RETOOLING MENTORS: AN UPSKILLING-RESKILLING OF TLE TEACHERS' COMMON COMPETENCY

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APPROVAL SHEET

This full-blown research paper entitled **"Retooling Mentors : An Upskilling-Reskilling of TLE Teachers' Common Competency"** prepared and submitted by **Anelyn B. Echavez, Brytt R. Baldonado, and Lovenres J. Enanoria** of **Hinaplanon National High School** has been reviewed/evaluated and recommended for acceptance and approval.

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Abstract

Teachers play an important role in providing quality education for every school, however some of them handle subjects that are mismatched in their field of specialization. This problem is noticeable especially in public secondary schools where there are insufficient numbers of teachers. Technology and Livelihood Education (TLE) teachers who are not properly trained in particular component areas of their subject are required to handle other component areas. According to Strauss (2003), with targeted funding for retraining, professional development programs and mentoring of less specialized teachers, it would be possible to provide opportunities for committed teachers to extend their teaching expertise and maintain high-quality teaching. In Hinaplanon National High School, this problem occurs in TLE Department as there is a mismatch of teaching load and subject specialization. Hence, the study "Retooling Mentors: An Upskilling-Reskilling of TLE Teachers' Common Competency" bridges the gaps of misaligned teachers who teach subjects out of their field of expertise. In a span of 10 weeks, a TLE teacher-facilitator was assigned each week to mentor their co-teachers. The 16 TLE teacher participants are pre-assessed and post-assessed using the Assessment Criteria anchored on the core competencies of Electrical Installation and Maintenance (EIM) and Shielded Metal Arc Welding (SMAW) from Technical Education and Skills Development Authority (TESDA). A paired-samples t-test was used to determine whether there was a statistically significant mean difference between pre-assessment test scores and post-assessment scores before the program. The teacher-participants got higher scores after the implementation of the program (10.38 ± 3.519) as opposed to pre-assessment results (10.38 ± 2.630). Hence, the study resulted in the improvement of TLE Teachers' practical skills. This further supports the study of Michailidi and Stavrou (2021) which made use of the mentor-mentee relationship. The Retooling Mentors Program is effective to revisit and re-equip the hands-on practical skills of TLE Teachers in Hinaplanon National High School.

Keywords: *Upskilling, Reskilling, Competency, Assessment Criteria, Component Area*

I. Context and Rationale

Teachers as human resources are the foundation of every educational system. For many years, the quality of teachers' instruction has become one of the most widely studied concern in the field of education. Providing quality education is the primary goal of every school and teachers play an important role in achieving this goal. With no strict and unified guidelines in assigning teachers' teaching load, some teachers may handle subjects that mismatched in their field of specialization. Unfortunately, in the present time, the principle of alignment and specialization is not strictly implemented. This is especially true in some public secondary schools where there are insufficient number of teachers; TLE teachers who are not trained in particular component areas of their subject are required to handle other component areas due to various reasons, including lack of teachers specialized in identified component area. The main problem that has caught the attention of educators is the misalignment of teachers and their field of specialization in the subject that they are teaching, specifically in TLE learning area. This is in violation of the Department of Education policy, outlined in DO 13, s. 1994 -Guidelines for Matching Specialization in Teaching Preparation with Teaching Assignments for Public School Teachers. Thus, the occurrence of the problem known as "mismatch qualification and subject taught" Musau (2015). Ngada in Fajonyomi (2007) intensified that the accomplishment or failure of any educational program depends mainly on the ample supply of professionally qualified and competent teachers. In any educational system, teachers are the best important factor where the quality of education is concerned, as teachers are being appraised, student learning and attainment are considered (Ohio TES, 2015).

In the case of Hinaplanon National High School it was found out there are inadequate number of TLE teachers to handle certain component areas in TLE. This led to assign

teachers with no choice but to teach subjects that are not their major, thus mismatch of teaching load and subject specialization occurs. According to Strauss (2003), mismatch teachers are not going to go away immediately even if funded programs for increasing the supply of teachers. But with targeted funding for retraining, professional development programs and mentoring of less specialized teachers, it would be possible to provide opportunities for committed teachers to extend their teaching expertise and maintain high-quality teaching. In the study conducted by (Coleman, 2018), wherein he interviewed out-of-field teachers based on their beliefs on their perceptions of training, time allotted to implement instructional strategies, as well as support provided by the school district, administrators, and mentor teachers. Result shows that the professional development efforts provided by their schools happen to be ineffective. They believed that these brief training sessions were not extensive enough for them to consider themselves properly trained. In addition, they indicated a need for more specific training and professional development in the subjects which they were assigned to teach. According to the Department of Education, "quality learning is contingent upon quality teaching." As stated in DepEd Order No. 42 s. 2017, there is a large importance in continuing professional development and advancement of teachers based on principle of lifelong learning.

This study aimed to bridge the gaps being experienced by misaligned teachers who teach subjects out of their field of expertise through "*Retooling Mentors Program"* and its effects on the improvement of the performance of the teachers before and after attending the training. Moreover, in Hinaplanon National High School 6 out of 12 or 50% of TLE teachers are given TLE subjects to handle in different component areas (Home Economics, Agri-Fishery Arts, Industrial Arts, and Information and Communications Technology) regardless of their field of specialization. Due to this, teachers handling subjects in any of the

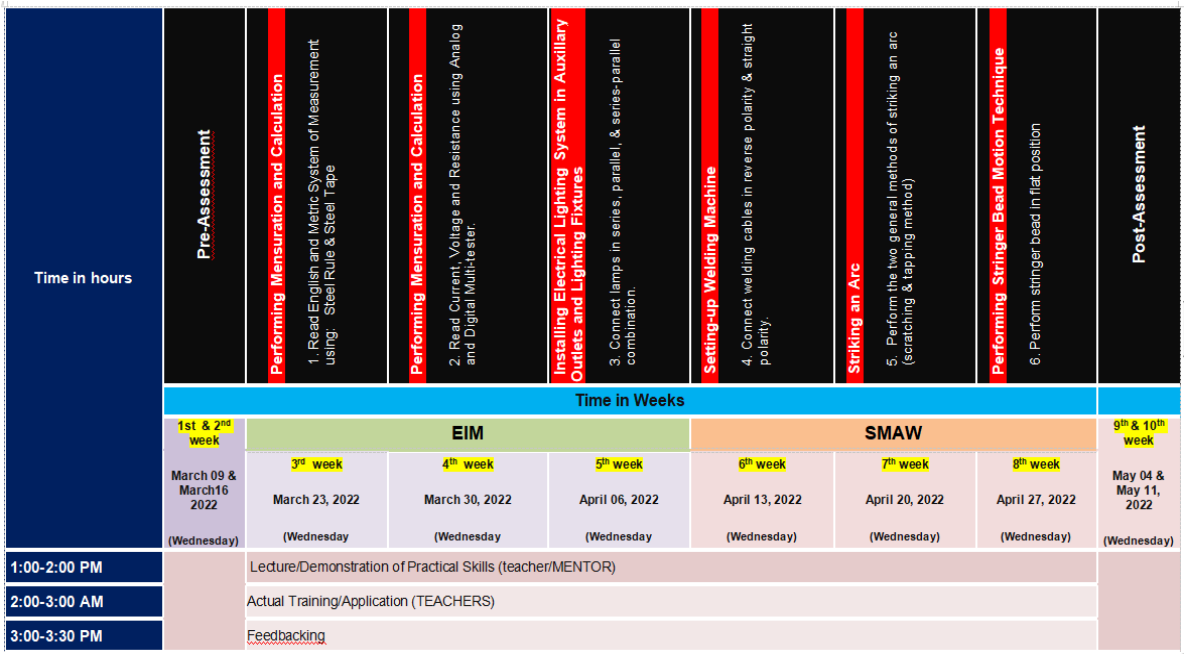
component areas not belonging to their field of specialization have encountered problems in mastery. It is for this reason that the program "Retooling Mentors" was carried out. This action research will aim to provide mentorship to all TLE teachers of Hinaplanon National High School. A study conducted by Michailidi and Stavrou (2021) made use of the mentor-mentee relationship. Skilled teachers were tasked to mentor their colleagues. The study then resulted in mentoring process being a success in synthesizing several elements that are characterized as effective and contributed to teachers' professional development. The program "Retooling Mentors" will offer flexible and relevant training to the selected teachers. It focuses on supporting teachers revisit and re-equip themselves with hands-on practical skills. Teachers will have the mentor-mentee relationship with their fellow.

II. Innovation, Intervention and Strategy

The "Retooling Mentors" Program is the intervention used in the study. This program provides mentorship to all TLE teachers of Hinaplanon National High School. The researchers designed a training matrix where teachers are given a schedule for hands-on practice on a weekly basis during the TLE Department LAC sessions.

A TLE teacher-facilitator is assigned in each week to mentor their co-teachers. The 1st and 2nd week was scheduled for the pre-assessment of teachers' performance. Weeks 3 until 8 were scheduled for the training of skills both in EIM and SMAW qualification. The whole session was composed of 1 hour lecture/demonstration done by the mentor, 2 hours of actual training and 30 minutes of feedbacking of teacher's performance. Lastly, the 9th and the 10th week was scheduled for post-assessment. (Refer to Table 1 on the next page).

Table 1. Training Matrix



III. Action Research Questions

This study aims to determine the effectiveness of the program among TLE (Technology and Livelihood Education) teachers of Hinaplanon National High School, Division of Iligan City. Specifically, it seeks to answer the following questions:

1. What are the pre-test and post-test scores of the TLE teachers before and after the implementation of the Retooling Mentors program?
2. Is there a significant difference between the teachers' performance rating before and after the implementation of the Retooling Mentors program?

Hypothesis

This study formulated the hypothesis at 0.05 level of significance, articulated in null form as follows:

HO: There is no significant difference between the learners' level of engagement before and after the implementation of

IV. Research Methodology

A. Participants and/or Other Sources of Data and Information

The participants of this study were limited 16 TLE teachers of Hinaplanon National High School. The study used the the Performance Task Sheet and Job Sheet from the module which contains the Assessment Criteria used to rate the quality of the teacher's performance during the training sessions. The performance tasks are anchored on the core competencies of Electrical Installation and Maintenance (EIM) and Shielded Metal Arc Welding (SMAW) from Technical Education and Skills Development Authority (TESDA).

B. Data Gathering Methods

Pre-assessment and post-assessment of teacher's actual performance was used to determine the teachers' competence before and after the implementation of the proposed intervention. At the start of the study, TLE teachers took the pre-test using the Job Sheet from TESDA at EIM/SMAW Laboratory. The pre-test covers the selected common and core competencies of EIM and SMAW qualification. Then, the teachers have undergone the actual training based on the proposed Training Matrix for the Program. Upon the completion of the said actual training, a post-test will then be given to the same group of teachers after. The researchers used the Assessment Criteria and the Rating Scale used to rate the quality of the teacher's performance. The teachers evaluated performance outputs served as indicators on the effectiveness of the proposed Skills-Recovery Program towards the practical skills of TLE teachers.

The following activities were executed to gather the requisite data for the study: **Securing Permission to Conduct the Study**. The researchers initiated the data collection process by securing official permission from the school principal, setting the ethical groundwork for the study.

Orientation of TLE Teachers. Upon approval, the researchers conducted in-person meetings to present the nature and scope of the study to TLE teachers. It was followed by a short orientation led by the researcher about the training matrix and the upcoming activities/trainings of the study.

Conduct of Training during LAC Session. The mentor-mentee engagement sessions facilitated by the researcher were crucial to the study. Then the pre-assessment test was given to the teachers and comprehensively discussed, ensuring clarity and transparency. The Retooling Mentors Program targeted the giving of meaningful experiences to TLE teachers who lack practical skills and common competencies to certain component areas under TLE subject.

Assessment of Teacher's Performance through Job Sheets and Performance Task Sheets. Following the mentor-mentee engagement sessions, the Job Sheets were administered to the teachers. The Job Sheets were derived from TESDA Competency-Based Curriculum Modules.

C. Data Analysis

The quantitative data gathered in the study underwent comprehensive processing using the Statistical Package for Social Sciences (SPSS). Manual statistical computation was also employed as a rigorous cross-verification measure to ensure the precision and accuracy of the findings. Specifically, the following statistical tools were used to summarize, translate, and analyze the results. The paired sample t-test will be used to determine the effectiveness of using the skills-recovery program. The hypotheses will be tested at 0.05 level of significance.

V. Discussion of Results and Reflection

This section discussed the results and analyses of the data gathered in this study. All data obtained from questionnaires and interviews are presented to answer the research questions.

Problem 1: What are the pre-test and post-test scores of the TLE teachers before and after the implementation of the Retooling Mentors program?

Table 2. Distribution of Respondents' Scores

Respondents	Pre-Assessment Test Result	Post-Assessment Test Result
	Teacher's Rating	
1	7	22
2	10	18
3	8	21
4	11	19
5	19	24
6	11	17
7	14	25
8	6	15
9	9	19
10	7	14
11	12	20
12	8	17
13	11	20
14	13	21
15	14	19
16	15	17

Table 3 shows the result of the pre-test and post-test scores of the TLE teachers before and after the implementation of the retooling mentors program. In the pre-assessment test, scores range from 6 to 19, with respondent 5 achieving the highest score of 19. However, in the post-assessment test, scores show a wider range from 14 to 25, with respondent 7 receiving the highest score of 25. This indicates variability in the improvement observed among the respondents after undergoing the assessment process.

Teacher's ratings, ranging from 14 to 25, offer additional insight into how the respondents' performance is perceived by their teachers. Respondent 7, who received the highest post-assessment score, also garnered the highest teacher's rating, suggesting

consistency in performance perception. Conversely, respondents 8 and 10 received the lowest teacher's ratings of 15 and 14, respectively, indicating that their performance might be perceived less favorably compared to their peers.

Further analysis reveals interesting patterns. Respondents 5, 7, 11, 13, and 14 demonstrated notable improvements from pre-assessment to post-assessment, suggesting effective learning or intervention strategies. Conversely, respondents 8, 10, and 16 exhibited minimal improvement or even a decrease in scores, indicating potential areas for further support or instruction.

VI. Recommendation

The researchers concluded that the implementation of the Retooling Mentors Program helped improve the practical skills of the teachers handling TLE subject. Based on the findings, there is a statistically significant increase in post-assessment test scores compared to pre-assessment test scores. After the successful conduct of the said training through the following recommendations are hereby given by the researchers:

- The school should give importance on the improvements of the training by providing additional tools, equipment, supplies, materials and laboratory facilities.
- Suggest that future trainers who will implement this program will observe strict compliance of health and safety protocols during the conduct of the training.
- Simplified and comprehensive Job Sheets and laboratory manuals that are easy to understand are highly recommended for successful implementation.

VII. Action Plan

Planning Phase

Activities	Persons Involved	Time Frame	Resources Funds	Success Indicators
Identify the problem.	Teacher	June 2023		List of problems.
Deciding the research topic to be conducted suited in the present condition.	Teacher	June 2023		Title of Action Research
Planning the set of activities to be administered and their time allocation in the timetable.	Teacher	June 2023		Retooling Mentors Program Performance Task Sheet
Evaluation and Validation of the Training Matrix for Retooling Mentors Program	TVL/TLE Teachers Students	July 2023		Validated Training Matrix for Retooling Mentors Program and Performance Task Sheet
Secure an ethical clearance to conduct the study.	School Principal Teacher Students Parents	August 2023		Letter Request to conduct the study.

Implementation Phase

Activities	Persons Involved	Time Frame	Resources	Success Indicators
Administration of Pre-assessment	School Principal Teacher Students Parents	Sep 2023		Test Results
Weekly Retooling Mentors for TLE Teachers		Sep-Nov. 2023		Performance Outputs & Teacher's Rating
Administration of Post-assessment		Nov. 2023		Test Results

Evaluation Phase

Activities	Persons Involved	Time Frame	Resources	Success Indicators
Making analysis, generalization and recommendation.		Nov 11, 2023		Analysis, Generalization and Recommendations.

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