

Comparative Study of Dual Professionalism of Teachers in Vocational Education and Training in China and Australia

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Abstract—This study presents a comparative analysis of dual professionalism requirements for Vocational Education and Training (VET) teachers in China and Australia through comparing and analyzing policies and current literature from both countries. The findings of the study reveal that both China and Australia have implemented policies to enhance the teaching capability and industry expertise of VET teachers over the past few decades, indicating that dual professionalism is not a new concept in either country. However, each country's VET system employs different strategies and practices to achieve dual professionalism, as reflected in their initial teacher training programs, vocational qualification requirements, and rules and expectations regarding teachers' industry expertise and ongoing engagement in their vocational fields. This study asserts that although the quality and attributes of VET teachers may vary in different countries and education systems, the realization of dual professionalism in VET requires a collective and ongoing commitment from all relevant stakeholders in each country to equip their VET teachers with the necessary skills and knowledge to deliver high-quality vocational education programs.

Keywords—dual professionalism, Shuangshi Xing, initial teacher training, vocational education and training, comparative analysis, China, Australia

I. INTRODUCTION

Vocational Education and Training (VET) is an important sector in both China and Australia, providing learners with the skills and knowledge needed to succeed in the workforce. The quality of VET programs is largely dependent on the competence of the teachers who deliver them, making the professional capability of VET teachers a critical area of focus. One area of interest in VET teacher quality is the concept of dual professionalism, which suggests that VET teachers should have both teaching ability and industry expertise in the vocational courses they are teaching. While both China and Australia have implemented policies aimed at ensuring the dual professionalism of VET teachers, there are differences in the approaches taken in the two countries.

This comparative study aims to investigate the dual professionalism requirements for VET teachers in China and Australia. There are three research questions:

- What are the specific policies and practices in China and Australia regarding dual professionalism among VET teachers?
- How do the approaches towards dual professionalism in VET teachers differ and overlap between the two countries?
- What are the advantages and limitations of the ways in which dual professionalism is realized in the VET environments of the two countries?

It is hoped that the findings of the study can be used to assist VET policy makers in both countries to reflect on the strengths and areas for improvement in their systems, and to explore effective ways to equip their VET teachers with the necessary skills and knowledge to deliver high-quality vocational education programs.

It should be noted that the VET system in China encompasses middle vocational schools, higher vocational education colleges, and vocational universities [1], making it quite extensive. On the other hand, Australia has a more streamlined VET environment, with most vocational courses offered at registered training organizations, though some exceptions exist, such as postgraduate vocational certificates taught at universities. For the purposes of this paper, VET will be defined as post-secondary education that emphasizes vocational and technical training, assessment, and skills certification.

II. RESEARCH METHOD

Comparative study is a frequently used method in the field of education research. This method is particularly relevant in the context of the internationalization of education policy, while recognizing the differences in educational practices in each country [2]. In this comparative study, qualitative methodology is utilized to investigate the research questions, drawing upon selected secondary data sources pertaining to dual professionalism in the VET systems of China and Australia. These sources include government policies, research articles, and research reports. It is acknowledged that there may be potential inaccuracies when translating technical terms found from Chinese databases into English language. To

address this, a bilingual (Chinese and English) researcher and author is involved in the study, and relevant terms are explained prior to any comparison or analysis.

III. DUAL PROFESSIONALISM IN POLICIES

In China's VET system, the concept of dual professionalism is commonly known as "Shuangshi Xing" (双师型), which translates to "dual-teacher type" or "double-qualified teachers". The earliest appearance of "Shuangshi Xing" teachers in national policies was in 1995 when the former National Education Commission issued a "Notice of the National Education Commission on Carrying out the Work of Building Exemplary Vocational Universities" [3]. Although the definition of "Shuangshi Xing" was not clearly described in the initial policy, it served as a starting point for teacher requirements in the VET system in China, and has gradually become a foundational element of the system. Over the past 20 years, national policies for "Shuangshi Xing" teachers have gone through different stages of conceptual proposal, in-depth reform, system reconstruction, and systematic integration [4]. In 2019, the Ministry of Education of the People's Republic of China released a national policy titled "Implementation Plan for the Reform of Building a 'Shuangshi Xing' Teacher Team in Vocational Education in the New Era" [5], which provided more specific requirements for dual professional teachers. In the context of post-secondary vocational education in China, "Shuangshi Xing" teachers are required to not only have the expertise in theoretical teaching but also possess work experience in relevant enterprises or engage in on-the-job practice and production services in the workforce. Moreover, they should be able to integrate new technologies, processes, and norms into teaching in a timely manner. One issue that is repeatedly highlighted in current literature on "Shuangshi Xing" policy in Chinese VET research is the absence of an effective system for recognizing "Shuangshi Xing" teachers and the lack of national recognition standards to this day [4, 6, 7].

The establishment of Australia's contemporary VET system was centered on catering to the needs and priorities of various industries nationwide, with a primary goal of creating a well-educated, skilled, and adaptable workforce, capable of enhancing the country's competitiveness in both local and international markets [8]. VET teachers, commonly referred to as trainers and assessors in Australia, were expected to possess industry expertise in their respective fields and were responsible for imparting their knowledge and skills to their students within a competency-based training and assessment framework. Although the term "dual professionalism" was not explicitly utilized to describe this expectation until much later in Australia's national reports and VET literature, the concept has been implemented since the 1990s to guide teacher selection and development. Pre-service VET teacher training included a set of competency standards for assessment and workplace training as early as 1993 to ensure that teachers were well-versed in pedagogical techniques [9]. On the other

hand, vocational competency has always been a prerequisite for anyone interested in joining the VET workforce in Australia. Over the last few decades, Australia's VET policies have undergone numerous changes concerning the competency and skill sets of teachers, resulting in a clear picture of the dual professionalism landscape. Currently, VET teachers in Australia are required to have at least a Certificate IV in Training and Assessment or a comparable qualification to teach without supervision [10]. They must also demonstrate ongoing competency in their subject areas, referred to as industry currency, which emphasizes the need for VET teachers to stay informed of the most up-to-date industry practices and techniques [10].

Although it took several decades for both China and Australia to establish formal requirements, it is apparent that the concept of dual professionalism is not new in their respective VET policies. It appears that China is still working towards a unified recognition system for "Shuangshi Xing" teachers, while Australia has already established a relatively clear standard for teachers to be considered dual professionals in VET.

IV. DUAL PROFESSIONALISM IN PRACTICE

While the fundamental concept of dual professionalism is shared between Australia and China's VET sectors, the ways in which this concept is realized differ greatly due to variations in educational systems, qualification frameworks, and social and cultural contexts. Each country has its own selection criteria and professional development strategies that are used to ensure VET teachers' dual competency in teaching and industry skills. This section investigates the selection and cultivation of VET teachers to achieve dual professionalism in both countries. The discussion begins by exploring initial teacher training which is designed to set standards for teaching professionals and equip them with the requisite pedagogical knowledge and teaching skills. The section then turns to a discussion of industry expertise as it is an essential component of dual professionalism, focusing on the vocational competency of VET teachers in the areas they teach. Finally, the section delves into industry currency, which refers to VET teachers' ongoing engagement with industry to maintain current vocational skills while working in the VET sector.

A. *Initial Teacher Training for VET Teachers*

In China, a formal teaching qualification is generally not necessary for teaching in a higher vocational education institute. Instead, VET teachers are provided with on-the-job training to learn about educational theories after being hired. This training typically covers higher education theory, higher education psychology, professional ethics for teachers, and higher education legislation [11]. VET teachers are required to complete this training within the first years of their career and must also pass a test including knowledge questions and a teaching presentation. In addition, VET teachers need to reach a minimum of level 2 Grade B in Chinese Mandarin. Once all the criteria are met, the teachers will

receive a certificate for teaching in vocational education. It is worth noting that the VET teacher training and certification is not publicly available. This means that individuals cannot obtain a VET teaching certificate without first being offered a job at a vocational education institute.

Whereas in Australia, VET teachers must complete a training and assessment course that is endorsed by the national regulator before they are permitted to engage in any unsupervised teaching in a vocational education setting. The entry-level teaching qualification is Certificate IV in Training and Assessment, the current version contains 12 units and can be completed in 6 months to 2 years depending on study mode [12]. There are 6 core units including 1) assessing competence, 2) participating in assessment validation, 3) facilitating vocational training, 4) using nationally recognized training products to meet vocational training needs, 5) designing and developing plans for vocational training, and 6) working effectively in the VET sector. The other 6 units are electives, which can be selected from a range of units relating to training and assessment, learner support, auditing, and business operation [12]. There are also higher-level teaching qualifications for VET, such as Diploma in Vocational Education and Training, and Bachelor in Adult and Vocational Education. These higher-level courses usually contain more in-depth learning of VET pedagogies, formal supervised practicum, and research tasks. In order to be admitted to one of the VET teaching courses, individuals must be able to demonstrate vocational competency in their proposed training area [12]. This entry requirement ensures that individuals who plan to work in VET have already established expertise in a vocational field such as building and construction, aged care, nursing, and aviation. As a result, they will be job-ready to enter the VET workforce immediately after completing their teaching qualification.

It could be argued that the initial teacher training for VET teachers in China has a more defined target audience, as the training is exclusively offered to in-service VET practitioners. However, there are potential apprehensions regarding this approach as the training occurs subsequent to the commencement of teaching duties, resulting in inadequate preparation for the teachers. This may ultimately undermine the provision of high-quality VET courses. Furthermore, the certification process is subject to doubts over its substantive significance, given the paucity of reported consequences for those who fail to successfully complete the training, as revealed by the limited research on this matter. In comparison, Australia adopts a mandatory teacher training system for VET practitioners at pre-service stage to ensure they are well prepared for future work, however, there is no guarantee that VET professionals will secure employment upon completion of the teaching course.

B. Industry Expertise

Chinese VET researchers have expressed concerns about the longstanding problem of vocational teachers

having high qualifications but low skills. According to [7], the national policy on higher vocational teacher qualification requires the teachers to hold postgraduate or bachelor's degrees. In practice, VET institutions generally require full-time teachers to possess a master's degree that is relevant or closely related to the vocational course they teach. Some VET institutions even require applicants to have a doctoral degree. For instance, in order to teach a vocational course in cyber security, the VET teachers often need to hold a master's degree in Information Technology (IT). According to [13, 14], VET institutions often hire recent university graduates to carry out critical vocational training responsibilities, even though these graduates have not practiced much in their respective fields after graduating themselves. These teachers may have sound theoretical knowledge but lack necessary hands-on practice and industry experience, therefore can only focus on the theoretical perspectives during the teaching process.

Fortunately, the situation is evolving towards improvements. In 2019, the Chinese government released the National Vocational Education Reform Implementation Plan, which required higher vocational institutes to recruit VET teachers who have at least three years of industry experience and hold a relevant higher vocational qualification. For certain vocational areas that have a significant shortage of highly skilled personnel, the academic requirements may be slightly relaxed. Beginning in 2020, VET institutions are no longer supposed to consider fresh graduates for significant course instruction work when hiring vocational teachers [13]. Moreover, various national policies in the past five years have repeatedly emphasized the requirement for "Shuangshi Xing" teachers, with a target of having 60% of dual professional teachers in VET institutions by 2020 [4]. However, literature has reported issues regarding the shortage of "Shuangshi Xing" teachers, as well as challenges with the recognition and accreditation of dual professionalism, which have made the achievement of this target difficult [4, 6].

In contrast, Australian VET institutions commonly require applicants for teaching and assessment positions to provide evidence of their industry experience, and it is rare that a graduate without practical experience to secure a job in the VET sector without completing several years of work in the relevant industry. However, the national VET regulator, the Australian Skills and Quality Authority (ASQA), does not prescribe a specific duration of practical experience as a prerequisite for teaching vocational courses. Clause 1.3 of the Standards for Registered Training Organizations 2015 outlines specific guidelines with regard to the professional qualifications of VET teachers [10]. The clause mandates that individuals responsible for providing training and assessment must possess vocational competencies at least at the level that they are delivering and assessing, as well as current and directly relevant industry skills, in addition to expertise in vocational training and assessment that informs their instructional methods [10]. This means that VET teachers in Australia do not have to hold a higher

vocational qualification beyond the level of course they teach as long as they have demonstrated continued practical competence in their areas of expertise. For instance, a VET teacher seeking to train certificate IV in IT at a registered training organization may hold only the same certificate but should provide evidence of current involvement in working as an IT technician or a similar role. Such working knowledge and vocational experience enable VET teachers to deliver quality training to learners that is current, relevant, and practical.

It is fair to say that VET teachers in China generally hold higher education qualifications than their Australian counterparts. However, there seems to be a deficiency in the emphasis on industry experience. It is hopeful that the recent national policies on “Shuangshi Xing” teacher in China’s VET sector will tackle this issue by setting new standards on teachers’ professional practice and industry engagement. Nonetheless, implementing these standards across all VET institutions may require additional time and a significant amount of effort. Conversely, Australian VET teachers face a challenge with regard to their level of education qualification. According to recent statistics [15], only around 44% of VET teachers in Australia hold a bachelor’s degree or higher. This could potentially lead to limitations in their ability to comprehend higher-level problems in respective fields, hinder their capacity to keep up with the growing demands of the industry, and impede their career advancement prospects in the VET sector.

C. Maintaining Industry Currency

A key obstacle in realizing the dual professionalism of teachers in the VET sectors of China and Australia is to develop effective strategies that enable teachers to engage with the industries and continuously develop and enhance their expertise in their respective fields. One strategy that is adopted by both countries is to promote the partnership between VET institutions and industries. The Chinese State Council has collaborated with enterprises to establish 100 “Shuangshi Xing” teacher training bases across the country for VET institutions to release their teachers for industry work for one month per teacher per year [16]. Similarly, VET teachers in Australia also carry out industry work on a regular basis to maintain their professional practice. However, it is mainly the responsibility of the teachers and their institutions to source appropriate industry partners. There is also a large number of part-time and casual VET teachers in Australia who work in both teaching and their respective industries at the same time.

In fact, there are several strategies that VET teachers in Australia often use to enhance their industry knowledge and skills and avoid professional obsolescence. According to ASQA, demonstrating a VET teacher’s industry currency can be achieved through various means [17]. These include attending relevant professional development activities, participating in networks and communities of practice, mentoring work programs, taking part in industry release schemes, engaging in personal development through reading industry

publications, working on projects with industry, and shadowing other highly skilled teachers and workplace trainers [17]. It is a standard practice in Australia’s VET sector that teachers keep a detailed record of their own industry-related activities including the date, location, duration, and nature of each activity along with a professional reflection on how the activity contributes to their vocational competency and industry currency. This record will be submitted to and reviewed by the quality assurance and auditing department of the VET institution as evidence of the teacher’s professional competence. By keeping a detailed record of their activities and reflecting on their learning, VET teachers can demonstrate their commitment to maintaining their industry skills and knowledge, as well as their dedication to providing high-quality education to their students.

V. CONCLUSION

To sum up, the concept of dual professionalism is not a novel idea in China and Australia, as evidenced by the policies implemented in both countries over the past decades to enhance the teaching capability and industry expertise of VET teachers. Nevertheless, it should be noted that each country’s VET system employs distinct strategies and practices in the pursuit of dual professionalism. The initial teacher training program for VET teachers in China is primarily conducted through on-the-job training. While this approach may have certain advantages, questions remain as to whether the training is adequate to enable these teachers to become proficient in their roles. In contrast, VET practitioners in Australia are generally expected to complete at least a Certificate IV in Training and Assessment before they can be employed and work without supervision as a vocational teacher. While the training does not guarantee entry into a VET teaching role, it aims to ensure that VET teachers in Australia possess the necessary pedagogical skills and competence to carry out effective training and assessment duties. In terms of industry expertise, Chinese VET teachers tend to possess higher vocational qualifications and degrees, although historically, there has been less emphasis on industry experience. Nevertheless, to address this issue, the Chinese government has implemented the “Shuangshi Xing” teacher policy to promote greater industry engagement among VET teachers. In contrast, Australian VET teachers may face challenges due to their lower educational qualifications, which could limit their ability to keep up with industry demands and to progress in their careers. In addition, ensuring industry currency is a crucial aspect of dual professionalism, requiring VET teachers to keep abreast of the latest industry changes and maintain current knowledge and skills in their respective vocational areas. While China has recently initiated certain strategies, such as the establishment of 100 “Shuangshi Xing” teacher training bases, to promote industry engagement among VET teachers, Australia has implemented a flexible yet rigorous system to ensure that teachers participate in industry activities and that their engagements are monitored as a part of the quality assurance process.

Ultimately, the attainment of dual professionalism in VET is a collective and ongoing commitment from all relevant stakeholders including governments, regulators, VET institutions, industries, and most importantly, the teachers themselves. It is imperative that these stakeholders continue to collaborate in order to improve the quality of VET teachers, and equip them with the essential skills and knowledge required to address the evolving needs of the workforce and provide students with excellent training programs.

CONFLICT OF INTEREST

The author declares no conflict of interest.

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