

# Bread And Pastry Production Competency of Grade 11 Learners Toward Work Instructions Manual Development

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**Abstract:** This study evaluated the competencies of Grade 11 learners enrolled in Bread and Pastry Production under the Technical-Vocational-Livelihood (TVL) Track and Home Economics (HE) Strand at Ambaguio High School, Poblacion, Nueva Vizcaya, for School Year 2025–2026. This study aimed to evaluate the respondents' level of competency in key areas of Bread and Pastry Production, to provide valuable insights into their strengths and areas for improvement, and to serve as a basis for enhancing instructional strategies, designing targeted skills development initiatives, and developing relevant learning resources. The study employed a quantitative design using a validated evaluation sheet to assess the competencies of Grade 11 Bread and Pastry Production learners, with responses systematically collected, organized, and statistically analyzed in accordance with ethical standards. Results showed that the learners were generally moderately competent, showing strength mainly in bakery product preparation, while other areas, such as pastry, cakes, desserts, and petit fours, still needed further development in icing, decorating, dough preparation, following recipes, accurate measurement, equipment use, and product presentation, often made more difficult by limited resources. Moreover, identifying the specific skill areas for enhancement among Grade 11 learners and proposing a Work Instructions Manual (WIM) is a practical guide to strengthen instruction and improve hands-on competencies. The findings offer a practical implication for improving Bread and Pastry Production instruction by guiding schools to strengthen hands-on training, enhance facilities and teaching strategies, and adopt the Work Instructions Manual (WIM) to better develop learners' skills and readiness for real-world baking tasks.

**Keywords:** Bread and pastry production, competency, grade 11 learners, work instructions manual.

## 1. Introduction

A high level of competence in essential technical skills in Bread and Pastry Production competencies is required, including preparing and producing baked goods and pastry products, creating cakes and desserts, and the proper and safe use of kitchen tools and equipment. Mastery of these competencies ensures the consistent production of high-quality outputs while maintaining strict adherence to food safety and sanitation standards. In addition, sufficient knowledge of

equipment handling and laboratory procedures is crucial in preventing accidents and minimizing health risks in the learning environment. Thus, continuous development of both technical skills and positive work attitudes is necessary to equip learners with the discipline, responsibility, and professional competence needed to become industry-ready individuals.

Learners in Bread and Pastry Production programs in manufacturing schools often face competency gaps that affect their preparedness for industrial work, particularly in technical skills such as baking methods, equipment handling, and adherence to industry standards. Recent studies in the Philippines reveal that within the K to 12 Technical-Vocational-Livelihood (TVL) track, limited resources and instructional challenges contribute to these skill gaps (Pelpinosas & Saab, 2025). While learners demonstrate strong confidence in basic tasks, such as ingredient selection, they often struggle with more complex competencies like precise baking procedures and real workplace simulations. Similarly, a 2025 study on BTLED-Home Economics students identified challenges including limited resources, teamwork difficulties, and physical constraints, all of which significantly influence their employability (Carale, 2025).

In relation to existing research, this study aligns with findings that highlight persistent gaps in practical skills due to limited resources, insufficient hands-on exposure, and challenges in curriculum implementation (Pelpinosas & Saab, 2025; Rodil & Briones, 2022). Similar studies also point out that learners often struggle with more complex baking tasks and real-world application of skills, even if they are confident in basic preparation techniques (Carale, 2025). These challenges support the need for more structured instructional materials that can bridge theory and practice.

In line with these concerns, this study evaluates the Bread and Pastry Production competency of Grade 11 learners toward Work Instructions Manual development at Ambaguio High School, Poblacion, Ambaguio, Nueva Vizcaya. This study aims to develop a Work Instructions Manual (WIM) tailored for Grade 11 learners enrolled in Bread and Pastry Production. The manual is intended to provide clear, step-by-step procedures

Table.1. Summary of Frequency and Percentage Distribution of Respondents

Gender	Respondents	Percentage (%)
Male	8	26.67
Female	22	73.33
Total	30	100.00

Table.2. Respondents' Level of Competency in Bread and Pastry Production

Competency	Mean	Std. Deviation	Level of Competency
Prepare and produce bakery products	3.52	0.73	Competent
Prepare and produce pastry products	3.48	0.70	Moderately Competent
Prepare and present gateaux, tortes, and cakes	3.41	0.73	Moderately Competent
Prepare and display petit fours	3.27	0.76	Moderately Competent
Present desserts	3.40	0.76	Moderately Competent
Overall Mean	3.42	0.66	Moderately Competent

that will guide both learners and teachers during practical sessions. By aligning with the Department of Education and TESDA NC II competencies and addressing the least-mastered skills, the WIM may help improve learners' performance, enhance their confidence, and better prepare them for real-world work in the food industry.

Hence, this study builds on previous research by addressing a common gap—the lack of clear, step-by-step instructional guides for laboratory-based learning—and contributes by promoting a WIM that may improve learner performance, safety practices, and industry readiness in Bread and Pastry Production.

## 2. Methodology

This study employed a quantitative research design to assess the competency level of Grade 11 learners in Bread and Pastry Production at Ambaguio High School, Poblacion, Ambaguio, Nueva Vizcaya. It involved 30 purposively selected learners from the TVL–Home Economics strand, who were chosen based on their direct involvement in the program. Data were gathered through carefully validated and highly reliable evaluation sheets based on the DepEd Curriculum Guide, which focused on essential competencies such as bakery and pastry production, preparation of cakes, gateaux, tortes, petits fours, and dessert presentation. Ethical standards were strictly observed throughout the research process, including securing informed consent, maintaining confidentiality, and respecting participants' rights. The collected data were then systematically organized and analyzed using frequency, percentage, mean, and standard deviation, ensuring accurate and objective results that served as a strong foundation for the development of a Work Instructions Manual.

## 3. Results and Discussion

The findings revealed that Grade 11 learners in Bread and Pastry Production were generally moderately competent, with an overall mean of 3.42 (SD = 0.66). Among the different competency areas, preparing and producing bakery products received the highest rating and was described as competent (M = 3.52, SD = 0.73), while preparing pastry products (M = 3.48, SD = 0.70), gateaux, tortes, and cakes (M = 3.41, SD = 0.73), desserts (M = 3.40, SD = 0.76), and petits fours (M = 3.27, SD = 0.76) were all rated moderately competent. Although learners showed acceptable performance in basic bread and pastry tasks, the results also revealed several areas that require further improvement. Many respondents experienced challenges in accurately measuring ingredients, achieving proper dough or batter consistency, following standardized recipes, and applying correct mixing techniques. Difficulties were also evident in pastry preparation, particularly in handling tools and equipment and in shaping and decorating products. More advanced competencies posed even greater challenges, with a large number of learners struggling with icing and frosting techniques for cakes, proper use of decorating tools for petits fours, and effective dessert presentation.

In response to these findings, a Work Instructions Manual (WIM) was developed to address the least-mastered competencies and strengthen learners' practical skills in Bread and Pastry Production. The manual was designed to provide clear, organized, and easy-to-follow step-by-step procedures that guide learners in performing essential baking and pastry tasks more effectively. It focuses on improving technical skills in bakery and pastry production, including the preparation of gateaux, tortes, cakes, petits fours, and desserts, while also reinforcing the proper use of tools, equipment, and industry-standard practices. Through this structured instructional material, the WIM aims to support both teachers and learners by promoting better hands-on performance, increasing

confidence, and helping learners become more prepared for real-world workplace demands.

#### 4. Conclusion

The study established that respondents demonstrated a competent level in Bread and Pastry Production. However, notable gaps remain in specialized and technical skill areas. Difficulties in icing and frosting application, use of decorating tools, pastry dough or batter preparation, accurate measurement, adherence to standardized recipes, operation of baking equipment, and product presentation indicate the need for strengthened instructional support. These findings underscore the importance of enhancing hands-on learning experiences, improving access to appropriate tools and materials, and refining teaching strategies. In response, the development of a Work Instructions Manual (WIM) is considered essential, as it provides structured, step-by-step guidance that promotes skill improvement, consistency, and efficiency in learners' performance. Overall, the study highlights the need for a more systematic and competency-based approach to Bread and Pastry Production instruction to better prepare learners for real-world industry demands.

It is recommended that schools strengthen Bread and Pastry Production instruction through targeted training programs, practical workshops, and increased hands-on learning opportunities, particularly in specialized and advanced skill areas. Collaboration with industry professionals is encouraged to provide learners with real-world exposure and mentorship. Schools should also ensure adequate access to functional tools, equipment, and laboratory resources. Teachers are advised to enhance instructional delivery through clear demonstrations, guided practice, and frequent laboratory activities focusing on essential and technical skills. The adoption of the Work Instructions Manual (WIM) is strongly recommended to support structured, consistent, and competency-based instruction. Furthermore, future studies may evaluate the effectiveness of the WIM using varied research approaches to further improve teaching and learning outcomes in Bread and Pastry Production.

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