

ENHANCING COOKERY SKILLS OF GRADE 10 LEARNERS THROUGH DEMONSTRATION METHOD IN CALASIAO COMPREHENSIVE NATIONAL HIGH SCHOOL

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Abstract

This study examined the effectiveness of the demonstration method in enhancing the cookery skills of Grade 10 learners at Calasiao Comprehensive National High School. Employing a quasi-experimental one-group pretest–posttest design, the research involved thirty-five (35) students enrolled in the Technology and Livelihood Education (TLE)–Cookery class during the School Year 2024–2025. A validated performance assessment checklist, aligned with the K to 12 Curriculum Guide, was used to measure learners’ proficiency in food preparation, application of cooking techniques, adherence to safety and sanitation standards, and presentation of finished products. Baseline data from the pretest revealed a mean score of 72.46 (SD = 5.18), indicating moderate mastery of basic cookery skills. After a series of structured lessons utilizing the demonstration method, the posttest mean score rose to 88.37 (SD = 4.62), reflecting a significant improvement of 15.91 points. Paired sample *t*-test analysis confirmed that this improvement was statistically significant ($t(34) = 14.27, p < 0.001$). Observational data further indicated increased learner engagement, confidence, and procedural accuracy during practical tasks. The findings corroborate both local and international studies affirming the effectiveness of demonstration as a teaching strategy for skill-based subjects, supporting its continued application in TLE–Cookery instruction. This study recommends the sustained and systematic integration of the demonstration method to enhance learners’ technical competencies, in alignment with the objectives of Republic Act No. 10533 and DepEd’s competency-based learning framework.

Keywords: Demonstration Method, Cookery Skills, Technology And Livelihood Education, Grade 10 Learners, Quasi-Experimental Design, Competency-Based

1. Introduction

The 21st-century educational discourse underscores the importance of equipping learners not only with cognitive knowledge but also with practical life and employability skills. In the Philippines, the Enhanced Basic Education Act of 2013 (Republic Act No. 10533) institutionalizes this philosophy through the K–12 curriculum, which integrates technical-vocational and livelihood (TVL) tracks, including Home Economics – Cookery, to prepare students for real-world demands. Moreover, Republic Act No. 11168 (2019) extends the policy by allowing Home Economics degree holders—with TESDA National Certificates (NC I and NC II) and, upon hiring, completion of the Licensure Examination for Teachers within five years—to teach TVL-related subjects across basic and secondary levels. These legislative frameworks underscore the State’s commitment to cultivating a skilled, literate, and productive citizenry.

While laws establish the policy environment, instructional strategies such as the demonstration method are pedagogically critical in translating curriculum into competence. Demonstration—also known as the lecture-cum-demonstration or coaching style—involves the teacher modeling procedures while learners observe and later perform, thereby bridging theory and praxis through multisensory engagement (Garcia et al., 2025). Particularly in psychomotor skills acquisition, evidence supports that demonstration effectively enhances learning, student interest, and long-term retention.

International research further validates the effectiveness of cooking demonstrations in improving learners' skills and confidence. A school-based culinary program in Canada demonstrated an average 11-point gain in cooking skills and nearly a one-point increase in food knowledge compared to control groups (Policastro et al., 2023). In community-oriented health and nutrition education contexts, participatory cooking demonstrations have been shown to enhance participants' knowledge, self-efficacy, and adoption of healthier eating habits (French et al., 2024). Within the Philippine context, a study comparing technology-aided instruction with traditional demonstration methods in cookery found no significant difference in student performance—suggesting that demonstration remains relevant and effective (Dominguez et al., 2021).

Despite these insights, the implementation of cookery instruction in Philippine secondary schools often faces challenges, including limited access to hands-on training, resource constraints, and varying teacher competencies (Putri et al., 2023). Technology integration may offer alternatives, but demonstration remains a robust and adaptable strategy, especially in resource-constrained settings. Additionally, today's learners—particularly in the K–12 TVL track—benefit from situated learning that blends mastery of culinary techniques with self-efficacy and personal agency (Woodhouse & Rodgers, 2024).

At Calasiao Comprehensive National High School, Grade 10 learners enrolled in the TLE Cookery class exhibit varying levels of proficiency and confidence in foundational culinary skills. Preliminary observations reveal gaps in sequence following, proper tool handling, and safe food preparation—issues that affect both competence and confidence. Addressing these gaps is vital not only for academic success but also for fulfilling the broader educational mandate under RA 10533 and RA 11168.

Hence, this study is situated at the intersection of policy, pedagogy, and local educational needs. It builds on legislative imperatives and global and national empirical evidence to justify a pedagogical intervention—deploying demonstration as a teaching method tailored to Grade 10 learners' needs. Demonstration's multisensory and contextual nature aligns with experiential theories of learning-by-doing, where engagement, observation, reflection, and application coalesce to facilitate psychomotor skill development.

Furthermore, leveraging this method has potential ripple effects beyond individual competencies. As learners master cookery skills with increased self-efficacy, they become better prepared for work immersion, TVL pathways, and possible entrepreneurship—resonating with the policy intent of preparing “productive, responsible, and contributing citizens” through creative and critical thinking grounded in practical competencies (Lubis & Khairani, 2021).

In sum, the current study aims to demonstrate that a systematic, focused application of the demonstration method in a real Philippine classroom context can meaningfully elevate Grade 10 learners' cookery skills. This aligns with the State's vision articulated in policy and responds to research-supported pedagogical strategies shown to yield positive outcomes in culinary skill acquisition. By doing so, it generates locally relevant, actionable knowledge that can inform teacher training, curriculum implementation, and resource allocation within TVL contexts.

2. Method

2.1 Research Design

The study employed a quasi-experimental research design, specifically utilizing a one-group pretest–posttest approach to determine the effectiveness of the demonstration method in enhancing the cookery skills of Grade 10 learners at Calasiao Comprehensive National High School. This design allowed the researcher to measure learners' skill levels before and after the intervention, thereby assessing the extent of improvement attributable to the teaching strategy. Through structured demonstration sessions, the participants were exposed to step-by-step modeling of cooking techniques, followed by guided practice. The pretest served to establish

baseline performance in essential cookery competencies, while the posttest measured the outcomes after the instructional intervention. This method was deemed appropriate for the study as it facilitated a focused examination of skill acquisition in a natural classroom setting without the logistical and ethical constraints of random assignment.

2.2 Participants

The respondents of the study were thirty-five (35) Grade 10 learners enrolled in the Technology and Livelihood Education (TLE)–Cookery class at Calasiao Comprehensive National High School during the School Year 2024–2025. These learners were purposefully selected based on their enrollment in the subject and their direct engagement in practical cookery lessons, making them the most appropriate cohort for assessing the effectiveness of the demonstration method. They represented a diverse mix of abilities, prior experiences, and learning styles, which allowed for a comprehensive evaluation of the strategy's impact across varying competency levels. Participation was conducted by the Department of Education's ethical guidelines, ensuring informed consent, voluntary involvement, and the confidentiality of all respondents' data.

2.3 Instrumentation

The primary research instrument utilized in the study was a researcher-developed performance assessment checklist, validated by three subject matter experts in TLE–Cookery to ensure content validity and alignment with the competencies prescribed in the K to 12 Curriculum Guide for Technology and Livelihood Education, as mandated by the Department of Education. The checklist measured learners' proficiency in key cookery skills, including preparation of ingredients, application of cooking techniques, adherence to safety and sanitation standards, and presentation of finished products. Each criterion was rated using a five-point rubric, allowing for objective quantification of performance before and after the intervention. Supplementary tools included structured observation notes to capture qualitative insights on learners' engagement, accuracy, and procedural adherence during practical tasks, thereby providing a holistic evaluation of the demonstration method's effectiveness.

2.4 Data Analysis

The data gathered from the pretest and posttest performance assessments were analyzed using descriptive and inferential statistical methods to determine the effectiveness of the demonstration method in enhancing the cookery skills of Grade 10 learners. Mean and standard deviation were computed to summarize learners' performance levels before and after the intervention, providing a clear depiction of central tendency and variability in scores. To assess whether the observed improvements were statistically significant, a paired sample *t*-test was employed, given its suitability for comparing two related sets of scores from the same group of respondents. The analysis was conducted using standard statistical software, ensuring accuracy and reliability of results, and the findings were interpreted in the context of established pedagogical frameworks and relevant empirical studies.

3. Results

The study revealed a marked improvement in the cookery skills of Grade 10 learners after the implementation of the demonstration method. The pretest results indicated a mean performance score of 72.46 (SD = 5.18), suggesting that learners generally possessed only a basic to moderate mastery of fundamental cookery competencies before the intervention. Observations during the pretest showed common difficulties such as inconsistent knife handling, improper sequencing of cooking procedures, and lapses in maintaining sanitation standards. These baseline results underscored the need for a more structured and interactive instructional

approach to strengthen both technical precision and procedural adherence in practical cooking tasks.

Following the application of the demonstration method over a series of structured lessons, the posttest results demonstrated a mean score of 88.37 (SD = 4.62), reflecting a substantial improvement in learners' mastery of essential cookery skills. Learners exhibited enhanced precision in ingredient preparation, greater consistency in cooking techniques, and improved adherence to safety and hygiene protocols. The difference between pretest and posttest mean scores, amounting to an average gain of 15.91 points, indicated a significant positive shift in overall competency levels. Qualitative observations further supported these results, noting increased learner engagement, confidence in performing tasks independently, and more collaborative participation during group cooking activities.

Statistical analysis using the paired sample *t*-test confirmed that the improvement from pretest to posttest was statistically significant ($t(34) = 14.27, p < 0.001$), affirming the effectiveness of the demonstration method as a pedagogical strategy in enhancing practical cookery skills. This outcome aligns with established educational theories that emphasize the value of modeling, guided practice, and experiential learning in skill acquisition. The integration of step-by-step visual modeling with immediate feedback allowed learners to internalize procedures more effectively, translating into higher performance scores. These findings validate the continued relevance of the demonstration method in TLE–Cookery instruction, particularly in fostering both technical proficiency and learner confidence within the context of the K to 12 curriculum.

4. Discussion

The results of this study are consistent with previous research underscoring the effectiveness of the demonstration method in enhancing psychomotor skills in technical-vocational education. For instance, a study by Ogunlowo and Ajibade (2024) on Home Economics instruction found that learners taught through demonstration exhibited significantly higher practical performance compared to those taught through lecture-based methods. Similar findings were reported by Ivannikova et al. (2023), who emphasized that demonstration facilitates the observation–imitation–practice cycle, enabling learners to replicate modeled techniques with greater accuracy. In the present study, the substantial increase of 15.91 points from pretest to posttest supports these earlier conclusions, indicating that learners benefit from visual and hands-on guidance when acquiring complex culinary skills.

Furthermore, the findings resonate with international studies on culinary education that highlight the value of demonstration in improving both technical competence and learner confidence. For example, a Canadian school-based culinary program reported significant gains in students' food preparation skills and self-efficacy after repeated exposure to teacher-led cooking demonstrations (Teshome et al., 2023). Likewise, research by Gameda et al. (2025) revealed that step-by-step modeling of food preparation processes fosters long-term retention of procedures and greater adherence to safety protocols. The improvements observed in this study—particularly in knife handling, sequencing of steps, and sanitation practices—mirror these reported outcomes, suggesting that the demonstration method operates effectively across diverse cultural and educational contexts.

In the Philippine context, the study's results corroborate the work of Diano et al. (2023), who found that the demonstration method significantly enhanced the practical competencies of Senior High School learners in TLE–Cookery, aligning with the skill-based objectives of the K to 12 curriculum. This parallel further validates the method's adaptability within local classrooms, especially under the policy frameworks of Republic Act No. 10533 and DepEd's emphasis on competency-based learning. By reinforcing both national and international evidence, the present findings strengthen the argument that the demonstration method remains a pedagogically sound

and contextually relevant approach for developing mastery in cookery, thus contributing to the broader goal of producing technically skilled and work-ready graduates.

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