualifications in general have arguably experienced declining status (Billett, et al., 2022). This research identifies how the respective governments create a trusted and respected system of apprenticeship through industry led investment, federal funding and quality assurance measures.

Practical and policy applications

It is recommended that:

1. The research suggests that the Australian VET system has shifted from one with a social purpose to one with a market purpose. This is evident when compared to the Swiss and German models which incorporate a balance of professional and personal competencies. In Australia, competency is understood as 'knowing and doing' in different contexts and at a consistent level. It is very task focused. The Swiss and German view goes much further than that, explicitly focusing on the application of personal or social competence in a

work context, and the transferability of competencies across variable contexts. The risk in Australia is that learners train for specific occupations rather than broader sets of vocational fields. This has implications for citizens' chances of finding work in a shifting landscape of labour market requirements. It also has implications for our national industries that rely on flexible and evolving skill sets. This can be avoided through reframing units of competency away from their current task focused objectives towards a broader European understanding of capabilities.

2. The role of industry as the principal designers of Australian Training package curriculum has led to an increasingly task-focused curriculum of extensive lists of knowledge and assessment requirements. Units of competency are overly prescriptive, inflexible and lack the transferability they were originally designed for. The Swiss and German systems provide a balanced example of a tripartite model of industry, educators and government in curriculum design. It is recommended that the Australian system return to a more balanced model of stakeholder engagement where industry define the skills standards, educators prescribe the learning outcomes and governments assist in their role of quality assurance.

3. Australia's VET system is complex and confusing. For example, the Australian Training package which contains the apprenticeship qualification Certificate III in Commercial Cookery has 2445 pages, whilst the Swiss Training curriculum known for the same qualification has 12 pages (Hotel & Gastro Union, 2014). Furthermore, information on Australian VET career pathways is available mostly online across multiple systems and is fragmented and difficult to navigate (Joyce, 2019). This study compares the three nation's VET curricula systems and identifies areas where the Australian system could be reformed to provide a less complex system which is easier for apprentice learners to navigate and participate in.

4. In both the Swiss and the German systems, the employer needs to hold a training qualification to ensure their training capability. The qualification requires forty training hours and is roughly the equivalent of the Australian Certificate IV in Training and Assessment. While the process of obtaining the

qualification might be considered an extra burden on business and industry, having a designated trainer with knowledge of pedagogy and training practices would provide a level of quality assurance for apprentice learners.

5. The Australian Certificate 4 in TAE does not equip its educators with the skills required to effectively design curriculum content and apply it to practice. It is recommended that the qualification be extended to focus on curriculum design and practice methodologies that can assist educators in their training and assessment activities. As it currently stands, Australian trainers lack the skills and knowledge to develop engaging course curriculum and will resort to using units of competency as checklists for compliance.

6. Capstone assessments are important tools for determining holistic learner proficiency at the end of their apprenticeship journey. In the Swiss and German curriculum models the apprentice sits a final capstone assessment at their Industry Branch Association. The process allows the industry to participate in the validation of a learner's skill and knowledge before their qualification is granted. The capstone thus provides quality assurance over future workforce for industry groups, and for apprentices who can be confident that their acquired training skills have left them 'job ready'. Embedding capstone assessments in the Australian system would remove the need for over- prescription in Training packages, which is currently incorporated as a form of quality assurance by industry representatives.

The study tour and research findings have contributed towards a deeper personal understanding of vocational identity building and its importance for learner commitment to their trade. The concept of *beruf* and its elements of social contribution and personal competence has allowed the report author to consider the design of the current Standards for Registered Training Organisations (2015) used to frame the Australian VET curriculum. It has provided a point of reflection for how Switzerland and Germany define competency to include broader notions of personal fulfilment, a social contribution and interpersonal competencies. The timing of

the research coincides with a Commonwealth government initiative towards reviewing and reforming VET qualifications. In my role of researcher and advisor to the VSA and the VET reform committee, I will draw on these conceptual understandings to consider the possibilities of VET reform. Finally, the insights from the study tour and the research findings have transformed my professional practice as a cookery trades teacher. The primary motivation for the fellowship was to identify best practice in curriculum design and its implementation that can assist apprentice learners to develop a sense of vocation and belonging to their trade. The new personal understanding has been transformative and will shape my instructional design and practices going forward, with a focus on creating curricula that promote a sense of vocation and belonging among apprentice learners.

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Fellowship Background

Context surrounding the study.

Australia is currently grappling with a significant issue of low apprenticeship completion rates, with some traditional trades like baking and cookery experiencing completion rates as low as 37% (NCVER, 2022). There are many reasons why an apprentice might decide to leave their apprenticeship. For example, low wages, lack of support, not liking the work, and issues with the employer are all identified broadly in the research (Bednarz, 2014; NCVER, 2008); while others identify issues of social inequality such as regional isolation, disability challenges, Indigenous status, and gender (Ball & John, 2005; Dickie, McDonald & Pedic, 2011; Snell & Hart, 2008). This fellowship project aims to address this challenge by exploring the success of the Swiss and German apprenticeship systems for potential solutions. The research examines these international curriculum models and the strong emphasis they place on nurturing a learner's sense of vocational identity to their chosen trade. The findings are intended to inform the policy that shapes the Australian VET curriculum and its implementation by practitioners.

A young person's decision to choose a career can be influenced by many factors. These may include economic motivations such as education course costs or the potential salary upon completion, or students may be drawn towards the social status and prestige of a particular occupation. These decisions are often made as a means of supporting themselves and planning future security in their working careers.

However, secondary school leavers may also develop an interest in an occupation based on their personal capabilities and talents, developing a self-awareness of something they're 'good at' leading towards an affinity towards a particular profession. In such cases, students are said to be identifying with a 'vocation'. Vocations are differentiated from an occupation through their sense of personal purpose. The purpose may be a strong feeling of suitability and affinity, or the need to make a social contribution to the community.

In contrast to the current Australian VET curriculum, which primarily concentrates on developing the necessary skills and knowledge for specific occupations, this research advocates a shift toward a more comprehensive perspective. It distinguishes between 'occupations', which represent standardised work classifications involving various facts, outcomes, goals, and practices (Billett, 2011), and 'vocations'. Vocations are seen as a personal commitment to engage deeply with a chosen occupation, often described as a 'calling' (Dewey, 1916). There is a growing body of evidence suggesting that VET curriculum models and course designs that promote the development of vocational identity and a sense of 'belonging' within a trade can significantly enhance students' dedication to completing their training (Chan, 2013; Southwick et al, 2017).

Biography and motivation

My motivation for undertaking this study comes

from a thirty-year relationship with apprenticeship training. During this time, I have been an apprentice, an employer of apprentices, and an RTO apprentice trainer. These roles began with completing my four-year bakery apprenticeship in 1993, my role of becoming a bakery owner and employer of apprentices for ten years, and finally, my more recent role as a bakery trainer at my current place of employment. My career has also allowed me to study and develop skills as a VET researcher. I have undergraduate and postgraduate qualifications in education and research, including a PhD in Vocational Education. The research for my Masters and PhD theses have both examined apprenticeship training and the problem of non-completion. This fellowship has allowed me to extend this research into the field of vocational affinity and belonging to a trade. I want to understand how Australia can better develop its VET system to align with personal capabilities and a sense of community purpose. I aim to bring these new understandings to shift the policy that informs VET apprenticeship training, and the practice of vocational trainers that shape the lives of apprentices.

Research Methods

The research is axiological by design. It examines the ethos and values which guide the Swiss and German apprenticeship training systems. This research project is grounded in my own historical relationship with apprenticeship training. This personal relationship has led me to understand that a supportive ethos is crucial to apprenticeship retention and completion, and that a well-designed curriculum can help develop a sense of vocational identity. I wanted to understand how these topic areas of ethos and identity were represented in countries with successful apprenticeship programs.

This investigation has focused on understanding: Vocational identity and the mechanisms used within the Swiss and German VET curriculum for its development. The research was conducted through a one-week study tour of Switzerland, and a one-week study tour of Germany. It uses observations and semi-structured interviews to collect the data, and interpretivist methods to analyse the

findings. All participants were questioned on their understandings of 'beruf', the Germanic term and concept of a 'vocation'. Vocations are differentiated from an occupation through their sense of personal purpose. The purpose may be a strong feeling of suitability and affinity, or the need to make a social contribution to the community. The research sought to understand how the Swiss and German VET systems matched a learner's personal capabilities and talents with their study course, and further, how their VET systems conveyed and elevated a sense of vocation as a social philanthropy. Subsequent to these lines of research, the study also framed the differences in structure of the two systems in relation to Australia's own VET system. These differences are identified and discussed, with suggestions for efficiency improvements identified.

Research overview and timelines

The fellowship funding covered study tours of two countries and a conference attendance at a third. These are elaborated on in detail below:

Study tour Switzerland

The Swiss study tour took place over a period of one week. It involved interviews with four researchers from the Swiss Federal University of Vocational Education and Training (SFUVET) in Bern and a site tour of the Institute premises at Zollikofen. Interviews lasted for approximately one hour in duration, with follow up discussions taking place with interview participants three weeks later at the JVET conference at Oxford, England. A further interview was conducted with a visiting research fellow in Melbourne after the study tour.

Study tour Germany

The German study tour took place in Konstanz Germany and was professionally co-ordinated by Professor Thomas Deissinger from the University of Konstanz. The tour allowed for interviews with staff from the University and a roundtable discussion with students and staff in which the Australian model was presented and contrasted. The tour also extended to the Vocational training college facilities at the Berufsschulzentrum Radolfzell. The institute holds

world class facilities and training in vocations such as commerce, carpentry, metal work, and agriculture. The institute tour afforded me the opportunity to study facilities and practice, as well as converse with students and staff. Interviews were conducted through discussion throughout the tour, with follow up discussions taking place three weeks later at the JVET conference at Oxford, England.

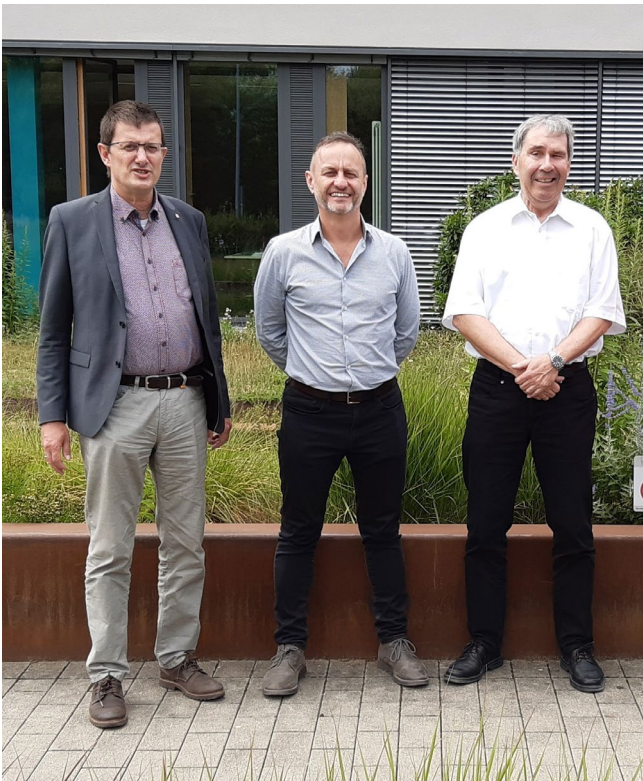


Figure 1. The staff at Radolfzell (photo taken Warren Guest)



Figure 2. The Radolfzell Insitute (photo courtesy Susanne Gundel)



Figure 3. Main building Radolfzell Institute (photo courtesy Susanne Gundel)

Conference

The 2023 Journal of Vocational Education and Training (JVET) conference was situated at Keble College at Oxford University. I was afforded the opportunity to present research from my PhD studies which examined apprenticeship training and noncompletion. At the conference I was able to do follow up discussions with interview participants from both Switzerland and Germany, and to discuss the concepts of both vocational identity and beruf with the broader European research community.



Figure 4. The JVET conference Oxford (photo taken Warren Guest)



Figure 5. The Author at Oxford University (photo taken Warren Guest)

Table of Acronyms

JVET	Journal of Vocational Education and Training
NCVER	National Centre of Vocational Education Research
RTO	Registered Training Organisation
SFUVET	Swiss Federal University of Vocational Education and Training
TAFE	Technical and Further Education (vocational college)
VET	Vocational Education and Training
VPET	Vocational and Professional Education and Training
VSA	Victorian Skills Authority

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Research Findings:

The research findings were identified through interviews, discussion, and observation. The findings have then been related back to the academic literature that surrounds the topic areas and is presented here as research and discussion. Recommendations and considerations are presented in the below section.

Finding 1: The concept of beruf

The concept of Beruf has a long history in Germanic culture and society, and it has been shaped by a variety of factors, including religion, philosophy, and politics. For example, Max Weber's (2013) concept of Beruf emphasizes the idea of a calling or vocation, and the importance of fulfilling one's duties in the world as a way of serving a higher power, as first directed by Martin Luther in the protestant reformation. Before the protestant reformation priests were said to answer a 'calling', which in Latin translated as a vocation (vox-voice; vocatio-summons; vocation-calling). The German translation for vocation at the time and to this day, is beruf. According to Weber, Luther argued that in the eyes of God all trades and occupations perform an important role and make a meaningful social contribution. In modernity the concept continues to reflect a deep-seated cultural and social value in Germany and Switzerland.

'Most Germans are not looking for just a job, they want a Beruf, a lifelong one, and one about which they can be passionate. And any government that does not meet that aspiration must fail, sooner or later. If you have a Beruf in Germany, you are

someone. If you just have a job, you aren't' (Greinert, 2007, p. 49. As seen in Gericke, 2022. p. 468).

The concept of beruf is central to the Germanic way of thinking. It places an emphasis on the importance of work as a means of personal fulfilment, as a social contribution, and as an arbiter of economic access and surety. It is a complex and multifaceted concept that continues to shape the way that Germanic people think about work, career, and personal development. In contemporary German society the concept encompasses three core elements: an individual element, a social element, and a moral element (Gericke, 2022).

The individual element relates to self-knowledge and informed appeal, leading to information-based decision making. This means that individuals should have a clear understanding of their own strengths, interests, and values, and use this knowledge to make informed decisions about their career paths. Self-awareness is associated with internalized vocational principles and ethics, which are integral to a 'Beruf.' This is because having a beruf signifies a commitment to embodying this vocation in one's entire life as ethos and praxis. Your vocation becomes central to your identity. The social element concerns the recognition and acceptance of one's role and contribution to society and the attainment of social status and social identity – "if you have a beruf in Germany you are someone" (Greinert, 2007, p. 49. As seen in Gericke, 2022. p. 468). Individuals should understand how their work fits into the larger social context and how it contributes to the

common good, and that *beruf* is a mechanism for social integration. The social element also implies a sense of duty and responsibility towards oneself and others. This means that individuals should take responsibility for their own career development and strive to make a positive impact on the world around them. Finally, having a *beruf* provides a formal qualification and economic surety through employment in an occupation. In both countries having a certified qualification is the only way to enter trade work and for individuals to gain future economic security (Deissinger, 2008).

Understanding the concept of *beruf* requires a comprehensive understanding of self-knowledge and personal proclivity, the social world of the working environment, and the economic relationship between the chosen occupation and industry entry. This research study has focused on the first two individual and social elements and their relationship between *beruf* and building a vocational identity, which are elaborated further below.

Finding 2: The individual element of *beruf*

The individual element of *beruf* is achieved through the apprentice identifying their own field of study and finding their own apprenticeship. Assisting students to find their vocation is an integral part of Swiss and German secondary schooling and is supported by comprehensive resources that aid learners in exploring their unique skills, aptitudes, and personal inclinations towards specific occupation (SERI, 2023). Both the Swiss and German education systems begin focusing on vocations in the final year of primary school and further into secondary school in years 6-10. Provided here is an example of the Swiss education systems resources afforded to Swiss learners in year 6: Interests and Strengths. These resources offer valuable guidance to discern and follow a career path that resonates with their personal strengths and interests.

Finding 3: Social purposes of *beruf*

The concept of '*beruf*' emphasizes an individual's recognition and acceptance of their role in society by fostering a strong sense of vocational identity. This idea involves acknowledging one's unique strengths and interests, aligning them with the needs of the community. By recognizing their contribution to the workforce and society, individuals embrace a sense of purpose, enabling them to understand their role in meeting societal needs, thereby emphasizing their essential part in the collective growth and welfare of the community. Both the Swiss and German systems contain social and moral purposes written into the VET curriculum as learning objectives named 'professional' and 'personal' competencies. Professional competencies refer to the skills, knowledge, and abilities that individuals need to perform effectively in their chosen profession. These competencies are developed through a combination of theoretical and practical training, including on-the-job training, vocational schools, and apprenticeships. These professional competencies are specific to each profession and are defined by industry standards and regulations. They include technical skills, such as operating machinery or using software. Personal competencies are differentiated as personal attributes and capabilities, such as soft skills, teamwork, problem-solving and taking responsibility for one's actions, self-reflection, and learning. They are similar to the Australian foundation skills embedded in VET Training packages. However, it has been argued that these competencies lack depth and range or broader applicability (Misko & Circelli, 2023). The following examples from the Swiss training curriculum for apprentice cooks demonstrates the embedded social and moral competencies within their vocational curriculum:

“EFZ cooks think and act in a guest and team-oriented, business management and ecological manner; they are aware of the importance of their work to society and pay attention to the sustainable management of our resources”.
(Hotel & Gastro Union, 2014. p.1)

“The social and personal competencies enable the cooks to shape relationships together and to master challenges in communication and team situations confidently and self-assuredly. In doing so, they strengthen their personality and are prepared to work on their own development” (Hotel & Gastro Union, 2009. p.3).

“In everyday professional life in the catering industry, where many people with different views and opinions come together, conflict situations may arise from time to time. Cooks are aware of this and act calmly and thoughtfully in such cases. They face up to the confrontation, accept other points of view, engage in fact-based discussions and look for constructive solutions”. (Hotel & Gastro Union, 2009. p. 3)

“In the course of their work, cooks maintain a wide variety of contacts with other people, each of whom has certain expectations of the behaviour and manners of the person they are dealing with. Cooks can adapt their language and behaviour to the respective situation and the needs of the interlocutor”. (Hotel & Gastro Union, 2009. p. 4)

This is not to say that the Australian VET curriculum of Training packages is void of social and moral purposes. Training packages include foundation skills as a blend of general education skills and broader soft skills such as, teamwork, planning and organising, and self-management. The Swiss and German systems are extended further, emphasising the important role and social contribution that all trades make to society. Furthermore, the curriculum imparts personal competencies that develop learners' interpersonal skills as is demonstrated in these examples provided.

Finding 4: Valorisation of the system

The Swiss and German governments actively valorise their apprenticeship systems by promoting them internationally and nationally as premier systems of vocational education and training. Apprenticeships are respected and promoted as a form of high-quality education which is supported through significant federal education funding and industry support. Approximately 70% of Swiss learners choose to do an apprenticeship, while in Germany the number is close to 50% (Kriesi et al, 2022). In Australia a comparative figure is hard to ascertain as most apprentices undertake their training after completing secondary schooling, meaning that their apprenticeship participation rates are expressed as a percentage of the labour force. As of June 2022, 13% of Australian workers in trade occupations were apprentices or trainees, and 3.1% of all occupations were employed as an apprentice or trainee (ABS, 2023). These figures are quite low in comparison. The low rates of apprenticeship participation are often attributed to 'academic drift', a process whereby university education is increasingly preferred over a VET pathway. When completing secondary school and heading into the workforce, university is increasingly becoming the default pathway for many students (Joyce, 2019). This is due to the prioritization of information about university by young people's key influencers, such as parents and schools. Parents are more familiar with university career pathways and are more likely to provide advice about these options. Schools also provide advice that presents university as the default pathway, with a bias against vocational education courses (Joyce, 2019). This bias is evident in the fact that a third of young Australians report never having heard about apprenticeship opportunities during school (Bisson & Stubbley, 2017). Increasingly, apprenticeships and VET courses in general are seen as second-best option (Joyce, 2019), and as lowly paid when compared to university (Bisson & Stubbley, 2017). These reasons, and others, have contributed to the declining status in VET as a career option (Billett, et al., 2022). In comparison the Swiss and German apprenticeship systems are held in high regard. When questioned on how their

countries valorised apprenticeship the interviewees gave the following responses:

- Promotional campaigning: The Swiss and German governments spend extensively to promote the importance of apprenticeships to the success of their respective economies.
- The International World Skills competition: Apprentices who compete successfully in the World Skills competition are promoted nationally and their achievements are celebrated.
- Promotional partnerships with Industry: the Swiss Industry Branch Associations and the German Industry Chambers are very active in promoting and sponsoring the strengths of the apprenticeship program. Industry plays an important role in supporting vocational education and training in both countries.
- Managing academic drift: Academic drift is avoided by excellent communication by government through schools to parents and students, selling the benefits of apprenticeships. Communication promotes the pay to learn model and the benefits of authentic experience through workplace learning.
- Promotion and information material is easily accessible: In the Swiss apprenticeship system it is a compliance requirement that all information regarding apprenticeships be presented in easily accessible language. Information must be presented at a year 7 reading level and be simplified into digestible chunks of information.
- Spending on VET: Both governments spend heavily on their VET systems. In a per student spending comparison expressed in \$US, the OECD identified that Switzerland spends \$18,922; Germany \$14,462; and Australia \$9,769 (OECD, 2023. p.252).

05

A Comparison Between Systems

In the following section the fellowship research examines the Swiss and German VET systems. It provides a summary of pathways for secondary students into the VET systems of both countries. It further provides an analysis of strengths and weaknesses, with recommendations for the Australian VET system located in the findings and discussion section of the report.

The Swiss VET system

The Swiss Vocational and Professional Education and Training (VPET) system is popular among Swiss secondary students, with two-thirds of young individuals undertaking VPET courses after year 10 secondary school. It encompasses a broad range of over 245 occupations, setting the foundation for lifelong learning and diverse job opportunities. Learners receive their vocational education training across three learning spaces: Host companies (the 'dual system' model); Specialist schools (no host company); and Branch courses. The greatest number of students move into the 'dual system' where the training is split across part-time vocational school and the workplace. Students undertaking the dual system course of study will find a contractual apprenticeship at the end of their junior high school certificate. They will then attend workplace training at their host company on average for 3 days a week, attending the vocational college for their general education (maths, language, sport) on their remaining 2 days. Students who do not secure

an apprenticeship can continue their vocational education training and general education with a specialist school. The third option for vocational education is offered through Branch courses. Branch courses are run by industry branch associations and offer learners specialist gap training that they might not receive through the Host company or Specialist school's models. Learners can also continue their education into tertiary professional education through a Federal Vocational Baccalaureate (FVB) into a federal institute of technology for tertiary level professional education which also integrates classroom and work-based learning, continuing the vocational focus on the Swiss education system. (SERI, 2022)

The Swiss promote the following quality points as defining and differentiating the system (SERI, 2022):

A focus on specific job skills: The VPET system aligns education with the needs of the labour market, ensuring quality and demand-based training. It enhances labour market relevance, shaping skilled workers and managers for the future. Governed collectively by the National Confederation, Cantons, and professional organizations, the system maintains quality and ensures apprenticeship positions.

Adaptable and innovative: The VPET system evolves through research and development to meet changing needs. The involvement of all partners contributes to its high quality and efficiency. It efficiently manages

training costs, offering various qualifications tailored to diverse interests and abilities.

System permeability: the system is promoted as providing clear education options and flexibility for learners to shift between vocational, general, or university paths easily, with accessible continuing education at all levels. However, it should be noted that there exist no research tracking students who progress across multiple pathways.

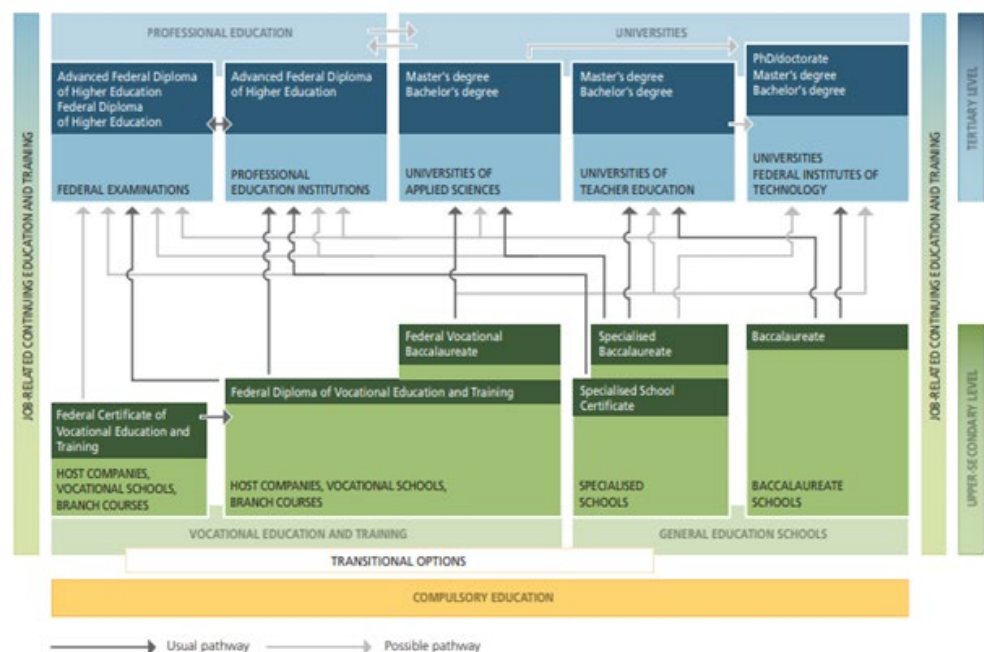
Quality & Efficiency: The quality of the VPET system is upheld by the collective participation of three partners. Dispensing training across various sites boosts the quality of upper-secondary VET programs. Each actor's responsibilities align with tasks assigned by the VPET system, collaborating where duties overlap. Steady attention to the labour market enables VET programs to be well-organized, and apprentices' productivity surpasses training costs.

Overall, the Swiss VPET system promotes career-oriented education, ensuring a skilled workforce and flexibility in training paths. The collective governance and commitment to quality and efficiency make it a comprehensive and adaptive model in the educational landscape.

The Swiss VET system: pathways and progression

The Swiss Vocational Education and Training (VET) operates at upper-secondary levels, while professional education occurs at the tertiary level. Both VET and professional education adhere to structured training plans and national qualification procedures. They're known for high flexibility, allowing individuals to transition between education and career paths, including shifts between vocational, professional, and general/university paths. The Swiss VPET system provides diverse training options for various abilities and age groups. It also offers extensive job-related Continuing Education and Training (CET) across all levels. The following pathways are available within the Swiss VPET system:

Diagram: 1. SERI, 2022. Overview of the Swiss VPET system. Vocational and Professional Education and Training Switzerland. Facts and Figures. Pg.6



Upper Secondary Pathways:

Federal VET Certificate: Two-year VET Programs. Offers more practical skills for specific occupational profiles and can be considered the equivalent of an Australian traineeship (AQF 2-3). Students will undertake the Federal VET Certificate during their upper-secondary years of high school, the equivalent of year 11 and 12 in Australian secondary schooling. Students will divide their time between a host company and vocational school under the 'dual track' system. Examples of professions covered under a Federal VET Certificate are - *Retail, Office Administration; Waitering; Service industry work.* Graduates can continue to three or four-year VET programs for a Federal VET Diploma. (SERI, 2022)

Federal VET Diploma: Three- or Four-year VET Programs. The equivalent of an Australian trade certificate or diploma qualification (AQF 3-4). The Diploma provides occupation-specific skills and knowledge at an upper-secondary level the equivalent of year 11 and 12 in Australian secondary schooling, divided between a host company and a vocational school, plus an additional 1-2 years of full-time work at the host company and Branch specialist training courses. Examples of professions covered under a Federal VET diploma are - *Cook; Farmer; Healthcare worker; Draughtsman.* Once completed students can access tertiary level professional education (AQF 5-6) or access the Federal Vocational Baccalaureate (FVB) program for access into a University of Applied Science (AQF 7-9). (SERI, 2022)

Federal Vocational Baccalaureate (FVB): The FVB complements and can be undertaken while undertaking a Federal VET Diploma. The FVB prepares learners in VET for direct entry to Swiss Universities of Applied Science or a University. (SERI, 2022)

Tertiary Level Qualifications:

Professional Education: This level qualification allows for the holder to deepen their expertise in their occupational field and hold challenging technical or managerial roles (equivalent AQF 5-6). Professions

covered under professional education qualifications are - *Accountant; Manager; Electrician; Master Farmer; Construction manager.* Once completed the holder can transition to a federal University or Institute of Technology. (SERI, 2022)

Universities of Applied Sciences (UAS): Offer practical Bachelor and Masters programs without entrance exams for FVB holders (equivalent AQF 7-9). Professions covered under education through UAS degree are - *Engineering; IT specialist; Social work; Architecture; Applied psychology.* Bachelor's degrees require three years of study, while Masters degrees require eighteen months of study. (SERI, 2022)

Federal Universities & Federal Institutes of Technology: Offers Bachelors, Masters and Doctorate degrees (equivalent AQF 7-10). (SERI, 2022)

Alternative Training options:

Transitional Options. Designed to prepare students for social or for upper-secondary VET in case of difficulties in securing an apprenticeship.

Job-related Continuing Education and Training (CET). Non-formal courses and seminars for ongoing professional development, available at various education levels.

The German VET system

The German Vocational Education and Training (VET) system, also known as the 'dual system,' is a highly effective model recognized worldwide for its combination of theory and practice, learning and working. Similar to the Swiss system, the term 'dual' refers to a relationship between large private companies and public vocational schools, where students receive their training through a blend of on-the-job training in the workplace, and upper secondary education through the vocational college. When leaving secondary schools, 70% of German students take a course of vocational training, mostly within the dual system. The vocational education and training last two, three, or three-and-a-half years depending on the occupation. (BIBB, 2023)

There are currently around 350 officially recognized occupational standards in Germany, which are a central element of the German vocational training system. These standards are incorporated in state law, but trade and industry also play a decisive part in their formulation.

The German Vocational Training Act (Berufsbildungsgesetz (BBiG)) and the German Crafts and Trades Regulation Code (Handwerksordnung (HwO)) form the legal framework for the development of the German TVET system. These two instruments set out fundamental standards for the company-based part of dual VET, including the creation of the general conditions that apply to aspects such as vocational training and the examination system. (BIBB, 2017)

Germany promotes eleven quality points as defining and differentiating the system (BIBB, 2017). Some of these are identified for their relevance to this research and discussed below:

Consensus between stakeholders: within the dual system the Federal government is responsible for the company-based element of training, while the vocational college training is overseen by the state governments. Employers, unions and employees have equal voting rights in the chambers responsible for overseeing the curriculum design. Effective coordination of training content, guided by regulations and basic curricula, is achieved through close co-operation between company and vocational school learning venues. The introduction of learning areas via framework curricula assigns responsibility to both venues for practical skill acquisition. The concept of learning areas or 'learning fields' of knowledge, promotes collaboration through joint development of cross-venue training projects, enhancing the connection between theory and practice.

Trainer aptitude: Trainers both at the vocational college and in the company where apprentices receive their training must be suitably qualified and in possession of relevant occupational teaching skills, knowledge and competencies.

Suitability of Training venues: The evaluation of a training venue starts upon a company's contract registration. This suitability assessment applies specifically to the training occupation and is not universal. The venue receives the necessary training rules. A company training plan, based on the general training plan, details specific workplaces, training phases, contents, and timings.

Capstone assessments: Similar to the Swiss system, graduates must undertake a final examination with the relevant industry association known as 'Chambers'. The examination is conducted in conjunction with the vocational training school.

The German VET system: pathway and progression

The German Secondary education system is split into lower and upper levels, with the latter offering various qualifications depending on the type of school attended. The three main types of secondary schools are Hauptschule, Realschule, and Gymnasium, each leading to different qualifications and career paths. The Gymnasium prepares students for university study and culminates in the Abitur, a diploma that grants access to tertiary education.

Tertiary education in Germany is spread across various institutions include universities, universities of applied sciences, and colleges of art and music. The tertiary sector also includes vocational programs that combine academic training with practical experience, such as those found within the dual system.

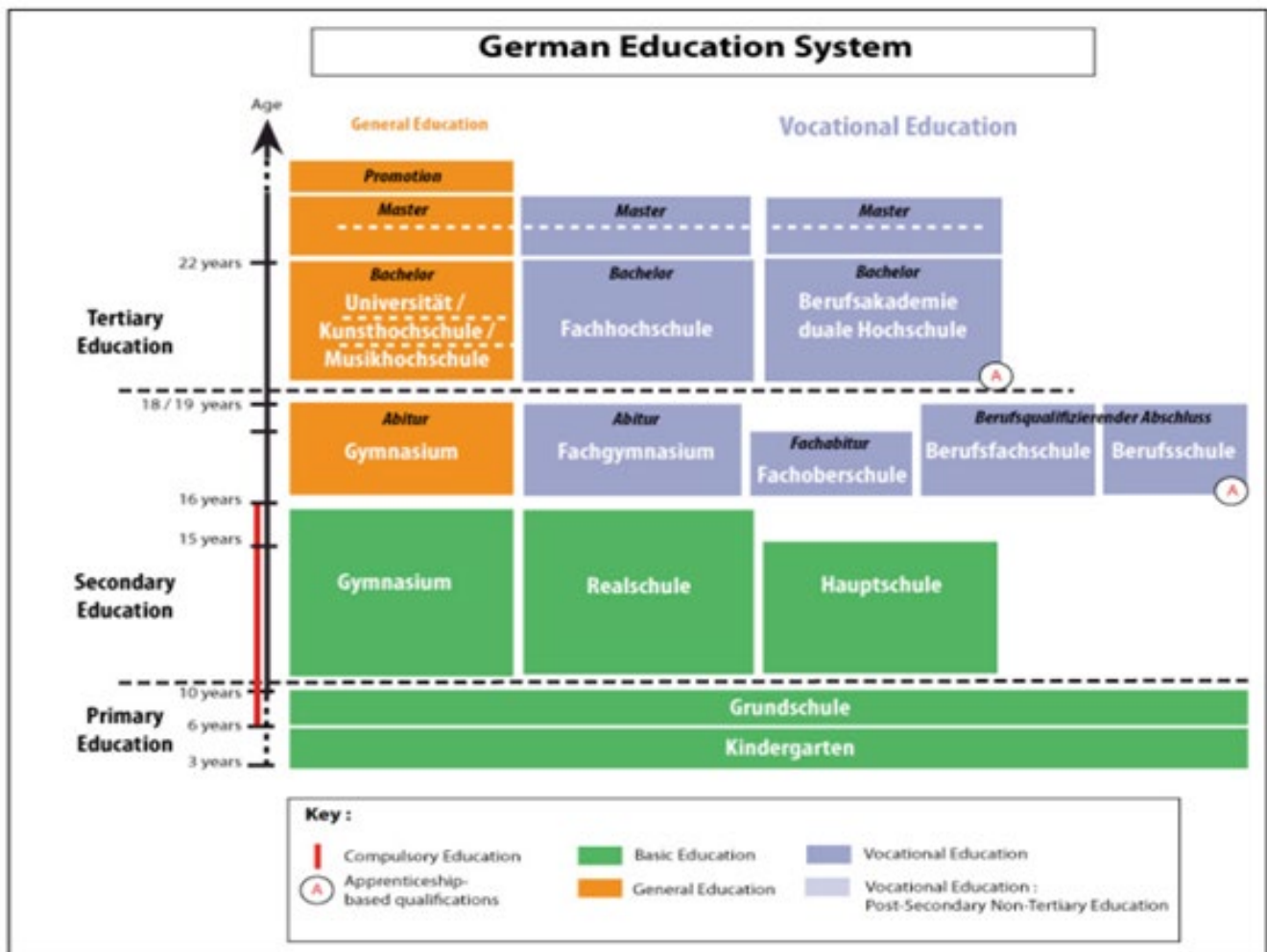


Diagram 2. BIBB (2017). Presentation of the Dual VET system in Germany. *Handwerkskammer Potsdam*. Pg. 1.

Upper secondary pathways

In the German education system, upper secondary education offers a variety of qualifications, with the type of school attended often determining the qualification obtained. After completing lower secondary school, students can attend one of three different types of secondary schools: *Hauptschule*, *Realschule* or *Gymnasium*.

The *Hauptschule* (grades 5-9) teaches the same subjects as the *Realschule* and *Gymnasium*, but at a slower pace and with some vocational-oriented courses. It leads to part-time enrolment in a vocational school combined with apprenticeship training until the age of 18. The *Realschule* (grades 5-10 in most

states) leads to part-time vocational schools and higher vocational schools. It is now possible for students with high academic achievement at the *Realschule* to switch to a *Gymnasium* on graduation. The *Gymnasium* leads to a diploma called the 'Abitur' and prepares students for university study or for a dual academic and vocational credential. (BIBB, 2017)

The *Abitur* provides broad access to higher education and entrance to a university and is the equivalent of the Australian Higher School Certificate. The *abitur* is earned after upper secondary education at a *Gymnasium* or similar institutions, it encompasses four to five subjects, including two at an advanced academic level and two from German, a foreign language, or mathematics. Successful completion of the *Abitur* examination results in the acquisition of a *Zeugnis der Allgemeinen Hochschulreife* (general

higher education entrance qualification). (BIBB, 2017)

The *Fachabitur*, is attained during vocational training, is an optional certification shorter than the traditional Abitur and equivalent to a Baccalaureate diploma. This qualification allows entry to higher education institutions like Fachhochschule (University of Applied Sciences) or specific university subjects. Students receive specialized instruction in subjects such as Mathematics and other specific areas, with corresponding examinations. The qualification is generally 1 year in duration and the equivalent of the AQF 4-5.

The *Berufsqualifizierender Abschluss* is a vocational qualification enabling entry into a vocational profession, earned upon finishing vocational training. It is a shorter certificate than the standard Abitur, providing entry to higher education at Fachhochschule (University of Applied Sciences) or specific university subjects. Serving as the ultimate step, it allows the learner to enter the profession of their specialization, such as a Master tradesperson, distinguishing this achievement as the conclusive element in the vocational pathway.

Tertiary Level Qualifications

Students who graduate from their vocational college with a fachabitur or berufsqualifizierender abschluss can then undertake tertiary level qualifications at Bachelor or Masters level. Bachelor level Fachhochschule refers to a University of Applied Sciences where students pursue a practice-oriented Bachelors degree. These institutions focus on professional applications of knowledge, preparing students for specific careers. A Bachelor level Berufsakademie or Duale Hochschule refers to a type of higher education institution offering a dual system approach. Students alternate between theoretical education at the institution and practical training in a company. This format combines academic study with hands-on work experience. (BIBB, 2017)

The main difference lies in their educational structures. Fachhochschulen primarily emphasize academic learning applied to practical scenarios, focusing on

theory and application, while Berufsakademien or Duale Hochschulen incorporate a more integrated approach by combining theoretical academic study with practical work experience in a dual system. Both institutions offer Bachelors level and Masters level education, but their methodologies and approaches to learning and practical experience distinguish them. (BIBB, 2017)

06

Considerations and Application:

Australian apprenticeships: comparison and discussion

Two systems of collaboration, the other based on competition.

A standout area identified in the research was the consensus among social partners and stakeholders which shapes the structural level of the Swiss and German VET systems. Both countries macro level VET curricula and the design of the apprenticeship system is created through stakeholder collaboration. The common goal is the function and maintenance of a high-quality VET training system.

The Australian Apprenticeship training system sits within a larger macro level structure of competitive markets. The arrival of CBT and Training packages in 1995 also saw the VET college system enter a free market of competition, where providers competed for apprentice enrolments. The system has grown from 13 national VET providers to well over 4000. Operating within a competitive environment has had a large impact on the quality and provision of VET, with RTOs working in silos rather than collaboratively and by extension their use of valuable resources for marketing and competition for survival. Pricing is another area where RTOs have sought to compete. To deliver lower and more competitive course fees RTOs have reduced the resources, services and contact time provided to students (Guest, 2022).

Vocation vs occupation

Australian VET provision experienced a Commonwealth policy shift throughout the early 1980's, from one of policy intentions with a focus on the lifelong learning and social development of individuals, to a policy framework of developing skills and competencies for industries (Schofield, 1992). This shift coincided with structural reform which positioned RTOs as competitors within a marketplace of VET training. The result of these two areas of policy reform has left the VET sector with a poor reputation and declining status (Guest, 2022). The Australian system of competencies is very descriptive, and task focused. It is valued as a 'market model' for its ability to make learners 'job ready' (Deissinger, 2002). The Swiss and German incorporated conceptions of *beruf* provide an example of how social competencies and values systems can be incorporated back into the Australian system.

The dual system

In the Swiss and German 'dual' systems VET learners are kept within the secondary school system, providing a more supported and graded transition to the workforce (Deissinger, 2008). This is a significant difference to the Australian system where the RTO sits outside of the secondary system and apprentices must leave the secondary schooling system and enter the workplace on a full-time basis.

These two structural differences provide a significant difference in experience for apprentice learners, with the dual system evidently more supportive.

However, the Australian 'school-based apprenticeships' framework is similar to the dual systems, where apprentices will attend the workplace for three days a week and then receive their general subjects taught within the secondary high-school system for the remaining two days a week. Most school-based VET qualifications have a higher completion rate when compared with general apprenticeship pathways (NCVER, 2008; 2022). This is due to the social support framework from peers, and the more adequately resourced support arrangements found in secondary schools when compared to vocational RTOs.

Pedagogy as important

The Australian system is focused on qualification outcomes as opposed to the German and Swiss focus on pedagogy and education. In both the German and Swiss systems, the employer must have a dedicated company trainer, who in turn must have their own VET training qualification and a fundamental understanding of pedagogy and workplace learning. Currently in the Australian system there is no requirement that the employer has any formal teaching qualification, missing an important opportunity for quality assurance over vocational training for apprentice learners. Both systems also require that full time VET educators hold a bachelor level teaching qualification. This level of qualification ensures their teachers are adequately equipped as curriculum designers and classroom managers. In the Australian system the Cert 4 in Training and Assessment qualification has been designed as an entry level qualification for VET teaching. However, it has also become the ceiling qualification for many VET educators. This is for a variety of reasons, such as the added expense of upgrading and constantly maintaining the qualification. The repercussions being that the low educational value provided by the Cert 4 in Training and Assessment leaves VET educators ill-equipped with the challenging task of creating high quality course material.

Authentic assessment

In both the German and Swiss systems apprentice graduates must undertake a final examination with the relevant industry association. The examination is conducted in conjunction with the vocational training school and grants the learner surety that their skills and knowledge is at industry standard. It also provides a layer of quality assurance to the industry associations that rely on the skills and knowledge developed in learners. In Australia the 'certified trades' such as electricians, who cannot operate in industry without trade qualification, the capstone assessment exists as a layer of quality assurance. However, this practice is restricted to only a few trades.

07

Impacts of Fellowship:

Personal and professional impacts:

In the course of my study tour and research endeavours, I've developed a profound personal insight into the critical role of vocational identity building. This understanding extends to the significance of fostering learner commitment to their respective trades. This newfound personal understanding now guides my instructional design and practices. The impact of insights derived from the study tour and research findings has been transformative in my role as a cookery trades teacher. The primary objective of my fellowship was to identify best practices in curriculum design, emphasizing its implementation to instil a profound sense of vocation and belonging among apprentice learners. Going forward, the emphasis will be on crafting curricula that not only adhere to best practices but actively promote a sense of vocation and belonging among apprentice learners. I have already considered and enacted change to the new course ethos and curriculum design for our reaccredited Hospitality Management program, due to be rolled out in 2024.

Sectoral impacts:

This research coincides with a timely Commonwealth government initiative focused on reviewing and reforming VET qualifications. In my capacity as a researcher and advisor to Victorian Skills Authority for the National VET reform committee, I aim to leverage these conceptual understandings to explore potential avenues for VET reform. Exploring the

concept of *beruf*, with its integral elements of social contribution and personal competence, has led me to reconsider the current Standards for Registered Training Organisations (2015). This exploration becomes a reflective exercise, drawing parallels between Australia and the broader notions of competency as defined in Switzerland and Germany. I will advocate for a reframing of the Australian national VET curriculum towards skills standards and learning outcomes based on the findings. Much of the recommended change emerging from this study have been identified earlier in the section on Practical and Policy Applications. I will revisit these here briefly. In my role as a vocational trainer and consultant to the Victorian Skills Authority I propose to make the following changes to policy and practice:

1. The Australian curriculum of Training packages is no longer fit for purpose. The systems focus on occupations and competency-based training leaves our graduates ill-equipped for the future world of work. A shift to the European models of capabilities and competencies within broader occupational fields will provide flexibility for workers looking to shift occupations. It would also assist our industries with the flexible labour force that they require.
2. Units of competency are overly prescriptive, inflexible and lack the transferability they were originally designed for. The Swiss and German systems provide a balanced example of a tripartite model of industry, educators and government in curriculum design. It is recommended that the

Australian system return to a more balanced model of stakeholder engagement where industry define the skills standards, educators prescribe the learning outcomes and governments assist in their role of quality assurance.

3. Australia's VET system is complex and confusing. This study compares the three nation's VET curricula systems and identifies areas where the Australian system could be reformed to provide a less complex system which is easier for apprentice learners to navigate and participate in.

4. In both the Swiss and the German systems, the employer needs to hold a training qualification to ensure their training capability. It is recommended that Australia adopt this system. Having a designated trainer with knowledge of pedagogy and training practices would provide a level of quality assurance for apprentice learners.

5. The Australian Certificate 4 in TAE does not equip its educators with the skills required to effectively design curriculum content and apply it to practice. It is recommended that the qualification be extended to focus on curriculum design and practice methodologies that can assist educators in their training and assessment activities.

6. Capstone assessments are important tools for determining holistic learner proficiency at the end of their apprenticeship journey. Embedding capstone assessments in the Australian system would provide a level of quality assurance and remove the need for over prescription in Training packages.

The purpose of the fellowship is to create systemic change. Granted, this is no simple task. However, this does not suppress my appetite in advocating for change during this once in a lifetime opportunity for VET qualification reform.

08

Sector Engagement:

At the time of submission, the findings from this research have been disseminated through the following methods:

Publications:

Guest, W. (2024). Building vocational identity: a comparative study of the Swiss and Australian VET curriculum. Research Today Magazine. Australian Vocational Education and Training Research Association

Conference presentations and public speaking:

1. *Developing vocational identity in food trades apprentices.* October VET - Boxhill.
2. *AVETRA 'The future of VET curriculum' forum'.* October VET – Vet Development Centre.
3. *Developing vocational identity in VET learners.* Victorian Skills Authority.
4. *Developing vocational identity in food trades apprentices.* October VET – Holmesglen.
5. *A vocational curriculum: Developing a sense of identity and belonging in the hospitality workforce of tomorrow.* CAUTHE conference.
6. *Building professionalism in the Hospitality workforce of the future: A study of the Swiss VET curriculum.* CAUTHE conference.
7. *Creating vocational identity through workplace learning: examining barriers and opportunities in hospitality apprenticeship training.* CAUTHE conference.

09

Conclusion

In summary, the Swiss and German apprenticeship training systems are highly regarded for their exceptional learner engagement and achievement, as well as their effective integration of theoretical and practical learning. The collaborative efforts among industry, business, educational institutions, and apprentices ensure that the curricula align with the needs of all stakeholders. Both countries attribute the success of their training programs to the concept of 'beruf' or the development of vocational identity. This research has examined the concept of beruf and its curricula application within the contextual setting of each country. The outcomes from the research will be used to inform the current national VET reform process and the practical classroom curriculum of the researcher.

10

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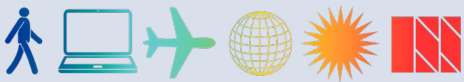
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