

**Workplace safety awareness and its influence on carpentry skill acquisition  
among junior high school students**

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**ABSTRACT**

This study determined the workplace safety awareness and its influence on carpentry skill acquisition among Grade 8–10 learners in Alicia Vocational School during the School Year 2025–2026. Specifically, it assessed the respondents' profile, the level of workplace safety awareness, the level of carpentry skill acquisition, the significant relationship between the two variables, and proposed an instructional and safety enhancement plan. The study employed a descriptive-correlational research design involving 51 junior high school learners enrolled in carpentry classes. A researcher-made, validated questionnaire served as the primary data-gathering instrument. Frequency, percentage, weighted mean, and Pearson Product-Moment Correlation Coefficient were used to analyze the data. Findings revealed that both female and male respondents exhibited a very high level of workplace safety awareness and very high carpentry skill acquisition. Female learners rated workshop discipline highest, while male learners ranked the use of personal protective equipment highest. In terms of carpentry skills, females excelled in accuracy and workmanship, whereas males ranked highest in task completion. Correlation analysis yielded  $r = -0.150$  with a  $p$ -value of 0.632, indicating no significant relationship between workplace safety awareness and carpentry skill acquisition. An instructional and safety enhancement plan was proposed to strengthen safety practices and improve technical competencies. The study concludes that although workplace safety awareness and carpentry skill acquisition are both highly evident, technical competence is influenced by multiple instructional and environmental factors beyond safety awareness alone.

**Keywords:** Workplace safety awareness, carpentry skill acquisition, technical-vocational education, junior high school learners, descriptive-correlational research.

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**INTRODUCTION**

This study examined the workplace safety awareness and its influence on carpentry skill acquisition among Grade 8–10 learners in Alicia Vocational School. Workplace safety is an essential component of technical–vocational education because it promotes learners' protection, discipline, and responsible work habits while developing technical competencies. The study sought to determine the respondents' profile, assess their level of workplace safety awareness and carpentry skill acquisition, determine whether a significant relationship exists

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between the two variables, and propose an instructional and safety enhancement plan based on the findings.

### Statement of the problem

This study aimed to determine the workplace safety awareness and its influence on carpentry skill acquisition among Grade 8 to Grade 10 learners in Alicia Vocational School during the School Year 2025 to 2026.

Specifically, it sought to answer the following research questions:

1. What is the profile of the respondents in terms of grade level, sex, and length of exposure to carpentry instruction?
2. What is the level of workplace safety awareness of the respondents in terms of the use of personal protective equipment, hazard awareness, tool handling, and workshop discipline and safety compliance?
3. What is the level of carpentry skill acquisition of the respondents in terms of measuring and marking, tool usage, assembly of projects, accuracy and workmanship, and task completion?
4. Is there a significant relationship between workplace safety awareness and carpentry skill acquisition among the respondents?
5. Based on the findings of the study, what instructional and safety enhancement plan may be proposed to strengthen workplace safety practices and improve learners' carpentry competencies?

### METHODOLOGY

The study employed a descriptive–correlational research design to determine the level of workplace safety awareness and carpentry skill acquisition and to examine the relationship between these variables. The respondents were 51 Grade 8–10 learners enrolled in carpentry classes at Alicia Vocational School during School Year 2025–2026. Data were collected using a researcher-made, expert-validated questionnaire consisting of three parts: respondents' profile, workplace safety awareness, and carpentry skill acquisition. A pilot test was conducted to establish the reliability of the instrument before its administration.

The collected data were analyzed using frequency and percentage to describe the respondents' profile, weighted mean to determine the levels of workplace safety awareness and carpentry skill acquisition, and the Pearson Product-Moment Correlation Coefficient (Pearson  $r$ ) to determine the significant relationship between the variables at the 0.05 level of significance.

This study strictly observed ethical principles throughout the conduct of the research to protect the rights, welfare, and dignity of all respondents. Prior to data collection, approval to conduct the study was obtained from the school head of Alicia Vocational School. The respondents were informed of the purpose, objectives, and procedures of the study, and their participation was entirely voluntary. They were assured that they could decline participation or withdraw from the study at any time without any negative consequences. Since the respondents were junior high school learners, appropriate coordination with the school authorities and adherence to institutional research protocols were observed. These procedures are consistent with the ethical principles embodied in the Republic Act No. 10173 (Data Privacy Act of 2012) and the Republic Act No. 10533, which promote the protection of learners' rights and welfare within educational settings.

## RESULTS AND DISCUSSION

The findings revealed that most female respondents were Grade 10 learners, while most male respondents were Grade 9 learners. The majority of both female and male respondents had less than one year of exposure to carpentry instruction.

The respondents demonstrated a very high level of workplace safety awareness, with female learners obtaining a grand average weighted mean of 4.81 and male learners obtaining 4.76, both verbally interpreted as Strongly Agree. Female respondents ranked Workshop Discipline highest, whereas male respondents ranked Use of Personal Protective Equipment highest.

Similarly, the respondents demonstrated a very high level of carpentry skill acquisition. Female learners obtained a grand average weighted mean of 4.69, while male learners obtained 4.72, both interpreted as Strongly Agree. Female respondents ranked Accuracy and Workmanship highest, whereas male respondents ranked Task Completion highest.

The Pearson Product-Moment Correlation analysis yielded an  $r$ -value of -0.150 and a  $p$ -value of 0.632, which is greater than the 0.05 level of significance. Thus, the null hypothesis was accepted, indicating no significant relationship between workplace safety awareness and carpentry skill acquisition among the respondents.

Based on the findings, an instructional and safety enhancement plan was proposed to strengthen workplace safety practices and further improve learners' carpentry competencies.

The findings indicate that learners possess a strong awareness of workplace safety and demonstrate a high level of technical competence in carpentry. Their consistent adherence to workshop rules, proper use of personal protective equipment, and responsible tool handling suggest that safety practices have become part of their learning experiences. Likewise, their high ratings in carpentry skill acquisition reflect the effectiveness of practical instruction and workshop activities in developing essential technical competencies.

Although both workplace safety awareness and carpentry skill acquisition were rated very highly, the absence of a significant relationship suggests that safety awareness alone does not directly determine learners' technical performance. Carpentry skill acquisition appears to be influenced by multiple factors, including instructional quality, teacher guidance, workshop resources, learner motivation, frequency of practical activities, and opportunities for experiential learning. Workplace safety remains an essential prerequisite for effective technical instruction because it creates an environment where learners can participate confidently and responsibly, even if it does not independently predict technical competence.

The findings emphasize the importance of maintaining strong safety programs while simultaneously strengthening instructional strategies that promote technical mastery. The proposed instructional and safety enhancement plan provides practical interventions that may further improve both safety practices and carpentry competencies among learners. Future studies may explore additional variables affecting skill acquisition to provide a broader understanding of learners' performance in technical–vocational education.

## CONCLUSION

The findings of the study demonstrate that Grade 8–10 learners of Alicia Vocational School possess a very high level of workplace safety awareness and carpentry skill acquisition. The respondents consistently manifested positive safety practices through proper use of personal protective equipment, responsible tool handling, hazard awareness, workshop discipline, and safety compliance. Likewise, they exhibited strong technical competencies in

measuring and marking, tool usage, assembly of projects, accuracy and workmanship, and task completion. These findings indicate that the school's carpentry program effectively promotes both safety consciousness and practical skills among learners.

Despite the high levels of workplace safety awareness and carpentry skill acquisition, the statistical analysis revealed no significant relationship between the two variables. The acceptance of the null hypothesis suggests that workplace safety awareness alone does not significantly influence learners' carpentry skill acquisition. This implies that the development of technical competence is multifaceted and may also depend on instructional strategies, quality of teacher supervision, availability of workshop facilities and equipment, learner motivation, and the extent of hands-on learning experiences provided during instruction.

Overall, the study underscores the importance of sustaining workplace safety education as an integral component of technical–vocational instruction while continuously improving teaching practices and learning resources that enhance technical competencies. The proposed instructional and safety enhancement plan provides practical interventions that may strengthen both workplace safety awareness and carpentry skills. Furthermore, the study contributes to the growing body of knowledge in technical–vocational education and provides baseline information that may guide school administrators, teachers, curriculum planners, and future researchers in promoting safe, effective, and competency-based carpentry instruction.

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