

IMPROVING KNIFE SKILLS AND FOOD PLATING TECHNIQUES THROUGH PRACTICAL WORKSHOPS IN FOOD AND BEVERAGE SERVICES

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Abstract

This study examined the effectiveness of practical workshops in enhancing knife skills and food plating techniques among Food and Beverage Services (FBS) students at Maxima Technical and Skills Training Institute Incorporated. Employing a quasi-experimental single-group pretest-posttest design, the research evaluated students' skill levels before and after participation in the workshops. Data were collected through performance assessments scored on a 20-point scale and a Likert-scale survey measuring students' confidence and perceived proficiency. Initial findings indicated that students demonstrated moderate competency in knife handling and food plating techniques. However, following the intervention, significant improvements were observed in both skill areas, as evidenced by paired t-test results revealing statistically significant differences in performance pre- and post-workshop. Furthermore, the workshops positively influenced students' confidence, enhancing their perceived readiness to undertake real-world culinary tasks. These findings underscore the value of integrating competency-based, experiential learning approaches within technical-vocational education to effectively bridge the gap between theory and practice. The study recommends the continued implementation and expansion of hands-on training modules in FBS curricula to ensure that students develop job-ready skills aligned with industry standards. This research contributes to the growing body of evidence supporting the essential role of practical workshops in fostering both technical proficiency and self-efficacy among TVET learners, thereby improving their future employability in the hospitality sector.

Keywords: Knife Skills, Food Plating Techniques, Practical Workshops, Competency-Based Education, Food And Beverage Services, Technical-Vocational Education, Experiential Learning, Student Confidence

1. Introduction

The growing demands of the hospitality and food service sectors demand a skilled and confident workforce—one that is not only technically proficient but also job-ready the moment they step into the industry. In the Philippines, Technical Vocational Education and Training (TVET) through institutions like TESDA and DepEd's Technical-Vocational-Livelihood (TVL) track aims to ensure such workforce preparedness. Republic Act No. 7796, also known as the Technical Education and Skills Development Act of 1994, mandates the formulation of comprehensive development plans, competency standards, and certification systems overseen by TESDA, emphasizing a competency-based, outcome-oriented model (Paqueo et al., 2024). The recently released National Technical Education and Skills Development Plan (NTESDP) 2023–2028 further underscores the importance of aligning TVET programs with industry needs—calling for enhanced quality, relevance, and certification mechanisms (Edralin & Pastrana, 2023).

Department of Education (DepEd) likewise supports this imperative of alignment between practical training and workforce readiness. Joint Memoranda and Orders between DepEd and TESDA seek to integrate TVET into all Senior High School (SHS) tracks to produce industry-relevant competencies among learners, particularly within the TVL strand (Parua & Yang, 2024). The Senior High School Assessment and Certification Support Program, established through

DepEd-TESDA collaboration under TESDA Circular No. 045 s. 2024, institutionalizes competency assessment and certification options for SHS students, further legitimizing TVET pathways. These policies demonstrate a systemic commitment to competency-based education (Estecomen et al., 2019). Yet, they also point to a need for evidence-based curricular enhancements—especially in high-demand fields like Food and Beverage Services.

Within this policy context, knife skills and food plating techniques stand out as fundamental yet challenging competencies in FBS training. These manual skills are essential for safety, precision, speed, and visual appeal—qualities highly valued in hospitality environments (Mantolas et al., 2023). However, limited research has explored the effectiveness of practical training approaches in enhancing these competencies among TVET learners in the Philippines. A recent study by Villar (2019) found extremely high positive correlations between cognitive skills and practical skills—and between preparedness and assessment outcomes—among NC II Commercial Cookery students, which underscores the importance of integrating theoretical and practical domains in training design. Similarly, international studies in culinary arts education highlight that hands-on training—particularly in segments like knife handling and food presentation—is critical in building competence and confidence, laying the foundation for culinary excellence (Chen et al., 2022).

Despite such findings, implementation varies across institutions. Issues such as limited access to functional facilities, inconsistent instructor approaches, and a lack of structured, competency-aligned workshops have been identified as constraints in TVL and cookery education contexts. These challenges underscore the need for structured, competency-based practical interventions within institutions like Maxima Technical and Skills Training Institute Incorporated, particularly given its alignment with TESDA performance standards and its role in preparing FBS learners for industry roles.

The present study aims to address this gap by systematically evaluating the impact of practical workshops on knife skills and food plating techniques among FBS students. It adopts a quasi-experimental pretest-posttest design to measure both technical proficiency and self-efficacy, using instruments aligned with TESDA's NC II competencies and national standards. By doing so, it contributes to both institutional improvement and broader pedagogical knowledge in Philippine TVET.

In sum, the convergence of national policy mandates (RA 7796, NTESDP 2023–2028), DepEd–TESDA operational frameworks (TVL integration, certification programs), and empirical evidence on skill–confidence linkages all point to the critical role of practical, competency-based education. This study seeks to empirically validate the effectiveness of structured workshops in enhancing essential FBS competencies—providing actionable insights for curriculum developers, policymakers, and trainers alike. Through empirical investigation, the study not only supports TESDA and DepEd's shared vision for high-quality TVET but also advocates for the hands-on pedagogies needed to produce confident, capable, and employable TVET graduates in the hospitality sector.

2. Method

2.1 Research Design

The study employed a quasi-experimental research design utilizing a single-group pretest-posttest approach to determine the effectiveness of practical workshops in enhancing the knife skills and food plating techniques of Food and Beverage Services students at Maxima Technical and Skills Training Institute Incorporated. This design was deemed appropriate as it allowed the measurement of changes in the same group of participants before and after the intervention, thereby providing direct evidence of the workshops' impact on both technical proficiency and self-reported confidence levels. The pretest established baseline performance, followed by a

structured series of competency-based practical sessions aligned with TESDA Training Regulations, and a posttest to assess improvements. While the absence of a control group limited the ability to eliminate all external influences, the design was practical and feasible within the institutional context, ensuring a focused examination of skill acquisition under controlled training conditions.

2.2 Participants

There were forty students enrolled in the Food and Beverage Services (FBS) program at Maxima Technical and Skills Training Institute Incorporated during the academic term in which the research was conducted. Selected through purposive sampling, all participants were actively engaged in the practical workshops designed to enhance knife skills and food plating techniques, making them the most appropriate group for evaluating the intervention's effectiveness. Their inclusion ensured that the data collected reflected the direct impact of the competency-based training on individuals who were uniformly exposed to the same instructional content, facilities, and assessment procedures. This homogeneity of exposure facilitated accurate measurement of changes in technical proficiency and self-reported confidence levels attributable to the workshops.

2.3 Instrumentation

The study utilized two primary research instruments: a practical skill assessment checklist and a self-administered questionnaire. The practical skill assessment checklist was developed by the competency standards outlined in the TESDA Training Regulations for Food and Beverage Services NC II, enabling objective evaluation of students' knife handling and food plating techniques in terms of accuracy, safety, efficiency, and presentation quality. Complementing this, the questionnaire—structured on a five-point Likert scale—was designed to measure the students' confidence and perceived proficiency in performing the targeted skills before and after the intervention. The combined use of these instruments provided a comprehensive assessment framework that captured both the quantitative improvements in technical performance and the qualitative enhancement of self-efficacy resulting from the practical workshops.

2.4 Data Analysis

The data gathered from the skill assessments and questionnaires were systematically tallied, tabulated, and analyzed using appropriate statistical tools to address the study's research objectives. Descriptive statistics, specifically the mean and standard deviation, were employed to determine the students' level of knife skills and food plating techniques before and after the practical workshops, providing a clear measure of central tendency and variability. A five-point Likert scale was utilized to quantify the respondents' self-reported confidence and perceived proficiency, offering insight into attitudinal changes. To establish whether there was a statistically significant difference in performance pre- and post-intervention, a paired sample t-test was applied, ensuring the validity of inferences regarding the effectiveness of the workshops. This rigorous analytical approach allowed for a precise evaluation of both skill development and confidence enhancement attributable to the intervention.

3. Results

The study revealed that the students' initial proficiency in knife skills and food plating techniques before the implementation of the practical workshops was at a moderate level. Pre-test mean scores for knife skills averaged 3.12 (SD = 0.45) on a five-point scale, indicating that while students possessed basic knowledge and some competency, there was considerable room for improvement, particularly in areas such as precision cutting, consistency of slices, and proper handling of kitchen tools. Similarly, the pre-test mean score for food plating techniques was 3.08 (SD = 0.48), suggesting that although students demonstrated a fundamental understanding of

portioning and arrangement, their execution lacked refinement and creativity consistent with industry standards. These baseline results underscored the necessity of structured, hands-on training to bridge gaps between theoretical knowledge and practical application.

Following the implementation of the practical workshops, post-test results showed a significant improvement in both knife skills and food plating techniques. The mean score for knife skills increased to 4.21 (SD = 0.37), reflecting enhanced proficiency in speed, accuracy, and safety measures during food preparation. In parallel, the mean score for food plating techniques rose to 4.18 (SD = 0.35), indicating notable advancements in presentation aesthetics, portion control, color balance, and plate composition. The paired sample t-test analysis confirmed that these increases were statistically significant ($p < 0.05$), validating the effectiveness of experiential, competency-based training in developing technical culinary skills. These gains were consistent among most participants, highlighting the uniform impact of the intervention regardless of prior skill level.

In addition to measurable improvements in technical competencies, the study also documented a substantial improvement in students' confidence and perceived proficiency following the workshops. Based on the five-point Likert scale responses, the overall mean rating for confidence in performing knife skills increased from 3.15 to 4.35, while confidence in executing food plating techniques rose from 3.12 to 4.31. This growth suggests that hands-on, practice-driven learning not only sharpened the participants' abilities but also cultivated self-assurance, an essential attribute for success in the Food and Beverage Services industry. These results collectively indicate that practical workshops serve as an effective pedagogical approach, enabling students to meet, and in some cases exceed TESDA's competency standards for FBS graduates.

4. Discussion

The findings of this study align with previous research underscoring the effectiveness of hands-on, competency-based training in developing technical skills among vocational and technical students. According to Higashi and Kanai (2020), practical workshops in culinary arts significantly enhance learners' precision, safety, and efficiency in kitchen tasks, as the repetitive, guided practice fosters muscle memory and procedural knowledge. This is consistent with the marked improvement in knife skills observed in the present study, where students demonstrated substantial gains in speed, accuracy, and proper tool handling after the intervention (Higashi & Kanai, 2020). Similarly, Tupas (2021) emphasized that experiential learning provides a more profound understanding of food preparation processes, bridging the gap between theoretical knowledge and industry-level performance. This principle mirrors the skill advancement seen among the participants in this research.

The results also corroborate the conclusions of Mojica (2023), who found that incorporating structured practical workshops into technical-vocational curricula leads to notable improvements in food presentation and plating artistry. Their study indicated that repeated exposure to real-life kitchen scenarios strengthens students' ability to apply concepts of color harmony, texture contrast, and portion control, thereby enhancing the aesthetic appeal of dishes—an outcome similarly reflected in this research's post-test results for food plating techniques. Moreover, these findings echo the framework set forth by the Technical Education and Skills Development Authority (TESDA), which mandates in its Training Regulations for Food and Beverage Services NC II that skill development be achieved through intensive, hands-on activities to ensure graduates meet industry standards.

Furthermore, the observed boost in student confidence after the practical workshops supports the conclusions of Bandura's (1997) self-efficacy theory, which posits that mastery experiences are the most influential source of confidence in performing specific tasks. This connection is reinforced by the work of Quinn and Buzzetto-More (2019), who reported that

technical-vocational students who participated in skill-based training programs not only improved their technical abilities but also developed stronger self-belief in their capacity to perform under professional conditions. In the context of this study, the significant rise in self-reported confidence and proficiency underscores the dual impact of practical workshops—not only in enhancing technical competence but also in fostering the psychological readiness essential for success in the competitive hospitality industry.

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