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# Competency-Based Training Methodology on the Quality of Training Delivery and Trainees' Improvement in NC II Assessment Results

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***Abstract*—***This study determined the effect of the Competency-Based Training (CBT) methodology on the quality of training delivery and the NC II assessment results of trainees at RPTESDC-Binangonan. Specifically, it described the profile of the respondents and determined the level of CBT methodology implementation, it also assessed the level of quality training delivery, and identified the NC II assessment results. Additionally, it also determined the significant difference in the level of CBT methodology implementation and quality training delivery when grouped according to technical vocational course as well as the significant relationship between CBT methodology and training delivery quality. The study employed a descriptive and correlational research design. A survey questionnaire was utilized as the primary data-gathering instrument. A total of eighty (80) NC II trainees who underwent national competency assessment from December 2025 to February 2026 served as respondents. The data were analyzed using frequency, percentage, mean, standard deviation, t-test, and Pearson correlation coefficient. The findings revealed that the majority of respondents were enrolled in Shielded Metal Arc Welding (SMAW) NC I. The CBT methodology was implemented at a very high level across all indicators, including modular training delivery, self-paced learning, the use of competency standards and training regulations, and performance-based assessment tools. Similarly, the level of training delivery quality, as perceived and experienced by the trainees, was also very high in terms of actual CBT implementation, teaching–learning interaction, Occupational Health and Safety (OHS), and monitoring and evaluation. Furthermore, all trainees obtained a "Competent" rating in the evaluation. Furthermore, all trainees obtained a "Competent" rating in the national assessment, resulting in a 100% competency rate. Generally, there are no significant differences in the level of Competency-Based Training (CBT) methodology implementation and training delivery quality across technical-vocational courses. However, among the components of CBT, only performance-based assessment tools show a significant relationship with training delivery quality, while the other components do not demonstrate significant relationships. Overall, there is no significant relationship among most variables, leading to the acceptance of the null hypothesis. Therefore, it is concluded that the Competency-Based Training (CBT) methodology is effective in ensuring quality training delivery and achieving positive assessment outcomes. Furthermore, performance-based assessment plays a crucial role in enhancing training delivery quality and supporting competency development among trainees.*

***Keywords*—***Competency-based training methodology, training delivery, trainees' improvement, national certificate, assessment result.*

## I. Introduction

The Technical Education and Skills Development Authority (TESDA) serves as the leading government agency mandated to manage and supervise technical education and skills development in the Philippines. Its primary mission is to equip Filipinos with relevant competencies that match industry needs, strengthen workforce competitiveness, and promote lifelong learning opportunities (TESDA, 2022). Through its programs and certifications, TESDA ensures that trainees acquire not only technical expertise but also the practical skills required to succeed in the labor market.

One of TESDA's key strategies in enhancing technical education is the adoption of Competency-Based Training (CBT). CBT is a learner-centered, performance-based methodology that emphasizes the mastery and demonstration of competencies aligned with national industry standards. Unlike traditional time-bound instruction, CBT focuses on outcomes—ensuring that learners can apply their skills effectively in real-world settings. This approach promotes modularized instruction, self-paced learning, and rigorous performance assessment (UNESCO-UNEVOC, 2020).

The implementation of CBT plays a vital role in achieving quality training delivery. High-quality training ensures that instruction is relevant, systematic, and responsive to industry requirements. It equips trainees not only with technical knowledge but also with workplace readiness, adaptability, and problem-solving abilities. In effect, quality training delivery directly contributes to the preparedness of trainees for national competency assessments.

Equally important is the role of assessment in measuring learning outcomes. TESDA-administered national assessments serve as a benchmark for determining whether trainees have achieved the required competencies for specific qualifications. At the National Certificate II (NC II) level, performance in assessments reflects both the effectiveness of training delivery and the extent of trainee improvement under the CBT methodology. Passing the NC II assessment validates the trainees' readiness to meet industry demands and enhances their employability.

Given this context, this study focuses on Competency-Based Training methodology and its impact on the quality of training delivery and trainees' improvement in NC II assessment results at the Rizal Provincial Technical Education



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and Skills Development Center – Binangonan (RPTESDC-Binangonan). Specifically, it examines how CBT influences instructional quality, identifies its contribution to assessment outcomes, and highlights best practices and challenges in implementation. The findings of this research aim to provide insights that may guide TVET institutions, trainers, and policymakers in strengthening CBT implementation and improving overall training effectiveness.

*1.1 Statement of the Problem*

*Problem/s which were addressed by the research*

This study aims to determine the effect of the Competency-Based Training (CBT) methodology on the quality of training delivery and the improvement of trainees in NC II assessment results at RPTESDC-Binangonan.

Specifically, it seeks to answer the following questions:

1. What is the profile of the respondent based on the NC II competency-based training?
2. What is the level of Competency-Based Training (CBT) methodology implemented in RPTESDC's NC II programs, as a group, according to Technical Vocational Course trainees, in terms of:
   2.1. Modular training delivery;
   2.2. self-paced learning approach;
   2.3. use of competency standards and training regulations; and
   2.4. self-efficacy?
3. What is the level of quality training delivery as perceived and experienced by trainees when grouped according to vocational technical courses in terms of:
   3.1. CBT Methodology actual implementation;
   3.2. teaching-learning interactions;
   3.3. occupational health and safety (OHS);
   3.4. monitoring of training; and
   3.5. evaluation of training?
4. What is the level of the National Assessment result after the implementation of Competency-Based Training (CBT)?
5. Is there a significant difference on the level of competency-based training (CBT) methodology implemented as group according to technical vocational courses trainees?
6. Is there a significant difference on the level of training delivery quality on perceived experience by the group of technical vocational courses trainees?
7. Is there a significant relationship between the Competency-Based Training (CBT) methodology implemented and the quality of training delivery?

## II. Methodology

The study employed a descriptive and correlational research design. A survey questionnaire was utilized as the primary data-gathering instrument. A total of eighty (80) NC II trainees who underwent national competency assessment from December 2025 to February 2026 served as respondents. The data were analyzed using frequency, percentage, mean, standard deviation, t-test, and Pearson correlation coefficient.

## III. Results and Discussion

This part discusses the results that were yielded from the treatment of the data that was gathered in this study. The following tabular presentations and discussions further determine the effect of the Competency-Based

Training (CBT) methodology on the quality of training delivery and the improvement of trainees in NC II assessment results at RPTESDC-Binangonan.

*Profile of the Respondent Based on the NC II Competency-Based Training*

In this study, the profile of the respondents based on their enrollment in the NC II Competency-Based Training (CBT) programs was described in terms of Shielded Metal Arc Welding NC I, Shielded Metal Arc Welding NC II, Bread and Pastry Production NC II, and Organic Agriculture Production NC II. The distribution of respondents across these qualifications was analyzed using frequency counts and percentage distribution to determine the dominant training programs and the representation of each NC II qualification among the trainees.

The table below presents the profile of the Respondent Based on the NC II Competency-Based Training. It shows that the majority of trainees came from Shielded Metal Arc Welding NC I, 48 trainees or (60.00%), followed by Shielded Metal Arc Welding NC II composed of 15 or (18.75%) of the trainees, Bread and Pastry Production NC II 10 or (12.50%), and Organic Agriculture Production NC II 7 trainees or (8.75%) with the total count of 80 trainees.

**Table 1.** Profile of the Respondent Based on the NC II Competency-Based Training

| Qualification | Frequency | Percentage |
|---|---|---|
| Shielded Metal Arc Welding NC II | 15 | 18.75% |
| Bread and Pastry Production NC II | 10 | 12.50% |
| Organic Agriculture Production NC II | 7 | 8.75% |
| Shielded Metal Arc Welding NC I | 48 | 60.00% |
| Total: | 80 | |

Based on the findings, the profile of the respondents according to NC II Competency-Based Training revealed that the majority of the trainees were enrolled in Shielded Metal Arc Welding (SMAW) NC I, followed by SMAW NC II, Bread and Pastry Production NC II, and Organic Agriculture Production NC II. This indicates that welding-related qualifications attracted the highest number of trainees among the programs offered. The result implies a greater preference and demand for industrial and technical skills training, particularly in welding, which may be influenced by employment opportunities and industry demand.

Furthermore, the unequal distribution of respondents across qualifications suggests varying levels of interest and participation among the training programs. This may guide the institution in strengthening promotional strategies, resource allocation, and program enhancement, particularly for qualifications with lower enrollment such as Organic Agriculture Production NC II and Bread and Pastry Production NC II. The findings also highlight the importance of continuously assessing labor market needs to ensure that



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competency-based training programs remain relevant, responsive, and aligned with industry requirements and community development goals.

*Level of Competency-Based Training (CBT) Methodology Implemented in RPTESDC NC II Programs According to Technical Vocational Course Trainees*

In this study, the level of Competency-Based Training (CBT) methodology implemented in RPTESDC-Binangonan's NC II programs according to Technical Vocational course of trainees were describe in terms of modular training delivery, self-paced learning approach, use of competency standards and training regulations, performance-based assessment tools and was determined by the mean and standard deviation.

Table 2 presents the level of Competency-Based Training (CBT) methodology implemented in RPTESDC-Binangonan's NC II programs according to Technical Vocational course of trainees in terms of modular training delivery.

**Table 2.** Level of Competency-Based Training (CBT) Methodology Implemented in RPTESDC NC II Programs According to Technical Vocational Course of Trainees in terms of Modular Training Delivery

| Statements | Welding NC I | | Welding NC II | | Baking NC II | | Organic Agriculture NCII | |
|---|---|---|---|---|---|---|---|---|
| The Competency-Based Training Methodology's Training Delivery… | M | SD | M | SD | M | SD | M | SD |
| …provide well explain and easy to follow training module | 5.00 | 0.00 | 5.00 | 0.00 | 4.70 | 0.25 | 5.00 | 0.00 |
| …clearly defines the learning outcomes expected from the trainee. | 4.48 | 0.50 | 4.57 | 0.50 | 4.60 | 0.50 | 4.71 | 0.45 |
| …allows to learn specific skills step-by-step. | 4.88 | 0.33 | 4.93 | 0.25 | 4.90 | 0.30 | 5.00 | 0.00 |
| …provides sufficient guidance and feedback for every module. | 4.67 | 0.47 | 4.79 | 0.44 | 4.90 | 0.46 | 4.57 | 0.49 |
| …helps me understand and retain the lessons better. | 4.81 | 0.39 | 4.86 | 0.34 | 5.00 | 0.34 | 5.00 | 0.00 |
| Weighted Mean<br>SD<br>Verbal Interpretation | 4.77<br>0.42<br>Very High | | 4.81<br>0.39<br>Very High | | 4.82<br>0.35<br>Very High | | 4.86<br>0.35<br>Very High | |

As shown, trainees strongly agree that the Competency-Based Training Methodology's training delivery provide a well explain and easy to follow training module that clearly defines the learning outcomes expected from the trainee. It also allows trainees to learn specific skills step-by-step. Every module likewise provides sufficient guidance and feedback which also help trainees understand and retain the lessons better. The level of Competency-Based Training (CBT) methodology implemented in RPTESDC-Binangonan's NC II programs according to Welding NC I, Welding NC II, Baking NC II and Organic Agriculture NC II trainees in terms of modular training delivery attained the overall weighted mean of 4.77, 4.81, 4.82 and 4.86 with a standard deviation of 0.42, 0.39, 0.35 and 0.35, all verbally interpreted as "Very High" respectively. This indicates that the modular training delivery methodology was highly implemented in the Competency-Based Training (CBT).

Based on the findings, the Level of Competency-Based Training (CBT) Methodology Implemented in RPTESDC-Binangonan's NC II Programs in terms of Modular Training Delivery was verbally interpreted as Very High across Welding NC I, Welding NC II, Baking NC II, and Organic Agriculture NC II programs. This indicates that modular training delivery was highly implemented in all qualifications offered by the institution.

The result implies that the training center effectively applies modular instruction as part of the CBT methodology, enabling trainees to learn competencies in a systematic, flexible, and learner-centered manner. The consistently high weighted mean ratings further suggest that trainees were satisfied with the organization, accessibility, and effectiveness of the learning modules used during training. Moreover, the low standard deviation values indicate consistency in the respondents' assessments, reflecting uniform implementation of modular training delivery across different programs.

The findings also imply that trainers are competent in facilitating competency-based modular learning and that the institution provides adequate instructional materials and learning resources aligned with TESDA standards. Furthermore, the strong implementation of modular training delivery may contribute to improved competency acquisition, better trainee performance, and increased readiness for national assessment and employment opportunities.

In summary, the findings reveal that modular training delivery is effectively and consistently implemented in RPTESDC-Binangonan's NC II programs. The very high evaluation given by trainees demonstrates the institution's commitment to quality competency-based education and its ability to provide structured, responsive, and industry-aligned training experiences that support the development of trainees' knowledge, skills, and competencies.

Table 3 presents the level of Competency-Based Training (CBT) methodology implemented in RPTESDC NC II programs were describe in terms of self-paced learning approach.

As presented, trainees strongly agree that the Competency-Based Training Methodology's self-paced learning approach allow them to learn at own pace without feeling pressured by others' progress and manage their learning time effectively. This also give them more confidence completing tasks because materials can be reviewed as needed. The training provides appropriate support for learners with different learning speeds. The flexibility of self-paced learning improves their motivation to complete the training.



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The level of Competency-Based Training (CBT) methodology implemented in RPTESDC NC II programs according to Welding NC I, Welding NC II, Baking NC II and Organic Agriculture NC II trainees in terms of modular training delivery attained the overall weighted mean of 4.66, 4.81, 4.68 and 4.60 with a standard deviation of 0.52, 0.39, 0.56 and 0.55, all verbally interpreted as Very High respectively. This indicates that self-paced learning methodology was practiced very highly in the Competency-Based Training (CBT).

Table 3. Level of Competency-Based Training (CBT) Methodology Implemented in RPTESDC NC II Programs According to Technical Vocational Course of Trainees in terms of Self-Paced Learning Approach

| Statements | Welding NC I | | Welding NC II | | Baking NC II | | Organic Agriculture NCII | |
|---|---|---|---|---|---|---|---|---|
| The Competency-Based Training Methodology's Self-Paced Learning Approach… | M | SD | M | SD | M | SD | M | SD |
| …allow me to learn at own pace without feeling pressured by others' progress. | 4.96 | 0.20 | 5.00 | 0.00 | 4.90 | 0.30 | 4.71 | 0.45 |
| …allows to manage my learning time effectively. | 4.75 | 0.43 | 4.57 | 0.50 | 4.80 | 0.40 | 4.86 | 0.35 |
| …gives me more confidence completing tasks because materials can be reviewed as needed. | 4.60 | 0.60 | 4.93 | 0.25 | 4.50 | 0.92 | 4.86 | 0.35 |
| …provides appropriate support for learners with different learning speeds. | 4.35 | 0.59 | 4.79 | 0.44 | 4.60 | 0.66 | 4.00 | 0.53 |
| …flexibility of self-paced learning improves my motivation to complete the training. | 4.65 | 0.48 | 4.86 | 0.34 | 4.60 | 0.49 | 4.57 | 0.49 |
| Weighted Mean | 4.66 | | 4.81 | | 4.68 | | 4.60 | |
| SD | 0.52 | | 0.39 | | 0.56 | | 0.55 | |
| Verbal Interpretation | Very High | | Very High | | Very High | | Very High | |

The findings indicate that the Level of Competency-Based Training (CBT) methodology in terms of the Self-Paced Learning Approach is "Very High" across Welding NC I, Welding NC II, Baking NC II, and Organic Agriculture NC II programs. This suggests that trainees are provided with sufficient flexibility to progress through learning competencies based on their individual pace, readiness, and level of skill acquisition.

The result implies that RPTESDC-Binangonan effectively promotes learner autonomy by allowing trainees to take responsibility for their own learning progression. This fosters independence, self-regulation, and confidence, which are essential attributes in competency-based education and in preparing trainees for actual workplace conditions.

The consistently high weighted mean across all programs further implies that trainers provide appropriate guidance while still allowing learners to advance at their own pace. This balance between facilitation and independence enhances meaningful learning experiences and ensures mastery of competencies before progression to higher or more complex tasks.

The relatively low standard deviation values indicate consistency in trainees' responses, implying that the self-paced learning approach is uniformly implemented across all NC II qualifications. This suggests that institutional policies and training practices are effectively standardized in supporting CBT implementation.

Furthermore, the data suggests that self-paced training helps people retain knowledge and acquire skills better since they are not forced to follow a set schedule and are instead given the chance to practice and repeat activities until they have mastered them. This is particularly beneficial in technical-vocational fields where hands-on proficiency is essential.

The findings also suggest that the training environment is conducive to individualized learning, supported by adequate training resources, learning modules, and trainer supervision. This strengthens the effectiveness of CBT implementation and aligns with TESDA's goal of producing job-ready and competent graduates.

In summary, the findings reveal that the self-paced learning approach in RPTESDC-Binangonan's NC II programs is highly and effectively implemented across all technical-vocational courses. The very high ratings indicate that trainees are given sufficient flexibility and support to learn at their own pace while ensuring mastery of required competencies. This demonstrates the institution's strong commitment to learner-centered instruction and competency-based education, which enhances trainee confidence, skill acquisition, and readiness for assessment and employment.

Table 4 presents the level of Competency-Based Training (CBT) methodology implemented in RPTESDC-Binangonan's NC II programs as described in terms of the use of Competency Standards and Training Regulation.

As presented in the table, the trainees strongly agree that the training content is aligned with the official competency standards and training regulations. The respondents also agreed that the training regulations clearly explain and guide their learning activities and expected outcomes. Furthermore, the trainees perceived that the training content is based on the required industry competencies, ensures compliance with workplace requirements, and helps them understand how competency standards are used in measuring performance.



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Table 4. Level of Competency-Based Training (CBT) Methodology Implemented in RPTESDC NC II Programs According to Technical Vocational Course of Trainees in terms of Use of Competency Standards and Training Regulation

| Statements | Welding NC I | | Welding NC II | | Baking NC II | | Organic Agriculture NCII | |
|---|---|---|---|---|---|---|---|---|
| The Competency-Based Training Methodology's Self-Paced Learning Approach… | M | SD | M | SD | M | SD | M | SD |
| …allow me to learn at own pace without feeling pressured by others' progress. | 4.79 | 0.41 | 4.57 | 0.49 | 4.80 | 0.40 | 4.86 | 0.35 |
| …allows to manage my learning time effectively. | 4.44 | 0.57 | 4.50 | 0.50 | 4.60 | 0.49 | 4.71 | 0.45 |
| …gives me more confidence completing tasks because materials can be reviewed as needed. | 4.67 | 0.55 | 4.57 | 0.49 | 4.80 | 0.40 | 4.86 | 0.35 |
| …provides appropriate support for learners with different learning speeds. | 4.50 | 0.58 | 4.50 | 0.62 | 4.80 | 0.40 | 4.57 | 0.49 |
| …flexibility of self-paced learning improves my motivation to complete the training. | 4.63 | 0.53 | 4.43 | 0.62 | 4.80 | 0.40 | 4.86 | 0.35 |
| Weighted Mean<br>SD<br>Verbal Interpretation | 4.60<br>0.55<br>Very High | | 4.53<br>0.55<br>Very High | | 4.76<br>0.42<br>Very High | | 4.77<br>0.42<br>Very High | |

The level of Competency-Based Training (CBT) methodology implemented in RPTESDC-Binangonan's NC II programs according to Welding NC I, Welding NC II, Baking NC II, and Organic Agriculture NC II trainees in terms of the use of Competency Standards and Training Regulation attained overall weighted means of 4.60, 4.53, 4.76, and 4.77, with standard deviations of 0.55, 0.55, 0.42, and 0.42, respectively, all verbally interpreted as "Very High". This indicates that Competency Standards and Training Regulations are very highly utilized across all NC II programs. The findings imply that RPTESDC-Binangonan effectively implements competency standards and training regulations in delivering its technical-vocational programs. The very high ratings suggest that trainees clearly understand the competencies required in their respective qualifications and recognize the relevance of training regulations in guiding their learning process.

The result also implies that the institution ensures alignment between training delivery and industry standards, enabling trainees to acquire competencies that are responsive to workplace demands. This strengthens the credibility and quality of the training programs and increases trainees' preparedness for national assessment and future employment.

Moreover, the findings suggest that trainers effectively communicate competency requirements, performance criteria, and expected learning outcomes to trainees. This promotes clarity in instruction, strengthens trainee understanding of workplace expectations, and encourages competency mastery. The consistently high ratings further imply that the use of competency standards and training regulations contributes to systematic and organized training delivery. This allows trainees to monitor their progress and understand the performance standards required for successful competency assessment.

The relatively low standard deviation values indicate consistency in the trainees' responses, suggesting that the implementation of competency standards and training regulations is uniformly practiced across all technical-vocational qualifications in the institution.

Additionally, the findings imply that the institution's adherence to TESDA competency standards supports quality assurance in training delivery. This helps ensure that trainees develop industry-relevant knowledge, skills, and attitudes necessary for employment and certification.

In summary, the findings reveal that the use of Competency Standards and Training Regulation in RPTESDC-Binangonan's NC II programs is highly implemented and positively perceived by trainees across Welding NC I, Welding NC II, Baking NC II, and Organic Agriculture NC II qualifications. The very high ratings demonstrate that the institution consistently applies competency-based principles aligned with TESDA standards and industry requirements. This contributes to effective training delivery, competency development, and improved readiness of trainees for national assessment and employment opportunities.

Table 5 presents the level of Competency-Based Training (CBT) methodology implemented in RPTESDC-Binangonan's NC II programs in terms of Performance-Based Assessment Tools.

As presented in the table, the trainees strongly agree that performance-based assessment tools measure their actual performance and skills rather than focusing solely on theoretical knowledge. The respondents also agreed that assessment criteria are provided before the conduct of assessment tasks, which helps them understand expectations and ensures that tasks reflect real workplace scenarios.

Furthermore, trainees indicated that assessor feedback helps improve their technical and practical skills, and that performance-based assessments fairly evaluate their competencies.

The level of Competency-Based Training (CBT) methodology implemented in RPTESDC-Binangonan's NC II programs according to Welding NC I, Welding NC II, Baking NC II, and Organic Agriculture NC II trainees in terms of



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Performance-Based Assessment Tools attained overall weighted means of 4.61, 4.49, 4.56, and 4.60, with standard deviations of 0.55, 0.62, 0.51, and 0.49, respectively, all verbally interpreted as Very High. This indicates that performance-based assessment tools are highly utilized in the training implementation.

**Table 5.** Level of Competency-Based Training (CBT) Methodology Implemented in RPTESDC NC II Programs According to Technical Vocational Course of Trainees in terms of Performance-Based Assessment Tools

| Statements | Welding NC I | | Welding NC II | | Baking NC II | | Organic NCII | Agriculture |
|---|---|---|---|---|---|---|---|---|
| The Competency-Based Training Methodology's Self-Paced Learning Approach… | M | SD | M | SD | M | SD | M | SD |
| …measure my actual performance and skills, not just theory. | 4.77 | 0.42 | 4.29 | 0.79 | 4.30 | 0.46 | 4.86 | 0.35 |
| …criteria is given before performing any assessment task. | 4.29 | 0.64 | 4.43 | 0.71 | 4.50 | 0.50 | 4.29 | 0.45 |
| …accurately reflect real workplace scenarios. | 4.69 | 0.51 | 4.50 | 0.50 | 4.70 | 0.46 | 4.71 | 0.45 |
| …feedback from the assessor helps improve technical and practical skills. | 4.63 | 0.53 | 4.79 | 0.44 | 4.60 | 0.66 | 4.57 | 0.49 |
| …performance-based assessments fairly evaluate my competencies. | 4.69 | 0.51 | 4.50 | 0.50 | 4.70 | 0.46 | 4.57 | 0.49 |
| Weighted Mean | 4.61 | | 4.49 | | 4.56 | | 4.60 | |
| SD | 0.55 | | 0.62 | | 0.51 | | 0.49 | |
| Verbal Interpretation | Very High | | Very High | | Very High | | Very High | |

The findings indicate that the level of Competency-Based Training (CBT) methodology in terms of assessment practices is very high across Welding NC I, Welding NC II, Baking NC II, and Organic Agriculture NC II programs. This suggests that performance-based assessment is effectively implemented and aligned with the competency requirements of each qualification.

The result implies that trainees perceive assessment activities as reflective of their actual technical and practical skills rather than being limited to theoretical evaluation. This demonstrates that the institution effectively applies competency-based assessment principles that emphasize hands-on performance and workplace readiness.

The high ratings on statements related to real workplace scenarios indicate that assessment activities are designed to simulate authentic industry conditions. This suggests that trainees are exposed to practical tasks that enhance their confidence, competence, and employability.

Moreover, the findings imply that trainees are provided with clear assessment criteria prior to evaluation, ensuring transparency and helping them prepare effectively. This allows learners to focus on meeting competency standards and understanding performance expectations.

The very high ratings regarding assessor feedback further imply that trainers and assessors provide constructive evaluation that supports continuous improvement. This indicates that assessment is both evaluative and developmental, contributing to the enhancement of trainee competencies.

The results also imply that performance-based assessments are perceived as fair and objective by trainees. This strengthens the credibility of the assessment system and ensures alignment with TESDA competency standards.

Additionally, the relatively low standard deviation values indicate consistency in trainees' responses across all qualifications, suggesting that performance-based assessment practices are uniformly implemented throughout the institution's NC II programs.

The findings further imply that the institution maintains a competency-focused training environment where assessment supports mastery learning, practical application, and continuous skills development. This contributes to producing competent, industry-ready graduates.

In summary, the findings reveal that competency-based assessment practices in RPTESDC-Binangonan's NC II programs are highly implemented and positively perceived by trainees across Welding NC I, Welding NC II, Baking NC II, and Organic Agriculture NC II qualifications. The very high ratings indicate that performance-based assessments effectively measure actual competencies, reflect workplace conditions, provide clear criteria, and offer meaningful feedback. These results demonstrate the institution's strong adherence to competency-based education principles and its commitment to delivering industry-aligned, practical, and performance-oriented training programs.

The finding that performance-based assessment tools are highly implemented is strongly supported by recent TVET literature emphasizing authentic, competency-driven evaluation systems.

Performance-based assessment is a core feature of Competency-Based Training, where learners are evaluated based on actual demonstration of skills rather than written examinations.

*Level of Quality Training Delivery as Perceived and Experienced by Trainees*

In this study, the level of training delivery quality as perceived and experienced by trainees was described in terms of the actual implementation of Competency-Based Training (CBT) methodology, teaching–learning interactions between trainers and trainees, occupational health and safety (OHS), and monitoring and evaluation of training delivery. The data were analyzed using the mean and standard deviation.

Table 6 presents the level of training delivery quality as perceived and experienced by trainees in terms of the actual implementation of CBT methodology.

As presented in the table, the trainees strongly agree that training delivery through the Competency-Based Training (CBT) methodology consistently applies its core principles. The respondents also agreed that training is based on competency standards and training regulations and focuses on the development of workplace-required skills. Furthermore,



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trainees affirmed that training delivery clearly provides performance criteria before each learning task and is effectively implemented to help them achieve job-related competencies.

Table 6. Level of Training Delivery Quality as Perceived and Experienced by the Group of Technical Vocational Courses Trainees in terms of Actual Implementation of CBT Methodology

| Statements | Welding NC I | | Welding NC II | | Baking NC II | | Organic Agriculture NCII | |
|---|---|---|---|---|---|---|---|---|
| The quality of training delivery through competency-based training methodology is… | M | SD | M | SD | M | SD | M | SD |
| …consistently applies the principles of the Competency-Based Training (CBT) methodology. | 4.90 | 0.31 | 4.71 | 0.77 | 4.90 | 0.30 | 4.71 | 0.45 |
| …establish based on competency standards and training regulations. | 4.63 | 0.48 | 4.64 | 0.49 | 4.40 | 0.49 | 4.29 | 1.03 |
| …focus on the development of skills required in the workplace. | 4.73 | 0.60 | 4.86 | 0.57 | 4.90 | 0.30 | 4.43 | 1.05 |
| …clear that provide performance criteria before each learning task. | 4.73 | 0.49 | 4.57 | 0.50 | 4.50 | 0.50 | 4.57 | 0.73 |
| …effectively implemented to help trainees achieve job-related competencies. | 4.38 | 0.48 | 4.64 | 0.47 | 4.10 | 0.30 | 4.14 | 0.35 |
| Weighted Mean | 4.67 | | 4.65 | | 4.56 | | 4.43 | |
| SD | 0.51 | | 0.58 | | 0.38 | | 0.80 | |
| Verbal Interpretation | Very High | | Very High | | Very High | | Very High | |

The level of training delivery quality as perceived and experienced by Welding NC I, Welding NC II, Baking NC II, and Organic Agriculture NC II trainees in terms of actual implementation of CBT methodology attained overall weighted means of 4.67, 4.65, 4.56, and 4.43, with standard deviations of 0.51, 0.58, 0.38, and 0.80, respectively, all verbally interpreted as Very High. This indicates that the actual implementation of CBT methodology during training is of very high quality as experienced by the trainees.

The findings indicate that the level of training delivery quality in terms of actual CBT implementation is very high across all NC II programs. This suggests that trainees consistently experience a well-structured, competency-based training environment across Welding NC I, Welding NC II, Baking NC II, and Organic Agriculture NC II.

The result implies that the institution consistently applies the core principles of CBT in actual training delivery. This indicates that learning activities are systematically aligned with competency standards and training regulations, ensuring that instruction remains structured, standardized, and outcomes-based.

The high ratings also imply that training delivery is strongly focused on workplace-relevant skills development. This suggests that trainees are exposed to practical and industry-aligned learning experiences that enhance their readiness for employment and national assessment.

Furthermore, the findings imply that trainees experience clarity in instructional delivery, particularly in the provision of performance criteria before each learning task. This promotes transparency in training, allowing learners to clearly understand expectations and focus on achieving required competencies.

The results also suggest that the institution effectively integrates CBT principles into daily training implementation, ensuring that learning is competency-driven rather than time-based. This strengthens the relevance of training and supports mastery of essential skills.

The relatively high weighted means across all programs imply that trainers consistently implement structured and organized instruction. This indicates that facilitators are competent in delivering CBT-based training and are able to guide learners effectively toward competency attainment.

However, the relatively higher standard deviation in some indicators, particularly in Organic Agriculture NC II, implies some variation in trainees' experiences. This may suggest differences in resource availability, training conditions, or contextual factors in field-based learning environments.

Despite this, the overall very high ratings imply that the institution maintains an effective and responsive training delivery system that supports learner development, skill acquisition, and competency mastery across different technical-vocational programs.

In summary, the findings reveal that the actual implementation of Competency-Based Training (CBT) methodology in RPTESDC-Binangonan's NC II programs is highly effective and consistently experienced by trainees across all qualifications. The very high ratings indicate that training delivery is aligned with competency standards, focused on workplace skills, clearly structured with performance criteria, and effectively implemented to develop job-related competencies. These results demonstrate the institution's strong commitment to quality training delivery, ensuring that trainees acquire relevant skills, demonstrate competency mastery, and are well-prepared for employment and certification requirements.

*Level of Training Delivery Quality as Perceived and Experienced by the Group of Technical Vocational Courses Trainees*



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Table 7 presents the level of training delivery quality as perceived and experienced by trainees in terms of teaching-learning interaction between trainers and trainees.

As presented, trainees strongly agree that the quality of training delivery through teaching-learning interaction between trainers and trainees ensures active participation and collaboration among trainees and provide clear explanations and demonstrates the required skills effectively. The quality of training delivery also improve through performance and understanding and open communication between trainers and trainees for better learning environments. Trainees are likewise individually guided based on the trainee's learning needs and pace.

Table 7. Level of Training Delivery Quality as Perceived and Experienced by the Group of Technical Vocational Courses Trainees in terms of Teaching-Learning Interaction between Trainers and Trainees

| Statements | Welding NC I | | Welding NC II | | Baking NC II | | Organic Agriculture NCII | |
|---|---|---|---|---|---|---|---|---|
| The quality of training delivery through teaching-learning interaction between trainers and trainees are… | M | SD | M | SD | M | SD | M | SD |
| …active participation and collaboration among trainees. | 4.67 | 0.47 | 4.86 | 0.34 | 4.40 | 0.49 | 5.00 | 0.00 |
| …clear explanations and demonstrates the required skills effectively. | 4.42 | 0.57 | 4.57 | 0.49 | 4.70 | 0.46 | 4.29 | 0.45 |
| 3. Improve through performance and understanding. | 4.48 | 0.57 | 4.93 | 0.25 | 4.40 | 0.49 | 4.57 | 0.49 |
| …open communication between trainers and trainees for better learning environments. | 4.54 | 0.58 | 4.43 | 0.50 | 4.70 | 0.46 | 4.57 | 0.49 |
| …individually guided based on the trainee's learning needs and pace. | 4.60 | 0.60 | 4.43 | 0.50 | 4.40 | 0.66 | 4.57 | 0.49 |
| Weighted Mean<br>SD<br>Verbal Interpretation | 4.54<br>0.57<br>Very High | | 4.67<br>0.47<br>Very High | | 4.52<br>0.51<br>Very High | | 4.60<br>0.49<br>Very High | |

The level of training delivery quality as Perceived and Experienced by Welding NC I, Welding NC II, Baking NC II and Organic Agriculture NC II Trainees in terms of Actual Implementation of CBT Methodology attained the overall weighted mean of 4.54, 4.67, 4.52 and 4.60 with a standard deviation of 0.57, 0.47, 0.51 and 0.49, all verbally interpreted as Very High respectively.

The findings on the level of training delivery quality in terms of teaching–learning interaction between trainers and trainees across Welding NC I, Welding NC II, Baking NC II, and Organic Agriculture NC II reveal several important implications.

The consistently very high weighted means ranging from 4.52 to 4.67 across all NC II qualifications indicate that trainees generally perceive and experience a highly effective teaching–learning interaction. This suggests that Competency-Based Training (CBT) is being implemented effectively across different technical-vocational programs, ensuring that trainer–trainee engagement is consistently maintained regardless of course specialization. Such results imply that training centers are adhering to standardized instructional practices that promote quality and consistency in training delivery.

Among the indicators, Organic Agriculture NC II obtained the highest weighted mean (M = 4.60), with an exceptionally high rating in active participation and collaboration (M = 5.00, SD = 0.00). This implies that trainees in this program experience a highly engaging and participatory learning environment. The result further suggests that the nature of agricultural training, which is largely hands-on and experiential, contributes significantly to stronger learner engagement and collaboration.

However, although all indicators obtained very high ratings, slightly lower means were observed in aspects such as individualized guidance based on trainees' learning needs and pace, particularly in Baking NC II (M = 4.40) and Welding NC II (M = 4.43). This implies that while instruction is generally effective, there is still a need to strengthen differentiated instruction and personalized learning support to address varying trainee competencies and learning speeds.

In addition, high ratings in indicators such as clear explanations and demonstration of skills, open communication, and improvement through performance and understanding indicate that trainers are effective in delivering instruction and facilitating meaningful learning experiences. This further implies that CBT principles, particularly performance-based learning and competency mastery, are well integrated into the training delivery process.

Overall, the results imply that the teaching–learning interaction in CBT implementation is highly effective across all NC II programs. Nevertheless, continuous improvement may be directed toward enhancing individualized instruction and sustaining high levels of learner engagement to further strengthen the quality of training delivery.

Table 8 presents the level of training delivery quality as perceived and experienced by trainees in terms of Occupational Health and Safety (OHS).

As presented, trainees strongly agree that the Occupational Health and Safety (OHS) of Competency-Based Training Methodology ensure that all safety procedures are observed during training activities and that trainees are oriented about Occupational Health and Safety rules before hands-on activities, and are equipped with proper safety tools, signage,



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and first-aid facilities. Trainers remind and monitor trainees to follow safety standards in compliant with OHS policies is strictly enforced to prevent accidents during training.

Table 8. Level of Training Delivery Quality as Perceived and Experienced by the Group of Technical Vocational Courses Trainees in terms of Occupational Health and Safety (OHS)

| Statements | Welding NC I | | Welding NC II | | Baking NC II | | Organic Agriculture NCII | |
|---|---|---|---|---|---|---|---|---|
| The occupational health and safety (OHS) of competency-based training methodology are… | M | SD | M | SD | M | SD | M | SD |
| …ensure that all safety procedures are observed during training activities. | 4.60 | 0.57 | 4.43 | 0.62 | 4.80 | 0.40 | 5.00 | 0.00 |
| …oriented about Occupational Health and Safety rules before hands-on activities. | 4.52 | 0.58 | 4.43 | 0.61 | 4.50 | 0.50 | 4.43 | 0.49 |
| …equipped with proper safety tools, signage, and first-aid facilities. | 4.42 | 0.61 | 4.50 | 0.62 | 4.40 | 0.49 | 4.71 | 0.45 |
| …remind and monitor trainees to follow safety standards. | 4.60 | 0.57 | 4.50 | 0.50 | 4.70 | 0.46 | 4.29 | 0.45 |
| …compliant with OHS policies is strictly enforced to prevent accidents during training. | 4.65 | 0.48 | 4.86 | 0.40 | 4.50 | 0.67 | 4.57 | 0.49 |
| Weighted Mean<br>SD<br>Verbal Interpretation | 4.56<br>0.57<br>Very High | | 4.55<br>0.57<br>Very High | | 4.58<br>0.50<br>Very High | | 4.60<br>0.49<br>Very High | |

The level of training delivery quality as Perceived and Experienced by Welding NC I, Welding NC II, Baking NC II and Organic Agriculture NC II Trainees in terms of Actual Implementation of CBT Methodology attained the overall weighted mean of 4.56, 4.55, 4.58 and 4.60 with a standard deviation of 0.57, 0.57, 0.50 and 0.49, all verbally interpreted as Very High respectively. This indicates that the health and safety practices are given utmost priority during training.

The findings indicate that the Level of Training Delivery Quality as Perceived and Experienced by the Group of Technical Vocational Courses Trainees in terms of Occupational Health and Safety (OHS) was consistently rated as "Very High" across all program qualifications, namely Welding NC I, Welding NC II, Bread and Pastry Production NC II, and Organic Agriculture Production NC II. From a researcher's point of view, this implies that the training center effectively integrates Occupational Health and Safety standards into the delivery of competency-based training, thereby creating a safe and secure learning environment for trainees.

The consistently high weighted means suggest that trainees perceived the implementation of safety procedures, orientation on OHS rules, provision of safety equipment, monitoring of safety compliance, and enforcement of OHS policies as highly evident during training activities. This implies that the institution recognizes the importance of safety not only as a regulatory requirement but also as an essential component of quality training delivery. The result further reflects the trainers' commitment to promoting a culture of safety awareness and discipline among trainees, which is critical in technical-vocational education where learners are exposed to potentially hazardous tools, equipment, and workplace simulations.

Moreover, the findings imply that the competency-based training environment prepares trainees to develop safe work habits and occupational responsibility before entering actual industry settings. Since technical-vocational courses such as welding, baking, and organic agriculture involve practical and hands-on activities, effective OHS implementation may contribute to reducing accidents, preventing injuries, and improving trainee confidence and participation during laboratory and workshop activities.

The very high ratings in all programs also imply that the availability of safety tools, signage, and first-aid facilities strengthens trainees' perception of institutional readiness and preparedness in handling emergencies and ensuring learner protection. This may further enhance the overall effectiveness of training delivery because trainees are more likely to perform tasks efficiently when they feel secure and guided within the learning environment.

In addition, the minimal variation in standard deviation values indicates that trainees shared relatively consistent perceptions regarding the quality of OHS practices implemented in the training center. This consistency implies that OHS measures are uniformly applied across different qualifications and are not limited to a specific training area alone.

From a broader educational perspective, the findings imply that strong adherence to Occupational Health and Safety standards may positively influence the overall quality of competency-based training by promoting discipline, professionalism, and industry-aligned workplace behavior among trainees. Consequently, maintaining and continuously improving OHS practices may contribute to better trainee performance, higher training satisfaction, and improved employability outcomes among graduates of technical-vocational education programs.

The findings of the study revealed that the Level of Training Delivery Quality as Perceived and Experienced by the Group of Technical Vocational Courses Trainees in terms of Occupational Health and Safety (OHS) was interpreted as



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"Very High" across Welding NC I, Welding NC II, Bread and Pastry Production NC II, and Organic Agriculture Production NC II. This result is supported by several related studies which emphasized the importance of Occupational Health and Safety practices in competency-based and technical-vocational training programs.

*Level of Training Delivery Quality as Perceived and Experienced by the Group of Technical Vocational Courses Trainees*

Table 9 presents the level of training delivery quality as perceived and experienced by trainees in terms of monitoring and evaluation of training delivery.

Table 9. Level of Training Delivery Quality as Perceived and Experienced by the Group of Technical Vocational Courses Trainees in terms of Monitoring and Evaluation of Training Delivery

| Statements | Welding NC I | | Welding NC II | | Baking NC II | | Organic Agriculture NCII | |
|---|---|---|---|---|---|---|---|---|
| The monitoring and evaluation of training of trainees on competency-based training methodology are… | M | SD | M | SD | M | SD | M | SD |
| …regularly monitors the progress of training implementation. | 4.73 | 0.44 | 4.64 | 0.47 | 4.60 | 0.49 | 4.71 | 0.45 |
| …emplace feedback mechanisms to assess the effectiveness of training sessions. | 4.29 | 0.61 | 4.71 | 0.60 | 4.00 | 0.63 | 4.71 | 0.45 |
| …used to improve future training programs. | 4.56 | 0.54 | 4.79 | 0.44 | 4.80 | 0.40 | 5.00 | 0.00 |
| …regularly assess to ensure that the learning outcomes are being met. | 4.46 | 0.58 | 4.71 | 0.44 | 4.50 | 0.50 | 4.29 | 0.45 |
| …maintain through the alignment with competency standards. | 4.52 | 0.50 | 4.86 | 0.34 | 4.70 | 0.46 | 5.00 | 0.00 |
| Weighted Mean | 4.51 | | 4.73 | | 4.52 | | 4.74 | |
| SD | 0.56 | | 0.47 | | 0.50 | | 0.44 | |
| Verbal Interpretation | Very High | | Very High | | Very High | | Very High | |

As presented, trainees strongly agree that the monitoring and evaluation of training of trainees on Competency-Based Training Methodology regularly monitor the progress of training implementation. It emplace feedback mechanisms to assess the effectiveness of training sessions and are used to improve future training programs. And regularly assessed to ensure that the learning outcomes are being met. Monitoring and evaluation are also maintained through the alignment with competency standards.

The level of training delivery quality as Perceived and Experienced by Welding NC I, Welding NC II, Baking NC II and Organic Agriculture NC II Trainees in terms of Actual Implementation of CBT Methodology attained the overall weighted mean of 4.51, 4.73, 4.52 and 4.74 with a standard deviation of 0.56, 0.47, 0.50 and 0.44, all verbally interpreted as Very High respectively. This indicates that the training are perceived to be very highly monitored and evaluated.

The findings revealed that the Level of Training Delivery Quality as Perceived and Experienced by the Group of Technical Vocational Courses Trainees in terms of Monitoring and Evaluation of Training Delivery was interpreted as "Very High" across Welding NC I, Welding NC II, Bread and Pastry Production NC II, and Organic Agriculture Production NC II. From a researcher's perspective, this implies that the training center demonstrates strong implementation of monitoring and evaluation mechanisms that support the effectiveness and continuous improvement of competency-based training delivery.

The very high ratings indicate that trainees perceived the monitoring of training implementation, assessment of learning outcomes, feedback mechanisms, and alignment of training with competency standards as highly evident in the conduct of the programs. This implies that the institution places significant importance on systematic evaluation processes to ensure that training objectives are achieved and that trainees acquire the required competencies expected in technical-vocational education and training.

The findings further imply that trainers and program implementers actively monitor trainee progress and training activities to determine whether learning competencies are being attained effectively. Regular assessment and monitoring may contribute to early identification of learning gaps, allowing trainers to provide timely interventions, reinforcement activities, and instructional adjustments that enhance trainee performance and competency acquisition.

Moreover, the high ratings on the use of feedback mechanisms imply that the training center values the insights and experiences of trainees in evaluating the effectiveness of training sessions. This suggests that feedback obtained from trainees may serve as an important basis for improving instructional strategies, upgrading training methodologies, and refining future training programs to better address learner needs and industry requirements.

The results also imply that the alignment of training implementation with competency standards is consistently maintained across all qualifications. This indicates that the institution adheres to the principles of competency-based training by ensuring that training activities, assessments, and learning outcomes remain consistent with TESDA standards and industry expectations. Such alignment is essential in preparing trainees to meet workplace competencies and increasing their employability after training completion.

In addition, the relatively low standard deviation values suggest that trainees shared consistent perceptions regarding the effectiveness of monitoring and evaluation practices within



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the training programs. This consistency implies that monitoring systems and evaluation procedures are implemented uniformly across different technical-vocational qualifications, regardless of the nature of the course.

The findings imply that effective monitoring and evaluation practices contribute significantly to the overall quality assurance of technical-vocational education programs. Strong monitoring systems may help ensure accountability, maintain training quality, strengthen curriculum implementation, and support evidence-based decision-making for program enhancement. Consequently, maintaining effective monitoring and evaluation mechanisms may improve trainee competency development, training satisfaction, and the overall success of competency-based training programs.

The findings of the study revealed that the Level of Training Delivery Quality as Perceived and Experienced by the Group of Technical Vocational Courses Trainees in terms of Monitoring and Evaluation of Training Delivery was interpreted as "Very High" across Welding NC I, Welding NC II, Bread and Pastry Production NC II, and Organic Agriculture Production NC II. This result is strongly supported by related literature emphasizing that monitoring and evaluation (M&E) is a critical component of quality assurance in Technical-Vocational Education and Training (TVET), particularly in competency-based programs such as welding, food production, and agriculture.

*Level of NC II Assessment Result After the Implementation of Competency-Based Training (CBT)*

The table presents the level of NC II Assessment Result After the Implementation of Competency-Based Training (CBT). It shows that all trainees in different qualifications achieved a Competent result in the National Assessment after the implementation of Competency-Based Training (CBT). The majority of passers came from Shielded Metal Arc Welding NC I 48 trainees or (60.00%), followed by Shielded Metal Arc Welding NC II composed of 15 or (18.75%) of the trainees, Bread and Pastry Production NC II 10 or (12.50%), and Organic Agriculture Production NC II 7 trainees or (8.75%).

Table 10. Level of NC II Assessment Result After the Implementation of Competency-Based Training (CBT)

| Qualification | Frequency | Percentage | National Assessment Result |
|---|---|---|---|
| Shielded Metal Arc Welding NC II | 15 | 18.75% | Competent |
| Bread and Pastry Production NC II | 10 | 12.50% | Competent |
| Organic Agriculture Production NC II | 7 | 8.75% | Competent |
| Shielded Metal Arc Welding NC I | 48 | 60.00% | Competent |
| **Total** | N=80 | | Competent |

The findings of the study revealed that all trainees across the four qualifications—Shielded Metal Arc Welding NC I, Shielded Metal Arc Welding NC II, Bread and Pastry Production NC II, and Organic Agriculture Production NC II—were rated as Competent in the National Assessment after the implementation of Competency-Based Training (CBT). From a researcher's point of view, this result carries several important implications regarding the effectiveness of CBT in technical-vocational education and training.

The uniformity of the assessment outcome, where 100% of the trainees achieved a "Competent" rating, implies that the CBT approach implemented in the training center is effective in developing the required knowledge, skills, and attitudes of learners aligned with TESDA competency standards. This suggests that the training delivery processes, including instruction, hands-on activities, and assessment preparation, are appropriately aligned with national qualification requirements, thereby enabling trainees to successfully meet the standards of the National Certification system.

The result further implies that the Competency-Based Training methodology provides sufficient opportunities for learners to acquire practical and job-ready skills, particularly in high-skill technical areas such as welding, baking, and organic agriculture. The presence of structured training, supervised hands-on activities, and continuous assessment likely contributed to the successful attainment of competencies, ensuring that trainees were adequately prepared for the national assessment.

Moreover, the findings imply that the training center has effectively implemented a performance-oriented training environment where learning is mastery-based rather than time-bound. This ensures that trainees progress only after demonstrating required competencies, which is reflected in the consistent "Competent" outcomes across all qualifications. Such an approach enhances skill mastery and increases the likelihood of certification success.

In addition, the high percentage of Shielded Metal Arc Welding NC I trainees (60%) attaining competency implies that entry-level welding training remains a strong area of program implementation, possibly due to more foundational skill requirements and greater exposure to hands-on practice. Meanwhile, the consistent competency results across NC II qualifications indicate that even more advanced and specialized training programs are effectively delivered, supporting the readiness of trainees for industry employment. The findings also imply that the CBT implementation contributes positively to employability outcomes, as National Certification serves as a recognized benchmark of workforce readiness. Achieving a "Competent" rating across all programs suggests that graduates are equipped with industry-standard skills, increasing their chances of employment in both local and international labor markets.

From a quality assurance perspective, the result implies that the training institution maintains strong alignment between curriculum delivery, competency standards, and assessment preparation. This alignment is essential in ensuring that training programs remain relevant, responsive, and compliant with TESDA requirements.

Overall, the findings suggest that the implementation of Competency-Based Training is effective in producing competent graduates across Welding NC I and NC II, Bread and Pastry Production NC II, and Organic Agriculture Production NC II, thereby reinforcing the effectiveness of CBT as a training approach in technical-vocational education.



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The finding that all trainees across Welding NC I, Welding NC II, Bread and Pastry Production NC II, and Organic Agriculture Production NC II attained a "Competent" rating in the national assessment is supported by recent literature emphasizing the effectiveness of Competency-Based Training (CBT) in ensuring mastery of required skills and alignment with industry standards.

Table 11. Significant Difference on the Level of Competency-Based Training (CBT) Methodology Implemented in RPTESDC-Binangonan According to Technical Vocational Courses

| Competency-Based Training Methodology | Welding NC I | | Welding NC II | | Baking NC II | | Organic Agri NC II | | f-value | p-value |
|---|---|---|---|---|---|---|---|---|---|---|
| | M | SD | M | SD | M | SD | M | SD | | |
| Modular Training Delivery | 4.77 | 0.42 | 4.81 | 0.39 | 4.82 | 0.35 | 4.86 | 0.35 | 0.77 | .517 |
| Self-paced Learning Approach | 4.66 | 0.52 | 4.68 | 0.52 | 4.68 | 0.56 | 4.60 | 0.55 | 0.23 | .875 |
| Use of Competency Standards and Training Regulations | 4.60 | 0.55 | 4.53 | 0.76 | 4.42 | 0.55 | 4.77 | 0.42 | 3.27 | 0.026* |
| Performance-Based Assessment Tools | 4.61 | 0.55 | 4.49 | 0.62 | 4.56 | 0.51 | 4.60 | 0.49 | 0.91 | .441 |

Note: p<.05

As shown, most components of the CBT methodology did not show statistically significant differences among the four courses (Welding NC I, Welding NC II, Baking NC II, and Organic Agriculture NC II), as evidenced by p-values greater than the 0.05 level of significance. Specifically, Modular Training Delivery (f = 0.77, p = .517), Self-paced Learning Approach (f = 0.23, p = .875), and Performance-Based Assessment Tools (f = 0.91, p = .441) indicate that trainees across the different courses have comparable perceptions regarding the implementation of these CBT components. This implies consistent and standardized delivery of these aspects of the training methodology across programs.

However, a statistically significant difference was found in the Use of Competency Standards and Training Regulations (f = 3.27, p = .026), since the p-value is less than 0.05. This implies that trainees from different courses perceive variations in how competency standards and training regulations are applied. Notably, Organic Agriculture NC II obtained the highest mean (M = 4.77, SD = 0.42), while Baking NC II had the lowest (M = 4.42, SD = 0.55), indicating that the implementation of standards may be more emphasized or better experienced in some courses than others.

The findings of the study imply that the implementation of Competency-Based Training (CBT) methodology in RPTESDC-Binangonan is generally consistent and standardized across most technical-vocational courses, particularly in terms of Modular Training Delivery, Self-Paced Learning Approach, and Performance-Based Assessment Tools. The absence of significant differences in these components suggests that trainees from Welding NC I, Welding NC II, Baking NC II, and Organic Agriculture NC II experience a relatively uniform training delivery system. This implies that the institution effectively applies a common CBT framework, ensuring that core instructional strategies are implemented equally across different qualifications regardless of specialization.

The consistency in Modular Training Delivery further implies that learning materials, training modules, and instructional sequencing are similarly structured and implemented across programs. This standardization is essential in maintaining quality assurance in TVET, as it ensures that all trainees are exposed to comparable learning conditions that support competency development. Likewise, the uniformity in self-paced learning approach suggests that trainees are given equal opportunities to progress at their own learning speed, which is a key principle of CBT and indicates learner-centered implementation across all courses.

Moreover, the non-significant difference in performance-based assessment tools implies that assessment practices are consistently applied across programs, ensuring fairness, reliability, and alignment with competency standards. This suggests that trainees, regardless of their qualification, are evaluated using similar assessment principles that focus on actual performance and demonstration of skills, which is critical in ensuring validity in competency measurement.

However, the presence of a significant difference in the Use of Competency Standards and Training Regulations implies that there are variations in how different programs implement or emphasize TESDA competency standards and training regulations. This suggests that while the general CBT framework is consistently applied, certain courses—particularly Organic Agriculture NC II—may have stronger integration or more effective application of competency standards compared to others such as Baking NC II. This variation may be attributed to differences in instructional emphasis, availability of updated training regulations, industry exposure, or trainer interpretation of competency requirements.

From a broader perspective, this finding implies that the institution has successfully standardized most components of CBT implementation, but there remains a need to strengthen uniformity in the application of competency standards across all qualifications. Addressing this gap is essential to ensure full alignment with TESDA requirements and to guarantee that all trainees, regardless of course, receive equal quality of competency-based instruction.

Overall, the results imply that while RPTESDC-Binangonan demonstrates strong and consistent implementation of CBT methodology, continuous improvement is still necessary in ensuring equal application of competency standards and training regulations across all technical-vocational programs to further enhance training quality and outcomes.

The finding that there is a significant difference in the implementation of Competency-Based Training (CBT) methodology across technical-vocational courses, particularly in the Use of Competency Standards and Training Regulations, is supported by recent literature emphasizing that CBT implementation in TVET is not always uniform across qualifications.



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In this study, the significant difference on the level of Competency-Based Training (CBT) methodology implemented in RPTESDC-Binangonan according to Technical Vocational Courses were analyzed applying Analysis of Variance using Minitab 14.

Table 12. Significant Difference on the Level of Training Delivery Quality as Perceived and Experienced by the Group of Technical Vocational Courses Trainees

| Competency-Based Training Methodology | Welding NC I | | Welding NC II | | Baking NC II | | Organic Agri NC II | | f-value | p-value |
|---|---|---|---|---|---|---|---|---|---|---|
| | M | SD | M | SD | M | SD | M | SD | | |
| Modular Training Delivery | 4.67 | 0.51 | 4.65 | 0.58 | 4.56 | 0.38 | 4.43 | 0.80 | 2.14 | .102 |
| Self-paced Learning Approach | 4.54 | 0.57 | 4.67 | 0.57 | 4.52 | 0.51 | 4.60 | 0.49 | 1.23 | .304 |
| Use of Competency Standards and Training Regulations | 4.56 | 0.57 | 4.55 | 0.57 | 4.58 | 0.50 | 4.60 | 0.49 | 0.11 | 0.955 |
| Performance-Based Assessment Tools | 4.51 | 0.56 | 4.73 | 0.47 | 4.52 | 0.50 | 4.79 | 0.44 | 4.21 | .008* |

Note: p<.05

The table shows the significant differences in the level of training delivery quality as perceived and experienced by trainees in the four technical vocational courses.

The results reveal that most indicators did not show statistically significant differences, as their p-values are greater than the 0.05 level of significance. Specifically, Modular Training Delivery (f = 2.14, p = .102), Self-paced Learning Approach (f = 1.23, p = .304), and Use of Competency Standards and Training Regulations (f = 0.11, p = .955) indicate that trainees from Welding NC I, Welding NC II, Baking NC II, and Organic Agriculture NC II have similar perceptions and experiences regarding these aspects of training delivery. This means that the institution maintains a generally consistent quality of implementation across programs.

However, a statistically significant difference was observed in Performance-Based Assessment Tools (f = 4.21, p = .008), since the p-value is less than 0.05. This indicates that trainees' experiences with assessment methods vary across courses. Notably, Organic Agriculture NC II (M = 4.79, SD = 0.44) and Welding NC II (M = 4.73, SD = 0.47) reported higher ratings, while Welding NC I (M = 4.51, SD = 0.56) and Baking NC II (M = 4.52, SD = 0.50) obtained relatively lower mean scores. This variation indicates that assessment practices may be more effectively implemented or better aligned with competencies in certain programs.

The findings imply that the Training Delivery Quality as perceived and experienced by trainees across Welding NC I, Welding NC II, Bread and Pastry Production NC II, and Organic Agriculture NC II is generally consistent and uniformly implemented in terms of Modular Training Delivery, Self-Paced Learning Approach, and Use of Competency Standards and Training Regulations. The absence of significant differences in these components suggests that the institution is effectively maintaining a standardized Competency-Based Training (CBT) system across different technical-vocational programs. This implies that trainees, regardless of their qualification, are provided with similar learning structures, instructional delivery strategies, and adherence to TESDA-aligned training regulations, which contributes to fairness and consistency in training implementation.

The consistency in Modular Training Delivery implies that learning materials, training modules, and instructional sequencing are uniformly applied across all courses. This reflects a strong institutional commitment to standardization in training delivery, ensuring that all trainees receive equivalent instructional support and learning opportunities. Similarly, the non-significant difference in the self-paced learning approach implies that trainees across all programs are equally given opportunities to learn at their own pace, which is a core principle of CBT and supports learner-centered instruction.

Furthermore, the similarity in the Use of Competency Standards and Training Regulations suggests that all programs generally adhere to TESDA requirements and competency frameworks. This implies that the institution maintains a baseline compliance with national training standards, ensuring that training delivery across different qualifications remains aligned with expected competency outcomes.

However, the presence of a significant difference in Performance-Based Assessment Tools implies that there are variations in how assessment practices are implemented and experienced by trainees across the different technical-vocational courses. This suggests that while instructional delivery is standardized, the assessment component of CBT may not be equally consistent across all programs.

The higher ratings obtained by Organic Agriculture NC II and Welding NC II imply that these programs may have more effective or better-aligned performance-based assessment practices, possibly due to stronger hands-on application, clearer competency demonstration requirements, or more structured evaluation systems. In contrast, the relatively lower ratings in Welding NC I and Bread and Pastry Production NC II suggest that assessment implementation in these programs may require further enhancement to ensure that evaluation tools are consistently aligned with competency standards and effectively measure trainee performance.

From a broader perspective, this finding implies that while RPTESDC-Binangonan has successfully standardized most components of CBT implementation, attention must be given to strengthening the uniformity and effectiveness of performance-based assessment practices across all qualifications. Ensuring consistency in assessment tools and procedures is essential for maintaining fairness, improving training quality, and accurately measuring competency attainment across different technical-vocational programs.

Overall, the results imply that the institution demonstrates strong CBT implementation in instructional delivery, but there remains a need for continuous improvement in assessment practices to achieve full alignment and consistency across all training programs.



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The finding that there is a significant difference in the level of Training Delivery Quality as perceived and experienced by trainees across Welding NC I, Welding NC II, Bread and Pastry Production NC II, and Organic Agriculture NC II is supported by recent literature emphasizing that while Competency-Based Training (CBT) promotes standardized delivery, variations in implementation still occur across different technical-vocational qualifications.

*Significant Relationship Between the Competency-Based Training (CBT) Methodology and the Quality of Training Delivery*

In this study, the significant relationship between the Competency-Based Training (CBT) methodology and the quality of training delivery were analyzed applying Pearson Correlation Coefficient using Minitab 14.

Table 13. Significant Relationship Between the Competency-Based Training (CBT) Methodology and the Quality of Training Delivery

| Competency-Based Training (CBT) Methodology | | Actual Implementation of CBT Methodology | Teaching–Learning Interactions bet. Trainers & Trainees | Occupational Health & Safety (OHS) | Monitoring and Evaluation of Training Delivery |
|---|---|---|---|---|---|
| Modular Training Delivery | Pearson Correlation | .130 | .029 | .129 | .076 |
| | Sig. (2-tailed) | .252 | .798 | .254 | .504 |
| | N | 80 | 80 | 80 | 80 |
| Self-Paced Learning Approach | Pearson Correlation | .029 | .056 | .106 | .134 |
| | Sig. (2-tailed) | .798 | .620 | .349 | .236 |
| | N | 80 | 80 | 80 | 80 |
| Use of Competency Standards and Training Regulations | Pearson Correlation | .114 | .109 | .070 | .186 |
| | Sig. (2-tailed) | .312 | .336 | .540 | .098 |
| | N | 80 | 80 | 80 | 80 |
| Performance-Based Assessment Tools | Pearson Correlation | .801* | .620* | .710* | .323* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .003 |
| | N | 80 | 80 | 80 | 80 |

Table 13 presents the correlation between Competency-Based Training (CBT) Methodology and the quality of training delivery. The results include Pearson correlation coefficients (r-values), p-values, and sample size (N=80) for each relationship.

The table shows that among the components of the Competency-Based Training (CBT) methodology, only performance-based assessment tools have a significant relationship with the quality of training delivery, as evidenced by high correlation values (r = .323 to .801) and p-values less than .05. This indicates that the use of assessment tools that measure actual skills performance plays a crucial role in enhancing the implementation of CBT, improving trainer–trainee interactions, strengthening Occupational Health and Safety (OHS) practices, and supporting effective monitoring and evaluation.

On the other hand, modular training delivery, self-paced learning approach, and the use of competency standards and training regulations show no significant relationship with the quality of training delivery, as their p-values are greater than .05. This implies that while these components are present and implemented, they may not directly influence the perceived quality of training delivery.

The findings imply that among the components of the Competency-Based Training (CBT) methodology, performance-based assessment tools play a central and critical role in influencing the quality of training delivery in technical-vocational programs. The significant relationship identified suggests that when trainees are evaluated through actual demonstration of skills, training delivery becomes more effective, meaningful, and aligned with competency standards. This implies that authentic assessment practices strengthen the overall training process by reinforcing hands-on learning, improving trainee engagement, and ensuring that competencies are properly developed and measured.

The significant correlation between performance-based assessment tools and training delivery quality further implies that assessment is not merely an end-point activity but an integral part of the learning process. In welding, bread and pastry production, and organic agriculture programs—where practical application is essential—performance-based evaluation likely enhances instructional effectiveness by encouraging trainers to emphasize real-world tasks, safety compliance, and skill mastery. This also implies that strong assessment practices contribute to improved Occupational Health and Safety (OHS) implementation, as trainees are required to demonstrate proper procedures during actual performance.

Moreover, the significant relationship suggests that performance-based assessment tools also strengthen monitoring and evaluation processes, as they provide concrete evidence of trainee progress and competency attainment. This enables trainers to make informed instructional adjustments and provide targeted interventions, thereby improving the overall quality of training delivery.

On the other hand, the absence of significant relationships between modular training delivery, self-paced learning approach, and the use of competency standards and training regulations with training delivery quality implies that these components, while essential in CBT implementation, may function more as structural or supporting mechanisms rather than direct determinants of training quality. This suggests that their presence alone does not necessarily guarantee improved training delivery unless they are effectively integrated with performance-based assessment practices.

From a broader perspective, the findings imply that enhancing the quality of training delivery in TVET programs should prioritize strengthening performance-based assessment systems, as this component has the most direct impact on instructional effectiveness and learner outcomes. While other CBT components remain important for maintaining structure and compliance with TESDA standards, greater emphasis on



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authentic, skills-based assessment may lead to more meaningful improvements in training quality across welding, bread and pastry production, and organic agriculture programs.

Overall, the results imply that the effectiveness of CBT in improving training delivery quality is largely driven by how well trainees are assessed in actual performance contexts, reinforcing the importance of competency-based, hands-on evaluation in technical-vocational education.

The finding that there is a significant relationship between Competency-Based Training (CBT) methodology and the quality of training delivery is strongly supported by recent literature emphasizing that CBT is an effective instructional framework in Technical-Vocational Education and Training (TVET), particularly in skills-intensive programs such as Welding NC II, Bread and Pastry Production NC II, and Organic Agriculture NC II.

## IV. Conclusion and Recommendations

A significant difference in the level of Competency-Based Training (CBT) methodology implementation in RPTESDC-Binangonan when grouped according to technical vocational courses was only manifested on the Use of Competency Standards and Training Regulations which leads to the acceptance of the null hypothesis. This implies that the implementation of the Competency-Based Training (CBT) methodology in RPTESDC-Binangonan is generally consistent across technical vocational courses, particularly in modular delivery, self-paced learning, and assessment practices.

A significant difference on the level of training delivery quality as perceived and experienced by the group of Technical Vocational Courses trainees was revealed in terms of performance-based assessment tools alone. Therefore, the null hypothesis is accepted. This indicates that performance-based assessment practices may be reviewed and standardized to enhance consistency in assessment tools and ensure alignment with competency requirements in all programs.

A significant relationship only between the performance-based assessment tools of the Competency-Based Training (CBT) methodology and the quality of training delivery was revealed which therefore resulted in the acceptance of the null hypothesis. This means that strengthening and continuously improving performance-based assessment tools is highly important, as they serve as a key component in maintaining and enhancing the quality, relevance, and effectiveness of training delivery.

Based on the results and conclusion posted in the study, the following recommendations were formulated.

Through the findings of this study, since performance-based assessment tools showed a significant relationship with training delivery quality, it is recommended to continuously enhance these tools by ensuring they are aligned with current industry standards.

Other components such as modular delivery, self-paced learning, OHS, and monitoring should still be maintained and continuously improved, as they provide the foundation for effective training and support learner success.

Future studies may consider other factors that influence training quality, such as trainee characteristics, learning environment, and availability of resources, to provide a more comprehensive understanding of training effectiveness.

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