International Journal of Environmental Sciences
ISSN: 2229-7359
Vol. 11 No. 5, 2025
https://www.theaspd.com/ijes.php

Industrial Work Experience And Its Influence On Personal Development And Motivation: A Study Of Private University Students In Sichuan Province, China

Du Jin[1], Siti Aida Bt Samikon[2*], Ding Yu ming[3]

mayadujin@gmail.com and sitiaida.samikon@limkokwing.edu.my[2], humbleblue123@gmail.com[3]
[1-2]Limkokwing University of Creative Technology Cyberjaya, 63000, Selangor, Malaysia
[2]Geely University of China, Eastern New District, 641423, Chengdu, Sichuan, China
[3]Jinjiang District Jinming Art Creation Studio, No. 39, Mudan Street, Jinjiang District, Chengdu, 610000, Sichuan, China
Corresponding Author: sitiaida.samikon@limkokwing.edu.my

ABSTRACT

Industrial work experience plays a crucial role in bridging theoretical learning with practical skills, particularly during the early stages of students' careers. It provides valuable exposure to real-world challenges, enhancing students' technical competence, emotional resilience, and professional readiness. This study investigates the impact of industrial training on students' academic performance, personal development, and workforce preparedness, with a focus on private university students in Sichuan Province, China. Using a descriptive research design and mixed methods approach, data were collected from 269 purposively selected students through structured questionnaires. The survey incorporated validated instruments, including the Minneapolis Work Engagement Questionnaire, to measure variables such as training support, motivation, and work-life quality. Quantitative data were analysed using regression techniques, while qualitative insights enriched the findings. Results reveal that students who underwent industrial training demonstrated stronger problem-solving skills, better teamwork, higher motivation, and improved goal orientation. Effective training programs supported by skilled instructors and institutional resources significantly enhanced students' confidence, time management, and career readiness. However, challenges such as outdated materials and limited facilities were noted. The study concludes that well-structured industrial work experiences are vital for personal and professional growth. It recommends stronger collaboration between academia and industry to align curricula with market needs, improve training quality, and ensure students are better equipped for future employment.

Keywords: *Industrial work experience, Personal development, Motivation impact, Private universities students, China.*

1. INTRODUCTION

Student industrial internship programs play a vital role as an interaction between academic institutions and businesses, giving students the opportunity to apply theoretical knowledge in real workplace settings across fields such as engineering, management, industry, and health sciences. In China where graduate unemployment remains a recurring issue despite an increasing emphasis on creativity and independence; these programs are designed to bridge the gap between academic learning and employability (Omonijo et al., 2020). However, even universities that integrate industrial experience often report high graduate unemployment, making it essential to evaluate how effectively these programs stimulate creativity, enhance practical skills, and improve job readiness.

Industrial training has long been recognized as crucial for workforce development. With rapid technological change, the integration of information and communication technology (ICT) into professional practice is increasingly important, particularly in areas such as information science and library services. Professionals who adapt quickly to new technologies and develop niche skills stand out in competitive labor markets, as

seen in high-status professions such as design, surgery, and information services (Ogbuanya et al., 2018). This reflects a broader need for students to gain practical, ICT-oriented experience before graduation.

Strong government–industry–university collaboration is central to making industrial training programs effective. In China, internship initiatives that encourage cooperation among these stakeholders help students acquire industry-relevant competencies, thus improving graduate competitiveness and contributing to economic growth (Omonijo et al., 2020). Industrial training exposes students to real-world work contexts, allowing them to integrate classroom learning with hands-on tasks. Yet concerns remain about the effectiveness of such programs in securing employment opportunities, with some studies reporting that graduates still lack practical skills demanded by employers (Ahmed et al., 2019).

Research on internship outcomes has been mixed. While some studies highlight gains in skills and employability, others point to gaps caused by short internship durations, limited modern equipment, and insufficient supervision. Many students feel that their internships do not provide enough practical experience to meet industry expectations. These findings underscore the need for further investigation into factors that enhance or limit skill acquisition during internships and for universities to redesign programs accordingly (Clarke, 2016; Ebrahimi, 2025).

Industrial training is formally embedded in the minimum educational requirements of Chinese universities in fields such as science, agriculture, medicine, research and technology, and administration. Its main goal is to close the gap between theory and practice by familiarizing students with industrial processes, safety measures, and modern workplace techniques (Clarke, 2016). However, implementation challenges—such as poor management, delays in allowances, and difficulty in securing placements—reduce the potential impact of these programs. Moreover, a lack of structured follow-up on students' career readiness limits understanding of how internships translate into long-term employment outcomes. To meet the demands of today's job market, internships must go beyond technical training to include soft skills such as teamwork, communication, problem-solving, and ethical practice.

Evidence shows that soft skills account for as much as 75–85% of long-term career success, while technical expertise contributes a smaller proportion (Evans, 2021). Therefore, universities should integrate both technical and interpersonal skill development into internship programs to better prepare students for employment.

Ultimately, industrial internship programs are often students' first professional experience, providing an essential platform to combine theory with practice. When well-designed, these programs enhance students' readiness for the labor market, reduce the cost burden of employer-led training, and foster a more innovative and adaptable workforce. However, to achieve these outcomes, China's higher education institutions, in partnership with government and industry, must address structural challenges and ensure that internship programs provide relevant, high-quality, and well-supported learning experiences (Jackson, 2015).

For students in private universities in Sichuan Province, P. R. China, internships and industrial placements are a required part of higher education, intended to bridge the gap between classroom theory and workplace practice. However, many students struggle to transition into employment despite these programs. A key issue is the lack of practical skills, as most curricula remain heavily theoretical with limited hands-on training. Even students who gain technical confidence during internships often find it difficult to apply these skills effectively. Another problem is the gap between what schools teach and what industries expect—employers often seek problem-solving, teamwork, and communication skills that graduates lack, leading to

dissatisfaction and high turnover. Job prospects are also limited, with graduates from private universities facing strong competition from those at more prestigious institutions. Overall, current training methods fail to fully prepare students for real industry demands. This study aims to assess the effectiveness of existing internship programs, identify their shortcomings, and recommend ways to align them better with labor market needs to improve graduate employability. The purpose of this research is to examine the impact of student industrial training in private universities of China by:

1. Identifying key work ethics and values for workplace success and assessing how well institutions teach and instill them.
2. Exploring how teachers support students in applying classroom learning to real situations and identifying areas for improvement.
3. Recommending ways to better align academic curricula and industrial training with industry needs.
4. Examining how different teaching approaches influence students' motivation and engagement in workplace education.

This study examines the effect of industrial work experience on students in private universities in Sichuan Province, China. It explores how internship programs are conceived and managed, while acknowledging key limitations such as financial constraints that restrict access to resources and data, and time constraints caused by balancing research with other academic responsibilities. The study investigates how industrial work experience influences students' personal development, motivation, and ability to integrate theoretical knowledge with practical management skills. It aims to assess the effectiveness of these programs in enhancing creativity, practical skills, and employability, providing recommendations to improve training quality and help address graduate unemployment in China's dynamic labor market.

2. LITERATURE REVIEW

2.1 Historical Overview of Industrial Work Experience

China's industrial work experience has its roots in the mid-20th century, when the nation shifted from an agrarian to an industrial economy and sought to develop a skilled workforce through education reforms. Industrial work experience programs were introduced to bridge the gap between classroom instruction and practical application, placing students in factories and enterprises under industry professionals, particularly in engineering, manufacturing, and construction. In the 1960s and 1970s, urbanization, the establishment of industrial zones, and foreign investment spurred demand for hands-on expertise, prompting universities and technical schools to integrate industrial training into their curricula. Over time, as China's economy diversified, these programs expanded into fields such as IT, finance, and hospitality, supported by policies encouraging collaboration between educational institutions and industries (Ooi et al., 2021). Early initiatives prioritized formal education but often lacked alignment with industry needs, highlighting the importance of capacity building in education policy to develop foundational skills for long-term growth (Leyer et al., 2021).

Industrial work experience remains a graduation requirement in many skill-oriented programs to address labor market gaps and provide exposure to machinery, technical practices, and safety protocols (Tamsah et al., 2021). Research links such programs to enhanced employability, combining theory and practice to build confidence, adaptability, and key soft skills valued by employers (Leyer et al., 2021). The concept of human capital from early 20th-century process improvement studies underpin these efforts, reflected in global initiatives like Cornell's early industrial institutes (Ogbuanya et al., 2018). Modern frameworks such as Pixels emphasize competencies like decision-making and opportunity recognition to guide career development. Universities worldwide now stress employability, integrating communication, critical thinking, and

innovation skills to meet complex industry demands. In China, adapting foreign technologies and managing rural-urban workforce shifts have further reinforced the need for well-structured industrial training to sustain economic growth and meet future industrial challenges (Omonijo et al., 2020).

2.2 Important of Student Industrial Training

Student industrial training plays a crucial role in enhancing students' educational experiences and preparing them for labor market demands. By engaging in real-world work environments, students gain experiential learning that reinforces their classroom knowledge and develops both technical competencies and soft skills such as teamwork, communication, and problem-solving. Industrial training exposes students to diverse industries and organizational cultures, enabling informed career choices, fostering professional networks, and improving employability by equipping them with in-demand skills valued by employers (Ukwueze, 2011). Typically lasting three to six months, these programs systematically expand students' skill sets, update them with emerging technologies, and build their ability to handle complex tasks, thereby integrating empirical practice with academic learning and strengthening their identity and confidence (Rodzalan & Saat, 2012). Graduates gain exposure to cutting-edge technologies and authentic workplace settings, often leading to on-the-job training opportunities and direct employment offers, while exploring diverse fields such as application development, programming, recruitment, and human resource management (Chiu et al., 2016).

Industrial training also benefits higher education institutions by promoting stronger industry collaborations, improving curricula, and providing mentorship opportunities, field visits, and study tours that align educational programs with market needs (Ajjawi et al., 2020). Well-structured internships foster partnerships between universities and industries, ensuring students develop leadership, customer service, and problem-solving skills while addressing real business challenges (Matt et al., 2020). Internship experience contributes significantly to identity formation, self-efficacy, and skill acquisition, with proactive engagement translating into superior job performance and adaptability in future roles (Okoye & Edokpolor, 2021). Goal setting, organizational support, and effective instructional design further enhance skill retention and workplace application, with supervisors' encouragement and feedback playing a key role in motivation and long-term skill adoption (Ogbuanya et al., 2018). Overall, industrial training bridges theoretical instruction and practical application, fostering technical growth, professional identity, and adaptability necessary for success in today's evolving labor market (Okoye & Edokpolor, 2021).

2.3 Factors Influencing Student Industrial Experiences

The quality of student industrial work experience depends on a mix of institutional, individual, and external factors. Institutional elements such as program design, faculty support, and access to resources strongly shape the effectiveness of training, while student-related aspects—motivation, interpersonal skills, and prior exposure—determine adaptability and performance. Workplace factors, including supervision quality, project assignments, and organizational culture, influence learning outcomes, and broader economic conditions or policy frameworks affect the availability and nature of opportunities. Strong collaboration between educational institutions and industry partners is therefore crucial to ensure meaningful industrial experiences and smooth transition into the labor market.

Individual attitudes and abilities play a central role; traits, academic competence, and prior experience shape how students respond to industrial challenges (Auru et al., 2020). Motivation, teaching methods, and student enthusiasm affect task engagement, while adequate facilities labs, libraries, and equipment—enhance practical learning, particularly for disadvantaged students. Leadership and management practices within universities also matter, with supportive administration and coordinated efforts contributing to student success (Zulfqar et al., 2021). Instructors' subject expertise, innovative methods, and approachable attitudes, along with

teamwork, coaching, and peer support, help students overcome difficulties (Aldowah et al., 2020). Counselling services address academic and personal issues, while time management skills enable students to balance study, projects, and activities. Regular interaction with mentors and faculty further promotes feedback, guidance, and growth, shaping a more positive and productive industrial training experience.

2.4 Challenges of Student Industrial Work Experience

Student industrial work experience faces several challenges that hinder its objectives. Financial constraints affect key aspects such as student supervision and timely payment of allowances, with delayed or incomplete disbursements often causing dissatisfaction and unrest among students (Okoye & Edokpolor, 2021). Another significant issue is the deployment of trainees. Some firms are reluctant to accept students due to concerns about their competence or the perceived obligation to provide compensation after the placement period, which limits available opportunities (Chen et al., 2020).

A persistent skills gap exists between what students learn in universities and the practical competencies demanded by employers, largely because higher education institutions focus more on theory than on applied learning due to resource limitations (Auru et al., 2020). This has led to widespread criticism that graduates lack essential workplace skills, prompting the integration of industrial placements into curricula. However, some students complicate the process by selecting unrelated placement sites—such as a physics student choosing a financial institution instead of a resource center simply to use the period for personal convenience or leisure, thereby failing to acquire relevant technical expertise (Evans, 2021).

Logistical issues also undermine program effectiveness. High student-to-supervisor ratios, often exceeding one supervisor to 50–99 students, result in inadequate monitoring and limited guidance (Okoye & Edokpolor, 2021). Unpredictable academic calendars, strikes, and disruptions shorten attachment durations, preventing students from gaining sufficient practical experience and negatively impacting their professional growth. Furthermore, poor mentorship, limited access to equipment, unfriendly industry supervisors, and the burden of personal lodging expenses pose additional obstacles (Matt et al., 2020). Despite these challenges, student industrial work experience remains a critical bridge between academic theory and workplace practice, equipping students with technical, managerial, and interpersonal skills necessary for employability. Continuous collaboration between universities and industry is essential to address these issues and enhance the value of industrial placements (Chiu et al., 2016).

2.6 Theoretical Framework of the Study

The theoretical framework connects prior studies on industrial training with this study by showing how collaboration among universities, industries, and stakeholders supports skill transfer and employability (Aldowah et al., 2020; Kapur, 2018). Well,-managed placements expose students to real practices and technologies, strengthening workforce readiness (Laciok et al., 2019). It highlights links between training support, practical exposure, problem solving, teamwork, motivation, and personal development, while noting barriers that hinder employability. Internships, often six months long, effectively bridge classroom learning with sector-relevant skills, building a competent and confident workforce (Auru et al., 2020; Okoye & Edokpolor, 2021). Figure 1 shows the conceptual model

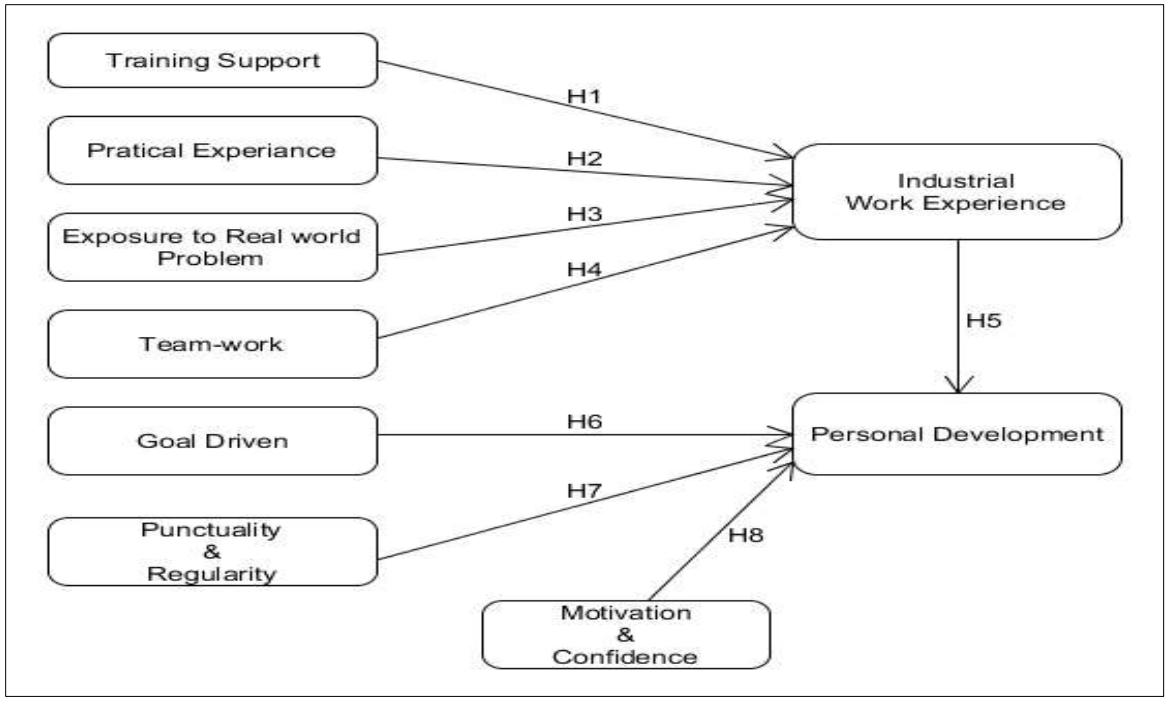

Figure 1: Conceptual Framework

H1: Student industrial work experience is positively linked to training support, including coaching, feedback, and structured guidance, which enhance skills and performance.
H2: Practical experiences like internships and cooperative programs improve students' real-world readiness and career decision-making.
H3: Exposure to real-world problems during placements enhances problem-solving, industry engagement, and employability.
H4: Teamwork during training builds collaboration, interpersonal skills, and adaptability needed in modern workplaces.
H5: Industrial experience improves goal-driven performance by aligning academic learning with organizational objectives.
H6: Training instills punctuality and regularity, reinforcing workplace discipline and professionalism.
H7: Hands-on experience boosts students' motivation and confidence by turning theory into practice.
H8: Industrial work promotes personal development by enhancing technical, social, and adaptive skills in real work settings.

3. METHODOLOGY

3.1 Population of the Study

The study focused on university students in private tertiary institutions in Sichuan Province, China, as the primary population. A purposive sampling method was used to select eligible respondents based on available student records, ensuring they could provide relevant data. While prior studies included staff, this research centered solely on students to explore the impact of industrial work experience on personal development and motivation.

3.2 Sampling Method

This study used purposive non-probability sampling to select 269 employees and students with relevant industrial work experience. Participants were identified through organizational records and referrals. Data were collected via a structured questionnaire with demographic questions and Likert-scale items measuring training support, motivation, and work-life quality. The survey, adapted from validated tools like the Minneapolis Work Engagement Questionnaire, was tested for reliability and validity to ensure accurate measurement.

3.3 Research Design

This study uses a mixed methods approach to explore the links between academic performance, training, and practical exposure. A cross-sectional survey and interviews with students and teachers provide both quantitative and qualitative data. Statistical analysis (e.g., regression) and thematic insights help identify real-world challenges. Ethical considerations like informed consent and confidentiality are observed throughout.

The approach combines quantitative methods and descriptive analysis to capture both measurable data and contextual insights. Structured questionnaires were used to gather data, allowing exploration of patterns and testing of relationships. While findings may not be generalizable, the design offers rich, focused understanding of the research problem.

4. RESULTS AND DISCUSSION

This study examined how industrial work experiences impact students in private universities in Sichuan, China, using 269 valid survey responses and 30 interviews. Findings show that such experiences enhance students' practical skills, problem-solving, communication, and readiness for professional life. Exposure to real-world challenges improved teamwork, leadership, time management, and motivation. Overall, industrial training significantly contributed to students' personal development and career preparedness.

Data were collected through a structured survey targeting university students in training programs. The study examined how program design, instructor quality, student motivation, institutional support, and location (independent variables) affect training effectiveness, satisfaction, relevance to goals, and personal development (dependent variables). This framework allowed for a comprehensive analysis of factors influencing students' academic and career growth.

4.1 Descriptive Statistics

Table 1 indicated that a total of 269 valid responses were collected from students enrolled in university training programs. The gender distribution showed that 59.1% of respondents were male, 39.8% female, and 1.1% identified as "other." A large majority of students rated the programs as ineffective (61.7%) or very ineffective (26.4%), while only 11.9% remained neutral. Participation is low, with 37.9% never attending training sessions, 24.2% attending rarely, 17.5% occasionally, and only 20.4% often. Relevance to students' fields is questioned, as 47.6% consider programs not at all relevant, 36.1% somewhat relevant, and only 16.4% moderately relevant. Trainer quality is rated poorly, with 35.3% saying very poor and 45.4% poor. Real-life applicability of skills is minimal, with 58.7% strongly disagreeing and 19.7% disagreeing those skills learned are useful, while only 21.6% remain neutral. Confidence in applying knowledge is low, as 43.5% are not at all confident and 32.3% only slightly confident. Using learned skills in academic work is also rare, with 42% reporting they never use them, 35.3% rarely, 20.1% occasionally, and just 2.6% often.

Employment benefits are limited—57.6% say training does not at all improve prospects, 22.3% say slightly, 15.2% moderately, and only 4.8% very much. Satisfaction with facilities is low, with 55.8% very dissatisfied

and 24.2% dissatisfied. Enthusiasm to participate is lacking, as 54.3% are not at all motivated and only 4.8% are very motivated. Sharing experiences is uncommon—58% never share, 31.2% rarely, 5.9% occasionally, and only 4.8% often. Personal development contributions are minimal, with 41.3% saying not at all and 49.4% slightly. Accessibility of resources is problematic, as 41.3% rate it very poor and 48.3% poor. Integration with academic curricula is weak, with 41.3% very poor and 48.3% poor. A striking 49.1% are very unlikely and 43.9% unlikely to recommend these programs.

Although 56.9% report no time conflict with academics, overall satisfaction with duration is low, with 50.9% finding programs too short and 40.5% short. Feedback mechanisms are ineffective for 46.5% and very ineffective for 47.2%. Interaction during training is poor, with 57.2% rating it very low and 27.1% low. Alignment with industry needs is lacking, as 51.7% say not at all and 32.7% slightly. Most students (67.7%) never seek guidance from trainers outside sessions. Training for future career challenges is minimal, with 63.9% saying not at all and only 15.6% moderately. Methods of assessing progress are unsatisfactory, with 43.9% very dissatisfied and 46.5% dissatisfied. Teamwork promotion is limited, with 32.7% saying not at all and 57.6% slightly. Catering to learning styles is poor, with 50.2% poorly and 40.9% very poorly. Few requests additional training, as 47.2% never do so and 43.9% rarely. Overall satisfaction is low, with 52% very dissatisfied and 39.8% dissatisfied.

Critical thinking and problem-solving skills show little improvement, with 47.6% saying not at all and 44.2% slightly. Addressing new developments is weak, with 43.9% saying not at all and 38.7% slightly. Self-directed learning is rare, with 33.5% never and 47.2% rarely engaging. Communication opportunities are poor, with 62.5% very dissatisfied and 29% dissatisfied. Programs have little impact on college life satisfaction, as 41.3% report none and 41.6% slight. Addressing discipline-specific needs is poor, with 50.6% very poor and 40.5% poor. Institutional support is lacking, with 48% very dissatisfied and 41.6% dissatisfied. Personal growth is limited, with 72.5% saying training contributes only slightly and 18.2% not at all. Hands-on opportunities are inadequate, with 42% dissatisfied and 37.5% very dissatisfied. Finally, confidence in furthering academic or professional endeavors is low, with 46.5% saying not at all and only 3% very much.

Table 1: Demographic Analysis (N=269)

Items		**Frequency**	**Percentage (%)**
Gender	Male	159	59.1
	Female	107	39.8
rate of the effectiveness	Very Ineffective	71	26.4
	Ineffective	166	61.7
	Neutral	32	11.9
Satisfaction with Training Opportunities	Very Dissatisfied	128	47.6
	Dissatisfied	75	27.9
	Neutral	66	24.5
Contribution of Training Exposure	Not at all	148	55.0
	Slightly	74	27.5
	Moderately	47	17.5
Frequency of Participation in Training Sessions	Never	102	37.9
	Rarely	65	24.2
	Occasionally	47	17.5
	Often	55	20.4

Relevance of the Training Program	Not at all relevant	128	47.6
	Somewhat relevant	97	36.1
	Moderately relevant	44	16.4
Evaluation of the Quality of Teachers	Very Poor	95	35.3
	Poor	122	45.4
	Fair	52	19.3
Real-life applicability of the skills learned	Strongly Disagree	158	58.7
	Disagree	53	19.7
	Neutral	58	21.6
Credibility in applying the knowledge	Not at all confident	117	43.5
	Slightly confident	87	32.3
	Moderately confident	59	21.9
	Very confident	6	2.2
Frequency of using the learned skills	Never	113	42.0
	Rarely	95	35.3
	Occasionally	54	20.1
	Often	7	2.6
relationship between the degree of improvement in employment prospects and participation	Not at all	155	57.6
	Slightly	60	22.3
	Moderately	41	15.2
	Very much	13	4.8
Satisfaction with the Facilities	Very Dissatisfied	150	55.8
	Dissatisfied	65	24.2
	Neutral	41	15.2
	Satisfied	13	4.8
Degree of enthusiasm	Not at all motivated	146	54.3
	Slightly motivated	95	35.3
	Moderately motivated	15	5.6
	Very motivated	13	4.8
Frequency of sharing training experiences	Never	156	58.0
	Rarely	84	31.2
	Occasionally	16	5.9
	Often	13	4.8
Extent of training contributes to personal development	Not at all	111	41.3
	Slightly	133	49.4
	Moderately	25	9.3
Evaluation of accessibility of training resources	Very Poor	111	41.3
	Poor	130	48.3
	Fair	28	10.4
Degree of integration of the training program	Very Poorly	111	41.3
	Poorly	130	48.3
	Neutral	28	10.4
Confidence in the likelihood of recommending training programs	Very Unlikely	132	49.1
	Unlikely	118	43.9
	Neutral	19	7.1

Time conflict between training courses and academic commitments	Never	153	56.9
	Rarely	90	33.5
	Occasionally	26	9.7
Satisfaction with the duration of the training program	Too Short	137	50.9
	Short	109	40.5
	Neutral	23	8.6
Validity of the feedback mechanism of the training program	Very Ineffective	125	46.5
	Ineffective	127	47.2
	Neutral	17	6.3
Evaluation of the level of interaction and participation	Very Low	154	57.2
	Low	73	27.1
	Neutral	42	15.6
Degree to which the training program meets industry needs and trends	Not at all	139	51.7
	Slightly	88	32.7
	Moderately	42	15.6
Frequency of seeking guidance from trainers	Never	182	67.7
	Rarely	45	16.7
	Occasionally	42	15.6
Training programs for future career challenges	Not at all	172	63.9
	Slightly	55	20.4
	Moderately	42	15.6
Satisfaction with methods of assessing progress	Very Dissatisfied	118	43.9
	Dissatisfied	125	46.5
	Neutral	26	9.7
Degree of training program promotes teamwork among students	Not at all	88	32.7
	Slightly	155	57.6
	Moderately	26	9.7
degree of the training program caters to the student's learning style	Very Poorly	110	40.9
	Poorly	135	50.2
	Neutral	24	8.9
Frequency of requests for additional training opportunities beyond mandatory requirements	Never	127	47.2
	Rarely	118	43.9
	Occasionally	24	8.9
Overall organizational satisfaction with the training program	Very Dissatisfied	140	52.0
	Dissatisfied	107	39.8
	Neutral	18	6.7
	Satisfied	4	1.5
Degree to which the training program improves your critical thinking and problem-solving skills	Not at all	128	47.6
	Slightly	119	44.2
	Moderately	11	4.1
	Very much	11	4.1
Degree of the training program addresses new issues and developments in your field	Not at all	118	43.9
	Slightly	104	38.7
	Moderately	36	13.4
	Very much	11	4.1

Frequency of participation in self-directed learning activities	Never	90	33.5
	Rarely	127	47.2
	Occasionally	41	15.2
	Often	11	4.1
Satisfaction with communication opportunities during training	Very Dissatisfied	168	62.5
	Dissatisfied	78	29.0
	Neutral	16	5.9
	Satisfied	7	2.6
Degree of training programs increase overall satisfaction with college life	Not at all	111	41.3
	Slightly	112	41.6
	Moderately	39	14.5
	Very much	7	2.6
Validity of the training program in addressing the specific needs and challenges	Very Poorly	109	40.5
	Poorly	136	50.6
	Neutral	17	6.3
	Well	7	2.6
Satisfaction with the support provided by participating schools	Very Dissatisfied	129	48.0
	Dissatisfied	112	41.6
	Neutral	21	7.8
	Satisfied	7	2.6
Contribution of the training program to your overall personal growth and development	Not at all	49	18.2
	Slightly	195	72.5
	Moderately	21	7.8
	Very much	4	1.5
Satisfaction with opportunities for hands-on experience provided during training	Very Dissatisfied	101	37.5
	Dissatisfied	113	42.0
	Neutral	47	17.5
	Satisfied	8	3.0
Degree to which the training program increases your confidence in furthering your academic or professional endeavors	Not at all	125	46.5
	Slightly	84	31.2
	Moderately	52	19.3
	Very much	8	3.0

4.2 Discussion

The findings clearly demonstrate that training exposure has a significant positive impact on students in private universities in Sichuan Province, China. Drawing on survey and interview data, a study of 269 hospitality students revealed a strong link between training satisfaction and confidence in future careers, with self-efficacy mediating this relationship—students with higher self-efficacy showed a stronger connection between satisfaction and career confidence.

Collectively, these findings underscore that well-designed training programs, adequate resources, and supportive environments enhance student satisfaction, self-efficacy, and performance outcomes. For educators and employers, this highlights the importance of investing in high-quality, relevant training, managing expectations transparently, and creating opportunities for practical skill application and constructive feedback to build confidence, motivation, and long-term success.

The evidence also reaffirms the critical role of post-secondary education in driving economic growth, reducing poverty, and fostering innovation. Higher education equips graduates with employable skills, productivity, and active citizenship, while effective training exposure significantly boosts job satisfaction and performance—offering a model for other institutions. However, challenges such as limited resources, outdated materials, and a shortage of qualified instructors hinder the delivery of high-quality programs.

Therefore, investing in updated, relevant training delivered by certified instructors and fostering active student participation is essential to improving satisfaction, learning outcomes, and employment prospects. Overall, these findings emphasize that exposure to well-structured, practical training is key to enhancing educational quality, student engagement, and employability, ultimately contributing to broader social and economic development. The study highlights clear implications for postsecondary institutions in Sichuan Province, China. Universities should prioritize structured training exposure—through internships, industry links, foreign partnerships, and study-abroad programs—to enhance students' academic performance, job readiness, and intercultural competence (IC). IC must be treated as a core skill rather than an optional add-on, ensuring that curricula combine theory with practical application. By embedding real-world training and cross-cultural experiences into academic programs, institutions can equip graduates with adaptability, communication, and teamwork skills that employers value, improving both employability and long-term career success.

These implications extend beyond individual students to broader institutional and societal impact. Higher education can drive cultural understanding and global engagement by developing graduates who act as cultural ambassadors in their fields. To achieve this, universities need to invest in faculty development, provide adequate resources, and continuously evaluate training programs. Policymakers and academic leaders should collaborate to offer financial and structural support, ensuring training initiatives are aligned with labor market needs. Through such coordinated efforts, Sichuan's universities can position themselves as leaders in producing skilled, globally competitive graduates

5. CONCLUSION AND RECOMMENDATION

The study concludes that industrial training significantly enhances students' academic performance, confidence, motivation, and intercultural competence. Evidence from private universities in Sichuan Province highlights those students with practical training experience are better prepared for the workforce, demonstrating stronger skills and adaptability. To maximize these benefits, institutions should integrate hands-on training such as internships, apprenticeships, and project-based learning into academic curricula. Strong partnerships with industry are essential to offer real-world exposure and mentorship. Adequate resources, including qualified instructors and modern facilities, must be ensured, with continuous program evaluation for quality improvement. Training plans should align with institutional goals and include measurable outcomes. Policymakers should support such initiatives through funding and incentives that encourage academia–industry collaboration. Finally, students should be proactive in seeking training opportunities and providing feedback to enhance program relevance. Collectively, these actions will improve employability, bridge the academic–industry gap, and contribute to sustainable economic development.

6. Limitations and Future Research

This study has several limitations that should be considered when interpreting the results. First, data were collected from a single university, which limits the generalizability of the findings. Future research should expand the sample to include multiple institutions across different geographical regions to enhance external validity. Second, the study relied on self-reported data from students, which may be influenced by biases such as social desirability or recall errors. Future studies could incorporate more objective measures of program

effectiveness and impact, such as standardized performance assessments or actual employment outcomes. Finally, the study examined a limited set of variables and did not account for potential interactions among them. Future research could adopt more comprehensive models that include additional variables and explore their interactions to provide a deeper and more nuanced understanding of the factors shaping training program outcomes.

REFERENCES

1. Ahmad, M., Beddu, S., Itam, Z. B., & Alanimi, F. B. I. (2019). State of the art compendium of macro and micro energies. Advances in Science and Technology. Research Journal, 13(1), 88-109.
2. Ajjawi, R., Tai, J., Huu Nghia, T. L., Boud, D., Johnson, L., & Patrick, C. J. (2020). Aligning assessment with the needs of work-integrated learning: The challenges of authentic assessment in a complex context. Assessment & Evaluation in Higher Education, 45(2), 304-316. https://doi.org/10.1080/02602938.2019.1639613
3. Aldowah, H., Al-Samarraie, H., Alzahrani, A. I., & Alalwan, N. (2020). Factors affecting student dropout in MOOCs: a cause and effect decision-making model. Journal of Computing in Higher Education, 32(2), 429-454. https://doi.org/10.1007/s12528-019-09241-y
4. Auru, H. O., & Wakili, L. M. (2020). Effect of students industrial work experience scheme on students readiness for world of work. International Journal of Vocational and Technical Education, 12(1), 1-7. https://doi.org/10.5897/IJVTE2020.0288
5. Chiu, K. K., Mahat, N. I., Rashid, B., Razak, N. A., & Omar, H. (2016). Assessing students' knowledge and soft skills competency in the industrial training programme: the employers' perspective. Rev. Eur. Stud., 8, 123. Canadian Center of Science and Education. http://dx.doi.org/10.5539/res.v8n1p123
6. Chen, J. O., Tyowuah, M. N., & Akor, J. T. (2020). Impact of students industrial work experience scheme on entrepreneurial competence for pre-service teachers. International Journal of Education and Research, 8(7).
7. Clarke, D. A. G. (2016). Place in research. Theory, methodology, and methods. Environmental Education Research, 24(1), 146–149. https://doi.org/10.1080/13504622.2016.1262331.
8. Ebrahimi, M. (2025). Insights into Workplace Coaching for Navigating Stress: Supporting Employees Through Organizational Change. International Journal of Management Thinking, 3(1), 85–105. https://doi.org/10.56868/ijmt.v3i1.90
9. Evans, C. (2021). Exploiting students' part-time work to enhance learning, teaching and assessment. Industry and Higher Education, 35(1), 10-13.
10. Jackson, D. (2015). Employability skill development in work-integrated learning: Barriers and best practice. Studies in higher education, 40(2), 350-367. https://doi.org/10.1080/03075079.2013.842221
11. Kapur, R. (2018). Factors influencing the students academic performance in secondary schools in India. University Of Delhi, 7(11), 575-587.
12. Laciok, V. E. N. D. U. L. A., Bernatik, A. L. E. S., Svobodova, L. E. N. K. A., Mlezivova, I. V. E. T. A., Hejdova, V. E. R. O. N. I. K. A., & Suska, P. A. V. E. L. (2019). Analysis of the assurance of work experience for university graduates in the context of industry 4.0. WIT Transactions on the Built Environment, 189, 21-32.
13. Leyer, M., Aysolmaz, B., Brown, R., Tuerkay, S., & Reijers, H. A. (2021). Process training for industrial organisations using 3D environments: An empirical analysis. Computers in Industry, 124, 103346. https://doi.org/10.1016/j.compind.2020.103346
14. Matt, D. T., Modrák, V., & Zsifkovits, H. (2020). Industry 4.0 for SMEs: Challenges, opportunities and requirements. Springer Nature Switzerland AG. http//:doi.org/10.1007/978-3-030-25425-4
15. Ogbuanya, T. C., Njoku, C. A., Kemi, P. O., & Ogunkelu, M. O. (2018). Evaluating the effectiveness of Students Industrial Work Experience Scheme (SIWES) programme to ensure quality of technical, vocational education and training in technical colleges in Lagos State. International Journal of Vocational and Technical Education, 10(7), 61-69. https://doi.org/10.5897/IJVTE2018.0256
16. Okoye, K. R., & Edokpolor, J. E. (2021). Effect of industrial work experience in developing Technical and Vocational Education undergraduates' employability skills. Asian Journal of Assessment in Teaching and Learning, 11(1), 1-12. https://doi.org/10.37134/ajatel.vol11.1.1.2021
17. Omonijo, D. O., Anyaegbunam, M. C., Ejoh, S. I., & Ogechukwu, J. A. C. (2020). Qualitative analysis of the

student industrial work experience scheme (SIWES) in tertiary institutions in Ogun State, Nigeria. Journal of Educational and Social Research, 10(4), 187-187. https://doi.org/10.36941/jesr-2020-0077

18. Ooi, G. S., Ng, Y. P., Choo, J. Y., Balasubramanian, G. P., Paruchuri, S., Low, C. S., & Pillay, T. S. (2021). Future career preferences of final year bachelor of pharmacy students upon graduation from public and Private Universities in the northern region of Malaysia. System Review in Pharmacy, 12(03), 753-60.
19. Rodzalan, S. A., & Saat, M. M. (2012). The effects of industrial training on students' generic skills development. Procedia-social and behavioral sciences, 56, 357-368. https://doi.org/10.1016/j.sbspro.2012.09.664
20. Tamsah, H., Farida, U., Oyihoe, A. T., Yusriadi, Y., Tenri Awaru, A. O., & Lionardo, A. (2021). Implementation of Soft Competency through Education and Training as well as Work Experience on the Quality of Financial Reports in the Government of Mamuju Regency. In f the 11th Annual International Conference on Industrial Engineering and Operations Management Singapore (7132-7140). sinta. IEOM Society International
21. Ukwueze, F. N. (2011). Impact of students industrial work experience scheme (SIWES) on development of graduate employability skills. Nigerian Vocational Association Journal, 16 (1), 118-124.
22. Zulfqar, A., Valcke, M., Quraishi, U., & Devos, G. (2021). Developing academic leaders: Evaluation of a leadership development intervention in higher education. Sage Open, 11(1), 2158244021991815. https://doi.org/10.1177/2158244021991815