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RESEARCH ARTICLE

Establishing the relationship between soft skills and work readiness among vocational students in China

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ABSTRACT

In today's dynamic and evolving job market, vocational education plays a vital role in equipping students with practical skills for successful careers. This study investigates the employment challenges faced by vocational students in China, an issue that has become a significant societal concern amidst the rapid expansion of vocational education in recent years. Despite increased enrollment in vocational colleges, the unemployment rate among graduates continues to rise, largely due to a gap between the soft skills of students and the demands of the labor market. The study's objectives are twofold: (1) to assess the level of soft skills and work readiness among vocational students in China, and (2) to explore the relationship between soft skills and work readiness. A cross-sectional survey was conducted with 132 respondents, including 56 male and 76 female students across various majors. Statistical package for social sciences SPSS) Version 26 was used for analyzing the mean score, standard deviations and the correlation analysis. The analysis reveals that soft skills among vocational students are generally at a moderate level, with mean scores ranging from 2.53 to 3.32. Furthermore, a significant positive correlation between soft skills and work readiness was found ($P < 0.01$), suggesting that enhanced soft skills could improve students' preparedness for the workforce. Theoretically, this study contributes to the understanding of the role of soft skills in vocational education and their impact on employability. Practically, the findings suggest that vocational education institutions should prioritize soft skills training in their curricula to better align graduates' abilities with labor market needs, thus enhancing their employability prospects. These insights offer valuable guidance for policymakers and educators in designing curricula that address the growing demand for soft skills in the modern workplace.

Keywords: soft skills; work readiness, vocational education; employability; labor market; curriculum development

1. Introduction

The global job market has transformed bringing employers to emphasize both academic qualifications and necessary soft abilities in their staff members [1]. Within traditional vocational education students primarily acquire specific abilities which can be taught in areas such as engineering and healthcare and information

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technology. Organizations nowadays need employees who demonstrate soft skills including problem-solving ability and adaptability combined with communication capabilities and teamwork skills. Two fundamental competencies of interpersonal and intrapersonal skills play an important role for companies to boost operational effectiveness and encourage innovation while allowing staff to navigate complex work situations and collaborate effectively [2]. Soft skills have achieved essential importance because they allow graduates to fulfill both technical expertise requirements and real-world workplace success.

China requires employees with strong technological aptitude in addition to resilience against industry changes as its economic growth continues[3]. Chinese economic transformation into service and innovation sectors makes soft skills increasingly vital for the country during its development period. Business organizations now hire fresh graduates who possess skills to join existing teams and operate effectively with teammates on diverse projects. Current market trends show that employers want students from vocational education programs to learn both technical expertise and soft skills that match their best practice standards [4]. The changing demands of the labor market require vocational education to develop students' hard skills and soft skills in balanced measures.

Vocational education, which refers to instructional programs and courses that focus on developing specific skills and knowledge for particular trades or careers, emphasizes hands-on training and practical experience to prepare students for the workforce. Vocational education in China has traditionally invested its primary resources into technical skill development without paying sufficient attention to soft skill instruction. Strict educational directions produce professionals who demonstrate strong technical expertise but fall short when it comes to essential social communication abilities used in contemporary workplaces[5]. The vocational education system faces a skills gap which creates an employment challenge between vocational graduates' abilities and what employers need. The technical competencies of many vocational students are strong but their deficiency in communication abilities and teamwork and problem-solving proficiencies prevents effective performance in authentic work situations[6]. The present state emphasizes the necessity to revise vocational education curricula so they cover comprehensive training of technical skills and soft abilities equally.

The rising professional awareness regarding soft skills' value has not resulted in sufficient implementation of these capabilities throughout Chinese vocational education programs [7]. Vocational college graduates start their professional life without proper education in essential soft skills that restrict their job opportunities and limit their career advancement possibilities. To further comprehend this gap, there is a need to clarify the essence of soft skills that are deficient in most vocational graduates. These are categorized as communication, working as a team, problem-solving, technology-literacy, entrepreneurial-thinking, moral-values, life long learning and work-readiness in general. The combination of these abilities constitutes the formula of effective professional conduct and responsiveness in the modern working conditions.

Communication is a pillar of employability. It does not only involve verbal and written competence but also listening, non-verbal communication, and the capacity to adapt messages to suit various situations. Employees with good communication skills also establish stronger working relationships, settle disagreements much quicker and help to ensure operations are not hampered [8]. Communication is essential in vocational areas where one frequently has to work with clients, colleagues, and managers. Teamwork is the counterpart of communication and it is the ability to work effectively in a group toward common goals. Team players also have to be effective by showing sympathy, responsibility and collaborative problem resolving which leads to a better cohesion in the workplace.

Problem solving is equally important as the capacity to probe, diagnose and find solutions to problems whether individually or in teams. In high-paced industrial sectors, the ability to critically analyze problems and

devise creative solutions in such a way is the highly marketable employee attribute [9]. Some vocational graduates have not had any guided exposure to the real world problem solving and hence they are not ready to face the complexity of the job. In conjunction with this, there is increasing need of technology literacy. This means the effective use of digital tools and platforms that are applicable in the area of interest. Whether it is running machinery that has digital systems within the system or communicating via software or organizing digital papers, tech-savvy employees are productive and very much needed in digitized work environments.

The entrepreneurial mindset is also becoming more recommended even to those who are not entering the sphere of entrepreneurship- because it supports innovations, self-drive, and flexibility. Opportunity recognition, creative thinking and calculated risk-taking are all part of entrepreneurial skills and are required to respond to dynamic business challenges, as well as to lead to continuous improvement Karani et al.[10]The problem though with vocational education is that the curriculum frequently does not include features, which foster this type of proactive and independent thinking. On the same note, moral values are essential e.g. integrity, responsibility and respect. These inform ethical decision-making processes, and bring about credible, respectful professional settings. Their loss may negatively affect reputations and culture of work [11]. Life long learning self-motivated continuing of knowledge to improve oneself or profession is another essential soft skill that is often ignored. In fast changing sectors, being ready and available to keep on changing ones skills is the only difference between success in the long run [12]. Employees that adopt life-long learning are competitive and flexible, qualities that are critical in technology-based jobs in particular. Besides this, work readiness takes all the above soft skills, and adds discipline, time management and professional behaviour to it. It shows the readiness of a person to cope with the expectations of the job and to perform well at the work place. Lack of these attributes by the vocational graduates has seen them in many cases fail to smoothly move into employment.

The inadequate soft skills training in programs consequently diminishes both personal career advancement possibilities and business efficiency and the ability to innovate. According to employers [13] their search for qualified graduates has remained challenging because new job applicants lack necessary soft skills required to handle workplace situations and function efficiently with colleagues while tackling tasks creatively. The lack of soft skills training in vocational education requires be solved by implementing such programs because it improves newly graduated work readiness while meeting what employers expect from employees. This study aims to examine the relationship between soft skills and work readiness among vocational students in China. Specifically, the study has two primary objectives:

1. To identify the level of soft skills possessed by vocational students in China.
2. To identify the relationship between soft skills and work readiness among vocational students in China

2. Literature review

2.1. The importance of soft skills in the workforce

The broad category of personal attributes under soft skills contains communication, teamwork, problem-solving, adaptability, emotional intelligence and interpersonal skills. Workplace success requires these competencies because they enable people to interact well together while supporting joint work and helping manage problems which diverse teams encounter. Soft skills differ from hard skills because they offer transferable value between different work sectors and job positions [14].

Many contemporary work settings require employees who demonstrate superior soft skills because their operations have become increasingly complicated. Modern business sectors including healthcare and education and business and technology now seek workers who excel at both technical competence and interpersonal

relationship management and teamwork contributions. Lyu & Liu [15] demonstrate how organizations prioritize interpersonal and communication abilities because they recognize them as core elements leading to organizational success. Members of staff equipped with these competencies create better working relationships between colleagues and remain adaptable to new situations with improved organizational culture. Organizations achieve better productivity levels along with lower conflict rates and higher employee satisfaction when their employees demonstrate superior emotional intelligence and prove effective communicator skills [16]. Since 21st Century's workplace environment demands it more than technical expertise companies value employees who solve problems and work with others effectively while adjusting to changes.

Vocational school students need strong soft skills to complement their technical training. Graduates who start out with technical skills will advance their careers through solid soft skills which also protect their positions at work [17]. The set of skills enables staff members to engage with colleagues and clients while settling disagreements while participating in team decisions. As such, vocational education systems that integrate soft skills training into their curricula better prepare their students for the demands of the modern workforce. This recognition has led many countries, including China, to reconsider the traditional focus of vocational education, which has often been centered on developing technical knowledge and skills[18].

2.2. Soft skills and vocational education in China

The Chinese vocational education system historically created workers who demonstrated excellent technical competencies [19]. The country's history of industrial development shaped its policy to train workers with specialized skills which would accelerate the expansion of manufacturing operations. The Chinese economy today demands workers skilled in both technological advancement and service delivery as the country transforms its economic focus [20]. The modern workplace requires vocational graduates to demonstrate their technical skills together with advanced interaction abilities and teamwork while dealing with complex untechnical challenges.

The educational sector of vocational training in China shows hesitant progress in adapting to recent demands. Hard skills receive heavy weight in vocational institutions while soft skill development remains minimal in these institutions[21]. Recent reforms in this sector have taken steps to solve the issue but much improvement remains possible. The research demonstrates that technical-area competence exists among vocational students but they commonly face difficulties with essential workplace competencies such as teamwork and adaptability and communication. An extensive difference exists between vocational degree technical skills and employer requirements which affects both educational personnel and students adversely.

According to Khilji and Roberts [22] China requires an integrated vocational education strategy that should merge technical training with development of soft skill competencies. The educational program should integrate specific competencies such as communication workshops while also offering teamwork exercises and leadership development training to students. By integrating these programs into their curriculum, vocational students will become more effective at handling workplace requirements in current professional settings. The workplace search for job candidates demonstrating critical thinking along with problem-solving abilities has become a prominent trend because soft skills training is known to produce these skills[23]. The slow integration of these skills into China's vocational education system is a key factor contributing to the mismatch between employer expectations and the skillset of new graduates.

2.3. Work readiness and employability

Work readiness describes the level at which individuals successfully execute work-related expectations and work-related tasks. Employability involves not only technical knowledge and soft skills, but also the capacity to transfer these skills into practical workplace environments. Employers in China now value work

readiness skills because they need job candidates with both technical competencies and interpersonal skills for various workplace settings [24]. Employment stakeholders maintain doubts regarding the vocational students' capacities to manage workplace relationships containing teamwork cooperation alongside conflict avoidance after concluding their studies [25].

Work readiness demonstrates strong relations with employability that indicates how graduates can secure employment positions and excel in them. Employers actively seek candidates who display skills in both professional operations and interpersonal abilities during the selection process in modern highly competitive job markets. The research by Vithayaporn et al. [26] shows that contemporary employers require their vocational graduate hires to work on solving problems while being self-motivated and capable of effective team collaboration. International business progress alongside industry integration drives rising market demand for workers who bring strengths in technical abilities and interpersonal management competencies. The difference between vocational graduates' soft skill abilities and employers' work standards currently represents a major employment problem in China.[27] The present scenario requires vocational education institutions to improve the workplace preparedness of their graduation students. Vocational education institutions can achieve this goal through curricular design methods which combine technical education with soft skills education in the instructional framework. By aligning the training of vocational students with the expectations of the modern labor market, educational institutions can increase the employability of their graduates and help bridge the gap between education and workforce needs.

2.4. Theoretical framework

Social Cognitive Theory as formulated by Albert Bandura (1997) provides the foundation for this study because it explains how observational learning alongside imitation and modeling results in skill acquisition and behavioral development [28]. The social cognitive theory states that students develop essential soft skills like communication and problem-solving abilities through networking with fellow students along with teachers and professional industry members in vocationally based education. By participating in social situations students can improve their skills because they get useful practice opportunities and the chance to observe and emulate them.

Self-efficacy stands as a vital SCT concept because it describes a person's confidence to succeed in specific activities [29]. Students exhibiting high levels of self-efficacy remain active participants in vocational education along with assuming leadership positions that lead them to resolve complex problems. Students who believe in their capabilities become successful implementers of soft skills during authentic workplace situations. Students who possess high self-efficacy demonstrate greater ability to stay persistent as well as exhibit resilience and deliver better results during demanding circumstances. According to SCT students who observe and practice soft skills in multiple contexts will develop these behaviors until they use them professionally [30]. Learning through actual workplace experiences together with consistent contact with positive role models enables vocational students to improve soft skills and prepare for workplace requirements. The model highlights the joint impact of social interaction with individual beliefs when it comes to skill development.

2.5. Conceptual framework

The study applies the Stimulus-Organism-Response (SOR) model as its theoretical foundation which Mehrabian and Russell (1974) first proposed. The model demonstrates how external stimuli affect the inner state of a person leading to a certain behavioral response or outcome. Academic and research fields frequently use the SOR model to describe how educational inputs control cognitive-emotional processing of stimuli which results in performance or behavioral responses.

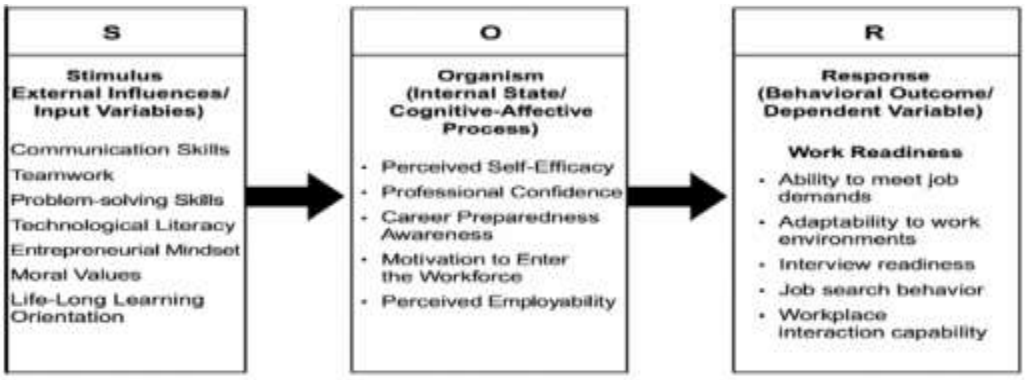

Figure 1. Conceptual framework of the SOR model applied to soft skills and work readiness.

The study utilizes Stimulus (S) to represent the different soft skills which vocational students practice during their training. The educational program of vocational students emphasizes building essential abilities such as communication skills combined with teamwork capabilities and problem-solving abilities with technology literacy and entrepreneurial skills and moral values and life-long learning orientation. Educational stimuli based on soft skills are implemented through curriculum design and classroom learning activities as well as training programs. The capabilities represent the core development targets vocational institutions seek to establish for students to succeed in contemporary workplaces.

The internal cognitive and affective states of vocational students regarding stimuli processing appear within The Organism (O). The students possess an array of internal feelings that combine self-efficacy with career preparedness judgments together with professional confidence and awareness about employment potential and drive toward entering the workforce. Students process their soft skill advancements through psychological evaluation and emotional assimilation leading them to determine their confidence level in entering the job market. Liu, Zhan, Dang and Gao [31] establish that internal states function as a mediating force between learning new skills and behavioral capabilities becoming ready.

The Response (R) represents the last behavior in the SOR chain and corresponds to work readiness in this application. Students demonstrate work readiness through their adaptability in professional settings along with their readiness for interviews and their ability to team up with colleagues together with their general readiness to fulfill job requirements. Work readiness emerges as the measurable combined outcome that results from students' development of soft skills together with their internal mental dynamics for professional entry. According to Saputra[32] students who base their internal motivation and confidence in acquired skills tend to display superior work readiness abilities.

The SOR model enables investigation of soft skills (S) and work readiness (R) relationship by considering their connection through internal psychological states (O). This method provides a complete explanation showing soft skills create direct work readiness effects and secondary effects emerge from within-person perceptions along with mental evaluation. The SOR conception creates an organized system to understand how education interacts with motivational states to determine employment outcomes.

The proposed framework stands in agreement with present scholarly studies that underline the essential nature of non-technical (soft) abilities in vocational education programs. Dumbuyab [33] state that modern workforce integration requires workers who fuse technical expertise with soft skill proficiency. The model emphasizes life long learning along with moral values because it requires adaptable graduates who demonstrate ethical behavior within a dynamic employment sector.

The cognitive and affective states (O) of vocational students who receive well-developed soft skill training (S) create behavioral preparedness (R) based on the SOR model. The mechanism serves as a foundation which guides the development of improved vocational education programs to improve graduate employment potential.

3. Methodology

The researchers employed a cross-sectional design for their study because they wanted to explore the link between soft skills and work readiness of Chinese vocational students. Scientists investigated vocational college students who were about to finish their studies throughout different parts of China. The sample size of 132 vocational students is considered sufficient for this study based on several factors. Firstly, for survey-based or quantitative research, a sample size of over 100 participants is generally acceptable for identifying meaningful patterns and trends, particularly when the population is relatively homogenous, such as students within vocational education.[34] With 132 respondents, the study achieved a reasonable level of statistical reliability and generalizability within the targeted educational context. The researcher applied random sampling to choose participants across different study fields to build a diverse and reflective participant group. A structured questionnaire served to measure the soft skills and work readiness levels of students by applying it during data collection. The analysis of the gathered data occurred through the use of SPSS software version 26 to detect relationships between variables. The questionnaire showed sufficient reliability based on Cronbach's Alpha determination with a value of 0.85. Every participant received informed consent during which the researcher explained the study's purpose together with its procedures as well as participant rights. All participation was optional while students received guarantees that their individual answers would stay private and unidentified to others. During the final analysis the study team declared that they would maintain complete privacy protection by not processing or exposing any personal information. Study participants were allowed to exit the research at any moment without facing any negative effects. The research followed ethical protocols to safeguard defenseless population groups while performing the study with absolute fairness for each participant.

4. Results and discussion

Objective 1: The Level of Soft Skills and Work Readiness

The first objective of this study was to assess the level of soft skills and work readiness among vocational students in China. The results presented in **Table 1** indicate that the overall soft skills of vocational students are generally at a moderate level, with scores ranging from 2.53 to 3.32. This suggests that while some areas of soft skills are stronger than others, there is room for improvement in many areas.

Table 1. The level of soft skills and work readiness.

Variable	Mean (M)	Std. Deviation (SD)
Communication	2.53	0.79
Teamwork	3.19	0.78
Problem-solving	2.79	0.72
Technology Literacy	2.96	0.73

Entrepreneurial	2.85	0.82
Moral Value	3.32	0.78
Life Long Learning	3.12	0.76
Work Readiness	3.21	0.58

In reference to **Table 1**, the responses for communication skills revealed the lowest mean value of 2.53 indicating "moderate low" skills according to the research scale. The obtained results present a cause for concern because workplace communication remains vital in all job settings. The results indicate vocational students face difficulties expressing themselves visibly in professional settings which might prevent their successful workplace communication and collaborative interactions and customer service activities. Research conducted by Mahajan et al. [35] demonstrated communication skills constituted among the primary indicators to determine employability.

Furthermore, communication deficiencies may hinder conflict resolution, negotiation, and client engagement, all of which are vital for the service-based sectors in China, such as hospitality and retail [36]. Employers increasingly seek graduates who not only possess technical know-how but also can convey ideas effectively, collaborate across departments, and represent their companies professionally in a competitive labor market [37].

The scores for problem-solving capabilities indicating a moderate level of ability reached 2.79 on the scale. Problem-solving emerges as an essential soft skill because businesses need their employees to address complicated unexpected workplace challenges. When vocational students possess weak problem-solving competence they experience problems adjusting to work environments that change frequently and encounter challenges while solving problems or enhancing organizational processes. Research by Jabarullah and Iqbal Hussain. [38] supports these findings as they determined problem-solving to be among the main skills which Asian graduates from vocational education lacked.

This finding aligns with evidence from global vocational training assessments, where graduates from countries such as Vietnam, Indonesia, and Malaysia also demonstrated challenges in real-time workplace adaptation and innovation management[39]. In the context of Industry 4.0, employers not only expect problem-solving but demand agile, data-informed decisions and solution design under pressure [40]. Therefore, the inability to develop these competencies may restrict the employability and upward mobility of vocational students in China's increasingly dynamic industrial sectors.

Data showed that the scores for entrepreneurial skills and technology literacy (M = 2.85, M = 2.96 respectively) demonstrated a moderate-low level of performance. These skills have gained essential importance because of technological progress and entrepreneurial opportunities which dominate our modern times. The assessment scores indicate that vocational students receive unsatisfied education which fails to meet the requirements of a business market driven by innovation. According to Karani et al. [41], ocational training should focus additional resources on teaching entrepreneurship combined with technology education because both fields are essential career growth among graduates during this digital era.

Entrepreneurship education cultivates initiative, flexibility and business, perceptive, which are critical in a nation like China that prioritizes innovation-driven growth [42]. At the same time, the relatively weak performance in technological literacy may reflect insufficient integration of digital tools such as AI, coding, and data analysis into vocational curricula [43]. The gap between industry expectations and vocational student competencies implies a need for stronger partnerships between educational institutions and enterprises to co-develop curricula that reflect market realities [44].

The results indicate that particular soft skills receive stronger ratings because they exceed 3.0 points. Life-long learning skills (M = 3.12), teamwork (M = 3.19), and moral values (M = 3.32) all demonstrate relatively stronger proficiency among students. Good personal development alongside workplace collaborative success requires these vital abilities. The high rating of moral values points to vocational students who exhibit strong ethical standards needed to create a responsible workforce. Research by Smith and Kouchaki [45] confirmed that ethical standards lead employees to demonstrate superior workplace accomplishments.

The elevated mean score for moral values may be attributed to the cultural emphasis on Confucian values in Chinese education, which promotes integrity, respect, and social harmony [36]. Moreover, the relatively high ratings in teamwork and life-long learning align with national vocational policy reforms that encourage collaborative learning and skill upgrading through modular certification systems [46]. However, while these findings are promising, they may not be sufficient if not matched by stronger practical and applied soft skill training in real-world scenarios [47].

Working readiness of vocational students remains at a moderate level based on the scoring results which reached 3.21 but shows potential for continuous improvement in their workforce development. The obtained score indicates students acquire some technical expertise yet their interpersonal competencies remain below the threshold required for workplace adaptability. The studies of Liu [48] reveal Chinese vocational students demonstrate basic readiness for work but display weak aspects in their soft skills development.

Work readiness, as defined by industry standards, entails a combination of hard and soft competencies, including time management, adaptability, and emotional intelligence [49]. The moderate score in this domain suggests that while students may be equipped with technical abilities aligned to specific job roles, they often lack the behavioral and attitudinal dimensions of professionalism required for sustained employment [50]. Additionally, employers in China have expressed dissatisfaction with the passive learning attitudes and lack of initiative demonstrated by some vocational graduates.[51], emphasizing the urgency for educational reforms that balance discipline-specific training with holistic skill development.

Moreover, as China moves toward a service-oriented and digital economy, there is growing emphasis on 21st-century competencies, such as collaboration in virtual environments, cultural intelligence, and digital communication—areas often underdeveloped in traditional vocational training [52]. It is imperative for vocational institutes to update pedagogical approaches by incorporating project-based learning, internships, and industry-led mentoring schemes, all of which can enhance students' real-world readiness [53].

Objective 2: The Relationship between Soft Skills and Work Readiness

The second objective was to explore the relationship between soft skills and work readiness among vocational students in China. The results from **Table 2** reveal that there is a significant positive correlation between all soft skills and work readiness, with Pearson correlation values ranging from 0.58 to 0.76. These results suggest that as vocational students improve their soft skills, their overall work readiness is likely to improve as well.

Table 2. The Pearson correlation of soft skills toward work readiness.

Variable	Pearson Correlation	Sig. (2-tailed)
Communication	0.58**	0.001
Teamwork	0.64**	0.001
Problem-solving	0.65**	0.001
Technology Literacy	0.64**	0.001
Entrepreneurial	0.64**	0.001

Moral Value	0.62**	0.001
Life-Long Learning	0.76**	0.001
Work Readiness		

The assessment revealed that the highest correlation occurred between life-long learning skills (r = 0.76) while work readiness shared the strongest relationship with teamwork skills (r = 0.64) and problem-solving skills (r = 0.65) in addition to technological literacy (r = 0.64). The analyzed data shows that students demonstrating excellence in life long learning and teamwork and problem-solving and technological skills tend to achieve workplace readiness better. Volmer, Spurk, Orth, and Göritz[54] confirmed that life long learning directly affects both occupational adaptability and professional achievement at work.

These results point to a growing recognition of adaptive expertise, which is increasingly necessary in fast-evolving work environments where new technologies, changing policies, and shifting global trends demand continuous learning [55]. Life long learning has become a core employability attribute, and vocational students with high scores in this area may be better prepared to reskill and upskill in response to labor market demands. The high correlation observed in this study aligns with international evidence from Niyomves et al.[56] where life long learning was identified as a key competency for the future of work.

Similarly, the strong positive correlation between teamwork and work readiness confirms that collaborative skills are central to many job functions in today's industries, particularly in manufacturing, logistics, and service-based roles prevalent in China's vocational sectors [57]. Effective collaboration reflects emotional intelligence, conflict resolution ability, and respect for diversity—skills that are increasingly necessary in team-based work structures [58].

The connection between students' moral values and entrepreneurial skills and their work readiness level was found to be fairly strong with correlations at 0.62 and 0.64. This demonstrates that ethical conduct and entrepreneurial thought processes are key elements for vocational students to transition successfully into the workforce. These correlations between work readiness and moral values along with entrepreneurial thinking indicate that employers largely value these abilities in present-day job markets. A solid ethical framework and entrepreneurial mindset have emerged as crucial competencies for employers seeking candidates in China according to Sun [59].

Ethics and entrepreneurial thinking form the backbone of sustainable business practices and personal initiative, both of which are aligned with China's push toward self-reliance and innovation-driven development [60]. Research has shown that morally grounded employees are more likely to exhibit professionalism, compliance, and workplace discipline while entrepreneurial skills such as opportunity recognition and creative risk-taking are strongly linked to intrapreneurship and organizational growth [61].

In particular, entrepreneurial skills may also reflect an individual's agency and problem-ownership—traits that employers in start-ups and private firms greatly appreciate. The ability to think entrepreneurially can translate into taking initiative, making independent decisions, and adapting to uncertainty, all of which are vital in contemporary employment settings where tasks are often unstructured [62].

The research supports that work readiness demonstrates a lower level of relationship with communication skills (r = 0.58) compared to other investigated variables. The fundamental nature of communication skills fails to explain their moderate link to work readiness while other soft abilities such as problem-solving and teamwork demonstrate greater effect on Chinese vocational sector work preparedness. Vocational students require extra training in communication abilities to reach their maximum potential as employed individuals. The research by Rodrigues et al. [63] demonstrates communication skills rate low in importance when assessed against technical competencies and problem-solving abilities although considered essential.

This may suggest that while communication is vital, it may not be prioritized in Chinese vocational curricula or employer assessment models as much as task-specific or operational skills Huang [64]. Cultural communication styles in China, often favoring indirectness and hierarchical respect, may also complicate how communication is expressed and measured within formal assessments. Nevertheless, as global supply chains demand multilingual coordination and cross-cultural collaboration, vocational students will increasingly need to enhance digital communication, email etiquette, and presentation skills to remain competitive [65].

The research findings demonstrated statistical significance between $P < 0.01$ for all correlations thus validating the hypothesis that work readiness depends heavily on soft skills mastery. Employers demonstrate strong commitment to evaluating vocational students for employment by assessing their soft skill capabilities. Asefer and Abidin [66] confirmed this connection after finding that soft skills strongly help vocational students prepare for employment in their workplace transition.

These statistically significant findings echo larger labor market trends indicating a global “soft skills gap,” where employers consistently report difficulty in finding candidates who possess both technical training and interpersonal effectiveness. This reality supports efforts to integrate soft skills frameworks, such as the SCANS model and UNESCO's Transversal Competencies, directly into vocational curricula. Such integration is essential to bridge the gap between educational outcomes and real-world employability metrics.

This research confirms that soft skills create significant enhancements to vocational student work readiness in the Chinese educational context. The students of vocational education demonstrate average soft skill competencies but require improvement mostly in sectors of communication and problem-solving abilities and technological understanding fundamentals. Vocational education institutions need to modify their educational programs because students should better fulfill modern workplace requirements.

Reforms may involve collaborative curriculum design with industry partners, practical training modules focused on real-world simulations, and regular assessment of soft skills through portfolios, interviews, and reflective journals.In this light, national policies under China’s "New Era Education Modernization 2035" initiative could be leveraged to emphasize holistic development that incorporates civic education, creativity, and global competence alongside vocational proficiency [68].

The research data demonstrates that work readiness develops directly from soft skills which proves the essential function of non-technical abilities for employability. Organizations now desire workers who combine their technical abilities with strong social abilities and problem-solving skills for negotiating dynamic professional settings. The research indicates that skills development in soft competencies between vocational students could help them secure jobs more easily as they transition into the work world. According to Asefer and Abidin [66] a combination between hard skills and soft skills provides optimal preparation for vocational students to enter the workforce.

This dual-skills model is particularly relevant as China expands its digital economy and embraces smart manufacturing, where cross-functional teams must collaborate with minimal supervision [67]. Moreover, industries such as tourism, logistics, and health services increasingly require "human-centered" skills to complement technical roles, making soft skill development not just complementary but necessary.

5. Conclusion

Result data from this study deliver specific information regarding the soft skills and readiness to work among vocational students in China. The respondents gave communication skills their lowest ratings at 2.53 out of 5 indicating their moderate-low ability to communicate effectively. The research data implies that vocational students encounter difficulties while effectively communicating their thoughts to work colleagues.

Research participants assessed both problem-solving abilities and entrepreneurial competencies at a moderate-low level indicating important knowledge gaps to succeed in adaptable work settings. Students demonstrated relatively better abilities in moral values and teamwork and life long learning according to the survey results (M = 3.32, M = 3.19, M = 3.12 respectively). The study reveals students possess strong ethical principles and teamworking abilities yet they demonstrate substantial areas for advancement in communication methods together with problem-solving techniques and technology understanding.

Students develop workforce-readiness more effectively when they possess soft skills which lead to positive outcomes between these two domains. Students who engaged in life long learning demonstrated the highest relationship with work readiness (r = 0.76) according to the research findings followed by teamwork (r = 0.64) and problem-solving (r = 0.65) and technology literacy (r = 0.64). An improvement in the identified soft skills would lead to a substantial enhancement of students' work readiness capabilities. Work readiness shows a moderate relationship with communication skills even though the r score for this relationship falls at 0.58.

6. Recommendations

Vocational students in China will become better prepared for work by increasing their attention to communication skills development and problem-solving abilities and technological training in their vocational education programs. Specialized training combined with workshops should target specific areas of weakness to prepare students better for work environment challenges. The curriculum should integrate more scenarios from real-world work conditions and practical internships because this application of soft skills elevates student employability potential. Work readiness and life long learning have a proven direct connection which requires institutions to establish learning environments for continuous learning through adaptive skill development to help students compete effectively in current job market changes. The development of interpersonal competencies that businesses need in present-day workplaces would benefit from strengthened programs which promote teamwork alongside collaborative learning. To prepare students more efficiently for an innovation-driven economy vocational institutions must incorporate training for entrepreneurship because this should help them succeed in employment while building their potential for economic growth.

7. Limitations of the study

A key drawback of this research is its small participant numbers that might not adequately reflect all Chinese vocational students therefore reducing the study's applicability to the overall Chinese vocational education group. The study depended on self-reported information therefore participants might have provided exaggerated data regarding their soft skills and work preparedness. This research study faces a crucial limitation because it uses a cross-sectional approach that shows students' abilities in one moment without showing any evolving patterns throughout the time period. The research examined only vocational students which means its results cannot be easily extended to educational tracks outside vocational training and industries different from those studied. The research established links between soft skills and work readiness but failed to investigate how these traits affect each other causally or how environmental elements including industry requirements and geographical variations influence their development.

Conflict of interest

The authors declare no conflict of interest.

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