ACCEPTABILITY OF COMPETENCY-BASED LEARNING PACKAGE IN CARPENTRY AS PERCEIVED BY TECHNOLOGY TEACHERS

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ABSTRACT**:** *Competency-Based Training (CBT) has emerged as a globally accepted framework in technical and vocational education, focusing on the attainment of specific, industry-defined competencies rather than conventional time-based instruction. In the Philippine context, however, there remains a shortage of validated instructional resources that accurately reflect CBT principles in line with TESDA standards. This research sought to evaluate the acceptability of a Competency-Based Learning Package (CBLP) in Carpentry, as assessed by experts in this field. Utilizing a descriptive research method, twenty (20) Carpentry instructors and TLE teachers from four technical institutions in Zamboanga City reviewed the CBLP across six components namely: Intended Learning Outcomes, Instructions for Use, Information Sheets, Job Sheets, Task Sheets, and Performance Criteria through a validated four-point Likert scale. Results revealed an overall mean of 3.98, categorized as Highly Acceptable. Each component was consistently rated positively, confirming the CBLP's alignment with TESDA Carpentry NC II standards and its value as a reference material for instruction. Findings highlight the importance of continued expert validation and localization of CBT-based learning materials to enhance the quality of technical-vocational training in the Philippines.*

Keywords: Competency-Based Learning Package, Carpentry NC II, Vocational Education, TESDA, Acceptability Evaluation

INTRODUCTION

Technical and vocational education remains a vital component of human resource development, providing individuals with practical competencies required for sustainable employment and national productivity. Competency-Based Training (CBT) has been recognized as a progressive educational approach that prioritizes mastery of specific occupational skills instead of relying on traditional time-based instruction [6] and UNESCO-UNEVOC [18]. This model ensures that learners must first demonstrate the required competencies before advancing, emphasizing measurable performance outcomes and workplace relevance [3].

Numerous studies across different regions have confirmed the positive effects of CBT on employability and professional growth. For instance, Anane [2] reported that CBT fosters adaptable graduates equipped with the technical expertise and critical thinking skills necessary for modern industries. Similarly, Misbah, Gulikers, and Mulder [11] noted that CBT's structured and performance-driven framework enhances mastery learning and facilitates the transfer of skills from the classroom to real-world contexts. This approach also accommodates individual learning pace, allowing learners to progress according to their skill acquisition level [1].

In the Philippine setting, the Technical Education and Skills Development Authority (TESDA) has institutionalized CBT through the National Certificate (NC) system, which identifies core competencies and corresponding performance benchmarks for each vocational specialization. Within the Department of Education's Technology and Livelihood Education (TLE) and Technical-Vocational-Livelihood (TVL) programs, TESDA standards form the basis of competency-focused curricula [16, 8, 10]. For Carpentry NC II, prescribed competencies include basic construction skills such as laying out reference lines, installing door jambs, and setting up panels—activities that form the core of carpentry training.

Despite the widespread adoption of CBT in the country, there remains a noticeable shortage of validated instructional materials that translate TESDA's competency requirements into localized and classroom-ready resources. Existing materials are often outdated, overly generic, or based on foreign contexts that do not fully align with Philippine construction practices and available resources [13, 20]. This lack of contextual relevance undermines instructional quality and challenges TESDA's goals for maintaining competency assurance [9].

TESDA [17] and UNESCO-UNEVOC [19] emphasize the need for continuous validation and quality assurance of learning materials to ensure their alignment with evolving industry standards and pedagogical effectiveness. Yet, only a few empirical investigations in the Philippines have explored the acceptability of competency-based learning materials through expert review. Addressing this research gap is essential to ensure that CBT principles are not merely conceptualized in policy documents but are effectively practiced in real teaching and training environments.

Consequently, this study was conducted to determine the acceptability level of a Competency-Based Learning Package (CBLP) in Carpentry, as evaluated by experts in the field. The evaluation focused on six domains reflecting TESDA's framework: Intended Learning Outcomes, Instructions for Use, Information Sheets, Job Sheets, Task Sheets, and Performance Criteria. Through this expert-based assessment, the study aims to contribute to improving instructional quality in Philippine technical-vocational education and to serve as a model for evidence-based validation of CBT instructional materials.

MATERIALS AND METHODS

Research Design

The study employed a descriptive-evaluative research design, appropriate for determining the acceptability of instructional materials through expert assessment. This design allowed for a systematic analysis of the learning package's clarity, organization, and instructional quality without altering or manipulating any variables [4]. The evaluation framework was based on TESDA's competency-based training standards to ensure consistency with national qualifications and performance expectations.

Study Area and Participants

The research was carried out in Zamboanga City, Philippines, among four technical-vocational institutions that offer carpentry programs under TESDA accreditation or the Department of Education's TVL track. A total of twenty (20) carpentry experts participated as respondents. Participants were purposively selected according to the following criteria:

1. Holders of TESDA certification, preferably Carpentry NC II or higher;
2. Possession of at least three years of teaching or training experience in carpentry or related fields; and
3. Active involvement in curriculum implementation or competency assessment related to carpentry training.

This selection process ensured that only qualified practitioners with substantial professional and instructional experience participated in the evaluation.

Description of the Learning Package

The Competency-Based Learning Package (CBLP) developed for this research was designed in accordance with TESDA's [16] Training Regulations for Carpentry NC II. It focuses on two primary core competencies:

1. Laying out reference lines; and
2. Installing wooden door jambs, window frames, and panels.

Each module includes the following components:

- Intended Learning Outcomes (ILOs): Clearly identify the competencies and performance standards aligned with TESDA's qualification framework.
- Instructions for Use: Outline the procedures, learner activities, and assessment strategies.
- Information Sheets: Present theoretical and contextual content supporting carpentry skills development.
- Job Sheets and Task Sheets: Guide learners through step-by-step exercises that replicate real-world construction tasks.
- Performance Criteria: Provide rubrics for assessing skill proficiency and task completion.

The package was designed to be modular, outcomes-based, and user-friendly, ensuring ease of use for both learners and instructors.

Instrumentation

A validated researcher-made questionnaire was employed to evaluate the CBLP across the six identified domains. It utilized a four-point Likert scale, where 1 indicates *Not Acceptable* and 4 signifies *Highly Acceptable*. The instrument underwent expert validation, and a pilot test was conducted, producing a Cronbach's alpha coefficient of 0.92, which denotes excellent internal consistency and reliability.

Data Collection Procedure

Prior to distribution, authorization was obtained from the heads of the participating institutions. Copies of the CBLP and evaluation instruments were then disseminated to the respondents, who were allotted adequate time for review and completion. All twenty (20) evaluation forms were retrieved, resulting in a 100% response rate.

Data Analysis

Data gathered from the evaluations were analyzed using descriptive statistics, specifically the mean and standard deviation. The following scale was used to interpret results:

- 3.26–4.00 = Highly Acceptable
- 2.51–3.25 = Acceptable
- 1.76–2.50 = Moderately Acceptable
- 1.00–1.75 = Not Acceptable

RESULTS

Overall Acceptability

The evaluation of the Competency-Based Learning Package (CBLP) in Carpentry produced an overall grand mean of 3.98, which corresponds to a Highly Acceptable interpretation. This result indicates that field experts found the learning material clear, well-structured, and aligned with TESDA's prescribed competency standards.

Experts particularly noted the logical arrangement of activities, clarity of instructions, and contextual relevance of the materials. The job and task sheets were commended for their authenticity and close alignment with real-world carpentry practices. Similarly, the information sheets were recognized for effectively integrating theoretical knowledge with local construction examples. Minor improvements were recommended in the graphic and visual presentation of some instructional pages to enhance learner engagement and readability.

Table 1. Acceptability by Core Competency

Core Competency	Mean	Interpretation
Lay out reference lines	3.97	Highly Acceptable
Install wooden door jamb, window frame, and panels	3.98	Highly Acceptable
Grand Mean	**3.975**	**Highly Acceptable**

Table 2. Acceptability by Instructional Feature

Instructional Feature	Mean	Interpretation
Intended Learning Outcomes	3.97	Highly Acceptable
Instructions for Use	3.90	Highly Acceptable
Information Sheets	4.00	Highly Acceptable
Job Sheets	4.00	Highly Acceptable
Task Sheets	4.00	Highly Acceptable
Performance Criteria	3.95	Highly Acceptable

DISCUSSION

The findings demonstrate that the developed Competency-Based Learning Package (CBLP) in Carpentry effectively upholds the core principles of Competency-Based Training (CBT)—ensuring that learning objectives, instructional activities, and performance assessments are all synchronized with industry-defined standards. The overall Highly Acceptable evaluation indicates that experts unanimously recognized the material's quality, practical relevance, and instructional soundness.

This result supports previous studies asserting that well-structured competency-based instructional materials improve both learner mastery and teaching efficiency. Anane [2] and Boahin & Hofman [3] emphasized that instructional materials grounded in CBT frameworks lead to better learning outcomes because they allow learners to demonstrate skill proficiency through practical application. Likewise, Misbah, Gulikers, and Mulder [11] found that competence-based materials enhance the transfer of learning by creating meaningful links between classroom tasks and workplace demands.

The experts' positive assessments further confirm that the CBLP successfully bridges the gap between TESDA's formal competency framework and actual classroom implementation. This aligns with the assertions of Cunningham [6] and the National Centre for Vocational Education Research (NCVER, 2022), who both stressed that competency-based materials must transform abstract training standards into explicit, measurable, and performance-driven activities.

Moreover, these findings reinforce the recommendations of UNESCO-UNEVOC [19] and TESDA [17], which highlight the importance of continuous evaluation and validation of training materials to ensure alignment with industry needs and pedagogical quality. Odewumi and Dekom [14] likewise observed that validated CBT materials play a crucial role in promoting sustainable skills development and industry responsiveness.

The current study builds upon the concerns raised by Naelgas and Malonisio [13] and Villanueva et al. [20], who identified the scarcity of empirically validated and localized learning resources in the Philippine technical-vocational education landscape. Through its structured validation process, this research contributes not only to the improvement of instructional design but also offers a replicable model for evaluating other TESDA-based learning packages across diverse technical fields.

In essence, the study affirms that localized, evidence-based, and expert-validated learning materials are indispensable in realizing the goals of competency-based education. Such materials ensure that learners receive contextualized training aligned with national qualifications and the actual demands of the workplace.

CONCLUSION

The study concludes that the Competency-Based Learning Package (CBLP) in Carpentry achieved a Highly Acceptable rating across all domains of instructional quality and content relevance. Evaluations conducted by field experts confirmed that the developed material aligns effectively with TESDA standards, fulfilling both pedagogical and industry-specific requirements.

Overall, the CBLP demonstrates strong potential as a standardized and validated instructional resource for carpentry education. Its structure, clarity, and contextual alignment suggest that it can serve as a valuable model for future curriculum development efforts in technical-vocational institutions. By promoting consistency and contextual relevance in instruction, this learning package contributes meaningfully to the enhancement of Competency-Based Training (CBT) delivery in the Philippines.

Recommendations

1. Adoption and Implementation: The validated CBLP is recommended for use in schools and training institutions offering TESDA-accredited carpentry programs to foster standardization and improve instructional outcomes.
2. Expanded Validation: Future studies should engage a broader pool of experts from different regions to ensure the learning package's applicability and adaptability across varied training environments.
3. Integration of Learner Perspectives: Subsequent research should include feedback from learners to evaluate the material's influence on motivation, engagement, and skill acquisition.

4. Development for Other Specializations: Creating similar competency-based learning packages for other TESDA qualifications—such as masonry, plumbing, and electrical installation—is encouraged to promote uniformity and quality in technical-vocational instruction nationwide.

Acknowledgment

The researcher extends sincere appreciation to the twenty (20) carpentry experts and the four participating institutions in Zamboanga City for their time, cooperation, and valuable insights. Deep gratitude is also conveyed to the Technical Education and Skills Development Authority (TESDA) and the Department of Education (DepEd) for their continuing efforts to advance competency-based education and technical training in the Philippines.

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