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Article

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How Chinese Higher Vocational Education and Training (HVET) Students Determine Their Post-College Pathway in the Post-Covid 19 Era

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Abstract

Context: Vocational training has been a critical issue in China, where large percentages are regularly cited for unemployment statistics. In addition, Chinese higher vocational education and training (HVET) students are from relatively disadvantaged socio-economic backgrounds and they are experiencing a more complex and high-risk post-college transition than previous generations in the context of the economic shock from COVID-19. The policy of extending university enrolment since 2012 to recruit HVET students across China has led to an increase in the number of HVET students opting to enter university. This article reports on the perceptions of 27 HVET final-year students from five colleges about their decisions on their post-college pathway prior to finishing their studies and training.

Methodology: This study adopted a qualitative research design and the semi-structured interview data were analysed using thematic analysis. Using the conceptual framework of possible selves, this paper examines the key factors shaping the formation of HVET students' possible selves in determining their future pathways.

Findings: The findings reveal several key insights. First, both individual and contextual factors play a significant role in influencing HVET students' decisions about their future trajectories. Second, there is a noticeable shift in the focus of HVET graduates' possible selves, with most participants envisioning pathways that diverge from immediate entry into the labour market. This study reports a major transition, with 23 out of 27 respondents

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intending to pursue higher education, reflecting a departure from the trends observed in previous research. Third, the COVID-19 pandemic has had a profound impact, disrupting the development of occupational skills and shaping post-college pathways for recent HVET students. Finally, the findings underscore the strong desire among Chinese HVET students to escape the HVET identity, which emerges as a significant driver in their pursuit of higher education trajectories.

Conclusion: This study highlights the critical factors influencing HVET students' post-college transitions, including COVID-19, social stigma, socio-economic constraints, and competitive societal pressures, which drive their pursuit of higher education. It shows the complex challenges faced by HVET students in post-COVID-19 China within a broader systemic context.

Keywords: Vocational Education and Training, VET, Possible Selves, China, Student Decision, COVID-19

1 Introduction

Higher Vocational Education and Training (HVET) and university education should ideally be seen as mutually supportive, but they are often in opposition in terms of policy, public opinion, and student choices. This global issue exists as a long-standing large disparity between Chinese vocational education and higher education in terms of the calibre of education provided, job prospects, and societal recognition. For example, in contrast to the favourable perception of university education, the social awareness and status of the HVET are much lower, accompanied by significant bias against this form of education (Ling et al., 2023; Velde, 2009). In particular, Chinese families exhibit a strong aversion to vocational education, with even rural parents considering vocational schools as a last resort (Jaeger, 2014; Velde, 2009; Wang & Guo, 2019).

Since the late 1990s, China has aimed to transition higher education (including HVET) from an elite system to one that provides mass access (Yan, 2010), which caused a rapid expansion of enrolment. According to the Ministry of Education of the People's Republic of China (MoE, 2023), by 2022, there were 17 million HVET enrolled students, making it one of the largest HVET systems in the world. The number of HVET graduates in 2022 is closer to 5 million, with further growth predicted (MoE, 2023). Figure 1 shows the change in students' number in China's HVET from 2017-2022. Although China is experiencing a period of structural adjustment and transformation, the current HVET continues to fall short of providing industry with the high-skilled personnel it requires, resulting in persistent labour shortages (Fan, 2020; Ling et al., 2023; Morgan et al., 2017; Schmidtke & Chen, 2012; Velde, 2009; Wiemann, 2021). In other words, without adequate support and recognition, HVET

students may encounter significant barriers that limit their potential to supply skilled labour. While their influence on China's economic development is more indirect, a failure to address these barriers could result in persistent skills mismatches and lowered workforce productivity. Over time, this dynamic may subtly constrain China's economic transformation and overall growth.

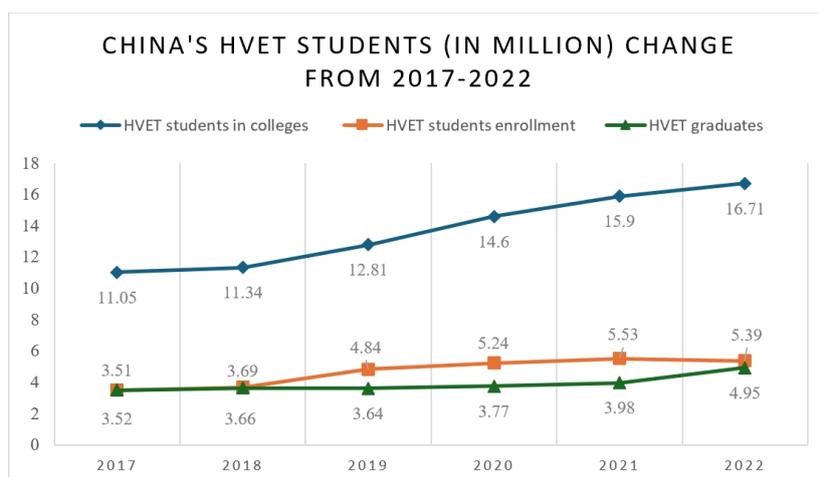


Figure 1: China's HVET Students Change From 2017-2022
(MoE, 2018, 2019a, 2020, 2021, 2022a, 2023; own compilation)

HVET graduates pursue one of two pathways: Seeking employment or further studies. Although the goal of HVET is to cultivate applied talents, which differs from university education, the Chinese government has begun permitting a greater number of HVET graduates to enter universities. This aims to support applied undergraduate talents¹, strengthen the flexibility of the higher education system and release the employment pressure (Ministry of Industry and Information Technology, 2015; MoE, 2010, 2012, 2021; Yang et al., 2020). Therefore, most provinces have started to implement policies aimed at augmenting the admission of HVET graduates to universities since 2012.

Shaanxi Province, the geographical focus of this study, is a significant region integrating science, technology, education, culture, economy, and politics within China. From 2017 to 2022 in Shaanxi Province, the number of applicants of HVET graduates who tried to go to university grew from 13,936 to 48,120, and the acceptance rate increased from 52.75% to 74.6% (EDoSPG: Education Department of Shaanxi Provincial Government, 2017, 2022). The number of both applicants and enrolments increased dramatically since the expansion

¹ Applied undergraduate talent: It refers to individuals who graduate from application-oriented universities that emphasise practical skills and industry-relevant knowledge, enabling them to contribute directly to various industries (MoE, 2010).

policy was published. Notably, according to the 2022 *Shaanxi Provincial Educational Development Statistical Report* (EDoSPG, 2023), although there is an increasing number of HVET graduates seek university education, the majority still opt to enter the labour market.

China is experiencing a shift in its economic structure, moving away from a reliance on labour-intensive industries towards technology- and knowledge-intensive sectors (Cai, 2010; Zhang et al., 2011). Given the importance of HVET for economic progress, it is important to examine how HVET students decide their future. China's HVET system, reflecting trends in developing countries, faces challenges such as maintaining quality amidst expansion, aligning curricula with industry needs, and combating social stigma (Li & Yang, 2013; World Bank, 2018). HVET students, often from disadvantaged backgrounds, struggle with systemic inequalities impacting outcomes (Chen, 2020). Exploring post-college transitions highlights the critical factors shaping their trajectories and offers insights into improving vocational education's role in addressing economic and social demands in developing societies (Li & Pilz, 2023; UNESCO, 2016). This study explores the experiences and perspectives of future workers, focusing on the key factors that influence students' decision-making processes regarding their future pathways. By examining their responses to decision-making under severe social crises, the research seeks to uncover and understand the underlying patterns that shape their choices. Therefore, the overarching research question in this study is: What are Chinese HVET students' perceptions of the factors that influence their decisions about their post-college trajectory?

2 Background

This part explores the complex challenges facing HVET students in post-COVID China. It examines the broader economic repercussions of the pandemic, its impact on the labour market—particularly youth unemployment—and the educational challenges encountered by HVET students, including online learning and heightened competition. Together, these factors contextualise the unique pressures on HVET students' post-college transitions within China's socio-economic landscape.

2.1 The Effect of the COVID-19 on China's Macro Economy

Since 2020, COVID-19 has had a significant impact on China's economy, leading to a substantive economic decline (Guerrieri et al., 2022; Tan et al., 2022; Zou & Han, 2022). The Gross Domestic Product (GDP) of China has shrunk by 6.8% (Zou & Han, 2022). 2023 is the first year after the reopening, which cancelled strict lockdown policies in China, plausibly, there should appear to be a positive trend in the state of the economy. From the NBSC (National Bureau of Statistics of China) (2023a), the first half of 2023 witnessed a 5.5% growth

in China's GDP, which seems to demonstrate a positive signal. However, only the tertiary sector experienced a rapid growth rate of 6.4%, while the secondary sector, which exhibits a significant correlation with HVET, exhibited a more modest growth rate of 4.3% (NBSC, 2023b, 2023d).

According to Carrera et al. (2015), the social and economic losses caused by disasters cannot ignore the indirect losses. These indirect economic losses caused by the epidemic include losses from production suspension and reduction, losses from industrial connections between industries, losses from investment premiums etc. (Rose, 2004; Rose et al., 2007). These indirect economic losses amplify the magnitude of losses as they propagate throughout the economy, extending beyond the immediate repercussions of such calamities (Tan et al., 2022). Obviously, there is a substantial and persistent impediment to the process of economic recovery in China.

2.2 The Effect of COVID-19 on China's Labour Market

The global labour market has experienced a significant and adverse shock due to the COVID-19 epidemic. According to Hu et al. (2022), from the perspective of the global economy, it can be said that global economic growth is facing its worst situation since the Great Depression of the 1930s. Particularly, developed and developing economies are in a collective recession for the first time (Hu et al., 2022), and coupled with the shock of the COVID-19 outbreak, the current global labour market has been substantially and negatively affected. A sudden increase in business challenges has led to widespread unemployment and a general decline in earnings (Wu et al., 2022). Research by Mongey et al. (2020), Hoehn-Velasco et al. (2021), and Hoshi et al. (2022) confirms that unemployment rates in the United States, Mexico, and Japan have worsened due to socio-economic fluctuations caused by the COVID-19. These studies pointed out that a common pattern among the unemployed includes individuals with low levels of education and younger ages, which is directly related to the HVET group. Recent studies in China have revealed similar characteristics among the unemployed.

In China, in a longitudinal follow-up observational survey of nearly half a million over-25-year-old individuals in Guangdong province, Li et al. (2023) pointed out that in comparison to the period before COVID-19, there was a significant rise in the number of unemployed individuals after COVID-19 emerged, with a notable increase of 72%. Guangdong province's unemployment rate has increased from 2.26% in 2019 to 5.3% in 2022 (Li et al., 2023; People's Government of Guangdong Province, 2023). Notably, Feng et al. (2017) highlighted that the public has long questioned the reliability of China's official unemployment rate, and it is widely believed that the realistic rate is much higher than the published figures. Moreover, in terms of China's unemployed groups, low educational attainment and young people are the most obvious characteristics (Che et al., 2020; Zhang et al., 2022).

In terms of the post-COVID-19 time, while the number of vacancies has surged due to barriers to returning to work and the evolution of workers' preferences, labour markets in developed economies are generally recovering rapidly (IMF, 2022; OECD, 2022). With the reopening of China started since December 2022 within most of the COVID-19 control measures that have been cancelled, it seems probable that there will be a resurgence in the job market after the epidemic, however, disappointingly, China's labour market remained persistently stagnant throughout 2023 (Li et al., 2023). In particular, the persistent upward trajectory of China's youth (16-25 years old) unemployment, seen since the onset of COVID-19, has persisted into the year 2023, culminating in a surge to an alarming rate of 21.3% in the month of June 2023, which is much higher than the global average level of 10.9% (NBSC, 2023c; OECD, 2023), showing unprecedented pressure upon urban youth employment nationwide.

2.3 HVET Students' Learning Under the COVID-19

The COVID-19 has not only dealt a shock to the global economy, but it has also shaken up the education sectors for countries all over the world. The pandemic necessitated the closure of many schools and universities. Numerous countries have adopted online courses to reconcile the conflict between ensuring social distancing and necessary teaching (Dhawan, 2020; Hodges et al., 2020). Since the spring of 2020, online learning has emerged as the predominant mode of education for the around 23 million higher education students in China (The State Council, PRC, 2020). Notably, almost all HVET colleges are required to rearrange their teaching schedules to implement online courses in a short period of time, however, the duration allocated for this transition is insufficient, leading to numerous challenges and issues (Han et al., 2020). That means HVET students experienced an unprecedented shift to an online learning environment due to COVID-19. In particular, numerous prior studies have demonstrated that HVET students exhibit a preference for practical, hands-on courses over traditional didactic instruction, a tendency often reflected in their lower academic performance during K-12 education (Wang et al., 2014, 2020). Nevertheless, during the pandemic, HVET students were confined to their dormitories, where they were required to engage in online courses that employed didactic teaching methods.

In addition, according to Han et al. (2020)'s survey, based on 767 questionnaires of colleges, 1709 questionnaires of HVET teachers and 211,143 questionnaires of HVET students across most provinces in China, it highlights that it is challenging to rely on online learning as a means to attain the educational objective of HVET, which emphasises the development of occupational skills. Importantly, the employability prospects of HVET students' post-graduation rely on their level of occupational skills, this circumstance means that online teaching as the main education model may limit the occupational skills development.

2.4 The Current Dilemma for HVET Students' Employment

In relation to the current labour market and HVET students, the prevailing circumstances do not bode well for HVET students. Specially, the contemporary employment market in China continues to be governed by the signalling system² (details see Spence, 1974) when it comes to the screening process. Additionally, the phenomenon known as the diploma effect derived from the signaling system, whereby a more advanced degree serves as a more effective indicator of higher returns in the job market, has been confirmed in research conducted over the previous few decades (Belman & Heywood, 1997; Hungerford & Solon, 1987; Jaeger & Page, 1996).

However, China's extensive higher education expansion initiative, initiated in 1999, has resulted in a significant increase in the gross enrolment rate of higher education from 9.76% in 1998 to 57.8% in 2021 (MoE, 2022a; NBSC, 2022). China's higher education enrolment has increased in an unprecedented way, which leads to the rapid depreciation of the value of the academic degree and reduces the employment benefits of the current young people's diploma (Hao & Wang, 2022). Certainly, except for the diploma effect, the emergence of this phenomenon cannot ignore the competitive environment in China's society.

In China, the ruling class is employing every possible measure to uphold its hegemony, restricting the prospects for most individuals to achieve upward mobility in terms of their socio-economic standing (Kai, 2012; Lu, 2002). For most Chinese citizens, they have to compete fiercely with others for limited opportunities to gain a better status, and this intensification of social competition also stimulates a dramatic increase in educational competition (Kai, 2012). Besides, Chinese educational ideals emphasise individual competitiveness, viewing competition as a means to enhance individuals' quality (Zhao, 2016). Hence, today's education competition in China is unprecedentedly fierce, this intensity is incomparable in most countries and regions (Kai, 2012).

In 2022, the number of applicants for the master entrance exam reached 4.57 million (close to 60% are fresh undergraduate graduates), an increase of 0.8 million than previous year, and total undergraduate graduates are only 4.72 million (China Education Online, 2022; MoE, 2022b), which means that more than half of undergraduate graduates choose to upgrade their education level. This situation is likely to stimulate the employment market and further raise the diploma threshold for job seekers. Hence, HVET students as the low-level education group, are losing their insufficient competitiveness in the labour market (Wang & Guo, 2019; Wang & Wang, 2023).

China's HVET students, often from disadvantaged rural backgrounds with parents as farmers or migrant workers (Ling, 2015; Wang et al., 2014; Woronov, 2011), face significant

² Signalling system: Central to the signalling system model proposed by Spence (1974) is that important components of workers' abilities are not directly observable by employers and must be signalled through education qualifications, thus providing a mechanism for distinguishing between high-ability and low-ability workers.

challenges in the labour market due to their lower socio-economic status, youth, and low diploma. More importantly, due to the COVID-19 outbreak, there was a widespread use of online education as the primary approach in China's higher education from 2020 to 2022 (Ye et al., 2023). However, the majority of courses offered in China's HVET colleges primarily consist of practical training, making it challenging to effectively meet the educational objectives solely through online instruction (Han et al., 2020), which may lead to a dearth in the acquisition of occupational skills among HVET students. Consequently, it might be more difficult for current HVET graduates to navigate successfully in this insecure labour market.

3 Theoretical Framework: Possible Selves

This study applies the theoretical framework of possible selves to examine personal motivation in the context of external factors that shape HVET students' self-concept, aiming to explore patterns in how HVET students approach their future pathway selection. The theory of possible selves has become an influential framework in educational research. For instance, this theory is used to examine academic motivation, as students' visions of their future selves influence their efforts and persistence in school (Destin & Oyserman, 2009; Oyserman et al., 2006). In career education, the possible selves theory is employed to help students explore potential careers and to motivate them to acquire relevant skills and knowledge (Kerpelman et al., 2002). Furthermore, this theory is used to support goal setting and self-regulation in educational contexts. By helping students visualise future selves, educators can encourage goal-oriented behaviour (Oyserman et al., 2002). Significantly, the theory of possible selves is instrumental in examining identity development, especially concerning students' perceptions of their academic identities and self-concepts (Harrison, 2018). This theory's flexibility allows it to be adapted across various educational settings, making it a widely applicable framework for improving student development and achievement.

The notion of possible selves serves as a significant intermediary connecting self-concept and motivation, fulfilling cognitive and affective functions within the realm of motivation (Markus & Nurius, 1986; Markus & Ruvolo, 1989). Initially, the influence of possible selves on expectations stems from an individual's ability to foster the notion that some potential identities may be effectively cultivated and serve as positive representations that individuals find worthwhile to pursue, such as the rich self. Conversely, some other possible selves are perceived as undesirable and should be actively avoided, like the depressed self (Stevenson & Clegg, 2011).

Notably, the concept of possible selves encompasses the development of personal understanding within the framework of their circumstances, reflecting one's present perception of the potential trajectory of their life. In addition, a potential possible self encompasses a sense of future happiness, success, or security, and personal judgement is used to determine

the likelihood of each possible self appearing. This is to distinguish between possible and impossible selves, which could be seen as cognitive manifestations of persistent goals, desires, motivations, fears, and threats (Harrison, 2018; Stevenson, 2012).

Although extensively applied in sociology, anthropology, and education, the concept of possible selves has rarely been integrated into VET research. Indeed, Blunden's work in 1999 was a first attempt to introduce this conception into the discussion of the inadequate understanding of self-concept among Australian VET educators, but only as a reference to compare the concept with other notions of selves rather than involving it in empirical studies. The theory of possible selves is suitable for the HVET field due to its emphasis on envisioning future selves and aligning present actions with future aspirations. This framework offers a valuable framework for examining and fostering HVET students' motivation, self-concept, and career development, particularly in areas such as career orientation, goal achievement motivation, skill acquisition, identity formation, and adaptability within evolving labour markets. Therefore, this research is unique in that it incorporates this theoretical framework into empirical research within the VET field.

However, it is imperative to acknowledge the shortcomings inherent in this theoretical framework. Henderson (2019) highlights that the conception of possible selves emphasises the individual rather than environmental factors. This may diminish the extent to which the individual's response to the coherence of social influences is considered. This study examines the significance of external environmental factors in HVET students' decision-making, including influences such as China's social culture and economic transitions, thereby extending the application of this theoretical framework to address its limitations. Hence, this paper acknowledges the potential impact of external elements, along with exploring the personal nature of individuals' perceptions of their possible futures. To date, the examination of the possible selves within the Chinese context, particularly in the realm of Chinese education, has been very limited³. These studies highlight the framework's potential to illuminate the diverse ways Chinese individuals construct and pursue their envisioned futures, providing a foundation for further exploration within this cultural and educational context.

4 Methodology

This study employs an exploratory design utilising qualitative methods to gain domain-specific insights into the subjective experiences of HVET students in Xi'an, the capital of Shaanxi Province. Specifically, this research examines the decision-making processes of final-year HVET students regarding their post-college trajectories, as well as the critical internal and external factors influencing their personal resolve. A semi-structured interview approach

³ Few related research, such as: Mulvey and Wright (2022), Global and local possible selves: Differentiated strategies for positional competition among Chinese university students; Maddamsetti and Yuan (2024), Primary preservice teachers' exploration of possible selves through narrated metaphors during the COVID-19 pandemic.

was employed to elicit participants' life experiences and personal perceptions, facilitating detailed elaboration, inquiry, and description. This approach generates rich, in-depth data suitable for investigating possible selves in exploring complex, subjective constructs such as future self-concepts and aspirations (Cohen et al., 2018; Trainor & Graue, 2013).

Shaanxi Province was selected as the research region due to its alignment with characteristics representative of the broader Chinese HVET system. As a hub that integrates diverse vocational programs and is subject to national HVET policies, Shaanxi reflects both the industrial and educational priorities found across China. Additionally, the socio-economic and industrial landscape in Shaanxi is comparable to that of other provinces, making it a valuable case study for understanding HVET trends nationwide. While regional variations are present, these findings may offer insights into common challenges and opportunities within China's HVET landscape, thereby contributing to a broader understanding of Chinese HVET students' experiences. Colleges were selected based on the accessibility and rapport established through existing social connections, facilitating more effective engagement with the student population.

Data were collected from five HVET institutions in Xi'an during the first semester of the 2022–23 academic year. This research employed a combination of snowball and purposive sampling to ensure inclusivity and heterogeneity within the sample (Punch, 2014). A total of 27 face-to-face interviews with final-year HVET students were conducted between October and December 2022. The participants discussed the following four key topics: a) Educational experiences in recent years; b) the ramifications of the COVID-19 pandemic on their personal lives and academic pursuits; c) their perspectives on graduation, future decisions and expectations on the subsequent pathway; and d) the significant internal and external factors that influenced their future plans. Subsequently, this study employed Braun and Clarke's (2006) six-phase approach to thematic analysis to ensure a systematic exploration of the data. The process began with familiarisation with the data, followed by generating initial codes and grouping them into potential themes. These themes were iteratively refined through merging, rearranging, and reviewing to establish their relevance to the possible selves framework. Ethical approval for the study was obtained from the university where the research was conducted. Data collection was entirely voluntary, with all participants required to provide written informed consent before their involvement.

A total of 6 pilot interviews were conducted to verify the accuracy and suitability of the interview schedule, however, these were not included in the analysis. The sample this paper draws on consists of 27 participants in total, including 9 males and 18 females; 14 of 27 students are from rural areas and the rest are from cities. More participant details are demonstrated in Table 1 and Table 2.

Table 1: Overview of Sample Demographics

Classification	Participants Numbers
Gender	
Male	9
Female	18
Institution	
A	6
B	3
C	6
D	7
E	5
Major	
English language teaching	6
Electric locomotive operation and maintenance	3
Preschool education	6
Dance performance	5
Finance management	4
Animation production	2
Film & Multimedia	1
Family Background	
City	13
Rural	14
Siblings	
0	7
≥1	20
Living Expenses (CNY)/M	
500-999	1
1000-1499	12
1500-2000	7
≥2000	7
Total Participants	27

Table 2: Details of Sample Information

Number	Name (anonymity)	Decision on Destination
1	Yanyang	University
2	Lingwei	University
3	Jingya	University
4	Wanting	University

5	Zixuan	University
6	Keyue	University
7	Juncheng	Work
8	Bailiang	Work
9	Chunan	Work
10	Yankun	University
11	Ziyu	University
12	Chaoyu	University
13	Shiyin	University
14	Junkai	University
15	Chenlong	University
16	Fangzhu	University
17	Shuya	University
18	Yueting	University
19	Huiyan	University
20	Lechen	University
21	Yunyi	University
22	Kexin	University
23	Shihan	UK University
24	Sihui	University
25	Xinqi	Work
26	Siyu	University
27	Qianhui	UK University

5 Findings

The findings section is structured to reflect the thematic analysis approach used in this study. First, it explores how three personal factors influence participants' decisions, providing a nuanced understanding of individual-level changes. Next, the impacts of two finance-related factors, incorporating both individual and contextual aspects, are examined in shaping participants' perspectives on their future decisions. Finally, the analysis highlights how two environmental factors play a dominant role in participants' decision-making processes.

5.1 Occupational Skills, Academic Performance, and Future Plans

Occupational skills, academic performance and future plans are key personal factors that influence HVET students' post-college choices. This section demonstrates how these three critical factors affect HVET students' future pathway choices.

5.1.1 Occupational Skills

The primary agenda of HVET is to provide students with training in specific occupational skills, which play a crucial role in determining their employability. When HVET students engage in the labour market, occupational skills serve as the underpinning for establishing opportunities for their own career development. In other words, occupational skills serve a dominant function in the vocational system, both in the individual dimension and the structural dimension. However, since the COVID-19 pandemic started, the emergency transition of learning from traditional classroom-based instruction to online platforms has presented significant challenges in terms of HVET students' acquisition of occupational skills. Given their importance in the HVET curriculum, there has been a particular concern about delivering practical courses online. The negative impact of successive national lockdowns throughout the pandemic on their occupational skills development has been highlighted by 3/4 of participants in this study. HVET students were extremely dissatisfied with the efficacy and quality of both imparting and receiving occupational skills through online instruction. For instance, Yankun compared online teaching with the experience of in-person teaching and saw the former as inadequate and ineffective in terms of cultivating students' specific occupational skills:

I prefer the in-person class, because my courses are mainly practical (...) But online classes are terrible, everyone uploads class assignments and shares the screen, which causes much time to be wasted. Online classes not only reduce the time for teachers to teach knowledge, but also lead to no time and conditions to provide practical operation guidance for each student. (Interview 10: Yankun, Major in Film & Multimedia, Line 246-248, 251-253)

Furthermore, due to the COVID-19 pandemic, certain face-to-face professional courses, competitions, and internships were also cancelled, systematically depriving students of accessing learning opportunities to improve their occupational skills. Shihan was frustrated that she was not getting enough learning opportunities, and knew that this meant the potential dancing skills gap between her and older competitors in the labour market would continue to widen:

We can't go to almost any major courses in person (...) we really need the teacher to watch us directly when we are dancing, so that the teacher can provide us with nuanced guidance. But now we can only record our dance and send it to the teacher to see (...) A lot of shows and competitions that we could attend have been cancelled because of the pandemic. There was no chance for us to develop our dancing skills. (Interview 23, Shihan, Major in Dance Performance, Line 228-229, 240-245)

Moreover, the clarity of students' comprehension regarding their level of occupational skill is evident, as opposed to being ambiguous. Students possess an awareness of their tangible

shortage in occupational skills, and they firmly believe that this impedes their ability to access the job market. Like Jingya said:

The epidemic has had a great impact on my learning experience. (...) And now I feel that I have almost graduated, but I have not learned anything, I'm very worried about it. Now I'm 100% sure that I do not have the ability and skills to be an English teacher. (Interview 3, Jingya, Major in English Language Teaching, Line 30-31, 36-37)

Inadequate skills and knowledge of the specific occupation became an early warning signal for students to evaluate their post-graduation trajectory. Despite the considerable time remaining until graduation in June 2023, because China continued to enforce stringent lockdown measures, students' opportunities to develop occupational skills were further curtailed. More importantly, the absence of suitable settings and conditions for HVET students to cultivate their occupational skills not only disrupts the coherence of skill acquisition, but also jeopardises their recontextualisation involving theoretical knowledge in real-world contexts. Under this circumstance, the students articulated a distinct awareness of their own deficits in occupational skills. Moreover, when taking into account the cumulative impact of weak qualifications, HVET students will face a high level of uncertainty upon entering the labour market. Hence, obviously, the occupational skills deficit becomes a vital motivation for constructing a like-to-avoid self when entering the labour market. In terms of planning their future pathway, the lack of occupational skills creates an insecure picture for HVET students' imaginations of future employment. This can then become a trigger to postpone labour market entry and instead choosing to go to university.

5.1.2 Academic Performance

While the threshold for entrance exam to universities has decreased in recent years due to higher rate of enrolment, there are still requirements for applicants' academic performance. HVET students' current academic performance is an important criterion for them to evaluate whether they can pass the exam or not. This means academic performance constitutes a key element for HVET students to contemplate while deciding whether to pursue a university trajectory in the future. Participants who opt for university education typically hold the belief that their current academic performance may not be great, but it does not pose a significant barrier to their entry to higher education. This group exhibits a range of confidence levels regarding their likelihood of achieving success in the university entrance examination to go to university. Even those who currently have low academic achievement maintain a belief in their potential for success. Shiyin, who just started studying less than six months before the exam, remains confident:

My academic grade in high school is poor, and my academic foundation is not very good so far. I just started studying a while ago, but I think I can get in if I keep studying. Even if my performance in the exam is very bad, I feel that at least I can go to a private university⁴. (Interview 13, Shiyin, Major in Animation Production, Line 84-86)

There may be several factors that potentially contributed to students' confidence about successfully passing the examination. These include the implementation of the enrolment expansion policy, the fact that the entrance exam is relatively easy, and the expressed intention of certain students to avail themselves of specialised academic assistance in their exam preparation. For instance, students can seek extra tutoring specifically for this exam via external institutions at a high price. That means the present state of academic achievement does not serve as a determinant in shaping the personal imagination regarding their potential possible selves.

However, among some students who choose to go to work, academic performance is more likely to play a key role in their decision. In China, all high school students are required to complete a high-stakes standardised examination that determines their educational trajectory. HVET colleges can only admit students with lower academic performance, whereas those with higher achievement typically pursue university education. This means HVET students experienced higher rates of academic failures during their K–12 education. Furthermore, when combined with the additional burden of social stigmatisation, these students are more likely to develop a persistent self-perception of academic failure as they progress through their individual life journey. Especially when these students' current academic performance is weak, their vision of their possible selves taking the entrance examination to university is fairly negative:

My university entrance exam performed so badly that almost no place can enrol me after high school (...). I have not been good at learning since I was a child, and I had no confidence in studying at all. (Interview 7, Juncheng, Major in Electric Locomotive Operation and Maintenance, Line 39-43)

As Juncheng's remark exemplifies, some students are more likely to gaze back on their long-term poor academic performance while creating a picture of their impossible selves who can pass this exam. In other words, the decision to choose work is made because of the rejection of taking the exam to avoid the appearance of fearful possible selves.

⁴ China's Private University: Private universities' tuition fee is much higher than public universities, but the education quality is much lower than public university in general. Besides, the admission requirement for the entrance exam is also much lower than public universities.

5.1.3 Future Plans

The tension between individual future imagination and strategy generation necessitates a personal future plan. In particular, the presupposition of individual future plans assigns to each learner an imaginary future destination. This situation should be distinguished from the temporary inclination to pursue or avoid two contrasting versions of possible selves (e.g., a desired self vs. a feared self). The process of reaching a long-term goal or the realisation of a future self involves not just a single choice, but the pursuit or avoidance of many smaller, intermediate versions of the self along the way. In other words, while an individual may have an overarching vision of their ideal future self, the path to achieving this future is shaped by a series of decisions and smaller steps, each representing a potential version of the self. These smaller decisions are part of the broader trajectory toward the final destination, which makes the long-term goal more complex and dynamic than simply choosing between two opposing versions of possible selves. The decision to engage in either further education or employment is the initial phase in the HVET student's trajectory towards their imaginary future destinations. While students' visions of future destinations may still be vague, the approximate coordinates help them navigate their decisions for future pathways. In Yankun's future plan, he lacked a precise vision for his desired future self, nevertheless, he still depicts a scenario characterised by aspirations for high income and resistance towards low income:

My brother (HVET graduate) has been working for several years, some new staff's (university graduates) salary is much higher than my brother's. I think I must get a bachelor's degree, this may be much better than HVET graduates who can only earn a few thousand yuan a month. (Interview 10, Yankun, Major in Film & Multimedia, Line 104-109)

In order to get closer to this possible self, obtaining a higher degree becomes a necessary step in Yankun's view. He carefully considered the significance of the close relationship between academic degrees and the labour market in 21st-century China's society, opting to pursue higher education. Compared with Yankun, the future plan guided Xinqi to choose a very different direction:

I would consider engaging in employment first (...). I would like to enter society first and clearly see the reality of the industry. (Interview 25, Xinqi, Major in Dance Performance, Line 164-166)

The coordinates she assigned to her possible self that she wants to achieve do not have a precise location, however, it is clear that these coordinates fall within the domain of industry. Xinqi's strategy to construct her future personal development revolved around a strong emphasis on industrial and practical experiences, which will generate a tractive effort to lead her directly into the labour market to seek tangible industrial information after her graduation.

In this section, for this group of students with historical particularity because of the influence of COVID-19, the finding shows that both occupational skills and academic performance demonstrate a predominantly unidirectional impact on students' decision-making for their future pathway. In other words, the perceived deficit in students' occupational skills is likely to generate their fearful selves when considering their engagement in the labour market. Furthermore, the persistent weak performance in academics among certain students may create a possible failure self-image when participating in the exam. Both situations serve as the main causes for leading students down different future paths. However, despite the lack of adequate accuracy in students' future plans, the coordinates offered by these plans do not create any confusion regarding the directions of the two potential future pathways.

5.2 Financial Pressures and the Employment Outlook

This section focuses on the influence of participants' own financial pressures and perceptions of the current employment outlook on their future pathway selection. The findings demonstrate both factors play an important role in HVET students' decision-making.

5.2.1 Financial Pressures

In China, HVET students are often from lower socio-economic backgrounds. A significant majority of participants reported experiencing various levels of financial stress for a long time. For students with more favourable socio-economic backgrounds, financial stress did not become a significant factor in determining their future academic trajectory, whether long-term or short-term. Nevertheless, the influence of financial constraints significantly impacts the decision-making of individuals belonging to economically disadvantaged groups. For instance, Yueting said:

I was planning to go to university, but my family's economic condition is getting worse and worse, so now the idea of going to university begins to waver. (Interview 18, Yueting, Major in Preschool Education, Line 91-93)

It is imperative to identify the two distinct versions of Yueting's possible selves in order to comprehensively examine the effect of financial pressure on her decision-making. From her initial idea, it shows a possible academically successful self which she tries to achieve. However, as the family's financial circumstances continue to deteriorate, she becomes aware of how she may impose an additional burden on her family if she seeks further education. This potential version of her possible self may bring a dilemma that elicits a sense of moral transgression for her, which she desperately tries to avoid. The extent of financial pressure performs a crucial regulatory function in the formation of HVET students' possible selves.

In terms of students who have experienced prolonged financial strain, the possible self that is formed by the influence of economic pressure appears to prioritise a self-concept centred around contribution. Such students have consistently experienced serious economic strain, and the notion of living on a low income is embedded in their personal life schema. Consequently, these students often feel a stronger drive to change their financial situation, as the ongoing economic strain shapes their desire to escape or overcome their current low-income circumstances. This pressure creates a sense of urgency and motivation to improve their financial standing, pushing them to actively seek ways to break free from the limitations imposed by their economic situation. Their financial struggles become a key motivator in shaping their future self-concept. Chunan's expression is representative:

My family's economic situation has not been very good for decades (...). I also have a younger brother, and his monthly living expenses are also an important expense for my family. I really want to lighten the financial burden for my family, so I decided to get a job first. (Interview 9, Chunan, Major in Electric Locomotive Operation and Maintenance, Line 175-179)

To put it differently, the possible self he wants to achieve is a mature adult capable of assuming the economic obligations of his household. To realise this possible future self, Chunan chose to enter the labour market as a more efficient route, compared to pursuing university education.

5.2.2 Employment Outlook

In terms of the employment outlook, a prevailing sentiment among participants was negative, characterising the labour market context with insecurity. The labour market in China is experiencing a significant contraction due to the confluence of several factors, including the global economic slump, the impact of the pandemic, and the ongoing financial tensions between China and the United States. Additionally, the exponential increase in the young unemployment rate has further exacerbated the challenges faced by HVET students in their pursuit of employment opportunities. Notably, although participants' knowledge of China's macroeconomic changes and the specific situation of the shrinking labour market is fairly limited, the vague negative change in the labour market that they perceived can still make them precept regarding their future employment prospects with a sense of growing pessimism. Hence, the identification of possible selves by students for entering the labour market is more likely to produce a high-risk picture, leading some of them to avoid this trajectory. As both Zixuan and Kexin said:

I don't know why, but the feeling is that it is extremely difficult to find a job. If I can stay at the university for the next few years, it will make me feel safer. (Interview 5, Zixuan, Major in English Language Teaching, Line 57-59)

I heard from graduates that it is really difficult to find a job now. So, I think it will be much easier to stay in university than to get a job after my graduation. (Interview 22, Kexin, Major in Preschool Education, Line 500-502)

Although Zixuan had a limited knowledge of the dynamics of China's economy and labour market, she perceived a notable escalation in the challenges associated with securing employment. This is consistent with the majority of participants, who showed a similar attitude towards current employment. Specifically, while they may lack a comprehensive understanding of the precise factors and consequences of economic fluctuations, they were able to distinctly perceive the insecurity prevalent in the labour market.

In this section, the findings demonstrate that, under the impact of China's volatile socio-economic environment, combined with the generally disadvantaged family background of HVET students, plausibly, financial pressure is becoming an increasingly vital aspect in determining HVET students' future pathways. Importantly, financial pressure plays a crucial role in the creation of two versions of possible selves in order to determine their future pathway according to students' personal growth experiences and current financial situation. By contrast, the employment outlook exerts a unidirectional influence on students' decision-making about their future trajectory. This phenomenon can be attributed to the deteriorating labour market which is caused by the external economic environment. Under this circumstance, HVET students almost impossibly generate an imaginary picture of a successful self in their employment outlook.

5.3 HVET Identity and Socio-Cultural Context

The social environment's influence also has a profound impact on HVET students' future choices in China. As critical social environmental factors, this section highlights the significance of HVET identity and socio-cultural context in participants' decision-making.

5.3.1 HVET Identity

The historical stigmatisation of vocational students in Chinese society has persisted a long period, with some escalation of these issues (Ling et al., 2023; Velde, 2009). This situation makes vocational students bear heavy pressure from a negative social image. Most participants reported they have experienced discrimination, prejudice, or humiliation in the past based on being a vocational student, commonly in personal life. Furthermore, based on the accounts shared, family, circle of friends, public places, and the internet can be spaces for stigmatisation. Particularly, almost all participants who experienced stigmatisation confirmed their anger at this phenomenon and expressed negative sentiments about whether this issue

might improve. Relying on Wanting's own experience, she emphasised the serious stigma of HVET identity with indignation:

Social prejudice and discrimination against college students are very serious, and all kinds of ridicule and insults are quite common. My family thinks all HVET students are rubbish (...). There is lots of ridicule and discrimination against college students online now. This has been going on for many years, and I don't think this situation will improve. (Interview 4, Wanting, Major in English Language Teaching, Line 156-159)

Since classmates who are also HVET students make up the daily life circle of individuals, prejudice against HVET identity may be less common among them. This situation may reduce the negative feelings associated with being a vocational student. However, the social environment shifts significantly when HVET students enter the workforce after graduation. In contrast to their college life, where classmates with similar vocational backgrounds may lessen the stigma associated with their HVET identity, they face a different reality in the broader job market. Upon entering society, HVET students may experience social stigmatisation as their vocational qualifications become more apparent, especially when diploma differences and academic prestige become significant factors in hiring decisions. In this new context, their HVET identity becomes more vulnerable, as it is increasingly viewed as inferior to higher academic credentials. Like Huiyan pointed out:

I think I will feel inferior because I am a college student when I enter society. Although I think I'm an optimistic person, it is inevitable that I will be affected by this prejudice. (Interview 19, Huiyan, Major in Preschool Education, Line 517-518)

The HVET identity for HVET students is more likely to generate their possible fearful selves in their future imaginations. Therefore, when presented with the chance to escape their current HVET identity, students exhibit a strong inclination to explore the possibilities of the identity changes that come with entering this trajectory for seeking university student identity.

5.3.2 Social-Cultural Context

Contemporary social culture in China is characterised by an atmosphere of fierce rivalry and a strong emphasis on the acquisition of higher academic credentials. This socio-cultural trend stimulates the production of certain images, influencing students to imagine their possible selves with higher qualifications. Especially in the dimension of the pursuit of higher education qualifications, in terms of the possible self that students want to become, the imagination of having higher academic credentials is common and plausible. Constructing her

possible self, Yunyi's aspirations for academic achievements extend beyond the undergraduate level to the pursuit of a master's degree:

If possible, I really want to take further education beyond the undergraduate programme (...). I want to seek a master's degree in the future. Education qualification is really a very, very important thing in my heart. (Interview 21, Yunyi, Major in Preschool Education, Line 100-102, 108-110)

Besides, anxieties over academic credentials created by the intense competitive atmosphere are likely to coerce students' ideas in determining their post-college pathways. Like Siyu reported, she was dominated by the competitive environment:

I think the reason I want to go to university is that I am greatly influenced by the general environment of society. It feels like the social environment requires everyone to go to further education (...). I don't know when academic anxiety started, but this situation has always been around us. (Interview 26, Siyu, Major for Dance Performance, Line 351-355)

The anxiety that students feel in this competitive environment may generate a fearful self that scares the possibility of lagging behind their peers if they opt not to pursue university education. However, it is possible that certain students may acclimatise to and derive pleasure from this competitive environment, thereby fostering the emergence of their more competitive selves. When seeking university education, the perspectives of this sort of student on enhancing their personal competitiveness extend beyond the academic qualifications themselves, encompassing the potential advantages that a better education platform might offer for individual advancement. For instance, compared with the majority, Shihan's goal was to go to a British university, which is unique in the HVET group. A reinforced focus on perceived educational quality can be seen in her narrative:

I think the university and college are not the same platform for me, besides, British art universities are generally better than China's art universities. British universities can provide me a better opportunity to improve myself. (Interview 23, Shihan, Major in Dance Performance, Line 865-867)

The findings presented in this section demonstrate that the HVET identity as a significantly negative social label can only function for the generation of participants' fearful selves. HVET students aspire to escape the HVET student identity upon completing their education in order to evade the enduring and formidable social stigma in the future. By contrast, based on participants' different understandings of China's competitive social environment, the role of this social culture in the creation of HVET students' possible selves served both versions. It is understandable that this culture has shaped students' thinking in a certain way, hence exerting great power over their decision-making. Certainly, the particular circumstances should be contingent upon the student's capacity for adaptation and comprehension of the

prevailing social culture. More importantly, both HVET identity and socio-cultural factors caused a greater inclination towards university education for HVET students.

6 Discussion

The majority (23/27) of HVET students in this study opt to pursue further education at a university as their post-college pathway. This stands in sharp opposition to the previous pattern where 70% of Shaanxi HVET graduates opted for employment (EDoSPG, 2023). This disparity shows the profound impact of COVID-19 on China's society. COVID-19 has precipitated a systematic paradigm shift in HVET teaching modes. Online teaching replaces the classroom teaching that HVET students rely on to develop occupational skills, thus destroying the platform and coherence for them to effectively construct occupational skills. These findings underscore significant challenges within the HVET system that align with the broader literature on vocational education. The limitations of online learning for skill acquisition resonate with Billett's (2011) work on the essential role of hands-on experience in HVET programs. The impact of COVID-19 has amplified these issues, highlighting a need for curriculum reforms that can integrate practical training into online formats, potentially through simulated environments.

Moreover, HVET students' academic degrees hold limited value in China's labour market, as these degrees are often not viewed as strong indicators of employability or marketable skills. Unlike academic degrees from higher educational institutions, which are seen as more prestigious and capable of signaling a graduate's potential in various professional fields, HVET qualifications are often not recognised by employers as an effective signal of a candidate's readiness for work. This gap is further compounded by the lack of specific occupational skills among many HVET graduates, which further hampers their ability to compete in the job market. As a result, their chances of successfully entering employment are significantly hindered. Besides, due to the hit of the epidemic, China's economic development has faced great challenges since 2020. The deterioration of the national economy is reflected in the ongoing labour market challenges with a 21% unemployment rate among young people. In other words, COVID-19 not only undermines students' ability to capture employment opportunities in the labour market, but also causes job opportunities to be reduced from the supply side.

Furthermore, the pandemic has not diminished the enduring competitive atmosphere in Chinese society, nor has it alleviated the stigmatisation associated with the HVET identity. Presently, HVET students face inherent disadvantages while engaging in discourse with society and are subjected to various forms of discrimination and prejudice. Upon the implementation of the enrolment expansion strategy, the way for HVET students to escape the shackles of this HVET identity was improved. Besides, given the competitive environment of China's

society, HVET students are motivated to pursue a university education. The picture of going to university as a way not only to change one's identity label but also to seek a higher degree paints a common vision among China's HVET students. In particular, the stigma associated with HVET identity, as evidenced by participants' negative perceptions and desire to escape this identity, parallels findings from Velde (2009) and Ling et al. (2023). However, the influence of China's competitive socio-cultural environment exacerbates this issue, suggesting that reform efforts must go beyond curriculum changes to address societal biases against vocational pathways.

In addition, the decision to choose a post-college trajectory is dominated by HVET students' socio-economic backgrounds. Not only do a large proportion of individuals in HVET students come from rural areas, but parents of students from cities are more likely to hold low-level jobs (Ling, 2015; Wang et al., 2014; Woronov, 2011). This means that HVET students often lack adequate cultural, economic and social capital⁵ (see details in Bourdieu, 1986). Such disadvantages significantly constrain HVET students' capacity for envisioning possibilities in their future and potentially coerce them into a specific trajectory. Especially, the effect of financial pressure, as determined by an individual's economic capital, is significant in deciding HVET students' future pathways. In this study, it is clearly demonstrated that different socio-economic positions exert a vital influence on shaping HVET students' post-college trajectories. Compared with students from disadvantaged families, economic factors did not play an important role in wealthy students' decisions about their future trajectory. By contrast, most HVET students are from economically disadvantaged backgrounds and have to take into account the constraints imposed by their family's financial circumstances. For the majority of HVET students, the financial burden associated with obtaining a university education, coupled with a family's desire to require financial contributions from them, serve as intangible obstacles that hinder students from exploring various future choices. These insights into HVET students' financial pressures also reflect Bourdieu's (1986) concept of capital, where limited economic resources restrict educational mobility. Supporting students from disadvantaged backgrounds through scholarships or financial aid could mitigate this barrier, providing a more equitable educational landscape.

The findings of this study underscore the need for policy initiatives that address specific challenges within the Chinese HVET system. The National Vocational Education Reform Implementation Plan (MoE, 2019b) and Education Modernization 2035 (MoE, 2019c) highlight China's commitment to vocational education reform. However, these findings suggest that these policies could be further strengthened by incorporating digital simulations and virtual training components into HVET curricula, ensuring that skill acquisition remains robust even when in-person learning is constrained.

⁵ Bourdieu's capital theory: It argues that different capitals owned by individuals can determine their positions in the social stratification structure, and further influence the pattern of social behaviours. More specifically, there are three forms of capital, namely economic, social, and cultural capital.

Internationally, policies from developing countries like India's Skill India Mission (World Bank, 2019) offer a valuable model for skill development aligned with labour market demands. By incorporating industry partnerships and focusing on employability, India's approach illustrates how China might further integrate practical, industry-relevant skills into its HVET framework. Similarly, adopting elements from Germany's dual education system, where work-based training complements classroom instruction, could provide a pathway to mitigate the skill gaps observed in this study.

Reducing the stigma associated with HVET also emerges as a critical area for policy intervention. Drawing on South Korea's approach to rebranding vocational education, public awareness campaigns could reshape societal perceptions and emphasise HVET's career value. Such initiatives would align with the objectives of Education Modernization 2035, contributing to a more equitable and diverse educational landscape.

Notably, studies on how HVET students choose their post-college trajectory remain very few, particularly there is almost no relevant research in the Chinese context. Some previous international literature has actually provided us with several key insights, particularly regarding the role of labour market situation, socio-economic backgrounds, and socio-cultural factors in influencing students' future choices (Billett, 2011; Foskett & Hemsley-Brown, 2002; Richard, 2018). However, these studies are more about concern for HVET students' occupation selection than considering both work and university trajectories together. Besides, perhaps due to cultural differences, the existing literature does not pay much attention to the crucial role of HVET identity stigmatisation in students' decision-making processes when examining socio-cultural factors.

Finally, by applying the framework of possible selves, this study offers a novel perspective on HVET students' aspirations and fears, illustrating how identity concerns shape their educational trajectories. While existing studies focus on vocational outcomes, this approach captures the subjective experience of HVET students, making it a valuable addition to the vocational education research field. Particularly, two basic personal versions of possible selves provide an effective lens to understand and analyse the reality of HVET students under the current complicated circumstances.

7 Conclusion

In conclusion, this study examines the decision of 27 HVET students from Xi'an to select their post-college route prior to graduation in the post-COVID-19 era. By utilising the theoretical framework of possible selves, the data was examined and revealed the critical factors that constrained or facilitated HVET students' choices regarding their future trajectories. The findings indicate that social circumstances continue to significantly influence HVET students. The social stigma associated with this HVET identity serves as a core motivation

for HVET students to seek university education. Additionally, the competitive environment of China's society also serves as a catalyst for guiding HVET students to acquire further education. Notably, the financial burden imposed by an individual's socio-economic background is a crucial factor for HVET students to think about while considering their future pathways.

HVET students in China have historically been in a disadvantaged position within society. Three years after the onset of COVID-19, HVET students in China face increasingly complex post-college transition challenges. The HVET plays a crucial role in China's economic progress, and this study contributes to understanding the critical factors influencing HVET students' post-college transitions within a broader systemic context.

However, several limitations must be acknowledged in this study. The regional focus restricts the generalisability of findings across China, as socio-economic and cultural differences may shape HVET students' experiences differently across provinces. Additionally, while providing detailed insights, the qualitative approach does not support broad statistical conclusions. Future studies could employ a mixed-methods approach for a more comprehensive understanding. This study captures only a single point in time, highlighting the need for longitudinal research to track graduates' evolving career trajectories. Finally, given the impact of societal stigma on HVET identity observed in this study, further research could explore ways to reduce this stigma and investigate policy measures to support HVET students' financial and employment needs.

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Ethics Statement

All participants were fully informed about the study's purpose, procedures, and their rights, and they provided written informed consent prior to data collection. This study was conducted in accordance with the IJRVET Ethics Statement, ensuring voluntary participation, confidentiality of responses and the right to withdraw at any time.

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