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Effect of Work-Integrated Learning and Instructor Skills on Vocational Graduates' Work Readiness: The Mediating Role of Self-Efficacy

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Abstract: Graduate work readiness has become a crucial issue given the high unemployment rate among Vocational High School (SMK) graduates, thus requiring a deep understanding of the factors that influence it. This study aims to analyze the effect of work-integrated learning and instructor skills on the work readiness of SMK graduates in West Java Province, with self-efficacy as a mediating variable. The main objective of this research is to explain the role of self-efficacy as a mediator between work-integrated learning experiences and instructor quality on work readiness. The study employed a quantitative, cross-sectional survey design. The sample consisted of 292 public Vocational High School graduates in West Java selected through a multistage cluster random sampling technique to ensure geographical representativeness and diversity of vocational programs. Data were collected using validated, structured questionnaires with Likert-scale responses that measured four main constructs: work-integrated learning, instructor skills, self-efficacy, and work readiness. Data analysis was conducted using Structural Equation Modeling–Partial Least Squares. Work-integrated learning and instructor skills have positive and significant effects on the self-efficacy of Vocational High School graduates. Self-efficacy proves to have a positive and strong influence on work readiness, indicating that self-confidence (self-efficacy) is an important predictor of work readiness. Although work-integrated learning and instructor skills also have direct effects on work readiness, these effects are relatively small compared with the indirect effects mediated by self-efficacy. Self-efficacy is a key factor in reducing the unemployment rate among Vocational High School graduates. The practical implications highlight the importance of graduates' self-confidence, work-integrated learning, and the strengthening of instructors' pedagogical and professional competencies as solutions for improving the work readiness of Vocational High School graduates.

Keywords: integrated learning, instructors skill, work readiness, self-confidence.

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INTRODUCTION

Vocational education plays a strategic role in preparing powerful, skilled, and ready workers for industry in the era of revolution Industry 4.0 and Society 5.0 (Ramadhan et al., 2021). Readiness work is an individual's ability to adapt to the environment. Work professionalism demonstrates competence in the required technical and soft skills, as well as a positive attitude toward work (Caballero & Walker, 2010; Pambudi et al., 2024). In vocational education, readiness indicators are the main drivers of the success of the learning process that connects education and industry (Lemmetty & Billet, 2023).

Work-integrated learning (WIL) has been recognized globally as an effective approach to preparing students to meet the demands of the world of work by integrating on-the-job practical experience with academic learning (Tomlinson & Jackson, 2015; Sachs et al., 2022). Through WIL, students have the opportunity to apply theoretical knowledge in real work contexts, develop professional competence, and build networks that

support industries' transition from school to the world of work. Successful WIL implementation is highly dependent on the quality of on-site learning work, support from educational institutions, and effective collaboration between school and industry (Smith et al., 2021; Lemmetty & Billet, 2023)

Instructor skills are a crucial factor in the quality of vocational learning because instructors not only play a role as teachers but also as mentors, facilitators, and liaisons between the world of education and industry (Gessler & Siemer, 2020). Competent instructors can create an environment conducive to learning, provide relevant guidance in the industry, and motivate students to develop competence: pedagogical, professional, personal, and social optimally (Khurniawan et al., 2021). Instructors contribute significantly to the formation of character and competence in graduates, ready to face the challenges of the world of work (Mustakim & Hadi, 2020).

Self-efficacy, or self-belief, is a psychological construct that influences motivation, behavior, and achievement in individuals across various domains of life, including education and career (Bandura, 1997; Rahmadani et al., 2022). In education vocation, self-efficacy plays an important role as a mediator linking experiential learning to readiness to work. Because students who have high self-efficacy tend to believe more in themselves when facing work-related challenges, are more persistent in overcoming difficulties, and are more capable of adapting to dynamic work environments (Safitri et al., 2023). Research shows that self-efficacy can be improved through quality learning experiences, support from social instructors and mentors, and success in completing challenging tasks (Schunk & DiBenedetto, 2020).

Social Cognitive Theory (1986) explains that self-efficacy is formed through four main factors: experiencing success, observing others, social persuasion, and physiological and emotional states. In the vocational context of education, WIL provides mastery experiences through real-world work practice. In contrast, competent instructors provide social persuasion and vicarious experiences through guidance and modeling of professional behavior (Panadero et al., 2020). Understanding the mechanism of the formation of self-efficacy is important for designing effective educational interventions to increase readiness among vocational graduates.

Indonesia, a country with a large population, faces challenges in preparing graduates of Intermediate Vocational Schools to be truly work-ready (Sudiyatno et al., 2020). Data from the Indonesian Central Statistics Agency show that the unemployment rate among open-vocational school graduates remains relatively high compared with those with higher levels of education, indicating a gap between graduates' competencies and the needs of the industrial world (Maryati et al., 2021). The phenomenon has attracted attention from serious government and education stakeholders because vocational schools should become a solution to provide power, work, skills, and ready use.

West Java Province is the center of industry and economy in Indonesia, with the largest number of vocational schools. However, it faces challenges, particularly in improving the quality of vocational graduates who are ready to enter the workforce (Wibowo et al., 2021). With more than 1,000 vocational schools spread across 27 districts/cities, West Java offers a range of expertise programs designed to meet the needs of industries such as manufacturing, services, technology, information, tourism, and other sectors that are rapidly developing in this region (Nurtanto et al., 2020). However, the heterogeneity in the quality of education among vocational schools, limitations in practical facilities, and variations in the quality of industry cooperation pose challenges that need to be

overcome to strengthen competition among West Java vocational high school graduates.

Implementation of the Practice program Work Field (PKL) or apprenticeship as a form of WIL in Indonesian vocational schools still faces various structural and operational constraints (Widiaty et al., 2021). Research shows that quality PKL experiences vary greatly between schools and inter-partner industries, which has an impact on the level of readiness of Work graduates (Suryani et al., 2020). The main limitations place quality and appropriate internships with competence skill students, a lack of supervision and monitoring of the instructor school during the implementation of PKL, weak collaboration and communication between school with industry, as well as a lack of standardization implementation of PKL, which causes inconsistency experience learning students (Mukhadis et al., 2020). Required a greater understanding deep about how WIL can opptimized for increase the readiness of vocational school graduates in West Java.

The skills of vocational school instructors in Indonesia are also crucial factors influencing the quality of vocational education (Priatna et al., 2020). Many instructors come from an academic background without adequate industry experience, or , conversely, have industry experience but not enough pedagogical competence (Nurtanto et al., 2021). The gap competence instructor influences the quality of learning and guidance provided to students, with good learning in class, in the laboratory/ workshop, and in PKL assistance (Suarta et al., 2023). The government has initiated various improvement programs to enhance vocational school teachers' competencies through training, industry certification programs, and partnerships with the business/industry world. However, the impact on the readiness of work graduates has not yet been explored comprehensively in the literature (Daryanto & Syaodih, 2021).

Among West Java vocational school graduates, self-efficacy is a psychological factor that determines the success of the transition from education to work (Yulianti & Khafid, 2020). Graduates with high self-efficacy tend to be more active in seeking work, braver in facing the selection process, more capable of overcoming rejection in the job search, and faster in adapting to new work environments (Pristiwanti & Suyatno, 2020). Research shows that graduates' self-efficacy in vocational influenced by various factors, including quality of experience, practice, work, support and guidance from instructors, academic achievement, and experience of success in completing complex tasks during education (Rahayu & Sensuse, 2020). However, the mechanism by which WIL and skills instructors influence self-efficacy and the further impact on readiness still needs further investigation, especially in the context of vocational schools in West Java.

Characteristics, demographics, and industry in West Java also provide a unique context for this study. As a province with a rapidly and diversified economy and a high industrial sector, West Java offers diverse work opportunities but also demands increasing competence and complexity for vocational school graduates (Hermawan et al., 2021). The existence of large industrial areas like Karawang, Bekasi, Purwakarta, and Greater Bandung creates an industrial ecosystem that can be utilized for the WIL program, but also creates challenges in matters of competition between graduates from various schools and regions (Widarto et al., 2020). Understanding deep dynamics locally is important for developing contextual and effective improvement strategies.

Although studies on WIL, skills instructors, and work readiness have made significant contributions in separate yet integrated research, there remains limited consideration of the role of self-efficacy mediation, especially in the context

of vocational education and training in developing countries (Okolie et al., 2020). Most studies have previously focused on context education at tall or universities in developed countries. In contrast, research on medium vocational education in Indonesia remains insufficiently attended to in the international literature (Ramadhan et al., 2021). In fact, the context of education, medium, vocational, has different characteristics and challenges compared to higher education, including differences in students' age and maturity, psychological differences, the duration and intensity of the WIL program, and expectations for graduate competence.

First, findings of Wahyuningsih et al. (2025) indicate a significant knowledge gap regarding how Work-Integrated Learning (WIL) specifically influences the work readiness of vocational high school (SMK) graduates within Indonesia's diverse industrial context. This issue is particularly critical in West Java Province, one of Indonesia's largest industrial hubs, dominated by manufacturing, textile, and automotive sectors. Empirical data from the Central Statistics Agency in 2024 indicate that vocational education graduates had the highest open unemployment rate at 9.42%, exceeding those of other educational levels. In West Java, the situation is intensified by the large number of vocational graduates competing in a highly demanding labor market.

Although WIL has been implemented through industrial internships and workplace training programs, its execution quality appears insufficient to fully bridge the competency gap between schools and industry expectations. Outdated curricula, limited technology updates, and inadequate exposure to authentic workplace experiences contribute to low levels of self-efficacy, communication skills, critical thinking, and adaptability among students. Hadi et al. (2021) emphasize the need to examine how the quality of WIL implementation affects students' psychological capital particularly self-efficacy as a potential mediator of work readiness. However, Mukhadis et al. (2020) primarily employed descriptive approaches without testing causal or mediating relationships. Consequently, stronger quantitative evidence is required to clarify the mechanism through which WIL impacts the work readiness of vocational graduates in West Java.

Second, the role of the skills instructor in form readiness: Work the student through the track, directly and indirectly (through self-efficacy), not yet. Lots of investigations have been conducted in the literature on education and Indonesian vocational studies (Paryono, 2021). Research previously tended to focus on technical competency among instructors without considering pedagogical, communication, mentoring, and connection-building skills, which are more relevant to context formation readiness work (Siswanto et al., 2020). In addition, the interaction between skills instructors with WIL experience and student outcomes has not been explored, even though instructors play an important role in preparing students before PKL, accompanying them during PKL, and facilitating reflection after PKL (Nurtanto et al., 2021).

Third, although self-efficacy has been identified as an important readiness factor in various studies (Chin et al., 2022; Succi & Canovi, 2020), research that tests the mediating role of self-efficacy in the connection between WIL and readiness work, and between skills instructor and readiness work, is still very limited, specifically in the context of vocational schools in Indonesia (Rahayu & Sensuse, 2020). Understanding the mechanism of mediation. This is important for developing more effective intervention strategies to increase readiness among vocational school graduates. Without understanding the mechanism of mediation, a designed intervention may not be optimal because the target track's actual influence is not taken into account (Panadero et al., 2020).

Fourth, research specifically focusing on vocational school graduates in West Java, with consideration of local context, regional industry characteristics, and local vocational education policy, remains very minimal (Hermawan et al., 2021). In fact, West Java, as a province with the largest number of vocational schools and industries in Indonesia, has dynamics and challenges that are unique and require study alone to produce contextually relevant and applicable policy recommendations. Generalization of results from other contexts is possible; however, not fully appropriate for implementation in West Java, given differences in industry structure, levels of collaboration in industrial schools, quality of educational facilities, and demographic characteristics of students (Wibowo et al., 2021).

Fifth, from a methodological perspective, research remains limited that uses a quantitative approach with structural equation modeling (SEM) or path analysis to test a comprehensive model of the influence of WIL and skills instruction on readiness, with mediation by self-efficacy (Okolie et al., 2020). Approach methodologically. This is important to provide strong empirical evidence of causal connections and mediation mechanisms that can serve as a basis for developing evidence-based policies and intervention programs. Most of their research in Indonesia still relies on simple correlation analysis or multiple regression, which cannot capture the complexity of the relationships among variables within a comprehensive model (Ramadhan et al., 2021).

The purpose of this research is to analyze the identified knowledge by developing and testing a comprehensive model that explains the influence of Work Integrated Learning and instructor skills on the work readiness of vocational school graduates in West Java, considering the mediating role of self-efficacy. This gives a contribution important in several aspects, as follows: First, research integrates three key variables (WIL, skills of instructors, and self-efficacy) in a comprehensive theoretical model to explain the formation readiness of vocational graduates. With the use perspective of Social Cognitive Theory (Bandura, 1986) and Work-Integrated Learning Theory (Lemmetty & Billet, 2023), this research develops a framework for a conceptual explanation of how experiential learning integrates work and quality instructor influence beliefs in self-students, who in turn influence work readiness (Panadero et al., 2020). This model not only tests direct influence but also indirect influence through the mediation of self-efficacy, providing a deeper understanding of the mechanisms underlying formation work readiness.

Second, this focuses on the context of vocational schools in West Java, considering characteristics unique to Indonesian vocational education and the dynamics of regional industry in West Java (Hermawan et al., 2021). With a sample from various vocational schools in West Java representing various expertise programs and geographic locations (urban and rural), research this to produce contextual and applicable findings , generalized for the vocational school population in West Java. This approach also allows the identification of best practices from successful vocational schools to increase readiness. Work graduates can become a model for other vocational schools in the province.

Third, this study uses a quantitative approach, employing Structural Equation Modeling (SEM), to test the hypothesis about the influence of direct and indirect variables in the model (Okolie et al., 2020). The use of SEM makes it possible to test simultaneous multiple relationships and latent construct measurement with multiple indicators, which provides more accurate estimates of the connection between variables compared to conventional methodological approaches. This also allows goodness-of-fit model testing overall and identification to track the most significant influence, the important one for development, targeted, and effective interventions.

Fourth, this research specifically attends to operationalization and measurement constructs, key to adapting and validating instrument measures that have been tested in the international literature for the context of Indonesian vocational schools (Chin et al., 2022). Instrument WIL measurement was developed with consideration of quality, experience, practice, and work, including relevance, authenticity, supervision, and learning opportunities. The instructor covers the dimensions of pedagogical skills, professional competence, mentoring ability, and industry connections. Meanwhile, self-efficacy is measured with a focus on relevant career decision self-efficacy and occupational self-efficacy in the transition to school-work (Succi & Canovi, 2020).

Fifth, this study results are expected to give implications specific practice for education stakeholders vocational education in West Java, including: (a) recommendations For development and improvement quality of WIL/PKL programs in vocational schools; (b) improvement strategies competence vocational school instructors who focus on the most influential aspects to readiness Work students; (c) intervention programs For increase student self-efficacy as an important mediator in formation readiness work; and (d) collaboration model effective industrial school For support implementation of quality WIL (Widarto et al., 2020; Nurtanto et al., 2021). Thus, this research not only contributes to development theory but also provides practical solutions to increase the quality of vocational education and the employability of vocational high school graduates in West Java.

Based on the theoretical basis, prior empirical studies, and the research gaps described, a research diagram is presented below.

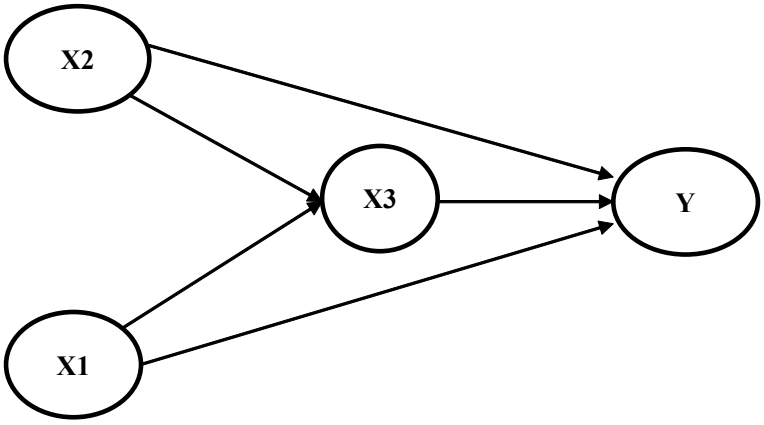

Figure 1. Research flow diagram

Information:
X1 = Work-Integrated Learning
X2 = Instructor Skills
X3 = Self-Efficacy
Y = Work Readiness

The research hypothesis is formulated systematically as follows.

1. Work-Integrated Learning Has an Impact Positive and Significant to Work Readiness
2. Skills Instructor Influential, Positive, and Significant to Work Readiness
3. Work-Integrated Learning has a Positive and Significant Impact on Self-Efficacy
4. Skills Instructor Influential, Positive, and Significant Towards Self-Efficacy
5. Self-efficacy has an Influence Positive and Significant to Work Readiness
6. Self-efficacy Mediates the Influence of Work-Integrated Learning on Work Readiness

7. Self-efficacy Mediates Influence Skills Instructor to Work Readiness

METHOD

Participants

The participants of this study were graduates of State Vocational High Schools in West Java Province, Indonesia, for the period 2020–2024 who were selected through a multistage cluster random sampling technique to ensure regional representation and industrial characteristics and the selection of respondents was carried out using proportional random sampling with the criteria of having participated in the Work-Integrated Learning (PKL/Prakerin/ internship) program, having work experience after graduation, and being willing to fill out the research instrument as many as 292 respondents so that the analysis results have adequate statistical power and representativeness.

Research Design

This study used a quantitative, causal-comparative research design to examine the causal relationship between the research variables (Creswell & Creswell, 2018). The study used a survey to test a theoretical model explaining how Work-Integrated Learning and Instructor Skills influence the work readiness of vocational high school graduates, mediated by self-efficacy.

Population Study

The population in this study was all graduates of state vocational schools in West Java Province who graduated between 2020 and 2024. Based on data from the West Java Provincial Education Office in 2024, there were 752 state vocational schools spread across 27 districts/cities, with an estimated total of 1,350,000 students graduating from the 2020-2024 period.

Sample Study

This study uses *a* multistage cluster random sampling technique, carried out in four stages, as shown in the table below.

Multistage Cluster Random Sampling Research consists of (1) Stratification of the West

Table 1. Stages of multistage cluster random sampling research

Stage	Sampling Unit	Sampling Criteria / Process	Number of Units	Percentage (%)
Stage 1	West Java Province	Stratification of the region into 5 strategic regions (West, East, Central, North, South)	5 Regions	100% Territory
Stage 2	State Vocational School	Random selection of State Vocational Schools from 12 selected districts/cities	45 Vocational Schools	± 35 % of selected State Vocational Schools
Stage 3	Respondents (Vocational High School Graduates)	Proportional random sampling with the following criteria: 1. Graduated 2020–2024 2. Participating in WIL (PKL/ Prakerin /Internship) 3. Own experience Work 4. Willing to fill in the instrument	**292 Respondents**	**100% of respondents**

Java region into 5 strategic areas, (2) Random selection of 45 State Vocational High Schools, (3) Selection of respondents by proportional random sampling with the criteria of graduating in the 2020–2024 period, having participated in the Work-Integrated Learning program (Field Work Practice/Prakerin, industrial internship, or work-based learning, having worked or having work experience after graduation, and being willing to fill out the instrument. The minimum sample size is determined by the SEM-PLS rules: 5–10 times the number of indicators, for a total of ±30 indicators. Then, the number of samples for this study is 2 92 respondents, so that the results of the research analysis are representative (Hair et al., 2022; Sarstedt et al., 2021).

Instrument

The research instrument used a structured questionnaire with a 5-point Likert scale as the main scale, as shown in the following instrument grid.

Table 2. Instrument

Variable	Dimension	Indicator	Description	Item
Work-Integrated Learning (WIL)	Quality of Work Experience	Relevance of tasks to expertise competencies	Alignment between industrial tasks and students' area of expertise	1
Smith et al. (2014); Tomlinson & Jackson (2015)		Job responsibility level	Level of job responsibility assigned to students	2
		Opportunity to apply real skills	Opportunity to apply authentic technical skills	3
		Exposure to a professional environment	Involvement in a professional work environment	4
	Learning Support	Guidance from industry mentors	Quality of mentoring provided by industry supervisors	5
		Instructor/supervisor support	Support provided by supervisors during WIL	6
		Feedback on performance	Performance feedback received during WIL	7
	Integration of Theory–Practice	Suitability of school materials	Alignment between school materials and industrial practices	8
		Reflection on learning	Reflection on learning experiences during WIL	9
		Application of theory	Application of theoretical knowledge to solve workplace problems	10
	Partner Quality	Relevance of partner field	Alignment of the industry partner's field with students' expertise	11
		Learning commitment	Industry commitment to supporting student learning	12
		Work facilities quality	Quality of workplace facilities and environment	13
Instructor Skills	Technical Competence	Mastery of technology	Mastery of current industrial technologies and processes	14

Gessler & Siemer (2020); Köpsén (2020)		Technical problem solving	Ability to solve technical problems effectively	15
		Skill updating	Updating competencies according to industry developments	16
	Pedagogical Competence	Work-based learning planning	Ability to design work-based learning activities	17
		Contextual methods	Use of contextual teaching and learning methods	18
		Evaluation ability	Ability to evaluate and assess student learning	19
	Industry Experience	Industrial work experience	Real work experience in the industry	20
		Understanding industry culture	Understanding of industrial culture and standards	21
	Mentoring Skills	Individual guidance	Ability to provide individual student guidance	22
		Communication & motivation	Ability to communicate and motivate students	23
	Motivator	Career support	Support for students' career development	24
Self-Efficacy	Technical Confidence	Completing technical tasks	Confidence in completing technical work tasks	25
Bandura (1997); Schwarzer & Jerusalem (1995)		Using equipment	Confidence in using work equipment and technology	26
		Solving technical problems	Confidence in solving technical problems	27
	Facing Challenges	Resilience	Resilience when facing workplace difficulties	28
		Adaptation to new demands	Confidence in adapting to new job demands	29
		Optimism	Optimism in completing challenging tasks	30
	Interaction Confidence	Communication confidence	Confidence in communicating in the workplace	31
		Team confidence	Confidence in working collaboratively in a team	32
	Work Performance Confidence	Achieving performance targets	Confidence in achieving work performance targets	33
Work Readiness	Technical Competence	Technical mastery	Mastery of technical skills in the field of expertise	1
Caballero et al. (2011); Sawitri & Novitasari (2022)		Equipment usage	Ability to operate work equipment properly	2
		Work quality	Quality of work outcomes	3
	Personal Competence	Confidence	Self-confidence in performing work tasks	4
		Discipline	Discipline and sense of responsibility	5

	Adaptability	Ability to adapt to the work environment	6
Interpersonal Competence	Teamwork ability	Ability to work collaboratively in a team	7
	Communication	Effective communication skills	8
	Conflict management	Ability to manage workplace conflicts	9
Organizational Competence	Work culture understanding	Understanding of workplace culture and regulations	10
	Time management	Ability to manage time and work priorities	11
Commitment	Organizational commitment	Commitment to achieving organizational goals	12

The validity of the instrument was tested through content validity, with the criteria of construct validity tested using Confirmatory Factor Analysis (CFA) in a pilot study (n=100) with the criteria of factor loading e" 0.50, Average Variance Extracted (AVE) e" 0.50, and convergent and discriminant validity using the Fornell-Larcker criteria (Fornell & Larcker, 1981). The reliability of the instrument was measured by Cronbach's Alpha and Composite Reliability with a cut-off of e" 0.70 (Hair et al., 2022; Sarstedt et al., 2021).

Data Collection

Data collection was conducted through a mixed-mode survey that combined online and paper-based methods to increase response rates and sample representativeness (Dillman et al., 2014). The data collection procedure included five stages over a period of two months. from June to August 2025. This research adheres to ethical principles, including informed consent, anonymity, confidentiality, voluntary participation, and data protection with encrypted storage (Polit & Beck, 2006).

Data Analysis

PLS-SEM with SmartPLS 4.0 was selected for complex models with mediating variables and a sample of n=292 (Hair et al., 2022; Sarstedt et al., 2021). Two-stage analysis:

Stage 1 - Measurement Model: (a) Average Variance Extracted (AVE) e" 0.50; Reliability Indicator e" 0.60; (b) Composite Reliability e" 0. 6 0; (c); (d) Discriminant Validity: < 0.75 (Hair et al., 2022). Stage 2 - Structural Model: (a) VIF <5 for collinearity; (b) R^2 with thresholds 0.75 (substantial), 0.50 (moderate), 0.25 (weak); (c) f^2 for effect size: 0.02 (small), 0.15 (medium), 0.35 (large); (d) Q^2 >0 for predictive relevance through *blindfolding* D=7; (e) path coefficients with *bootstrapping* 5,000 resamples, significant at p<0.05 (t>1.96); (f) mediation analysis with VAF: <20% (no mediation), 20-80% (partial), >80% (full). Model fit indices: SRMR <0.08 (Hair et al., 2022) and NFI e"0.90 (Hair et al., 2022). Descriptive statistics and demographic characteristics were analyzed prior to PLS-SEM, with á=0.05 (Henseler et al., 2015). Stage 3 - Hypothesis Testing: If the P value > 0.05, the research hypothesis is rejected.

■ RESULT AND DISCUSSION

Demographic Profiles

Respondent descriptions are presented to provide a general overview of the demographic characteristics of the research subjects, including region of origin, gender, and age. This information

is essential for assessing the sample's representativeness and understanding the respondents' social and demographic contexts, providing a basis for interpreting the research analysis results.

The respondents were evenly distributed across regions in West Java, including West Java (19.9%), Central West Java (20.9%), East West Java (20.2%), North West Java (19.2%), and South West Java (19.9%). This relatively balanced regional distribution indicates that the sample adequately represents the geographical diversity of the study area. In terms of gender, the majority of respondents were male (57.5%), while female respondents accounted for 42.5%. Although male participants slightly outnumbered females, the gender composition remains sufficiently balanced to support meaningful comparative and general analyses.

Table 3 . Distribution of respondents' demographic characteristics

Characteristics	Category	Frequency (n)	Percentage (%)
Region	West Java – West	58	19.9
	West Java – Central	61	20.9
	West Java – East	59	20.2
	West Java – North	56	19.2
	West Java – South	58	19.9
Gender	Male	168	57.5
	Female	124	42.5

The bar chart shows that the largest proportion of respondents is in the 20–21-year age group, with the highest frequency. This is followed by respondents aged 22–23 years, indicating that most participants are in early adulthood. In contrast, the 18–19 and e"24 age groups have lower frequencies, suggesting that younger and older respondents are underrepresented in the sample.

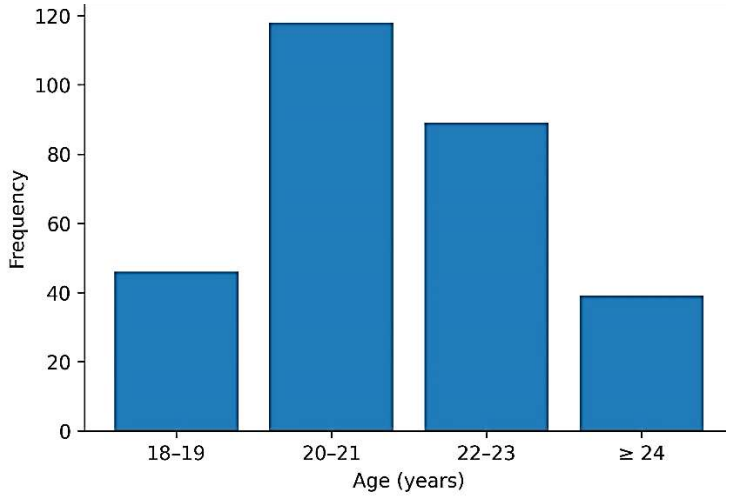

Figure 1.

Descriptive Analysis

After conducting research using a questionnaire instrument, a descriptive analysis was carried out, as shown in the table below.

The table shows that all research variables have high mean scores, ranging from 3.983 to

Table 4. Descriptive analysis

Variable	Mean	Standard Deviation	Minimum	Maximum	Skewness	Kurtosis	Category
Work-Integrated Learning	4.021	0.515	2.00	5.00	1.24	2.85	High
Instructor Skills	3.983	0.483	2.00	5.00	−0.98	1.76	High
Self-Efficacy	4.122	0.490	2.00	5.00	1.87	4.12	High
Work Readiness	4.098	0.486	2.00	5.00	1.21	2.98	High

4.122 on a 1–5 Likert scale. This indicates that respondents generally have very positive perceptions of the implementation of Work-Integrated Learning, the quality of Instructor Skills, the level of Self-Efficacy, and Work Readiness. The Self-Efficacy variable has the highest mean score (4.122), indicating respondents' confidence in their work abilities is at a very good level. The relatively low standard deviation (0.483–0.515) indicates that respondents' answers are quite consistent and homogeneous, with no extreme differences in perceptions. The minimum (2.00) and maximum (5.00) values indicate that although there is variation in responses, the majority fall in the high category. Based on the skewness values, most variables exhibit positive skewness, meaning the distribution is right-skewed and reflects the dominance of responses at the high end of the scale. The Instructor Skills variable has mild negative skewness ("0.98), indicating a relatively more symmetrical data distribution compared to the other variables. Meanwhile, the kurtosis values for all variables are within acceptable limits, indicating a moderate, non-extreme level of skewness in the data distribution.

Table 5. Pearson correlation matrix among variables

Variabel	1	2	3	4
1. Work-Integrated Learning	1.000			
2. Instructor Skills	0.542**	1.000		
3. Self-Efficacy	0.618**	0.657**	1.000	
4. Work Readiness	0.701**	0.633**	0.745**	1.000

Note: ** Correlation is significant at the 0.01 level ($p < 0.01$)

The Pearson correlation matrix indicates that all variables are positively and significantly correlated with each other. Work-Integrated Learning shows a strong positive correlation with Work Readiness ($r = 0.701$, $p < 0.01$), suggesting that the better the implementation of work-integrated learning, the higher students' work readiness. Furthermore, Instructor Skills are positively associated with Self-Efficacy ($r = 0.657$, $p < 0.01$), indicating that instructors' pedagogical and professional competencies contribute to strengthening students' confidence in their abilities. Among the variables, Self-Efficacy exhibits the strongest relationship with Work Readiness ($r = 0.745$, $p < 0.01$). This finding implies that students with higher self-efficacy tend to be better prepared to enter the workforce. These results highlight the importance of integrating practical learning experiences, enhancing instructors' competencies, and fostering students' self-efficacy to improve graduates' readiness for the labor market.

Measurement Model

This research model examines the influence of Work-Integrated Learning (WIL) and Instructor Skills (IS) on Work Readiness (WR), with Self-Efficacy (SE) as a mediating variable. This model integrates the perspectives of *Work-Integrated Learning Theory* and *Social Cognitive Theory* to explain the mechanisms that shape the work readiness of school graduates. medium vocational, as in the picture, results in SEM-PLS analysis.

Figure 2 shows the measurement model and structural model in the SEM-PLS (SmartPLS) analysis, which displays the AVE value, outer

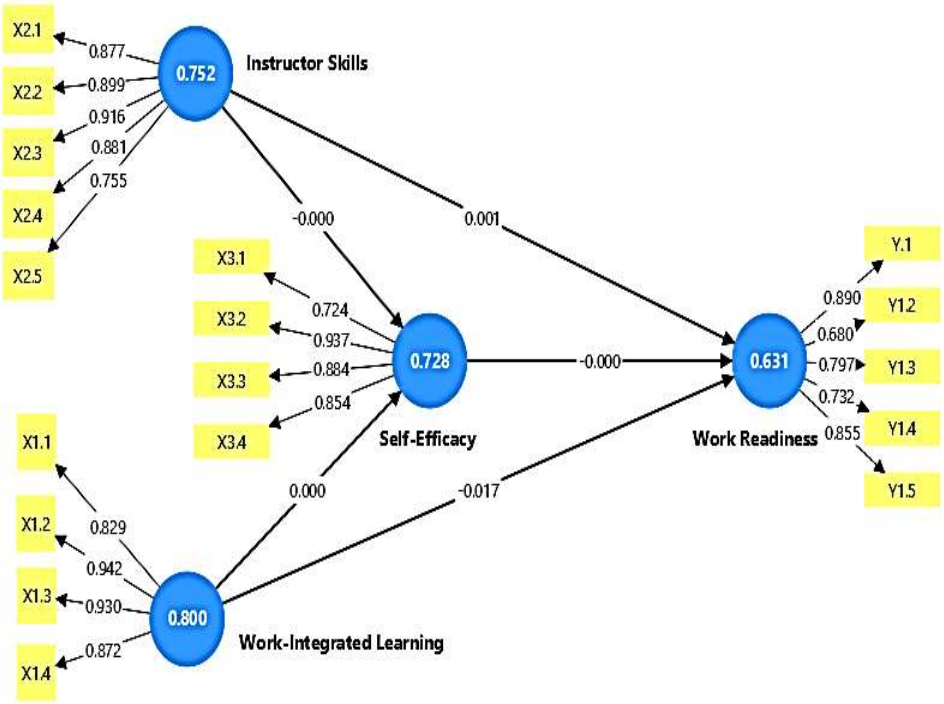

Figure 2. Average variance extracted

loading indicators, and the relationship between latent constructs with the following conditions: Average Variance Extracted (AVE) e— 0.50; Reliability Indicator e— 0.60; (b) Composite Reliability e— 0.60; (c); (d) Discriminant Validity: < 0.75 (Hair et al., 2022).

Table 6. Reliability indicator-outer loading

Construct	Indicator	Outer Loading	Decision
Work-Integrated Learning (X1)	X1.1	0.829	Valid
	X1.2	0.942	Valid
	X1.3	0.930	Valid
	X1.4	0.872	Valid
Instructor Skills (X2)	X2.1	0.877	Valid
	X2.2	0.899	Valid
	X2.3	0.916	Valid
	X2.4	0.881	Valid
	X2.5	0.755	Valid
Self-Efficacy (X3)	X3.1	0.724	Valid
	X3.2	0.937	Valid

	X3.3	0.884	Valid
	X3.4	0.854	Valid
Work Readiness (Y)	Y1.1	0.890	Valid
	Y1.2	0.680	Valid
	Y1.3	0.797	Valid
	Y1.4	0.732	Valid
	Y1.5	0.855	Valid

The results of the indicator reliability assessment show that all constructs in the model meet the criteria for convergent validity. For the Work-Integrated Learning construct, all indicators show high outer loadings ranging from 0.829 to 0.942, indicating that each indicator validly represents the construct. The Instructor Skills construct also exhibits strong consistency, with outer loading values for indicators ranging from 0.755 to 0.916. These values exceed the minimum threshold of 0.70, confirming that all indicators significantly contribute to measuring instructor skills. Furthermore, the Self-Efficacy construct shows factor loadings between 0.724 and 0.937 across indicators X3.1–X3.4. This finding indicates that the indicators reliably reflect respondents' self-belief in their learning capabilities and work-related competence. For the Work Readiness construct, all indicators are also considered valid, with factor loadings ranging from 0.680 to 0.890. Although indicator Y1.2 has a slightly lower loading than the recommended threshold of 0.680, it remains acceptable in social science research and PLS-SEM model development, as it still provides a meaningful contribution to the construct. Referring to Hair et al. (2022), indicators with outer loading values in the range of 0.60–0.70 do not have to be immediately eliminated, as long as they still meet the overall construct validity criteria, specifically Average Variance Extracted (AVE e" 0.50) and Composite Reliability (CR e" 0.70 or at least e" 0.60 for exploratory research).

The reliability and convergent validity assessment indicate that all constructs in the model demonstrate strong internal consistency and satisfactory convergent validity. Work-Integrated Learning shows excellent reliability, with high Cronbach's alpha (0.916), composite reliability values (rho_a = 0.923; rho_c = 0.941), and an AVE of 0.800, indicating that a substantial proportion of variance is captured by the construct. Similarly, Instructor Skills exhibits high reliability (Cronbach's alpha = 0.917; rho_a = 0.926; rho_c = 0.938) and adequate convergent validity, as reflected by an AVE of 0.752. The Self-Efficacy construct also demonstrates robust reliability (Cronbach's alpha = 0.872; rho_a = 0.879; rho_c = 0.914) with an AVE of 0.728, suggesting that a large proportion of indicator variance is explained by the construct. Furthermore, Work Readiness shows

Table 7. Construct reliability

Construct	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Work-Integrated Learning	0.916	0.923	0.941	0.800
Instructor Skills	0.917	0.926	0.938	0.752
Self-Efficacy	0.872	0.879	0.914	0.728
Work Readiness	0.852	0.871	0.895	0.631

satisfactory reliability (Cronbach's alpha = 0.852; rho_a = 0.871; rho_c = 0.895) and adequate convergent validity, as indicated by an AVE of 0.631. Overall, these results confirm that all constructs meet the recommended thresholds for reliability and convergent validity, supporting the adequacy of the measurement model for further structural model analysis.

Table 8. Discriminant validity – cross loadings

Indicator	Work-Integrated Learning (X1)	Instructor Skills (X2)	Self-Efficacy (X3)	Work Readiness (Y)
X1.1	**0.829**	0.412	0.365	0.398
X1.2	**0.942**	0.455	0.401	0.432
X2.1	0.421	**0.877**	0.389	0.446
X3.1	0.366	0.402	**0.724**	0.417
Y1.1	0.512	0.498	0.533	**0.890**

The cross-loading results indicate that each indicator loads highest on its respective construct compared to the other constructs. This pattern confirms that the indicators measure their intended constructs more strongly than unrelated constructs, thereby demonstrating adequate discriminant validity of the measurement mode.

Structural Model

Structural Models: Goodness-of-fit is an important step for measuring the extent of influence of each variable under study, and the goodness-of-fit analysis technique measures R-Square (R2). This analysis uses PLS-SEM with SmartPLS 4.

Table 9. Coefficient determination

Endogenous Variables	R^2	Interpretation
Self-Efficacy	0.796	Moderate–Substantial
Work Readiness	0.907	Moderate–Substantial

The R^2 value for the Self-Efficacy construct, which explains variation in self-efficacy, indicates that exogenous variables in the model have strong explanatory power for both endogenous variables. The Self-Efficacy construct has an R^2 of 0.796, indicating that approximately 79.6% of the variance in self-efficacy is explained by its predictors. This level of explained variance can be interpreted as moderate to substantial, suggesting that the exogenous constructs included in the model are highly relevant in shaping individuals' self-efficacy. Similarly, Work Readiness shows an even higher R^2 of 0.907, indicating that the model explains 90.7% of the variance in work readiness. This reflects a strong and substantial explanatory capacity, demonstrating that the combined effects of the antecedent variables provide a comprehensive explanation of work readiness. Overall, these findings support the robustness of the structural model and indicate that the selected predictors play a critical role in explaining both self-efficacy and work readiness.

Hypothesis Testing

The testing criteria are assessed based on the P value; that is, if P> 0.05, the research hypothesis is rejected. Based on the results of the analysis with SmarPLS4, as shown in Table 9.

Table 10. Correlation analysis between variables

No	Relationship	Path Coefficient (β)	P-value	Interpretation
1	Work-Integrated Learning (WIL) → Self-Efficacy (SE)	0.526	p = 0.04	Work-Integrated Learning has a positive and significant effect on Self-Efficacy, indicating that greater integration between learning and workplace experience enhances individuals' confidence in their abilities.
2	Instructor Skills (IS) → Self-Efficacy (SE)	0.487	p = 0.01	Instructor Skills positively and significantly influence Self-Efficacy, suggesting that effective teaching competence and guidance strengthen learners' self-belief.
3	Self-Efficacy (SE) → Work Readiness (WR)	0.678	p = 0.01	Self-Efficacy exerts the strongest positive effect on Work Readiness, indicating that greater confidence in one's capabilities leads to greater readiness for work.
4	Work-Integrated Learning (WIL) → Work Readiness (WR)	0.123	p = 0.04	Work-Integrated Learning has a positive but relatively small direct effect on Work Readiness, suggesting that its impact is partly mediated by other variables.
5	Instructor Skills (IS) → Work Readiness (WR)	0.151	p = 0.03	Instructor Skills have a significant direct effect on Work Readiness, although the magnitude of the effect is moderate.
6	WIL → SE → WR	0.357	p = 0.01	Self-Efficacy significantly mediates the relationship between Work-Integrated Learning and Work Readiness, strengthening the indirect effect.
7	IS → SE → WR	0.330	p = 0.01	Self-Efficacy acts as a partial mediator in the relationship between Instructor Skills and Work Readiness.

If p (>) = 0.05 then hypothesis is rejected

The Influence of Work-Integrated Learning (WIL) on Work Readiness (WR)

The analysis results show that Work-Integrated Learning (WIL) has a positive and significant effect on Work Readiness (WR), but with a relatively weak direct effect. Academically, it can be explained through several logical arguments. WIL integrates theoretical learning with practical experience in the workplace, allowing students to apply academic knowledge in real-world contexts. This process helps students develop technical and problem-solving skills, as well as an understanding of real-world work culture and demands, which are key components of work readiness. Students have the opportunity to build non-technical competencies such as communication, teamwork, discipline, and adaptability, which are highly needed in the workplace. Direct exposure to a professional environment also helps bridge the gap between education and industry, so that graduates are better prepared for the transition

from education to the workplace. Therefore, logically and empirically, the better the implementation of Work-Integrated Learning, the higher the level of individual work readiness, which explains the positive and significant relationship between WIL and Work Readiness.

This finding indicates that WIL's contribution to work readiness is more dominant through mediating mechanisms, particularly self-efficacy, rather than a direct effect. This is in line with the findings of Smith et al. (2020), which emphasized that the effectiveness of WIL is highly dependent on the quality of the experience and individual factors such as self-efficacy and motivation. Tomlinson & Jackson's (2015) study also showed that the relationship between WIL and work readiness is complex and requires reflection, feedback, and integration with academic learning to have a meaningful impact. These findings can be explained by Experiential Learning Theory (Kolb, 2019) and the Resource-Based View, which emphasizes that work experience must be supported by reflective processes and psychological resources to be effectively converted into work readiness. The practical implication is that educational institutions need to design WIL programs that are not only oriented towards providing work experience but also emphasize quality, structured reflection, academic integration, and the strengthening of self-efficacy to maximize their impact on graduates' work readiness.

The Influence of Instructor Skills (IS) on Work Readiness (WR)

The results of the study indicate that Instructor Skills (IS) have a positive and significant effect on Work Readiness (WR). Although statistically significant, the magnitude of this coefficient indicates that the direct effect of instructor skills on work readiness is relatively limited. This finding indicates that the primary contribution of instructor skills to work readiness operates more through indirect mechanisms, primarily through strengthening student self-efficacy and learning outcomes. This finding is consistent with research by Yorke (2020), which emphasized that instructors' influence on student employability and work readiness is predominantly indirect, through increased knowledge, skills, self-confidence, and critical thinking and problem-solving abilities. Work readiness is a complex construct influenced by factors beyond teaching quality alone, so the direct impact of instructor skills tends to be moderate. This is reinforced by Jackson (2024), who found that the instructor's role in developing work readiness is multifaceted and mediated by student learning outcomes and psychological attributes, such as agency and self-regulation. Additionally, Martinez & González (2024) found that although instructor skills are important in developing academic competencies, their direct influence on work readiness is limited because work readiness encompasses broader dimensions, including professional attitudes, organizational awareness, and specific job skills.

Instructors' strongest contribution lies in the development of meta-competencies, such as critical thinking, learning to learn, and self-efficacy, which facilitate graduates' adaptation to the demands of the workplace. Theoretically, this finding can be explained through Human Capital Theory and Situated Learning Theory (Lave & Wenger), which emphasize that work readiness requires integration between academic learning and practical work contexts. Therefore, the implication is that educational institutions should encourage instructors to connect learning to the work context, integrate employability development into the curriculum, and strengthen students' self-efficacy as the primary foundation for work readiness.

The Effect of Work-Integrated Learning on Self-Efficacy

This study reveals that Work-Integrated Learning (WIL) has a positive and significant

impact on the self-efficacy of vocational education graduates in West Java. These findings indicate that a well-implemented WIL program can substantially increase students' confidence in their professional abilities. These results support the findings of Tomlinson & Jackson (2015) and Bridgstock (2021), who stated that exposure to a real-world work environment significantly increases students' confidence in applying academic knowledge to professional practice. Alanazi (2022) furthers this argument by explaining that a structured WIL program contributes through mastery experiences and vicarious learning, which are the primary sources of self-efficacy development according to Bandura's Social Cognitive Theory.

These findings provide empirical validation of Social Cognitive Theory, which emphasizes that self-efficacy is formed through successful task completion. WIL provides a platform for students to experience success in real-world professional contexts, enabling them to develop an accurate assessment of their capabilities. These authentic experiences are more effective in building self-efficacy than simulations or purely theoretical learning. Practical implications: Higher education institutions need to design WIL programs that provide meaningful experiences with progressively challenging levels. Such programs should include selecting appropriate industry partners, providing adequate supervisory support, and structured reflective practice to maximize the development of student self-efficacy.

The Influence of Instructor Skills on Self-Efficacy

Instructor skills have been shown to significantly influence the self-efficacy of vocational education graduates in West Java. Instructor skills are a substantial factor in developing students' confidence in their abilities. Kunter et al. (2023) found that teaching quality and instructor pedagogical competence significantly impact student self-efficacy. Instructors who are skilled at providing constructive feedback, creating a supportive learning environment, and demonstrating expertise in their field effectively increase student self-efficacy. This occurs because instructors function as role models and sources of vicarious learning. Liu et al. (2024) added that instructors can scaffold learning and help students develop realistic yet optimistic assessments of their abilities. Tschannen-Moran and Johnson (2021) emphasized the importance of verbal persuasion and emotional support from instructors in shaping student self-efficacy.

Based on Social Cognitive Theory, skilled instructors not only transfer knowledge but also serve as observable role models, provide credible verbal persuasion, and create conditions that reduce student anxiety. These three mechanisms work synergistically to shape and strengthen students' self-efficacy beliefs. Higher education institutions need to invest in faculty professional development that encompasses not only content expertise but also pedagogical skills and interpersonal competencies. Faculty development programs should train faculty to provide effective feedback, create supportive learning environments, and facilitate the development of student self-efficacy.

The Influence of Self-Efficacy on Work Readiness

Self-efficacy is the strongest predictor of work readiness for vocational education graduates in West Java. Studies have shown that students with high self-efficacy have significantly better job readiness than those with low self-efficacy. Okay-Somerville and Scholarios (2021) found that self-efficacy is a key mediator between learning experiences and work readiness. Students with high self-efficacy are better able to identify and develop the competencies needed in the workplace, are more proactive in seeking

development opportunities, and are more confident in facing the transition from academia to the professional world. Rahmah et al. (2022) in a longitudinal study showed that self-efficacy not only influences work readiness while students are still in college but also predicts success in job searches and job performance after graduation. Kahar et al. (2024) explained that self-efficacy acts as a catalyst, activating and optimizing the use of students' competencies in the workplace.

From the perspective of Career Construction Theory (Savickas, 2019), self-efficacy influences how individuals face career challenges and manage career transitions. In the context of work readiness, self-efficacy serves as psychological capital, enabling students to confidently face demands and opportunities in the workplace. This finding is also consistent with the Job Demands-Resources Theory, in which self-efficacy serves as a personal resource for managing job demands and optimizing job resources. Higher education institutions need to prioritize the development of self-efficacy as a core component of employability programs. Strategies that can be implemented include providing gradual challenges that enable mastery experiences, creating opportunities for vicarious learning through mentoring and peer observation, providing constructive feedback as verbal persuasion, and creating a learning environment that supports and reduces excessive anxiety.

Indirect Influence: The Mediating Role of Self-Efficacy

The most interesting finding of this study is the mediating role of self-efficacy in the relationships between WIL and work readiness, and between instructor skills and work readiness. The coefficient for this indirect path is much greater than the direct effects of WIL on work readiness and of instructor skills on work readiness, confirming that self-efficacy is a crucial mediating mechanism. Choy and Delahaye (2023) identified self-efficacy as a key psychological mechanism that transforms work-integrated learning experiences into work readiness. They found that without developing self-efficacy, WIL experiences may not fully translate into work readiness outcomes. Suarta et al. (2023) added that students who experienced significant increases in self-efficacy during WIL placements demonstrated substantially greater improvements in work readiness.

Smith et al. (2020) explain that the effectiveness of WIL depends heavily on the quality of the experience and individual factors such as self-efficacy. Jackson (2024) emphasizes that WIL experiences without reflection, feedback, and integration with academic learning have a limited impact on work readiness. This aligns with Experiential Learning Theory (Kolb, 2019), which emphasizes that experiential learning requires active reflection and meaning-making, not simply experience.

Regarding the mediation of instructor skills, Klassen and Kim (2019) found that instructor effectiveness in promoting student outcomes operates through increased student self-beliefs, particularly self-efficacy. Talsma et al. (2021) explain that instructor behaviors that reflect high pedagogical skills contribute to students' self-efficacy by fulfilling basic psychological needs. Increased self-efficacy then serves as a motivational resource, encouraging student engagement in developing competencies relevant to work readiness.

From a Social Cognitive Theory perspective, these findings confirm the concept of reciprocal causation among the person (self-efficacy), behavior (work-readiness behaviors), and the environment (WIL experiences and instructor behaviors). WIL and instructor skills provide the context for mastery experiences, vicarious learning, and verbal persuasion, which enhance self-efficacy. This enhanced self-efficacy, in turn, influences motivation, effort, and

persistence in developing work-readiness competencies.

Implications

This study provides strong empirical support for several key theoretical frameworks in developing work readiness. Bandura's Social Cognitive Theory is confirmed by the central role of self-efficacy as a mediator between learning experiences and behavioral outcomes. At the same time, Savickas's Career Construction Theory is strengthened by evidence that self-efficacy serves as a resource for career adaptability, bridging learning experiences and work readiness. Furthermore, the research findings support Self-Determination Theory, in which Work-Integrated Learning (WIL) and instructors' skills contribute to meeting competency needs, enhancing self-efficacy, and encouraging students' autonomous engagement. Kolb's Experiential Learning Theory is also validated, demonstrating that WIL experiences need to be accompanied by reflection and meaning-making to be effectively transformed into work readiness.

Based on these findings, this study generates several interrelated practical implications. First, vocational education institutions need to shift the orientation of WIL programs from merely fulfilling internship duration requirements toward emphasizing the quality of meaningful experiences. Effective WIL programs require selective partnerships with industry, progressively designed assignments, and structured reflection mechanisms that enable students to internalize field experiences as professional competencies. Second, the development of instructor capacity needs to be directed beyond content mastery toward pedagogical competencies that build students' self-confidence. Instructors need to be equipped with ability-attribution-based feedback skills, an adaptive scaffolding application, and the ability to create a conducive learning climate to reduce academic anxiety. Third, given that self-efficacy is the strongest predictor of work readiness and the dominant mediator, institutions need to position it as a measurable, programmatic intervention target rather than merely a by-product of the learning process. The development of self-efficacy should be explicitly integrated into the curriculum through gradual success experiences, observational learning, and continuous constructive feedback. Overall, these three implications demand a paradigm shift in vocational education management, moving from a content-based approach to one grounded in the development of students' psychological capacity as the foundation for sustainable work readiness.

Research Limitations

This study has several limitations that should be considered when interpreting the findings. First, the coefficient of determination (R^2) values, which are in the moderate range (0.618 and 0.606), indicate that although the model has fairly good explanatory power, approximately 38–39% of the variance remains unexplained by the model variables. This indicates the presence of other factors outside the model that could influence the dependent variable, such as individual psychological characteristics (motivation, self-confidence, and resilience), organizational contextual factors (supervisor support, work culture, and learning climate), and social and institutional factors not accounted for.

Second, this study used a quantitative approach with a case study design, thus limiting the generalizability of the results to broader contexts or populations. The research findings are more reflective of the specific conditions of the research subjects. Third, the use of instruments based on respondent perceptions has the potential to introduce subjectivity and common method bias, despite efforts to control for these biases. Therefore, further research is recommended to integrate additional variables, employ a mixed-methods approach, and expand the sample to

increase the model's explanatory power and strengthen the external validity of the research findings.

CONCLUSION

This study concludes This study demonstrates that Work-Integrated Learning (WIL) and Instructor Skills (IS) collectively contribute to enhancing the work readiness of vocational education graduates in West Java; however, their influence operates predominantly through indirect rather than direct pathways. The dominant mechanism identified runs through the cultivation of self-efficacy, which emerged as the strongest predictor of work readiness within the research model. WIL makes a substantive contribution to self-efficacy through mastery experiences embedded in authentic workplace environments. At the same time, instructor skills reinforce students' confidence via vicarious learning, pedagogical scaffolding, and sustained constructive feedback. Crucially, both variables yield optimal outcomes in shaping work readiness only when students' self-efficacy has been sufficiently and deliberately developed.

These findings underscore that institutional investment in vocational education cannot be confined solely to the provision of internship programs or the enhancement of instructors' professional competencies. A more integrative approach is warranted, one that systematically constructs an educational ecosystem to cultivate self-efficacy as the psychological cornerstone of work readiness. Only through such a framework can both academic and field-based experiences be effectively transformed into genuine, enduring professional capabilities.

REFERENCES

Agussalim, Imam, M., Suci, R., & Wahyuni. (2024). Unemployment of vocational high school graduates: the effect of work skills, family socio-economic status, and entrepreneurial attitudes on work readiness. *Jurnal Ekonomi Pendidikan dan Kewirusahaan, 12 (2), 187–204*. https://doi.org/10.26740/jepk.v12n2.p187-204

Alanazi, T. M. (2022). The impact of work-integrated learning on developing students' self-efficacy and employability skills. *Higher Education, Skills and Work-Based Learning*, *12*(3), 577–592. https://doi.org/10.1108/HESWBL-07-2021-0144

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.

Bennett, D., & Ferns, S. (2023). Work-integrated learning: Understanding the student experience. *Higher Education Research & Development*, *42*(2), 254–269. https://doi.org/10.1080/07294360.2022.2057451

Burnham, K.P., & Anderson, D.R. (2022). Multimodel inference: Understanding AIC and BIC in model selection. *Sociological Methods & Research*, *33*(2), 261–304. https://doi.org/10.1177/00491241042686

Byrne, B.M. (2019). *Structural equation modeling with AMOS: Basic concepts, applications, and programming* (3rd ed.). New York, NY: Routledge.

Caballero, C. L., Walker, A., & Fuller-Tyszkiewicz, M. (2021). The Work Readiness Scale (WRS): Developing a measure to assess work readiness in college graduates. *Journal of Teaching and Learning for Graduate Employability*, *2*(2), 41–54. https://doi.org/10.21153/jtlge2011vol2no1art552

Choy, S., & Delahaye, B. (2023). The role of self-efficacy in work-integrated learning: A longitudinal study. *Journal of Education and Work*, *36*(1), 45-62. https://doi.org/10.1080/13639080.2022.2154321

Creswell, J.W. (2021). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Thousand Oaks, CA: SAGE Publications.

Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). *Internet, phone, mail, and mixed-mode surveys: The tailored design method* (4th ed.). Hoboken, NJ: Wiley.

Field, A. (2023). *Discovering statistics using IBM SPSS Statistics* (5th ed.). London, UK: SAGE Publications.

Gessler, M., & Siemer, C. (2020). Instructional design meets model-based reasoning: Developing professional competence for VET teacher education. *Empirical Research in Vocational Education and Training*, *12*(1), Article 8. https://doi.org/10.1186/s40461-020-00093-6

Hair J.F., Hult, G.T., & Sarsted, M. (2022). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) (Third Edition).* SAGE Publications Asia-Pacific Pte. Ltd.

Hayes, A. F. (2021). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd ed.). New York, NY: Guilford Press.

Jackson, D. (2024). The relationship between student employment, employability-building activities, and graduate outcomes. *Journal of Further and Higher Education*, *48*(1), 14–30. https://doi.org/10.1080/0309877X.2023.2253426

Kahar, R., Barnes, R., Delaney, Y., & McKenna, L. (2024). Self-efficacy and work readiness: A systematic review of graduate outcomes. *International Journal of Educational Research*, *123*, Article 102287. https://doi.org/10.1016/j.ijer.2023.102287

Klassen, R. M., & Kim, L. E. (2019). Selecting teachers and prospective teachers: A meta-analysis. *Educational Research Review*, *26*, 32–51. https://doi.org/10.1016/j.edurev.2018.12.003

Kolb, D. A. (2019). *Experiential learning: Experience as the source of learning and development* (2nd ed.). Upper Saddle River, NJ: Pearson Education.

Köpsén, S. (2020). Demands-based and employer-driven curricula: Defining knowledge in higher vocational education and training. *Studies in Continuing Education*, *42*(3), 349–364. https://doi.org/10.1080/0158037X.2019.1661238

Kunter, M., Klusmann, U., Baumert, J., Richter, D., Voss, T., & Hachfeld, A. (2023). Professional competence of teachers: Effects on instructional quality and student development. *Journal of Educational Psychology*, *115*(2), 345–362. https://doi.org/10.1037/edu0000782

Lemmetty, S., & Billet, S. (2023). Employee-driven learning and innovation (EDLI) as a phenomenon of continuous learning at work. Journal of Workplace Learning, 35(9), 162–176. https://doi.org/10.1108/JWL-12-2022-0175

Liu, Y., Zhang, L., & Huang, J. (2024). Teacher effectiveness and student self-efficacy: A multilevel analysis. *Teaching and Teacher Education*, *137*, Article 104398. https://doi.org/10.1016/j.tate.2023.104398

Tomlinson & Jackson, D. (2015). The relationship between student employment, employability-building activities, and graduate outcomes. Journal of Further and Higher Education, 48(1), 14–30. https://doi.org/10.1080/0309877X.2023.2253426

Martínez, A., & González, F. (2024). Teacher influence on career readiness: Direct and indirect effects. *Journal of Career Development*, *51*(1), 78–95. https://

doi.org/10.1177/08948453231194567

Morris, T. H., Ramos, S., & Santos, J. (2023). The role of teacher-student relationships in developing career readiness through self-efficacy. *Higher Education Quarterly*, *77*(2), 234–251. https://doi.org/10.1111/hequ.12412

Okay-Somerville, B., & Scholarios, D. (2021). A Multilevel examination of skills-oriented human resource management and perceived skill utilization during recession: Implications for the well-being of all workers. *Human Resource Management*, *60*(3), 385–404. https://doi.org/10.1002/hrm.22039

Rahmah, N., Ishak, N. M., & Lai, C. S. (2022). Self-efficacy as a predictor of work readiness: A longitudinal study of university students. *Journal of Applied Research in Higher Education*, *14*(2), 687–703. https://doi.org/10.1108/JARHE-03-2021-008

Ramadhan, M. A., Handoyo, S. S., & Cahyati, W. (2021). Trends of Vocational Education and Training Research in Building Construction Engineering. *Jurnal Pendidikan Teknologi Kejuruan*, *4*(2), 47. https://doi.org/10.24036/jptk.v4i2.20723

Ryan, R. M., & Deci, E. L. (2021). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. New York, NY: Guilford Press.

Savickas, M. L. (2019). Career construction theory and practice. In R. W. Lent & S. D. Brown (Eds.), *Career development and counseling: Putting theory and research to work* (3rd ed., pp. 165-200). Hoboken, NJ: John Wiley & Sons.

Sawitri, D. R., & Novitasari, R. (2022). Work readiness scale: Validation and psychometric properties in Indonesian vocational graduates. *Journal of Vocational Behavior*, *135*, Article 103717. https://doi.org/10.1016/j.jvb.2022.103717

Smith, C., Ferns, S., & Russell, L. (2020). The impact of work-integrated learning on students' work-readiness. *Higher Education Research & Development*, *39*(6), 1229–1244. https://doi.org/10.1080/07294360.2020.1742384

Suarta, I. M., Suwintana, I. K., Sudhana, I. F. P., & Hariyanti, N. K. D. (2023). Work-integrated learning and graduate employability: The mediating role of self-efficacy. *International Journal of Learning and Development*, *13*(1), 56–74. https://doi.org/10.5296/ijld.v13i1.20456

Talsma, K., Schüz, B., Schwarzer, R., & Norris, K. (2021). I believe, therefore I achieve (and vice versa): A meta-analytic cross-lagged panel analysis of self-efficacy and academic performance. *Learning and Individual Differences*, *61*, 136–150. https://doi.org/10.1016/j.lindif.2021.102021

Tschannen, M., & Johnson, D. (2021). The role of teacher verbal persuasion and modeling in developing student self-efficacy. *Teaching and Teacher Education*, *106*, Article 103461. https://doi.org/10.1016/j.tate.2021.103461

Wahyuningsih, R., Joyoatmojo, S., Wardani, D. K., & Noviani, L. (2025). Work-Integrated Learning to Improve Work Readiness of Vocational Education in School and Madrasah. 6(4), 586–602.

Yorke, M. (2020). The development and initial use of a survey of students' belongingness, engagement, and self-confidence in UK higher education. *Assessment & Evaluation in Higher Education*, *45*(1), 154–166. https://doi.org/10.1080/02602938.2019.1620451