

# HYBRID TEACHING IN THE USE OF CLOSED-CIRCUIT TELEVISION (CCTV) IN THE LEARNING OUTCOME AT BANCA-BANCA INTEGRATED NATIONAL HIGH SCHOOL

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## ABSTRACT

This study determined the effectiveness of hybrid teaching in the use of closed circuit television (CCTV) in the learning outcome at Banca-Banca Integrated National High School, in the school year 2022-2023.

A descriptive-comparative research design was used in conducting this study. Statistical tools such as mean and standard deviation were used to determine the efficiency of the equipment used in conducting hybrid teaching. To determine the level of learning of the students applying hybrid teaching by the use of CCTV, a T-test is used to compare the means of the two groups used in this study.

The following result was found: (1) There was a significant difference between the perception of the level of the students' respondents in the learning outcome using CCTV as an observation instrument for hybrid teaching relative to Basic Competencies. (2) There was a significant difference between the perception of the level of the students' respondents in the learning outcome using CCTV as an observation instrument for hybrid teaching relative to General Competencies (3) There was a significant difference between the perception of the level of the students' respondents in the learning outcome using CCTV as an observation instrument for hybrid teaching relative to Basic Competencies and General Competencies. (4) there is a partially significant relationship between the learning outcomes as the Basic competencies with the use of CCTV as a monitoring instrument for hybrid teaching. (5) no significant relationship to the learning outcomes as the General Competencies with the use of CCTV as a monitoring instrument for hybrid teaching was accepted like the two other null hypotheses. The overall findings revealed that the utilization of hybrid teaching using CCTV is partially not accepted.

Based on the findings and conclusions it is recommended that (1) DepEd officials will use the purchased equipment such as CCTV cameras and recorders for its best purpose which is safeguarding the workplace and the equipment which serves as full-time surveillance including the monitoring of cleanliness in the workplace which it found to be effective. (2) The teacher will go back to the original set-up of teaching, the students which is the face-to-face demonstration and giving individual instruction for all students since the Hybrid Teaching cannot match the perception and satisfaction of the students. (3) The parent can ask the proof of how their children were graded for their performances in workplace cleanliness and maintenance of the equipment as it can record all the eventualities in the workplace. (4) The learners can still use the equipment as an extended viewer to eliminate the crowding of students in the workplace which can result in accidents but not full-time since it found out that it is not so effective. (5) Future researchers may use the results of this study in conducting research for hybrid teaching and using monitoring as equipment.

## Keywords:

*Hybrid teaching, competencies, workshop, monitoring, observation, demonstration, instruction.*

## INTRODUCTION

The outgoing pandemic pushes educators to create different teaching strategies and utilize different materials to cope with the needs of the students in the middle of the crisis. Some teaching strategies found to be effective and can still be considered for continues utilization. Hence, teaching is teaching if learners learn. Learning is measured by its outcomes. Whatever approach to teaching is used, the intent should focus on learning rather than teaching. Subjects do not exist in isolation, but links between them should be made. The students must learn how to learn and the teacher should be innovative. (Catapang, R.G., & Tuiza A.V. 2022). One of the teaching strategies that the author aims to adopt is hybrid teaching, in which the author believes can fit into the needs of the students in Banca-|Banca Integrated National High School.

At the present implementation of Senior High School, not all schools are fully supplied with the equipment and facilities needed for the courses offered by the school under DepEd, especially courses under the Technical Vocational and Livelihood (TVL) Track. But these shortcomings are not excused for providing quality education for the learners and meeting the required competencies of the students to complete their chosen courses in Senior high school.

With the help of ICT equipment such as CCTV for administering hybrid teaching, all required competencies for TECHVOC will be achievable. As mentioned by Beemer, J., Spoon, K., Fan, J., Stronach, J., Frazee, J. P., Bohonak, A. J., & Levine, R. A. (2018) argued that universities across the country are striving to meet student needs with fewer resources. One way universities are trying to meet student needs with limited resources is by offering courses in an online format to a large number of enrollees. Especially the quantitative analysis (service) course. Identified as environments where online or partially online (hybrid/mixed) educational modalities may be helpful. Efficacy studies are important to assess the effects of so-called web-learning or e-learning environments on student success and perseverance, educational innovation, and broader intervention strategies.

This also sought to determine the following:

1. What is the status of hybrid teaching using CCTV in terms of:
  - 1.1. Demonstration; and
  - 1.2. Individualized instruction?
2. What is the level of learning outcomes in terms of:
  - 2.1. Basic competencies as:
    - 2.1.1 Workplace communication;
    - 2.1.2 Demonstrate work values; and
    - 2.1.3 Practice basic housekeeping procedures?
  - 2.2. General Competencies as:
    - 2.2.1 Apply Safety Practices;
    - 2.2.2 Interpret Drawings and Sketches; and
    - 2.2.3 Handling of Tools and Materials?
3. Is there a significant difference between the perception of the level of the students' respondents in the learning outcome relative to:
  - 3.1 Basic Competencies; and

### 3.2 General Competencies?

4. Does the use of hybrid teaching have a significant relationship to the learning outcomes as the Basic competencies?
5. Does the use of hybrid teaching have a significant relationship to the learning outcomes as the General competencies?

## REVIEW OF RELATED LITERATURE

Lorenzo-Lledó, A., Lledó, A., Gilabert-Cerdá, A., & Lorenzo, G. (2021) created a study using a mixed quantitative–qualitative method, and data were gathered from a sample of 238 Bachelor's Degree in Teaching students during the 2020/21 academic year. According to the findings, students have had a lot of trouble adjusting to the hybrid teaching approach. In this sense, it's important to talk about how less motivation, feeling alone, technical connection issues and less interaction with teachers and other students are all present. Additionally, there is a moderate level of satisfaction with the received instruction. In conclusion, it is possible to state that the difficulties that were discovered call for the implementation of measures to enhance the application of the teaching model that was implemented in support of excellence at universities.

Daluba, Noah Ekeyi (2013) mention that the demonstration method refers to the type of teaching method in which the teacher is the principal actor while the learners watch to act later. Here the teacher does whatever the learners are expected to do at the end of the lesson by showing them how to do it and explaining the step-by-step process to them.

Weston, C., & Cranton, P. A. (2016) said that the choice or creation of instructional strategies and supplies is one of the process's trickiest parts. Despite this, curriculum design is the topic that receives the least attention. Preparation for instruction is given in higher education. Administrators additionally, curriculum committees often evaluate programs and courses. aims and typically directs attention toward student evaluation learning. However, the methods used to convey the content to students are rarely scrutinized, save perhaps inadvertently through the overall assessment of individual instructional efficacy. Without restrictions and Higher education, lecturers lack training in instructional methods and tend to use the techniques and resources they are most familiar with. familiar, frequently those they had as students. In this piece, Both the teaching and learning processes are referred to as "instructional strategies" the educational methodology, and the resources employed.

Taylor, M. C. (2014). Stated on his research strongly support the significance of providing solid basic competency instruction. Most jobs require basic skills, particularly reading and oral communication, as well as other work-related fundamental competencies. In addition, there is a significant demand among employers for basic competencies of a higher level in jobs that are not at the top of the labor market.

Turner, T., Qvarfordt, P., Biehl, J. T., Golovchinsky, G., & Back, M. (2018). Discussed in their research that a crucial aspect of productive collaboration is effective communication. It makes it possible for coworkers to come up with new ideas, find common ground, and form intricate interpersonal relationships. In the workplace, the use of new communication technologies is becoming more and more common. Workers are creating their ecologies of communication technologies as a result of the wide range of technologies in use. Each technology plays a specific role, allowing for different expressions or providing crucial services.

Judge, T. A., & Bretz, R. D. (2016) discussed in their research that person's intrinsic, enduring work perspective on what is fundamentally right and wrong is called values. These viewpoints as applied to workplace settings are represented by work values. By demonstrating that managers with strong value orientations tended to act following what they thought was "right," whereas managers with more pragmatic orientations tended to behave in ways that they thought were "successful," England suggested that individual work value orientations affect how people behave on the job. The work ethic has received a lot of research attention among individual work values. Some researchers have suggested that a declining work ethic hurts people's feelings about their jobs and their commitment to their organizations.

Joshi, S. (2016) stated that basic housekeeping may be exceptionally physically requesting work that incorporates numerous errands. Assessing the housekeeping administration, one finds that numerous of the assignments are monotonous such as bed making, buffing, vacuuming, purging trash, cleaning, cleaning, and cleaning floors. Housekeeping room specialists are required to carry or move tons of waste and utilized material each day and it is simple to see that numerous of the damage sorts are specifically related to the errands performed in housekeeping operations. Ergonomics is the hone of planning hardware and work assignments to suit the capability of the laborer. It would certainly diminish the chance of musculoskeletal clutters to the housekeeping staff.

Chuang, Y.-H., Lai, F.-C., Chang, C.-C., & Wan, H.-T. (2018) argued that nursing students must have adequate knowledge and general competencies skill training before commencing their clinical practicum not only for patient safety but also to build their self-confidence and good relationships with patients. Identifying and developing proper teaching and learning strategies to enhance nursing students' nursing skills and knowledge are must-do challenges for nursing faculty members. Not only are the contents and structures of learning aids important, but also the flexibility and accessibility of the materials are essential to allow students to rehearse and review them at any time and place.

Rost, K. A., & Alvero, A. M. (2018) mentioned that workplace safety management is frequently cited as a crucial factor in fostering functional and adaptable safety cultures and improving and maintaining safe workplace behavior and conditions. The emphasis is given in this research to recording all the eventualities as part of participatory safety management. Over the past few decades, these methods have become more and more common, and there is now a lot of research on the subject. Ergonomics and behavior analysis, in particular, have contributed significantly to our understanding of participatory approaches to workplace safety management.

Gennari, L., Kara, L. B., Stahovich, T. F., & Shimada, K. (2015) mentioned that sketches and drawings must always be seen or referred to, before proceeding to the work area as designers and engineers have always relied heavily on sketching as a means of communication and problem-solving. The research aimed to measure the error committed by the worker in the absence of drawing and sketches referrals. Sketches, for instance, are an easy way to look at geometric, temporal, and other similar relationships that are hard to put into words. In a similar vein, the simplicity and ease of sketch creation permit one to concentrate.

Jahan, A., & Edwards, K. L. (2015) discussed that exploring appropriate material handling is a crucial aspect of the engineering design process, which involves fulfilling numerous requirements simultaneously. The engineering design field has gone through four stages of advancement in material use and development, starting from "utilizing available on-site materials," "optimizing distinct categories of materials," "selected materials," and finally, "tailored materials" or "materials by design strategies."

Despite the current trend towards developing multi-functional materials using multi-objective design strategies, significant fundamental materials research is still ongoing without adequate consideration given to its practical application. This emphasizes the significance of implementing materials selection tools as a vital component of the product design process

## **METHODOLOGY**

### **Research Design**

A descriptive-comparative is used in this research, the researcher considers 2 variables that are not manipulated one group will observe demonstrations and activities done in working areas monitored using the CCTV and the other will learn from face-to-face demonstrations and conduct activities with actual supervision by the teachers and establishes a formal procedure to conclude that one is better than the other. A recent synthesis by Esser, F., & Vliegthart, R. (2017) concluded that comparative communication research involves comparisons between a minimum of two macro-level cases (systems, cultures, markets, or their sub-elements) in which at least one object of investigation is relevant to the field of communication Comparative studies in media and media studies are classically understood as contrasting different macro-level units, such as world region, country, local area, social background, language area, and cultural depth, to one or more times. Comparative research differs from non-comparative work in that it attempts to draw conclusions beyond the individual cases and explain the differences and similarities between analysis objects and the relationships between the objects in terms of their context.

### **Respondents of the Study**

The respondent of the study were one hundred six (106) selected Technical Vocational and Livelihood/ Technology and livelihood education (TVL/TLE) students of Banca- Banca Integrated National High School. The researcher asked permission from the school head as well as the adviser and the parents of the selected students to participate in the study.

### **Research Procedure**

Respondents are divided into groups. They will be given the same sets of competencies found in the curriculum guide but they will undergo different methods of observing the demonstration of the teacher and the activities conducted by their peers.

This study will be conducted in Banca-Banca Integrated National High School for A.Y. 2022-2023. To conduct a study, permission from the school head was sought to be included to gather information needed for the study.

### **Research Instrument**

The expected output of students will be gathered in the listed basic and common competencies that are usually practiced in the TVL/TLE as the required competencies in the DepEd curriculum guide. It will be tabulated as the basis of the statistical treatment of the data from the given time frame for the treatment. This will be done to determine if the hybrid teaching in the use of closed circuit television (CCTV) has the same level of achievement in terms of competencies require as that student typically observes the class in the usual way.

### **Statistical Treatment of Data**

An Independent T-test or 2 samples unpaired T-test will be used as a statistical tool to find if there is a significant difference between the controlled group and the experimental group used in this research. Kim, T. K. (2015) stated that T-test is usually used in case the test subjects were divided into two

independent groups group, with one group being treated with A and the other treated with B. Researchers were able to obtain two types of results by group (i.e. before and after treatment).

Minitab 14 was used in computing the data gathered and treated them statistically using Pearson's Moment of Correlation Coefficient (Pearson's R). The computed p-values were compared to the level of significance at 0.05 to determine the significant relationship between the use of hybrid teaching and learning outcomes as to basic competencies and general competencies.

## RESULTS AND DISCUSSION

This chapter deals with the presentation, analysis, and interpretation of data gathered to answer the sub-problem relative to the main problem of the study. This part discusses the finding of the study based on the research questions.

### Status of Hybrid Teaching

In this study, the status of hybrid teaching was described in terms of demonstration and individualized instruction and was determined by the weighted mean and standard deviation.

**Table 1. Status of Hybrid Teaching in Terms of Demonstration**

| STATEMENT                                                                     | Controlled       |      |           | Experimental     |      |           |
|-------------------------------------------------------------------------------|------------------|------|-----------|------------------|------|-----------|
|                                                                               | Mean             | SD   | Remarks   | Mean             | SD   | Remarks   |
| Presented materials, equipment, and steps in working with the sample outputs. | 3.94             | 0.23 | AO        | 3.55             | 0.61 | AO        |
| Made the presentation clear to the students.                                  | 3.94             | 0.23 | AO        | 3.54             | 0.50 | AO        |
| Clarified most of the sample items and procedures done in the workshop area   | 3.98             | 0.24 | AO        | 3.72             | 0.45 | AO        |
| Explained well what was done for the output in the work area                  | 3.92             | 0.21 | AO        | 3.72             | 0.45 | AO        |
| Provided different strategies to make the output better.                      | 3.96             | 0.19 | AO        | 3.81             | 0.39 | AO        |
| <b>Grand Mean</b>                                                             | <b>3.93</b>      |      | <b>AO</b> | <b>3.66</b>      |      | <b>AO</b> |
| <b>Interpretation</b>                                                         | <b>Very High</b> |      |           | <b>Very High</b> |      |           |

Table 1 exhibits the status of teaching in terms of the demonstration.

It can be gleaned that the controlled group accurately observed that through demonstration most of the sample items and procedures are done in the workshop area were clarified, and it gained the highest (M=3.98, SD=0.24). Similarly, respondents accurately observed that what was done for the output in the work area was explained well though it received the lowest (M=3.92, SD=0.21). Overall, the status of teaching in terms of demonstration as evaluated by the controlled group attained the grand mean of 3.93 and was interpreted as Very High.

Furthermore, the experimental group accurately observed that through the demonstration of different strategies to make the output better was provided, it obtained the highest (M=3.81, SD=0.39). Just the same, the respondents accurately observed that the demonstration made the presentation clear

to the students though it yielded the lowest ( $M=3.54$ ,  $SD=0.50$ ). Overall, the status of teaching in terms of demonstration as evaluated by the experimental group attained the grand mean of 3.66 and was interpreted as Very High.

It can be concluded that in terms of the demonstration, there is clarity in terms of procedures done in the working area. Moreover, providing different strategies to make the output better for teaching in terms of the demonstration. Lastly, it makes the presentation clearer to the students.

**Table 2. Status of Hybrid Teaching in Terms of Individualized Instruction**

| STATEMENT                                                                                             | Controlled       |      |           | Experimental     |      |           |
|-------------------------------------------------------------------------------------------------------|------------------|------|-----------|------------------|------|-----------|
|                                                                                                       | Mean             | SD   | Remarks   | Mean             | SD   | Remarks   |
| Instructed the students to adopt what they observe to their classmates while working on their output. | 3.95             | 0.23 | AO        | 3.77             | 0.42 | AO        |
| Address the instructional needs of the students.                                                      | 3.89             | 0.32 | AO        | 3.72             | 0.45 | AO        |
| Provided in-depth analysis of the strategies applied by the students.                                 | 3.89             | 0.32 | AO        | 3.55             | 0.50 | AO        |
| Address the concern of the students who observe their classmates at work.                             | 3.92             | 0.27 | AO        | 3.57             | 0.50 | AO        |
| Gave opportunities to ask a question about what they observed.                                        | 3.91             | 0.30 | AO        | 3.68             | 0.47 | AO        |
| <b>Grand Mean</b>                                                                                     | <b>3.89</b>      |      | <b>AO</b> | <b>3.66</b>      |      | <b>AO</b> |
| <b>Interpretation</b>                                                                                 | <b>Very High</b> |      |           | <b>Very High</b> |      |           |

Table 2 exhibits the status of teaching in terms of individualized instruction.

It can be gleaned that the controlled group accurately observed that in providing individualized instruction most of the sample items and procedures are done in the workshop area were clarified, and it gained the highest ( $M=3.95$ ,  $SD=0.23$ ). Similarly, respondents accurately observed that what was done for the output in the work area was explained well though it received the lowest ( $M=3.89$ ,  $SD=0.32$ ). Overall, the status of teaching in terms of giving individualized instruction as evaluated by the controlled group attained the grand mean of 3.89 and was interpreted as Very High.

Furthermore, the experimental group accurately observed that in providing individualized instruction to make the output better was provided, it obtained the highest ( $M=3.77$ ,  $SD=0.42$ ). Just the same, the respondents accurately observed that individualized instruction made the presentation clear to the students though it yielded the lowest ( $M=3.55$ ,  $SD=0.50$ ). Overall, the status of teaching in terms of giving individualized instruction as evaluated by the experimental group attained the grand mean of 3.66 and was interpreted as Very High.

It can be inferred that teaching in terms of individualized instruction make the students adopt what they observe to their classmate while working on the output. Moreover, it addresses the concern of the students who observe their classmates at work. Lastly, it gave opportunities to ask a question about what they observed.

### Level of Learning Outcomes in Terms of Basic Competencies

The level of learning outcomes in terms of basic competencies was described in terms of workplace communication, demonstrating work values, and practicing basic housekeeping procedures and was determined by the weighted mean and standard deviation.

**Table 3. Level of Learning Outcomes in Terms of Basic Competencies as to Workplace**

| CommunicationSTATEMENT                                                                                                                                                 | Controlled       |      |           |                  |      |           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------|-----------|------------------|------|-----------|
|                                                                                                                                                                        | Experimental     |      |           |                  |      |           |
|                                                                                                                                                                        | Mean             | SD   | Remarks   | Mean             | SD   | Remarks   |
| The required information was gathered correctly and interpreting or understanding information/instructions                                                             | 3.89             | 0.32 | AO        | 3.58             | 0.50 | AO        |
| Instructions were acted upon following the information received.                                                                                                       | 3.90             | 0.28 | AO        | 3.64             | 0.48 | AO        |
| Clarification was sought from the workplace facilitator.                                                                                                               | 3.87             | 0.34 | AO        | 3.66             | 0.48 | AO        |
| Necessary information was shared with the observers.                                                                                                                   | 3.91             | 0.30 | AO        | 3.79             | 0.41 | AO        |
| Effective and appropriate forms of communication were used and interactions were undertaken with team members who contributed to known team activities and objectives. | 3.81             | 0.39 | AO        | 3.55             | 0.50 | AO        |
| <b>Grand Mean</b>                                                                                                                                                      | <b>3.88</b>      |      | <b>AO</b> | <b>3.65</b>      |      | <b>AO</b> |
| <b>Interpretation</b>                                                                                                                                                  | <b>Very High</b> |      |           | <b>Very High</b> |      |           |

Table 3 exhibits the status level of learning outcomes in terms of basic competencies as in workplace communication.

It can be gleaned that the controlled group accurately observed the level of learning outcomes in terms of basic competencies as to workplace communication as most of the sample items and procedures done in the workshop area were clarified, it gained the highest ( $M=3.91$ ,  $SD=0.30$ ). Similarly, respondents accurately observed that what was done for the output in the work area was explained well though it received the lowest ( $M=3.81$ ,  $SD=0.39$ ). Overall, the status of teaching in terms of basic competencies as to workplace communication as evaluated by the controlled group attained the grand mean of 3.88 and was interpreted as Very High.

Furthermore, the experimental group accurately observed that the level of learning outcomes in terms of basic competencies as to workplace communication to make the output better was provided, and it obtained the highest ( $M=3.79$ ,  $SD=0.41$ ). Just the same, the respondents accurately observed that basic competencies as to workplace communication made the presentation clear to the students though it yielded the lowest ( $M=3.55$ ,  $SD=0.50$ ). Overall, the status of teaching in terms of basic competencies as

to workplace communication as evaluated by the experimental group attained the grand mean of 3.65 and was interpreted as Very High.

It can be concluded that the level of learning outcomes in terms of basic competencies as to workplace communication makes necessary information shared with the observers. Moreover, instructions were acted upon by the information received. Lastly, the required information was gathered correctly and interpreted, or understanding information.

**Table 4. Level of Learning Outcomes in Terms of Basic Competencies to Demonstrate Work**

| Values STATEMENT                                                                                                                                             | Controlled |      |                   | Experimental |      |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------|-------------------|--------------|------|-------------|
|                                                                                                                                                              | Mean       | SD   | Remark<br>s       | Mean         | SD   | Remark<br>s |
| Developed effective workplace relationships with peers.                                                                                                      | 3.66       | 0.48 | AO                | 3.55         | 0.50 | AO          |
| Contributed to workgroup activities.                                                                                                                         | 3.60       | 0.49 | AO                | 3.53         | 0.50 | AO          |
| Observed protocols in reporting using standard operating procedures.                                                                                         | 3.79       | 0.39 | AO                | 3.49         | 0.50 | AO          |
| Contributed to the development of teamwork plans based on an understanding of the team’s role and objectives and the individual competencies of the members. | 3.68       | 0.47 | AO                | 3.55         | 0.50 | AO          |
| Commitment to the organization and its goal were demonstrated in the performance of duties.                                                                  | 3.58       | 0.50 | AO                | 3.64         | 0.48 | AO          |
| Grand Mean                                                                                                                                                   | 3.64       |      | AO                | 3.55         |      |             |
|                                                                                                                                                              |            |      | AO Interpretation | Very High    |      |             |
| Very High                                                                                                                                                    |            |      |                   |              |      |             |

Table 4 exhibits the status level of learning outcomes in terms of basic competencies to demonstrate work values.

It can be gleaned that the controlled group accurately observed that the level of learning outcomes in terms of basic competencies to demonstrate work values as most of the sample items and procedures done in the workshop area were clarified, it gained the highest ( $M=3.79$ ,  $SD=0.39$ ). Similarly, respondents accurately observed that what was done for the output in the work area was explained well though it received the lowest ( $M=3.58$ ,  $SD=0.50$ ). Overall, the status of teaching in terms of basic competencies to demonstrate work values as evaluated by the controlled group attained the grand mean of 3.64 and was interpreted as Very High.

Furthermore, the experimental group accurately observed that the level of learning outcomes in terms of basic competencies to demonstrate work values to make the output better was provided, it obtained the highest ( $M=3.64$ ,  $SD=0.48$ ). Just the same, the respondents accurately observed that basic competencies to demonstrate work values made the presentation clear to the students though it yielded the lowest ( $M=3.49$ ,  $SD=0.50$ ). Overall, the status of teaching in terms of basic competencies to demonstrate work values as evaluated by the experimental group attained the grand mean of 3.55 and was interpreted as Very High.

It can be inferred that the level of learning outcomes in terms of basic competencies to demonstrate work values are observed protocols in reporting using standard operating procedures. Moreover, it contributed to the development of teamwork plans based on an understanding of the team's role and objectives and the individual competencies of the members. Lastly, the level of learning outcomes in terms of basic competencies to demonstrate work values developed effective workplace relationships with peers.

**Table 5. Level of Learning Outcomes in Terms of Basic Competencies as to Practice Basic Housekeeping Procedures**

| STATEMENT                                                                                   | Controlled       |      |           | Experimental     |      |           |
|---------------------------------------------------------------------------------------------|------------------|------|-----------|------------------|------|-----------|
|                                                                                             | Mean             | SD   | Remarks   | Mean             | SD   | Remarks   |
| Materials were sorted according to their kind and unnecessary items were removed.           | 3.49             | 0.50 | AO        | 3.57             | 0.50 | AO        |
| All things were organized according to their most proper use.                               | 3.43             | 0.50 | AO        | 3.51             | 0.50 | AO        |
| Cleanliness and orderliness of the work area were maintained following the shop procedures. | 3.58             | 0.50 | AO        | 3.62             | 0.49 | AO        |
| Maintained and monitored the use of tools and equipment.                                    | 3.57             | 0.46 | AO        | 3.60             | 0.49 | AO        |
| Work was performed according to standard work procedures.                                   | 3.58             | 0.50 | AO        | 3.64             | 0.48 | AO        |
| <b>Grand Mean</b>                                                                           | <b>3.51</b>      |      | <b>AO</b> | <b>3.59</b>      |      | <b>AO</b> |
| <b>Interpretation</b>                                                                       | <b>Very High</b> |      |           | <b>Very High</b> |      |           |

Table 5 exhibits the status level of learning outcomes in terms of basic competencies to practice basic housekeeping procedures.

It can be gleaned that the controlled group accurately observed that the level of learning outcomes in terms of basic competencies to practice basic housekeeping procedures as most of the sample items and procedures done in the workshop area were clarified, it gained the highest ( $M=3.58$ ,  $SD=0.50$ ). Similarly, respondents accurately observed that what was done for the output in the work area was explained well though it received the lowest ( $M=3.43$ ,  $SD=0.50$ ). Overall, the status of teaching in terms of basic competencies to practice basic housekeeping procedures as evaluated by the controlled group attained the grand mean of 3.51 and was interpreted as Very High.

Furthermore, the experimental group accurately observed that the level of learning outcomes in terms of basic competencies practicing basic housekeeping procedures to make the output better was provided, it obtained the highest ( $M=3.62$ ,  $SD=0.50$ ). Just the same, the respondents accurately observed that basic competencies practicing basic housekeeping procedures made the presentation clear to the students though it yielded the lowest ( $M=3.51$ ,  $SD=0.50$ ). Overall, the status of teaching in terms of basic competencies practicing basic housekeeping procedures as evaluated by the experimental group attained the grand mean of 3.59 and was interpreted as Very High.

It can be concluded that the level of learning outcomes in terms of basic competencies as to practice basic housekeeping procedures was performed according to standard work procedures and cleanliness and orderliness of the work area were maintained following the shop procedures. Lastly, the level of learning outcomes in terms of basic competencies to practice basic housekeeping procedures makes the use of tools and equipment be maintained and monitored.

### Level of Learning Outcomes in Terms of General Competencies

The level of learning outcomes in terms of general competencies was described as applying safety practices, interpreting drawings and sketches, and handling tools and materials and was determined by the weighted mean and standard deviation.

**Table 6. Level of Learning Outcomes in Terms of General Competencies to Apply Safety Practices**

| STATEMENT                                                                                                                                                                                             | Controlled |      |         | Experimental |      |         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------|---------|--------------|------|---------|
|                                                                                                                                                                                                       | Mean       | SD   | Remarks | Mean         | SD   | Remarks |
| Safety regulations and workplace safety and hazard control practices and procedures were clarified and explained based on organizational procedures                                                   | 3.53       | 0.50 | AO      | 3.47         | 0.50 | AO      |
| Hazards/risks in the workplace and their corresponding indicators were identified to minimize or eliminate risks to co-workers, the workplace, and the environment following organization procedures. | 3.53       | 0.50 | AO      | 3.43         | 0.50 | AO      |
| OHS issues and/or concerns and identified safety hazards were reported to designated personnel following workplace requirements.                                                                      | 3.60       | 0.49 | AO      | 3.49         | 0.50 | AO      |
| Personal protective equipment (PPE) was correctly used following organization OHS procedures and practices.                                                                                           | 3.51       | 0.58 | AO      | 3.43         | 0.54 | AO      |
| Occupational Health and Safety (OHS) procedures for controlling hazards/risks in the workplace were consistently followed.                                                                            | 3.54       | 0.48 | AO      | 3.53         | 0.50 | AO      |

| Grand Mean     | 3.50      | AU | 3.47      | AU |
|----------------|-----------|----|-----------|----|
| Interpretation | Very High |    | Very High |    |

Table 6 exhibits the status level of learning outcomes in terms of general competencies to apply safety practices.

It can be gleaned that the controlled group accurately observed that the level of learning outcomes in terms of general competencies to apply safety practices as most of the sample items and procedures done in the workshop area were clarified, it gained the highest ( $M=3.60$ ,  $SD=0.49$ ). Similarly, respondents accurately observed that what was done for the output in the work area was explained well though it received the lowest ( $M=3.51$ ,  $SD=0.58$ ). Overall, the status of teaching in terms of general

competencies to apply safety practices as evaluated by the controlled group attained the grand mean of 3.56 and was interpreted as Very High.

Furthermore, the experimental group accurately observed that the level of learning outcomes in terms of general competencies to apply safety practices to make the output better was provided, it obtained the highest ( $M=3.53$ ,  $SD=0.50$ ). Just the same, the respondents accurately observed that the general competencies to apply safety practices made the presentation clear to the students though it yielded the lowest ( $M=3.43$ ,  $SD=0.50$ ). Overall, the status of teaching in terms of general competencies to apply safety practices as evaluated by the experimental group attained the grand mean of 3.47 and was interpreted as Very High.

It can be inferred that the level of learning outcomes in terms of general competencies to apply safety practices issues and/or concerns and identified safety hazards were reported to designated personnel following workplace requirements. Moreover, Occupational Health and Safety (OHS) procedures for controlling hazards/risks in the workplace were consistently followed. Lastly, the level of learning outcomes in terms of general competencies to apply safety practices makes hazards and risks in the workplace and their corresponding indicators were identified to minimize or eliminate risk to co-workers, workplace, and environment following organization procedures.

**Table 7. Level of Learning Outcomes in Terms of General Competencies as to Interpret Drawings and Sketches**

| STATEMENT                                                                           | Controlled       |      |           | Experimental     |      |           |
|-------------------------------------------------------------------------------------|------------------|------|-----------|------------------|------|-----------|
|                                                                                     | Mean             | SD   | Remarks   | Mean             | SD   | Remarks   |
| Interpreted standard drawing symbols, dimensional tolerances, and notations.        | 3.66             | 0.48 | AO        | 3.58             | 0.50 | AO        |
| Signs, symbols, and data were identified according to job specifications.           | 3.60             | 0.49 | AO        | 3.55             | 0.50 | AO        |
| Supplies and materials were listed according to specifications.                     | 3.47             | 0.50 | AO        | 3.40             | 0.49 | AO        |
| Components, assemblies, or objects were recognized as required.                     | 3.55             | 0.50 | AO        | 3.51             | 0.50 | AO        |
| Applicable, correct freehand sketching was produced following the job requirements. | 3.51             | 0.50 | AO        | 3.45             | 0.50 | AO        |
| <b>Grand Mean</b>                                                                   | <b>3.50</b>      |      | <b>AO</b> | <b>3.50</b>      |      | <b>AO</b> |
| <b>Interpretation</b>                                                               | <b>Very High</b> |      |           | <b>Very High</b> |      |           |

Table 7 exhibits the status level of learning outcomes in terms of general competencies to interpret drawings and sketches.

It can be gleaned that the controlled group accurately observed that the level of learning outcomes in terms of general competencies to interpret drawings and sketches as most of the sample items and procedures done in the workshop area were clarified, it gained the highest ( $M=3.66$ ,  $SD=0.48$ ). Similarly, respondents accurately observed that what was done for the output in the work area was explained well though it received the lowest ( $M=3.47$ ,  $SD=0.50$ ). Overall, the status of teaching in terms

of general competencies to interpret drawings and sketches as evaluated by the controlled group attained the grand mean of 3.50 and was interpreted as Very High.

Furthermore, the experimental group accurately observed that the level of learning outcomes in terms of general competencies to interpret drawings and sketches to make the output better was provided, it obtained the highest ( $M=3.58$ ,  $SD=0.50$ ). Just the same, the respondents accurately observed that the general competencies to interpret drawings and sketches made the presentation clear to the students though it yielded the lowest ( $M=3.40$ ,  $SD=0.49$ ). Overall, the status of teaching in terms of general competencies to interpret drawings and sketches as evaluated by the experimental group attained the grand mean of 3.50 and was interpreted as Very High.

It can be concluded that the level of learning outcomes in terms of general competencies to interpret drawings and sketches makes standard drawing symbols, dimensional tolerances, and notations. Moreover, it also makes signs, symbols, and data identified according to job specifications. Lastly, the level of learning outcomes in terms of general competencies to interpret drawings and sketches makes the components, assemblies, or objects recognized as required.

**Table 8. Level of Learning Outcomes in Terms of General Competencies as to Handling of Tools and Materials**

| STATEMENT                                                                                             | Controlled       |      |           | Experimental     |      |           |
|-------------------------------------------------------------------------------------------------------|------------------|------|-----------|------------------|------|-----------|
|                                                                                                       | Mean             | SD   | Remarks   | Mean             | SD   | Remarks   |
| Tools and accessories were identified according to job requirements.                                  | 3.56             | 0.50 | AO        | 3.53             | 0.50 | AO        |
| The quantity and description of materials conformed to the job requirements.                          | 3.62             | 0.49 | AO        | 3.57             | 0.50 | AO        |
| Tools, accessories, and materials are checked for damages according to workplace procedures.          | 3.68             | 0.47 | AO        | 3.60             | 0.49 | AO        |
| Materials and tools that were not to be used were set aside in the workplace                          | 3.58             | 0.50 | AO        | 3.64             | 0.48 | AO        |
| Defective tools and equipment were monitored and tagged clearly with notes on the equipment's status. | 3.64             | 0.48 | AO        | 3.60             | 0.49 | AO        |
| <b>Grand Mean</b>                                                                                     | <b>3.62</b>      |      | <b>AO</b> | <b>3.59</b>      |      | <b>AO</b> |
| <b>Interpretation</b>                                                                                 | <b>Very High</b> |      |           | <b>Very High</b> |      |           |

Table 8 exhibits the status level of learning outcomes in terms of general competencies as in the handling of tools and materials.

It can be gleaned that the controlled group accurately observed that the level of learning outcomes in terms of general competencies in the handling of tools and materials as most of the sample items and procedures done in the workshop area were clarified, it gained the highest ( $M=3.68$ ,  $SD=0.47$ ). Similarly, respondents accurately observed that what was done for the output in the work area was explained well though it received the lowest ( $M=3.56$ ,  $SD=0.50$ ). Overall, the status of teaching in terms of general

competencies in the handling of tools and materials as evaluated by the controlled group attained the grand mean of 3.62 and was interpreted as Very High.

Furthermore, the experimental group accurately observed that the level of learning outcomes in terms of general competencies in the handling of tools and materials to make the output better was provided, it obtained the highest ( $M=3.64$ ,  $SD=0.48$ ). Just the same, the respondents accurately observed that the general competencies in the handling of tools and materials made the presentation clear to the students though it yielded the lowest ( $M=3.53$ ,  $SD=0.50$ ). Overall, the status of teaching in terms of general competencies in the handling of tools and materials as evaluated by the experimental group attained the grand mean of 3.59 and was interpreted as Very High.

It can be inferred that the level of learning outcomes in terms of general competencies as to the handling of tools and materials checked for damages according to workplace procedures. More over, defective tools and equipment were monitored and tagged clearly with notes on the equipment's status. Lastly, the level of learning outcomes in terms of general competencies as in the handling of tools and materials makes the quantity and description of materials conformed to the job requirements.

### Significant Difference in the Perception of Students in the Learning Outcome

**Table 9. Significant Difference in the Perception of Students in the Learning Outcome Relative to Basic Competencies**

| Variables                              |              | Mean | MD    | t-value | p-value | Analysis    |
|----------------------------------------|--------------|------|-------|---------|---------|-------------|
| Workplace Communication                | Controlled   | 3.88 | 0.23  | 7.88    | 0.000   | Significant |
|                                        | Experimental | 3.65 |       |         |         |             |
| Demonstrate Work Values                | Controlled   | 3.64 | 0.09  | 4.55    | 0.000   | Significant |
|                                        | Experimental | 3.55 |       |         |         |             |
| Practice Basic Housekeeping Procedures | Controlled   | 3.51 | -0.08 | -4.38   | 0.000   | Significant |
|                                        | Experimental | 3.59 |       |         |         |             |

*Significant at 0.05 level of significance*

Table 9 presents the significant difference in the perception of students in the learning outcome relative to basic competencies. Workplace communication obtained ( $MD = 0.23$ ,  $t = 7.88$ ,  $p = 0.000$ ), demonstrate work values ( $MD = 0.09$ ,  $t = 4.55$ ,  $p = 0.000$ ) and practice basic housekeeping procedures ( $MD = -0.08$ ,  $t = -4.38$ ,  $p = 0.000$ ) between the controlled and experimental group which implies that the perception of students in the learning outcome relative to basic competencies was of difference. The p-value which is lower than (0.05) level of significance supports the analysis.

**Table 10. Significant Difference in the Perception of Students in the Learning Outcome Relative to General Competencies**

| Variables              |              | Mean | MD   | t-value | p-value | Analysis    |
|------------------------|--------------|------|------|---------|---------|-------------|
| Apply Safety Practices | Controlled   | 3.56 | 0.09 | 4.75    | 0.000   | Significant |
|                        | Experimental | 3.47 |      |         |         |             |
|                        | Controlled   | 3.56 | 0.06 | 4.74    | 0.000   | Significant |

|                                 |              |      |      |      |       |             |
|---------------------------------|--------------|------|------|------|-------|-------------|
| Interpret Drawings and Sketches | Experimental | 3.50 |      |      |       |             |
| Handling of Tools and Materials | Controlled   | 3.62 | 0.03 | 2.13 | 0.038 | Significant |
|                                 | Experimental | 3.59 |      |      |       |             |

Table 10 presents the significant difference in the perception of students in the learning outcome relative to General competencies. Applied safety practices (MD = 0.09,  $t = 4.75$ ,  $p = 0.000$ ), interpret drawings and sketches (MD = 0.06,  $t = 4.74$ ,  $p = 0.000$ ), and handling tools and materials (MD = -0.03,  $t =$

-2.13,  $p = 0.038$ ) between the controlled and experimental group which implies that the perception of students in the learning outcome relative to basic competencies was of difference. The p-value which is lower than (0.05) level of significance supports the analysis.

### Significant Relationship between the Use of Hybrid Teaching and Learning Outcomes

Table 11 revealed the relationship between the use of hybrid teaching in terms of demonstration and individualized instruction and learning outcomes as to basic competencies.

**Table 11. Significant Relationship between the Use of Hybrid Teaching and Learning Outcomes as to Basic Competencies**

|                            | Variables                              | r-value | Degree of Correlation | p-value | Analyses        |
|----------------------------|----------------------------------------|---------|-----------------------|---------|-----------------|
| Demonstration              | Workplace communication                | 0.406   | Moderate              | 0.000   | Significant     |
|                            | Demonstrate work values                | 0.115   | Negligible            | 0.240   | Not Significant |
|                            | Practice basic housekeeping procedures | 0.268   | Weak                  | 0.005   | Significant     |
| Individualized Instruction | Workplace communication                | 0.504   | Moderate              | 0.000   | Significant     |
|                            | Demonstrate work values                | 0.277   | Weak                  | 0.004   | Significant     |
|                            | Practice basic housekeeping procedures | 0.011   | Negligible            | 0.911   | Not Significant |

It can be manifested that hybrid teaching in terms of demonstration exhibits a *significant* relationship to learning outcomes as to basic competencies in terms of workplace communication and practice basic housekeeping procedures as indicated by the obtained r-values ranging from (0.268) to (0.406) with a *weak to moderate degree of correlation* and p-value (0.000 and 0.005) which was lower than the 0.05 level of significance that supports the result of the analysis. However, a *not significant* relationship exists between hybrid teaching in terms of demonstration and learning outcomes as to basic competencies in terms of demonstration of work values gaining ( $r=0.011$ ) with a *negligible correlation* and p-value (0.240) which was higher than the 0.05 level of significance that supports the result of the analysis. In addition, hybrid teaching in terms of individualized instruction demonstrated a *significant* relationship to learning outcomes as to basic competencies in terms of workplace communication and demonstration of work values as evidenced by the obtained r-values ranging from (0.277) to (0.504) with *weak to moderate degree of correlation* and p-value (0.000 and 0.004) which was lower than the 0.05

level of significance that supports the result of the analysis. On the other hand, a *not significant* relationship was manifested between hybrid teaching in terms of individualized instruction and learning outcomes as to basic competencies in terms of practice basic housekeeping procedures attaining ( $r=0.115$ ) with a *negligible correlation* and p-value (0.911) which was higher than the 0.05 level of significance that supports the result of the analysis.

Table 12 revealed the relationship between the use of hybrid teaching in terms of demonstration and individualized instruction and learning outcomes as to basic competencies.

**Table 12. Significant Relationship between the Use of Hybrid Teaching and Learning Outcomes as to General Competencies**

| Variables                  |                                 | r-value | Degree of Correlation | p-value | Analysis        |
|----------------------------|---------------------------------|---------|-----------------------|---------|-----------------|
| Demonstration              | Apply Safety Practices          | 0.164   | Very Strong           | 0.093   | Not Significant |
|                            | Interpret Drawings and Sketches | 0.177   | Very Strong           | 0.070   | Not Significant |
|                            | Handling of Tools and Materials | 0.050   | Very Strong           | 0.612   | Not Significant |
| Individualized Instruction | Apply Safety Practices          | 0.086   | Very Strong           | 0.380   | Not Significant |
|                            | Interpret Drawings and Sketches | 0.082   | Very Strong           | 0.401   | Not Significant |
|                            | Handling of Tools and Materials | 0.004   | Very Strong           | 0.968   | Not Significant |

It can be manifested that hybrid teaching in terms of demonstration exhibits a *not significant* relationship to learning outcomes as to general competencies in terms of applying safety practices, interpreting drawings and sketches, and handling of tools and materials as indicated by the obtained r-values ranging from (0.050) to (0.177) with a *negligible degree of correlation* and p-value (0.070 and 0.612) which was higher than the 0.05 level of significance that supports the result of the analysis.

In addition, hybrid teaching in terms of individualized instruction demonstrated a *not significant* relationship to learning outcomes as to general competencies in terms of applying safety practices, interpreting drawings and sketches, and handling of tools and materials as evidenced by the obtained r-values ranging from (0.004) to (0.086) with a *negligible degree of correlation* and p-value (0.380 and 0.968) which was higher than the 0.05 level of significance that supports the result of the analysis.

## CONCLUSION

Based on the findings, the following conclusions were derived from the study: Hybrid teaching in the use of closed-circuit television (CCTV) in the learning outcome for the TVL/TLE students at Banca-Banca Integrated National High School.

The null hypothesis that “there is no significant difference between the perception of the level of the students’ respondents in the learning outcome using CCTV as an observation instrument for hybrid teaching relative to Basic Competencies” *was not accepted*.

The null hypothesis that “there is no significant difference between the perception of the level of the students’ respondents in the learning outcome using CCTV as an observation instrument for hybrid teaching relative to General Competencies” *was also not accepted*.

The null hypothesis that “there is no significant relationship between the use of hybrid teaching and learning outcomes as for basic competencies ” *was partially not accepted*.

The null hypothesis that “there is no significant relationship between the use of hybrid teaching and learning outcomes as for general competencies ” *was accepted*.

The overall findings for the null hypotheses are considered partially not accepted.

## RECOMMENDATIONS

1. DepEd officials will use the purchased equipment such as CCTV cameras and recorders for its best purpose which is safeguarding the workplace and the equipment which serves as full -time surveillance including the monitoring of cleanliness in the workplace which it found to be effective.
2. The teacher will go back to the original set-up of teaching, the students which is the face-to-face demonstration and giving individual instruction for all students since the Hybrid Teaching cannot match the perception and satisfaction of the students.
3. The parent can ask the proof of how their children were graded for their performances in workplace cleanliness and maintenance of the equipment as it can record all the eventualities in the workplace.
4. The learners can still use the equipment as an extended viewer to eliminate the crowding of students in the workplace which can result in accidents but not full -time since it found out that it is not so effective.
5. Future researchers may use the results of this study in conducting research for hybrid teaching and using monitoring as equipment.

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