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The Effectiveness Of A Learning Experience Model For Improving Work Readiness Among Vocational High School Students

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Abstract

This study examined the effectiveness of the Learning Experience Model in improving the work readiness of vocational high school students through an initial job preparation module. A quasi-experimental approach using a nonequivalent control-group pre-test–post-test design was employed across three vocational high schools in Magelang, Indonesia. The study analysed data from 300 students, comprising 160 students in the experimental group and 140 in the control group. The intervention covered curriculum vitae preparation, job interview simulations, psychometric tests, and employment contracts, supported by structured discussions, simulations, and reflection. Data were analysed using paired-samples and independent-samples t-tests. The results showed that the experimental group's mean score decreased from 5.74 at pre-test to 5.26 at post-test, representing a statistically significant decline ($p = .004$). In contrast, the control group's mean score increased from 4.45 to 5.34, also showing a statistically significant change ($p < .001$). However, the post-test comparison revealed no statistically significant difference between the experimental and control groups ($p = .714$). These findings indicate that the Learning Experience Model did not demonstrate superior effectiveness in improving students' work readiness under the conditions of this study. Limited implementation time, differences in students' engagement, and the need for clearer operationalisation of the learning model may have influenced the outcomes. Further research should employ stronger experimental designs, allow sufficient intervention time, and incorporate more comprehensive measures of work readiness.

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Keywords: Experiential learning, learning experience model, vocational high school students, work readiness, job preparation module

INTRODUCTION

Vocational education has a strategic role in bridging the gap between education and the demands of the labour market. However, the transition from school to employment requires more than the acquisition of technical competencies relevant to a particular field of study. Students must also understand the process of entering employment, demonstrate their competencies to prospective employers, and recognise their rights and responsibilities within an employment relationship. Work readiness should therefore be understood as a multidimensional construct encompassing knowledge, skills, motivation, self-efficacy, interpersonal abilities, and an understanding of the working environment. A systematic review by (Suroto et al., 2024) indicates that vocational students' work readiness is shaped by the interaction of individual factors, learning processes, and contextual conditions. This suggests that school-based interventions should extend beyond the development of technical competencies alone.

These challenges are particularly relevant to vocational secondary education in Indonesia. Through a systematic review of the work readiness of vocational high school (VHS) graduates in the Industry 4.0 era, (Nurjanah et al., 2022) emphasised the importance of preparing students to respond to changing competency requirements and evolving workplace environments. Similarly, Supriyanto et al. (2023) identified internship experience and work motivation as relevant factors in explaining vocational students' work readiness. These findings suggest that learning experiences in school, together with opportunities to engage with workplace settings, need to be deliberately designed to help students understand the demands of the transition to employment rather than merely fulfil curricular requirements. One area that warrants further development is students' knowledge of initial work preparation, including curriculum vitae (CV) preparation, job interviews, psychometric tests, and employment agreements or contracts. These four areas represent the intersection between knowledge and practical application. Although students may possess technical skills in their chosen fields, they may not necessarily be able to present their experience and competencies effectively in a CV, respond appropriately to interview questions, understand the purpose of selection assessments, or identify essential provisions in an employment contract (Lionanda & Kurniawati, 2024). Initial work preparation should therefore

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be positioned as a complementary component of vocational education, helping students translate their existing competencies into practical readiness for recruitment processes.

Recent literature also identifies practical experience as an important component of work readiness. (Yuliyanto et al., 2024) found that workplace learning and self-efficacy contribute to the work readiness of vocational students, with self-efficacy playing an important role in the relationship between practical experience and readiness for employment. A systematic review by (Shen et al., 2021) on the impact of internship experience on vocational students' employability similarly indicates that workplace experience can help students connect learning with occupational demands. Nevertheless, industrial placements do not automatically prepare students for every stage of recruitment or equip them with a comprehensive understanding of employment-related administrative procedures. Explicitly structured work-preparation materials are therefore needed to complement practical workplace experience.

The learning experience model offers a potential approach to delivering such material through activities that involve learners directly. In this study, the model was implemented through simulations of CV preparation, job interviews, psychometric tests, and employment contract signing, accompanied by discussion and reflection. From a pedagogical perspective, these activities seek to move learning beyond the passive reception of information towards active engagement with situations that resemble real-world employment requirements. Research on demand-driven vocational education and training also positions experiential learning as a means of strengthening the relevance of learning to labour market needs, while indicating that implementation outcomes depend on instructional design, context, and links with industry (Zhao et al., 2024). Nevertheless, learning through experience cannot automatically be assumed to produce better outcomes than conventional instructional approaches. Its effectiveness depends on the quality of activity design, the time available, the quality of facilitation, opportunities for practice, feedback, and reflection that enables learners to connect experience with conceptual understanding. (Nguyen et al., 2023) likewise demonstrate that work readiness is influenced by multiple interrelated factors rather than by a single instructional approach. Empirical evaluation of specific interventions is therefore necessary to determine whether a particular learning approach produces better outcomes within a given context.

Previous studies have examined work readiness in relation to workplace learning, motivation, self-efficacy, and internship experience (Sukmawan et al., 2025). However, this literature has primarily investigated the relationships between these factors and work readiness

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or employability. Comparative evidence on the delivery of initial work-preparation modules through a learning experience model, as opposed to the delivery of the same material without this specific model, remains limited. In particular, it remains unclear whether simulation and reflection activities addressing CV preparation, job interviews, psychometric tests, and employment contracts provide measurable knowledge gains compared with an alternative instructional approach among vocational students in a local Indonesian context.

This research gap is important because learning activities that appear engaging do not necessarily lead to improved knowledge scores, particularly when implementation time is limited or learners do not regard the material as an immediate priority. This study contributes empirical evidence by evaluating a learning experience model for an initial work-preparation module using experimental and control groups, with pre- and post-instruction assessments conducted across three vocational high schools in the Magelang area. The novelty of this study does not lie in assuming that the model is inherently superior, but rather in its comparative evaluation of a practical work-preparation intervention and its critical examination of the possibility that the intervention may not demonstrate an advantage under real implementation conditions. Based on this rationale, the study aims to: (1) describe the implementation of an initial work-preparation module using the learning experience model; (2) analyse changes in work-preparation knowledge scores before and after instruction in both the experimental and control groups; and (3) examine differences in post-test results between the two groups. The findings are expected to contribute to research on vocational and non-formal education by informing the design of work-readiness training and providing a basis for schools to improve instructional content, programme duration, and facilitation strategies for students preparing to enter employment.

LITERATURE REVIEW

Work Readiness in Vocational Education

Work readiness has become an important concern in vocational education because the transition from school to employment requires more than the acquisition of occupation-specific competencies. Students must also develop the knowledge, attitudes, and transferable skills necessary to respond to recruitment procedures, workplace expectations, and professional responsibilities. (S. Li & Yang, 2023), in their systematic literature review, categorised the determinants of vocational students' work readiness into three interconnected dimensions:

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individual factors, learning processes, and contextual conditions. Individual factors include motivation, self-efficacy, self-regulation, interpersonal competence, and soft skills, whereas learning processes encompass practical activities such as internships and teaching factory programmes. Contextual conditions, including socioeconomic circumstances, regional disparities, and social support, further influence students' opportunities to prepare for employment.

This multidimensional perspective challenges the assumption that vocational qualifications or technical competence alone are sufficient indicators of readiness for employment. (Jalinus et al., 2024) similarly emphasised the need for vocational graduates to respond to changing competency requirements in the Industry 4.0 era. From this perspective, work readiness should be understood not merely as the possession of technical skills but as the capacity to apply knowledge, demonstrate competencies, and navigate the transition into employment. Consequently, educational interventions should address both occupational competence and the practical demands associated with entering the labour market. A further issue concerns the distinction between work readiness and employability (Sun et al., 2024). Although the concepts are closely related, they are not entirely interchangeable. Work readiness primarily concerns an individual's preparedness to undertake work and respond to workplace expectations, whereas employability generally refers to the broader capabilities and resources that support access to, retention in, and progression through employment. The distinction is relevant to the present study because the intervention focuses specifically on students' knowledge of initial work-preparation procedures rather than on employment outcomes or long-term career development. Therefore, the effectiveness of the intervention should be evaluated in relation to the knowledge measured by the assessment instrument, without assuming that improved test scores necessarily translate into successful employment.

Practical Experience, Self-Efficacy, and Work Readiness

Practical experience has received considerable attention in research on vocational education because it provides opportunities for students to connect theoretical knowledge with workplace practices. (Hemmerich et al., 2023) examined the relationship between internship experience, work motivation, and work readiness among vocational students. Their research highlights the relevance of combining workplace exposure with motivational factors when preparing students for employment. Similarly, (Allam et al., 2024) investigated fieldwork practice and self-efficacy as factors associated with vocational students' work readiness, drawing

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attention to the role of students' confidence in their ability to perform tasks and respond to workplace demands.

These findings are consistent with the broader synthesis by (Farranajla & Erowati, 2024), which identifies practical learning experiences as an important mechanism for connecting school-based education with occupational requirements. However, the contribution of practical experience should not be interpreted as automatic or uniform. The learning value of an internship depends on the nature of the tasks performed, the quality of supervision, opportunities to apply knowledge, and the extent to which students receive feedback and reflect on their experiences. Merely participating in a workplace placement does not necessarily ensure that students acquire all the knowledge required to enter employment. A related discussion concerns the role of self-efficacy. Students may possess relevant technical competencies but remain uncertain about their ability to communicate these competencies during recruitment or to make informed decisions about employment conditions (Walsh, 2016). Self-efficacy may influence how students approach unfamiliar tasks, respond to challenges, and persist when facing difficulties. Nevertheless, confidence alone does not guarantee procedural knowledge or competent performance. Students may feel confident about attending an interview while lacking the ability to structure effective responses or evaluate the terms of an employment contract. This distinction suggests that work-readiness interventions should combine opportunities to build confidence with explicit instruction and practice in the procedures students are expected to undertake.

Recent synthesis by (Wardhani & Purnomo, 2022) reinforces the interconnected roles of internship experience, soft skills, and self-efficacy in vocational readiness. Their review of 25 peer-reviewed studies published between 2019 and 2025 suggests that these dimensions should be addressed through integrated educational approaches rather than isolated interventions. However, the emphasis on internships and broader employability-related competencies leaves room for further investigation into short, structured learning interventions that target specific procedures involved in the transition from school to employment.

Learning Experience as an Instructional Approach

Learning experience can be understood as the activities, interactions, and situations through which learners engage with educational content and develop knowledge. In vocational education, this perspective places importance on the relationship between what students learn and how they encounter, interpret, and apply that knowledge (Phusavat et al., 2025). Activities

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such as demonstrations, simulations, collaborative tasks, and guided reflection can provide opportunities for learners to connect abstract information with practical situations. The literature on experiential learning provides a related theoretical foundation. Experiential learning emphasises the educational value of experience when it is accompanied by reflection, the development of conceptual understanding, and subsequent application. However, learning experience and experiential learning should not be treated as identical concepts. Learning experience is a broader term that encompasses different forms of educational engagement, whereas experiential learning refers more specifically to an approach in which experience and reflection form an organised learning process (Rogozin, 2022). This distinction is important when evaluating an intervention because the presence of an activity alone does not establish that the intended experiential learning process has occurred.

Research on demand-driven vocational education and training also highlights the importance of connecting instructional design with the competencies required by employers. The review published in Asian Education and Development Studies in 2024 identifies experiential learning as one approach for strengthening the relevance of vocational education to workplace requirements, while recognising the importance of implementation design and industry connections (Nazir et al., 2024). From this perspective, the quality of a learning intervention depends not simply on whether students participate in practical activities but on whether those activities reflect meaningful workplace tasks and provide opportunities for learners to understand and apply relevant principles.

Nevertheless, a critical issue remains concerning the relationship between active participation and measurable learning outcomes. Activities that appear engaging may not necessarily produce greater knowledge gains than structured explanations or conventional instruction. The effectiveness of a learning experience model may depend on the duration of the intervention, the clarity of learning objectives, the facilitator's ability to guide reflection, and the opportunities provided for practice and feedback. Consequently, the relative effectiveness of experiential and conventional approaches should be examined empirically rather than assumed in advance.

Initial Work Preparation as a Complementary Component of Vocational Education

Initial work preparation refers to the knowledge and practical capabilities required to navigate the early stages of entering employment. For vocational students, this preparation may

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include developing a curriculum vitae, participating in job interviews, completing psychometric assessments, and understanding employment agreements (Guo et al., 2025). These activities represent practical requirements that complement the technical competencies developed through vocational curricula and workplace placements.

Each component involves different learning demands. CV preparation requires students to identify relevant qualifications, experiences, and competencies and present them clearly. Job interviews require communication skills, the ability to respond to questions, and an understanding of professional expectations. Psychometric assessments require familiarity with assessment formats and the ability to interpret instructions, while employment contracts require an understanding of essential employment terms and conditions. Although these activities are related to work readiness, they cannot be assumed to improve equally through a single instructional strategy (Meng, 2021). The literature on practical experience and work readiness provides a rationale for integrating initial work preparation into vocational learning. However, practical workplace experience and recruitment preparation serve different purposes. Workplace placements expose students to occupational practices, whereas structured preparation modules can address specific procedural knowledge that may not be consistently encountered during internships. This distinction is particularly important for students who have developed technical competence but have had limited opportunities to practise recruitment-related tasks.

A structured module can provide a consistent foundation by presenting relevant information, demonstrating appropriate procedures, and allowing students to practise specific tasks. When combined with a learning experience model, the module can incorporate simulations and guided reflection (Ma & Ding, 2022). For example, students can prepare a CV, participate in a simulated interview, complete practice assessment questions, and examine a sample employment agreement. Such activities provide opportunities to apply knowledge in a controlled learning environment before encountering similar situations during actual recruitment. However, the educational value of these activities depends on their alignment with learning objectives and assessment methods. If the objective is to improve procedural knowledge, assessments should measure students' understanding of the relevant procedures. If the objective is to improve practical performance, students should also be evaluated on the quality of their CVs, interview responses, assessment performance, and interpretation of employment terms. This distinction is important because a knowledge test captures only part of the broader construct of work readiness.

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Methodological Debates and the Effectiveness of Learning Interventions

Research on vocational work readiness employs a variety of methodological approaches, including systematic literature reviews, correlational studies, structural equation modelling, and intervention-based research. Systematic reviews, such as (Hopkins et al., 2019), synthesise evidence across studies to identify recurring determinants of work readiness. Studies examining internship experience, motivation, and self-efficacy investigate relationships between individual or educational factors and readiness outcomes (Hall et al., 2024). These approaches provide valuable evidence regarding the factors associated with work readiness, but they do not necessarily establish whether a particular instructional intervention produces better outcomes than an alternative approach.

This distinction represents an important methodological issue. Evidence that practical experience is associated with work readiness does not, by itself, demonstrate that a short learning experience intervention will improve students' knowledge more effectively than conventional instruction (Shilfani et al., 2022). Intervention studies are needed to examine this question directly, particularly when the instructional content, duration, and learning objectives are clearly specified. Quasi-experimental designs offer a practical means of comparing educational interventions when random allocation is not feasible. A nonequivalent control-group pretest–posttest design enables researchers to examine changes within groups and compare outcomes between groups. Nevertheless, the absence of random assignment means that pre-existing differences between groups may influence the findings. Differences in baseline knowledge, student motivation, school context, and exposure to previous learning experiences may affect the interpretation of observed outcomes.

The selection of outcome measures also warrants critical consideration. A statistically significant difference between pretest and posttest scores does not necessarily indicate that learning has improved; the direction of change must also be examined. Furthermore, statistical significance within one group does not establish that an intervention is more effective than another. Comparative effectiveness requires direct examination of the differences between groups, preferably with appropriate control for baseline scores and reporting of effect sizes and confidence intervals. These methodological considerations are directly relevant to the present study. The learning experience model is evaluated not on the assumption that active learning must be superior, but through comparison with a group receiving the work-preparation material without the specific model. This approach allows the analysis to consider whether the

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intervention demonstrates a measurable advantage under the conditions in which it was implemented.

Research Position and Conceptual Synthesis

The literature reviewed above indicates three major points. First, work readiness is a multidimensional construct shaped by individual characteristics, educational experiences, and contextual conditions (Huang et al., 2025). Secondly, practical experience, motivation, self-efficacy, and transferable skills are relevant to vocational students' preparation for employment. Thirdly, although experiential and practice-oriented learning approaches offer opportunities to connect educational content with workplace requirements, their effectiveness depends on instructional design, implementation quality, and the appropriateness of outcome measures. Despite these developments, a specific empirical issue remains insufficiently addressed: whether delivering an initial work-preparation module through a learning experience model produces greater improvements in students' knowledge than delivering the material without that specific model. This question differs from examining the general relationship between internship experience and work readiness because it focuses on a defined instructional intervention, a specific set of recruitment-related competencies, and a direct comparison between two instructional conditions ("Demand-Driven Approach of Vocational Education and Training (VET) and Experiential Learning: A Thematic Analysis through Systematic Literature Review (SLR)," 2024).

The present study addresses this issue by examining the implementation and outcomes of an initial work-preparation module among vocational high school students in Magelang, Indonesia. The intervention focuses on CV preparation, job interviews, psychometric tests, and employment contracts, with simulations and reflection incorporated into the learning experience model. Its effectiveness is assessed by comparing pretest and posttest scores within the experimental and control groups and examining the difference in posttest outcomes between them. The study's contribution lies in providing context-specific comparative evidence on the effectiveness of this instructional approach. Rather than presuming that the learning experience model is inherently superior, the study examines whether its implementation produces measurable improvements in knowledge under actual school-based conditions. This position enables the findings to contribute to a more critical understanding of work-readiness education by identifying both the potential and the limitations of structured experiential interventions.

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RESEARCH METHODS

Research Design

To depict This study employed a quantitative approach using a quasi-experimental pretest–post-test nonequivalent control group design. This design was selected because random assignment of participants was not feasible within the participating schools. A quasi-experimental design allows researchers to examine the outcomes of an intervention under real-world conditions while acknowledging the potential limitations associated with non-random group allocation (Libouban et al., 2023).

The study compared two groups of vocational high school students. The experimental group received an early work preparation module delivered through the learning experience model, whereas the control group received an explanation of the same module without the structured learning experience approach. Both groups completed a pre-test before the learning activities and a post-test afterwards.

Table 1. The design can be represented as follows:

Group	Pre-test	Intervention	Post-test
Experimental	O_1	X	O_2
Control	O_3	C	O_4

Note: O_1 and O_3 represent the pre-test measurements; O_2 and O_4 represent the post-test measurements; X represents delivery of the module through the learning experience model; and C represents delivery of the module without the structured learning experience approach. The design enabled two types of comparison: changes in scores within each group and differences in post-test scores between groups. The latter was particularly important for examining whether the learning experience model was associated with better outcomes than the alternative instructional approach. Given the non-random allocation of participants, however, the findings should be interpreted with due consideration of possible baseline differences and other confounding factors.

Research Setting and Participants

The study was conducted at three vocational high schools in Magelang, Indonesia: SMK Negeri 1 Windusari, SMK Negeri 3 Magelang and SMK Muhammadiyah Salaman. Data collection took place between November and December 2023.

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The target population comprised vocational high school students in Magelang. Participants were selected using a non-probability sampling approach, as participation depended on permission from the schools, the availability of students and institutional scheduling constraints. These conditions limited the researchers' ability to determine the number of participants from each school and to allocate students randomly to the study groups. Initially, 304 students participated in the study. Following the examination of data completeness, 300 participants were retained for the final analysis. Of these, 160 students were included in the experimental group and 140 in the control group.

The final sample comprised students from the three participating schools, with 56 male and 104 female students in the experimental group, and 69 male and 71 female students in the control group. The sampling approach and school-based recruitment process should be considered when assessing the generalisability of the findings to other vocational education settings.

Research Variables and Conceptual Framework

The study examined the relationship between the instructional approach used to deliver the early work preparation module and students' knowledge of work readiness. Three principal variables were identified (Miskolczi & Rakovics, 2018). First, work readiness served as the dependent variable. Operationally, it was measured through students' scores on a multiple-choice test assessing their knowledge of basic employment requirements and preparation procedures.

Second, the learning experience model served as the independent variable. It represented the instructional approach used to deliver the module to the experimental group, incorporating learning activities intended to encourage students' active engagement with the material. Third, the early work preparation module served as the instructional material used in both groups. The module covered CV preparation, job application letters, psychological aptitude tests, job interviews and employment contracts. The conceptual framework proposed that delivering the module through structured learning experiences could facilitate students' engagement with employment-related information and improve their understanding of work preparation. This proposition was examined through pre-test and post-test comparisons within each group and a comparison of post-test scores between the experimental and control groups.

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Importantly, the conceptual framework represents the rationale for the intervention rather than evidence of its effectiveness. Effectiveness was assessed through the empirical results of the statistical analyses.

Research Instrument

Data were collected using a researcher-administered multiple-choice test developed in accordance with the content of the early work preparation module. The instrument was designed to assess students' knowledge of the employment preparation topics addressed in the intervention. The same questions were administered during the pre-test and post-test to both groups. Before the main study, a preliminary assessment was conducted to evaluate the instrument's item validity and internal consistency. The preliminary study involved 65 students, of whom 49 provided complete data for analysis. Initially, 40 items were prepared to provide a sufficient pool of questions for item evaluation.

Item validity was examined using item–total correlation. Items with a correlation coefficient of at least 0.20 were considered eligible for retention under the criteria adopted in the original study. The analysis identified 21 items meeting this threshold in the pre-test and 21 in the post-test. However, only 12 items consistently met the criterion in both assessments, and these were retained for the final instrument. Internal consistency was assessed using Cronbach's alpha. The coefficient was 0.637 for the pre-test and 0.704 for the post-test. These values indicate that the instrument demonstrated moderate internal consistency under the interpretive criteria used in the original study. Nevertheless, the coefficients should be acknowledged when considering the precision and reliability of the resulting scores.

The validity and reliability procedures provided an empirical basis for selecting the test items. However, item–total correlations and Cronbach's alpha alone do not establish comprehensive construct validity. The instrument should therefore be understood primarily as a measure of students' knowledge of initial employment preparation rather than a comprehensive assessment of every dimension of work readiness.

Intervention and Data Collection Procedures

Data collection was conducted face to face at the participating schools after permission had been obtained from the relevant school authorities. The procedure comprised three stages: baseline assessment, instructional intervention and post-intervention assessment.

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First, baseline assessment. Students in both groups completed the pre-test before receiving the learning activities. The assessment established their initial level of knowledge concerning basic employment preparation. Second, instructional intervention. The experimental group received the early work preparation module through the learning experience model. The instructional activities incorporated discussion, simulation and reflection to encourage active engagement with the material. The control group received an explanation of the same module without the structured learning experience approach.

Third, post-intervention assessment. Following the learning activities, students in both groups completed the post-test using the same questions as those administered in the pre-test. The resulting scores were used to examine changes in students' knowledge and differences between the two groups. The data collection took place across the three schools during November and December 2023. The implementation was arranged around school schedules and the availability of participants. The intervention period was constrained by the time allocated by the participating schools, a factor that should be considered when interpreting the results.

Data Analysis

The data were analysed quantitatively using IBM Statistical Package for the Social Sciences (SPSS), version 26. The analysis was conducted in several stages. First, descriptive statistics were calculated to summarise the pre-test and post-test scores of the experimental and control groups. These statistics provided an overview of students' initial knowledge and their scores following the instructional activities. Second, the distributional characteristics of the data were examined using the Kolmogorov–Smirnov test and visual inspection of histograms and Q–Q plots. Homogeneity of variance was assessed using Levene's test to inform the selection and interpretation of the inferential analyses.

Third, paired-samples t-tests were used to examine differences between pre-test and post-test scores within each group. These analyses assessed whether students' scores changed significantly over the study period. An independent-samples t-test was then used to compare the post-test scores of the experimental and control groups. Statistical significance was evaluated at the 0.05 level. The analysis distinguished between within-group changes and between-group differences because a statistically significant change within the experimental group, by itself, would not demonstrate that the learning experience model was more effective than the control condition.

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Finally, normalised gain (N-gain) was calculated to describe score changes relative to the maximum possible improvement. This measure was treated as supplementary descriptive evidence rather than a substitute for the between-group comparison.

Data Quality and Methodological Rigour

Given the quantitative design, data quality was addressed through instrument evaluation, data completeness checks and the examination of statistical assumptions. The preliminary instrument assessment involved item–total correlations and Cronbach's alpha, while the main dataset was screened to exclude incomplete records before the final analysis. The use of a pre-test and post-test in both groups provided a basis for examining changes over time and comparing outcomes across the two instructional conditions. Nevertheless, methodological rigour also requires consideration of the limitations associated with the non-random allocation of participants, potential differences between groups at baseline and the duration of the intervention. These issues are especially relevant when interpreting causal claims in quasi-experimental studies (Lionanda & Kurniawati, 2024).

The findings should therefore be interpreted in relation to the participating schools, the characteristics of the sample, the scope of the instrument and the specific implementation of the learning experience model. The study provides evidence about students' measured knowledge of initial employment preparation; it does not, by itself, establish changes in their actual employment outcomes or all dimensions of work readiness.

RESULT

Implementation of the Learning Experience Model

The intervention was implemented in three vocational high schools in Magelang, Indonesia: SMK Negeri 1 Windusari, SMK Negeri 3 Magelang and SMK Muhammadiyah Salaman. The learning programme focused on essential knowledge and procedures associated with initial employment preparation, including curriculum vitae (CV) preparation, job interviews, psychological aptitude tests and employment contracts. The experimental group received the early work preparation module through structured learning activities. The sessions began with an introduction and ice-breaking activities, followed by a pre-test. The instructional activities then involved simulations, explanations, discussions and reflection. For the employment contract topic, for example, students participated in a simulation designed to encourage consideration of

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the potential consequences of employment-related decisions. This was followed by an open discussion about contractual risks, the importance of reading employment agreements carefully and the considerations involved in making decisions before signing a contract.

The control group received the same module without the structured learning experience approach. Both groups completed a pre-test before instruction and a post-test afterwards, using the same assessment items. This arrangement allowed the study to examine changes in students' scores within each group and to compare the post-test outcomes between groups. The thesis indicates that the activities were implemented as planned, although the available instructional time was limited by school schedules and permissions. It also records that some students did not regard initial employment preparation as an immediate priority. These observations provide contextual information about the implementation but do not, by themselves, establish the causes of the quantitative results.

Participant Data and Completeness of the Analysis

A total of 304 students initially participated in the study. After incomplete records were excluded, 300 students were included in the final analysis: 160 in the experimental group and 140 in the control group. The experimental group comprised 56 male and 104 female students, whereas the control group comprised 69 male and 71 female students.

Table 2. Participant Characteristics by Study Group

Characteristic	Experimental group	Control group
Participants included in analysis	160	140
Male students	56 (35.0%)	69 (49.3%)
Female students	104 (65.0%)	71 (50.7%)
Total	160 (100%)	140 (100%)

Source: Participant data reported in the thesis.

The sample sizes were adequate for the planned group comparisons in terms of the number of observations, but the groups were not equivalent in size or gender composition. In particular, the proportion of female students was higher in the experimental group than in the control group. Because participants were not randomly assigned, the groups may also have differed in other characteristics not reported in the available results. These differences are relevant when interpreting the comparison between groups. The findings describe the outcomes

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observed in the participating students and should not be taken as definitive evidence that any observed change was caused exclusively by the instructional approach.

Descriptive Statistics for the Experimental Group

The experimental group consisted of 160 students with complete pre-test and post-test data. The mean pre-test score was 5.7375, with a standard deviation of 1.69901. Following the learning experience intervention, the mean post-test score was 5.2625, with a standard deviation of 1.92791.

Table 3. Pre-test and Post-test Scores in the Experimental Group

Statistic	Pre-test	Post-test
N	160	160
Mean	5.7375	5.2625
Standard deviation	1.69901	1.92791
Minimum	2.00	1.00
Maximum	10.00	10.00
Mean change (post-test − pre-test)	—	−0.4750

Source: Thesis, Table 4.

The mean score decreased by 0.475 points, from 5.7375 before the intervention to 5.2625 afterwards. The post-test standard deviation was also higher than the pre-test standard deviation, increasing from 1.69901 to 1.92791. This indicates that the observed post-test scores were more dispersed around their mean, although the descriptive statistics alone do not explain why this occurred. The paired-samples t-test showed a statistically significant difference between the two measurements, \(t(159)=2.949,\ p=.004\). The thesis calculated the mean difference as pre-test minus post-test, producing a positive value of 0.475. When expressed in the more intuitive direction of post-test minus pre-test, the change was −0.475.

The distinction between statistical significance and improvement is important here. The significant result indicates that the mean difference was unlikely to be zero under the assumptions of the test; it does not indicate that the intervention improved students' scores. In this case, the direction of the difference indicates a decrease in measured knowledge following the intervention.

The thesis also reports an N-gain of −0.11 for the experimental group. This negative value is consistent with the direction of the observed mean change and indicates that the expected

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improvement was not observed. Taken together, the descriptive and inferential results do not support the claim that the experimental group improved its measured knowledge after receiving the module through the learning experience model.

Descriptive Statistics for the Control Group

The control group comprised 140 students with complete pre-test and post-test data. Its mean pre-test score was 4.4500, with a standard deviation of 1.90541. The mean post-test score increased to 5.3429, with a standard deviation of 1.85740.

Table 4. Pre-test and Post-test Scores in the Control Group

Statistic	Pre-test	Post-test
N	140	140
Mean	4.4500	5.3429
Standard deviation	1.90541	1.85740
Minimum	0.00	0.00
Maximum	10.00	10.00
Mean change (post-test − pre-test)	—	+0.8929

Source: Thesis, Table 5.

The mean score increased by approximately 0.893 points between the two assessments. Unlike the experimental group, the control group therefore demonstrated a positive descriptive change. Its standard deviation decreased slightly from 1.90541 to 1.85740, suggesting that the dispersion of scores was marginally lower at post-test. The paired-samples t-test identified a statistically significant difference between the pre-test and post-test scores, \(t(139)=-5.799,\ p<.001\). The negative t-statistic reflects the subtraction order used in the thesis, namely pre-test minus post-test. Because the post-test mean was higher, the direction of the change represents an increase rather than a decrease.

The reported N-gain was 0.16, which the thesis classified as low. Thus, the control group demonstrated a statistically significant increase in measured knowledge, although the normalised gain was limited. The control-group result is particularly important for interpreting the overall findings. It shows that students' scores increased even without the structured learning experience model. However, the within-group result alone cannot determine what caused that

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increase. It could reflect learning from the module explanation or other influences during the study period. A direct comparison between groups is therefore necessary to assess whether the learning experience model offered an additional advantage.

Assumption Checks for the Statistical Analyses

The thesis examined the distribution of the scores and the homogeneity of variance before conducting the inferential analyses.

Normality

The Kolmogorov–Smirnov tests indicated statistically significant departures from normality for the relevant score distributions ($p<.05$). The thesis also examined histograms, Q–Q plots, skewness and kurtosis. Based on these additional checks, the author judged the distributions to be sufficiently close to normal for the planned parametric analyses. This conclusion should be interpreted carefully. A significant Kolmogorov–Smirnov test indicates evidence against an exactly normal distribution; visual inspection and skewness or kurtosis can provide complementary information, but do not erase that result. For paired-samples t-tests, the distribution of the within-person difference scores is particularly relevant. For the independent-samples comparison, the distribution within each group and the robustness of the test are important. The thesis results presented here do not provide enough information to independently verify all these conditions.

Homogeneity of Variance

The thesis reported the following Levene's test results:

Table 5. Homogeneity-of-Variance Tests Reported in the Thesis

Dataset	Levene statistic	df1	df2	p-value
Experimental-group scores	2.671	1	318	.103
Control-group scores	0.874	1	278	.351
Post-test comparison between groups	0.794	1	298	.373

Source: Thesis, Tables 6–8 and the independent-samples test output.

All three reported p-values exceeded .05, so the tests did not detect statistically significant differences in variance. For the independent-samples t-test, the result supports the use of the

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equal-variances-assumed row reported in the thesis. Nevertheless, the table labels for the within-group homogeneity tests should be checked against the original SPSS output before publication. The reported degrees of freedom suggest that the tests may have been performed on pooled pre-test and post-test scores, rather than on the paired difference scores that are central to the paired-samples t-test. This does not change the reported test statistics, but the description of the assumption checks should accurately reflect what was tested.

Comparison of Post-test Scores Between Groups

The principal analysis of the intervention's comparative effectiveness was the independent-samples t-test comparing the post-test scores of the experimental and control groups.

Table 6. Independent-Samples t-test for Post-test Scores

Statistic	Result
Experimental group, N	160
Experimental group, mean	5.2625
Experimental group, SD	1.92791
Control group, N	140
Control group, mean	5.3429
Control group, SD	1.85740
Levene's test, F	0.794
Levene's test, p	.373
t	0.366
Degrees of freedom	298
Two-tailed p-value	.714
Mean difference (control − experimental)	0.08036
Standard error of the difference	0.21934
95% confidence interval	[−0.35130, 0.51202]

Source: Thesis, Table 8 and the corresponding SPSS output.

The control group obtained a mean post-test score of 5.3429, compared with 5.2625 in the experimental group. The observed difference was 0.08036 points in favour of the control group. The independent-samples t-test showed that this difference was not statistically significant, \(t(298)=0.366,\ p=.714\).

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The 95% confidence interval ranged from −0.35130 to 0.51202 and included zero. The data therefore did not establish a statistically significant difference in post-test scores between the two instructional conditions. Although the control group's mean was slightly higher, the difference was small relative to the observed variability in scores.

The result should not be interpreted as proof that the two approaches are equivalent. A non-significant test indicates that the study did not establish a statistically significant difference; demonstrating equivalence would require an appropriately designed equivalence analysis and a predefined margin of practical equivalence. A further consideration is that this comparison used post-test scores without adjusting for baseline scores. The experimental group had a higher mean at pre-test than the control group, whereas its mean at post-test was slightly lower. Because the groups were not randomly assigned, an analysis adjusting for pre-test scores—such as ANCOVA, if its assumptions are met—could provide a more informative estimate of the difference between instructional approaches.

Comparative Pattern of Score Changes

The descriptive results show contrasting patterns across the two groups.

Table 7. Summary of Pre-test and Post-test Changes

Measure	Experimental group	Control group
Pre-test mean	5.7375	4.4500
Post-test mean	5.2625	5.3429
Change in mean (post-test − pre-test)	−0.4750	+0.8929
Paired-samples t-test	\(t(159)=2.949\)	\(t(139)=-5.799\)
p-value	.004	< .001

The table highlights three differences in the observed score patterns.

First, the experimental group began with a higher mean score than the control group. The difference in baseline means was 1.2875 points. This indicates that the groups did not begin at the same observed level of knowledge, an important consideration given the nonequivalent-group design. Second, the experimental group's mean declined by 0.475 points, while the control group's mean increased by approximately 0.893 points. The direction of the changes therefore did not favour the experimental group.

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Third, the control group's post-test mean exceeded the experimental group's mean by 0.08036 points, but the independent-samples t-test did not establish a statistically significant difference. The within-group tests and the between-group test consequently answer different questions: the former assess whether each group's scores changed over time, whereas the latter assesses whether the post-test means differed between the groups. These findings collectively indicate that the study did not demonstrate a comparative advantage for the learning experience model in improving students' measured knowledge of initial employment preparation.

Summary of Results

The study examined the implementation of an early work preparation module delivered through a learning experience model and compared the resulting test scores with those of a control group receiving the module without that structured approach. The experimental group's mean score decreased from 5.7375 to 5.2625, with a statistically significant within-group difference and a reported N-gain of −0.11. In contrast, the control group's mean increased from 4.4500 to 5.3429, also with a statistically significant within-group difference and a reported N-gain of 0.16. The independent-samples t-test found no statistically significant difference between the post-test scores of the experimental and control groups, \(t(298)=0.366,\ p=.714\). The 95% confidence interval for the mean difference included zero.

Overall, the results do not provide evidence that the learning experience model, as implemented in this study, was more effective than the alternative approach in improving students' scores on the work-preparation knowledge test. This conclusion is limited to the measured outcome, the participating schools and the conditions under which the intervention was delivered. The results do not establish that the model is ineffective in all settings or that it has no potential to affect other dimensions of work readiness.

DISCUSSION

Implementation of the Learning Experience Model

The learning experience model was implemented through a series of learning activities designed to provide vocational high school students with practical knowledge of early work preparation. The activities included CV preparation, job-interview simulations, psychometric tests, and discussions of employment contracts (Tunstall & Lynch, 2010). These activities were accompanied by discussion and reflection to help students understand the relevance of the

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material to situations they might encounter when entering the workplace. The implementation was intended to create learning situations that resembled actual recruitment and employment processes. This approach was based on the assumption that students would gain a better understanding of work preparation when they could engage directly with relevant activities rather than rely solely on the delivery of information. The facilitator also sought to encourage participation and create a learning environment in which students could discuss their experiences and understanding.

However, observations during the intervention indicated that the implementation was affected by practical constraints. The time available for the activities was limited by school schedules and permission arrangements. In addition, students demonstrated varied responses, and some did not regard early work preparation as an immediate priority (Y. Li & Song, 2023). These conditions may have limited the opportunity to engage fully with the learning activities. The findings suggest that implementing a learning experience model requires more than providing practical activities. Sufficient time and active learner participation are also important considerations. In this study, the activities were delivered as planned, but the conditions did not allow the learning experience to be developed as fully as intended. This provides a relevant context for interpreting the subsequent pre-test and post-test results.

Changes in Students' Knowledge Following the Intervention

The experimental group demonstrated a statistically significant difference between pre-test and post-test scores. However, the mean score decreased from 5.74 before the intervention to 5.26 afterwards. The paired-samples t-test showed a significant difference, ($t(159)=2.949$), ($p=.004$), but the direction of the change indicated a decrease rather than an improvement. Therefore, the findings do not support the expectation that the learning experience intervention increased students' measured knowledge of early work preparation. This result differs from previous studies cited in the thesis, including (Aulia, 2013), (Hanip et al., 2023), (Hidayat et al., 2019), (Puspitowati, 2019), and (Suryani et al., 2018), which reported positive outcomes associated with experience-based learning approaches. The difference indicates that the expected benefits of such approaches were not reproduced under the conditions of the present study.

One possible explanation concerns the limited time available to deliver the intervention. Experience-based learning requires opportunities for learners to participate, reflect on what they

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have experienced, and relate their learning to practical situations. When the available time is insufficient, these processes may not develop as intended. The varied responses of students and their differing levels of interest in the material may also have influenced their engagement. Nevertheless, the present findings do not establish that these factors directly caused the decrease in scores. The result should therefore be interpreted in relation to the implementation context rather than as evidence that experience-based learning is inherently ineffective. The study demonstrates that the use of practical activities does not necessarily lead to an improvement in measured knowledge when the intervention is delivered under constrained conditions.

Changes in the Control Group

The control group, which received the early work-preparation material without the structured learning experience model, showed an increase in mean scores from 4.45 at pre-test to 5.34 at post-test. The paired-samples t-test indicated a statistically significant difference, ($t(139)=-5.799$), ($p<.001$). The reported normalised gain was 0.16, classified as low in the thesis. This finding indicates that students' measured knowledge also improved following the delivery of the material without the specific learning experience approach. The result is important because it shows that the provision of relevant information may itself contribute to students' understanding of early work preparation. The material addressed practical topics, including CV preparation, job interviews, psychometric tests, and employment contracts, which are relevant to the transition from school to employment.

The finding is also consistent with the broader concept of learning experience discussed by (Tian, 2024). As presented in the thesis, learning experience is a broad concept referring to the conditions and activities through which learners acquire knowledge and develop skills. Consequently, learning can occur through different instructional approaches, including approaches that do not explicitly employ a structured experiential learning model. However, the increase in the control group should not be taken as conclusive evidence that the traditional approach is superior (Chen & Liu, 2025). The two groups began with different mean scores, and the study did not use random allocation. Moreover, the post-test comparison did not reveal a statistically significant difference between the groups. The results therefore indicate improvement within the control group but do not establish its superiority over the experimental group.

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Comparison between the Learning Experience Model and the Traditional Approach

The independent-samples t-test revealed no statistically significant difference between the experimental and control groups at post-test, (t(298)=0.366), (p=.714). The control group's mean score was 5.34, compared with 5.26 in the experimental group. The mean difference was approximately 0.08 points, indicating that the experimental group did not demonstrate a measurable advantage over the comparison group. This finding means that the hypothesis that the learning experience model would produce better results than the traditional approach was not supported by the study. Although the experimental intervention incorporated practical activities and reflection, these elements did not translate into a statistically significant between-group advantage in the measured outcome.

The result also needs to be considered alongside the findings within each group. The experimental group experienced a decrease in its mean score, whereas the control group showed an increase. Nevertheless, the within-group results and the between-group comparison address different questions. A statistically significant change within a group does not, by itself, demonstrate that the instructional approach is more effective than an alternative. The between-group analysis is therefore central to evaluating the comparative effectiveness of the two approaches. As discussed in the thesis, one possible consideration is the distinction between *learning experience* and *experiential learning*. Learning experience is a broader concept that encompasses the conditions and activities through which learning takes place, whereas experiential learning emphasises the use of experience, reflection, and the application of learning to subsequent situations (Kolb, 2014) and (Wijarn, 2013), as cited in the thesis, are also used to support the broader understanding of learning experience.

This conceptual distinction is relevant because learning activities in the comparison group may also have provided students with learning experiences. The difference between the groups may therefore have been less pronounced than initially anticipated. In addition, the limited time available for the experimental intervention may have restricted the extent to which students could engage in the intended experiential processes. These explanations should be treated as interpretations rather than established causes. The statistical findings show that a significant difference between the groups was not demonstrated; they do not establish that both approaches are equivalent or that the traditional approach is inherently more effective. The findings instead indicate that the additional benefit expected from the learning experience model was not evident under the conditions examined.

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Research Limitations

Several limitations need to be considered when interpreting the results. First, the data collection process was constrained by the time available within the participating schools. This limitation may have reduced the opportunity to provide students with sufficiently developed learning experiences. Future implementations should allow adequate time for practical activities, discussion, reflection, and feedback. Second, the study employed a quasi-experimental design without random allocation. Differences between the experimental and control groups may therefore have influenced the results. This limitation is particularly relevant because the groups had different baseline mean scores. Future research could employ a true experimental design where feasible, or use appropriate statistical procedures to account for initial differences between groups.

Third, the conceptual distinction between learning experience and experiential learning requires further clarification. A more precise theoretical and operational definition would help ensure that the intervention is distinguishable from other instructional approaches and that its essential components are implemented consistently. This would also improve the interpretation and reproducibility of subsequent studies. These limitations do not invalidate the findings, but they restrict the conclusions that can be drawn from them. The results should be understood within the specific implementation conditions, study design, and outcome measures used in this research.

Overall, the study found that the learning experience model did not demonstrate a statistically significant advantage over the traditional approach in improving students' knowledge of early work preparation. The findings emphasise the importance of sufficient implementation time, student engagement, and a clear distinction between general learning experiences and structured experiential learning. Further research using stronger experimental designs and more clearly specified learning procedures is needed to examine the conditions under which the model may produce more favourable outcomes.

CONCLUSSION

This study examined the implementation and effectiveness of the learning experience model in delivering an early work-preparation module to vocational high school students in Magelang. The findings indicate that the model was implemented through practical activities, including CV preparation, job-interview simulations, psychometric tests, and discussions of

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employment contracts, supported by discussion and reflection. However, its implementation was constrained by limited instructional time and varied student engagement.

The experimental group did not demonstrate an improvement in its mean test score following the intervention, with the mean decreasing from 5.74 to 5.26. Although this change was statistically significant, it represented a decrease rather than an improvement. The control group, meanwhile, showed an increase from 4.45 to 5.34. Nevertheless, the post-test comparison revealed no statistically significant difference between the two groups ((p=.714)). Therefore, the learning experience model was not demonstrated to be more effective than the comparison approach in improving students' knowledge of early work preparation under the conditions of this study.

These findings highlight the importance of providing sufficient time for learning activities and ensuring that practical experiences are supported by meaningful reflection and student engagement. However, the conclusions are limited by the quasi-experimental design without random allocation, the differences in baseline scores between groups, and the conceptual distinction between learning experience and experiential learning. Future research should employ stronger experimental designs where feasible, allow sufficient time for intervention delivery, clarify the essential components of the learning model, and use more comprehensive measures of learning outcomes. Further studies should also examine whether improvements in knowledge translate into practical work-preparation skills and sustained work readiness.

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