

# TECHNICAL VOCATIONAL EDUCATION IN THE CONTEXT OF GLOBALIZATION: ITS PEDAGOGY AND STRATEGIES

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## ABSTRACT

**Aims:** The aim of this study was to determine the personal experiences of the teacher-participants in the teaching of Technology and Livelihood Education. It also ascertained and met the following objectives: 1) determine the teaching experiences of the TLE teachers; 2) to identify the training needs of TLE teachers; 3) ascertain the challenges faced by the TLE teachers; 3) discover the pedagogy and strategies used by the TLE teachers; and 4) find out the recommendations of the TLE teachers to improve the delivery of the course.

**Study design:** Qualitative-phenomenological approach.

**Place and Duration of Study:** The study was conducted in Sta Cruz National High School, Sta. Cruz, Davao del Sur. The study was conducted for 6 months.

**Methodology:** The researchers purposely chose all the Technology and Livelihood Education (TLE) teachers. The information were gathered through Focus Group Discussion (FGD).

**Results:** Six themes emerged from the data analysis. Generally, the teacher-participants found teaching of TLE subject was challenging because the activities were focused on exploration. Moreover, they felt satisfied because they were able to share their knowledge and skills to their students. It implies that the TLE teachers were committed and dedicated to their jobs despite the difficulties they encountered. However, the teacher-participants revealed that generally, they were not sent outside of the school to attend training-seminar for skills enhancement. It is an indication that the school heads lack concern for their teachers' professional development. In addressing the challenges of the teachers, they collaborate with each other by sharing their resources. Despite the challenges they encountered, they were still optimistic to be globally competitive. It implies that the TLE teachers do not give up easily. They suggested that the school administration needed to develop the participants' personal character so that their teaching goals were met.

**Conclusion:** The TLE teachers loved and enjoyed their teaching jobs despite the challenges they faced. However, they clamored to the Department of Education (DepEd) to address their needs such as sending them to trainings and seminar-workshop to enhance their skills and capabilities. To show their dedication to their jobs, they brought their own tools and shared the same to other teachers. Notably, the participants only used three teaching strategies. It shows that TLE teachers lack the knowledge of other teaching strategies. The participants were optimistic that sooner or later their TLE programs are accredited and recognized locally and internationally. This implies that the participants were committed to their jobs. Ironically, they suggested that improvement of the teachers' self was better than improving the TLE implementation. This shows that the teachers believed that materials can be easily acquired but not the attitude.

*Keywords: Technical vocational education, globalization, pedagogy, strategies, Davao del Sur*

## 1. INTRODUCTION

17 Globalization exists and affects the life and work of the people and the societies<sup>16</sup>.  
18 Globalization is a force that changed the way how people and nations deal with one another  
19 <sup>8</sup> particularly in the area of international commerce<sup>49,34</sup>. Workers should be equipped with  
20 different skills which are in demand by the current industries<sup>36,44</sup>. These skills can be  
21 achieved through enrolling the technical and vocational education which follows the  
22 international standards of the industries.

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24 This is now ~~the~~ a challenge for ~~the~~ Technical Vocational Education (TVE) or ~~the~~ Technology  
25 and Livelihood Education (TLE) teachers to transfer knowledge and skills to the students  
26 aligned with the international standards and competencies of the different skills and  
27 specializations. ~~The~~ Technology and Livelihood Education ~~subject~~ is composed of four (4)  
28 areas: Home Economics, Industrial Arts, Information and Computer Technology and Agro-  
29 Fishery Arts.  
30 This makes teaching TLE a challenging task. TLE teachers must be knowledgeable, skillful  
31 and competent in demonstrating skills in any of the four TLE areas.

32 The challenges faced by ~~the~~ TVE/TLE teachers in teaching ~~the~~ 21<sup>st</sup> century learners in the  
33 field of technology and livelihood are tremendous. It is expected that the learners would  
34 develop their critical thinking, problem solving skills, and communication skills in the  
35 classroom activities. TLE/TVE teachers must be good facilitators of learning and develop  
36 knowledge and skills of the students through different laboratory activities which include  
37 students' performance tasks and project making. ~~There should be~~ Teachers should have  
38 strategies ~~of the teachers~~ which could help develop students' creativity, innovativeness and  
39 collaborative skills. The use of the community as a laboratory for learning also develops  
40 students' 21st century skills as well as the learners' awareness of their environment.  
41 However, TLE teachers have difficulties in applying different strategies and transferring of  
42 skills to the students<sup>55</sup>. Factors which affect this problem are the shortage of skills,  
43 ~~mismatch of teachers~~, and ~~of~~ lack of materials<sup>27</sup>. These problems are usually experienced  
44 in the implementation of a new curriculum.

45 The Department of Education encourages ~~the~~ TVE/TLE teachers to undergo trainings and  
46 gain skills in the different specializations. However, teachers have to spend their own  
47 resources and voluntarily subjected themselves ~~into~~ NC II Assessments and Trainers'  
48 Methodologies trainings in order for them to get the knowledge and skills needed. With the  
49 knowledge and skills gained from the trainings and assessments, the teachers come up with  
50 an effective pedagogy and strategies to transfer the knowledge and skills in order for their  
51 students to become globally competitive.

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53 Thus, this study was conducted to determine the experiences of the TLE teachers in  
54 teaching ~~the~~ TLE subjects. Moreover, it also looked into the strategies used by ~~the~~ TLE  
55 teachers in delivering their lessons in the context of globalization. Likewise, it identified the  
56 teachers' faced challenges and culled recommendations to improve their teaching. This  
57 study was relevant because only few studies ~~which~~ dealt with the TLE because it was a new  
58 curriculum of the K-12 program. Thus, this study can contribute ~~in to~~ the improvement and  
59 development of the TLE program.

## 60 61 **1.1 Research Questions**

62 The general aim of this study was to determine the personal experiences of the teacher-  
63 participants in the teaching of TLE. Particularly, it ~~ascertains~~ ~~sought~~ to meet the following  
64 objectives:

- 65 1. To determine the teaching experiences of the TLE teachers;
- 66 2. To identify the training needs of TLE teachers;
- 67 3. To ascertain the challenges faced by the TLE teachers;
- 68 4. To discover the pedagogy and strategies used by the TLE teachers; and

69 5. To find out the recommendations of the TLE teachers ~~to improve~~ **for improving** the  
70 delivery of the course.

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## 72 **1.2 Significance of the Study**

73 The following are the beneficiaries of the study:

74 School Administrators. The results of the study will guide school administrators on the  
75 conditions of the TLE teachers; thus, initiate programs to address the technical and  
76 professional needs of the teachers.

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78 TLE Teachers. The results of the study will help TLE teachers to determine what other  
79 pedagogy and strategies can be used in order to enhance the technical skills of the students.  
80 Moreover, the results may become their evidence to suggest for relevant innovations for  
81 TLE.

82 Students of TLE. The results of this study may give the student hints to the real situations of  
83 the TLE teachers; thus, suggest relevant ideas on what strategies best for them.

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## 85 **1.3. Scope and Delimitation**

86 The focus of this study was on the experiences of the teachers handling different  
87 specializations in TVE/TLE such as Agro-fishery Arts, Industrial Arts, Information and  
88 Communication Technology and Home Economics. It did not include other subject teachers.  
89 Additionally, this study was conducted in different Junior and Senior High Schools in Davao  
90 del Sur. Moreover, the study used the qualitative method; hence, only limited number of  
91 participants was involved. According to <sup>42, 1</sup>, a study cannot make generalization of results if  
92 the number of participants is not statistically viable. Thus, the results may only be applied to  
93 the actual population included in the sampling frame. For <sup>10</sup>, because of number-limitation,  
94 the study can't offer recommendations, rather an implication.

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## 96 **1.4 Definition of Terms**

97 The following terms used in this study were defined for better understanding of concepts.

98 Technical Vocational Education (TLE). This pertains to the program offered in Junior High  
99 Schools under the K-12 program. This program has four components, Agri-Fishery Arts,  
100 Home Economics, and Industrial.

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102 Technical Vocational Education Teachers. These are individuals who are assigned to teach  
103 the TLE courses in the Junior or Senior High Schools.

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105 Globalization. This refers to the intensification of cross-area and cross-border social relations  
106 <sup>43</sup>; an institutionalized cultural account which describe reality and makes sense about how  
107 the world works <sup>53</sup>; a process of greater integration within the world economy through  
108 movements of goods and services, capital, technology and labor, including education, which  
109 lead to increase economic decisions being influenced by global conditions <sup>22</sup>.

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111 Pedagogy. This pertains to a theory on **a** teaching/learning process that guides the teachers'  
112 choice of classroom practices by providing criteria to evaluate specific educational strategies  
113 and techniques in terms of the desired course outcomes <sup>45</sup>. It proposed that students expect  
114 to learn something generalizable contexts instead of just become informed of facts <sup>9</sup>.

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116 Teaching Strategies. In general sense, these are approaches and techniques used by  
117 teachers to motivate and engage students <sup>26</sup>. In a deeper and specific sense, <sup>40</sup> cite that  
118 teaching strategies may differ depending on the teachers' pedagogical orientation. Thus, a  
119 teacher may base his / her strategies on formal, descriptive, and normative theories of  
120 teaching.

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## 122 2. MATERIAL AND METHODS / EXPERIMENTAL DETAILS / METHODOLOGY

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### 2.1 Research Design

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This study used the qualitative-phenomenological approach. According to <sup>28</sup>, qualitative method is used when investigation needs to know the participants' opinions. Likewise, it is also used when a study tries to understand individuals' personal encounter of an experience <sup>51</sup>. Moreover, <sup>41</sup> say that qualitative method is essentially relevant if the study aims to determine the importance of the individual's lived experiences. On the other hand, <sup>7</sup> mentions that qualitative method is best when a study needs personal narration and reflection of lived experience. On the other hand, phenomenological approach focuses on the experience-based design <sup>24</sup>. The use of focus group allows individual who have similar experiences to be together <sup>35</sup>; it is an effective mechanism to generate understanding and gain insight of the participants <sup>20</sup>. In this investigation, the individuals' lived experiences of the TLE teachers were in focus. They were formed into group and in turn shared their experiences.

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### 2.2 Locale of the Study

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The study was conducted in **the** public secondary schools in Sta. Cruz, Davao del Sur. Particularly in Sta Cruz National High School. It is located specifically located at Camposo Road, Poblacion, Sta. Cruz. Moreover, it is a Department of Education manage partially urban secondary public school.

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### 2.3 Sampling Procedure

This qualitative-phenomenological study used the non-probability sampling method in selecting the teacher-participants. The researchers purposely chose all the TLE teachers of Sta. Cruz National High School, Davao del Sur. They were selected because they were the individuals who had the knowledge about the topic under study. <sup>15</sup> avers that purposive sampling allows the selection of participants who are most suitable to pre-determined criteria set by the researchers. In same vain, <sup>14</sup> point out that purposive sampling is usually used by researcher if they have in mind and participants who suit the purpose of the study.

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### 2.4 Research Instrument

The research instrument used in this study was a researchers-made interview guide questionnaire. The questions and probe-questions were based on the research questions. The interview-guide questions were validated by experts. This was done to assess and shape its contents <sup>17</sup>; determine its reliability <sup>39</sup>; ascertain its outcome efficiency <sup>56</sup>. The researchers were convinced that validating the interview guide-questions gave them the opportunity to polish thoroughly the questions for its purpose.

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### 2.5 Data Collection Procedures

Observation of proper data collection procedures allows the attainment of reliability and transparency <sup>38</sup>. It also permits a systematic conduct of the study <sup>4</sup>. In this study, three steps were followed.

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Preliminary Stage. During this stage, the researchers got the approval to conduct the study through a formal letter. After the permission was obtained, formal letters of invitations were also sent to the different TLE teachers. Moreover, it was during this stage when the research questions, together with the interview guide questionnaire, were composed and subjected to validation.

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Data Collection Preparation Stage. At this stage, **the a** focus group discussion was conducted. During the interview, the researchers allowed all participants to talk and disallowing manipulation of answers. With permission from the participants, the interview

175 proceedings were recorded. After the focus group interview, the researchers transcribe the  
176 proceedings.

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178 Data Analysis Stage. At this phase, the thematic analysis of information was conducted. In  
179 the analysis, data analyst involved memoing, coding, and thematic analysis. Then, patterns  
180 of responses were formulated into themes.

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## 182 **2.6 Trustworthiness of the Study**

183 In handling the issues of trustworthiness <sup>11</sup> of this research, the researchers observed four  
184 essential procedures in order ~~that for~~ gathered information to be reliable. These included  
185 credibility, transferability, dependability, and confirmability. <sup>31</sup> explained that credibility is  
186 established when there is a prolonged engagement between the participants and the  
187 researchers. In this study, this was not an issue because all the participants, ~~the~~  
188 ~~participants~~ and researcher were all DepEd teachers and they have known each other for  
189 some time. Animosity among the participants was not an issue because they already built  
190 trust with each other. Thus, the researchers were confident because the atmosphere of  
191 easiness with the participants was established.

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193 On the other hand, <sup>32</sup> said that transferability is obtained when the results of the study will be  
194 utilized by other researchers in their search for clarifications; and degree in which the  
195 research can be transferred to other contexts. This particular aspect was realized in this  
196 study because its result would give essential insights to the school heads, readers and  
197 researchers information on the reality of TLE programs. Moreover, transferability is  
198 addressed when the researchers make specific details of the situations and methods which  
199 readers can compare to similar situation that they have knowledge about.

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201 The concept of dependability is based on the assumption of replicability or repeatability of  
202 the study <sup>12,17</sup>. The researchers observed this aspect by strictly following the standard in the  
203 conduct of research. The researchers subjected the research questions to experts' validation  
204 for validity and reliability. Likewise, enough related studies were provided in all areas of this  
205 study to strengthen the results and claims. Lastly, confirmability refers to the authenticity of  
206 the results which could be verified by others <sup>49</sup>. This aspect was established in this research  
207 through the thematic analysis of information. The thematic analysis of data applied  
208 memoing, coding, and vertical and horizontal procedures. Further, recordings and transcripts  
209 of the gathered information were available upon the request of the readers.

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## 211 **2.7 Data Analysis**

212 After the recorded interview was transcribed, the researchers gave the same to a data  
213 analyst. In the process of data analysis, the analyst applied memoing thru vertical analysis,  
214 coding thru horizontal analysis, and thematic analysis thru looking for patterns. <sup>5</sup> mention that  
215 memoing is used to assist in making the conceptual leaps from the raw data. Moreover, <sup>56</sup>  
216 points out that memoing is used to make reflections on the data under analysis. Likewise,  
217 coding is conducted to facilitate the process of reading to create a storyline; to categorize the  
218 information into codes; and to clarify and interpret the information <sup>46</sup>. Finally, thematic  
219 analysis is used to look for patterns in the responses of the participants <sup>6</sup> and identifying  
220 meaning <sup>22</sup>. The results of the analyses were put into table indicating the themes, frequency  
221 of responses, and core ideas.

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## 223 **3. RESULTS AND DISCUSSION**

224 Shown below are the results of the focus group conducted among the TLE teachers of  
225 various educational backgrounds. <sup>32</sup> argue that in presenting qualitative information, a table  
226 may be provided although its use is still debated. However, <sup>10</sup> mentions that qualitative  
227 research has the prerogative to decide on the format. Thus, in the presentation of the results

228 of this study, a table is used for better and easy understanding. Moreover, in classifying the  
 229 information obtained, the frequency is considered *General* if the responses have 50% of  
 230 more recurrence; *Typical* if there is 21-49% reactions specified in the interview; and *Variant*  
 231 if the reactions' occurrence is 20% less.

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Table 1. Themes and Core Ideas on TLE Pedagogical Strategies

Themes	Frequency of Response	Core Ideas
Perceptions on teaching	General	- challenging because it focuses on exploration - enjoying to share knowledge to students
Professional growth attended	General Variant	- having no training attended - spending personal money - schooling through scholarship
Handling difficulties in teaching	Typical Variant	- collaborating with other TVE teachers - bringing own tools - using video clips - reading food magazines
Methodologies used in teaching	Variant	- cooperative learning - demonstrating to students - using independent learning
Aspiration for certification	General	- aiming to be globally competitive
Recommendations for improvement	General	- developing teachers' personal character

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### 3.1 Perceptions on teaching

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Generally, the teacher-participants considered the teaching of TLE **was to be** challenging. It was so because the activities were focused on exploration. Moreover, they also felt satisfied because they were able to share their knowledge and skills to their students. This implies that the TLE teachers were committed and dedicated to their jobs despite the difficulties they encountered. Moreover, these teachers were most likely oriented **of to** the tasks assigned to them. <sup>3</sup> mention that TLE teachers understand their roles which are to improve teaching and learning strategies, develop TLE students' competencies, and meet the industry requirements.

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### 3.2 Professional growth attended

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It was a sad revelation that generally, the teacher-participants hadn't attended **any** training-seminar which could enhance their skills. It is an indication that the school heads lack concern on his/her teachers' professional development. **Variantly**, It was also revealed that the teachers used their own money to finance their attendance to trainings. This implies that their schools have no budget for their teachers' skills development. Hence, other teachers looked for scholarships. <sup>36</sup> mentions that TLE training has always been the issue not only in Indonesia but also in other ASEAN member countries. In the same vain, <sup>32, 2</sup> point out that teachers' re-training programs are essential to improve and develop not only their performance skills and knowledge but also their abilities to make teaching and learning effective.

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### 3.3 Handling difficulties in teaching

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In addressing the challenges of the teachers, they collaborate with each other by sharing resources. Variantly, some teachers brought their tools **at-to** school because the school didn't have materials. Moreover, teachers used video clips so that students could better

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261 understand the concepts. Other teachers used food magazines because these reading  
262 materials had colorful illustrations.<sup>59</sup> that aside from other challenges encounter by the TLE  
263 teachers, they also face the limited numbers of teaching facilities; <sup>51</sup> also points out that  
264 generally, teachers in developing countries needs to deal with the lack of necessary  
265 laboratories where they can conduct their TLE classes. <sup>47</sup> also mentions that available TLE  
266 materials are outdated and lack maintenance. This implies that the TLE implementation is  
267 not thoroughly planned because of **the inadequacies inadequacy** of necessary materials  
268 for the realization of its goals.

### 269 **3.4 Methodologies used in teaching**

270 In **delivering explaining** the concepts to the students, teacher used various methods. One  
271 of these was cooperative learning, demonstration, and independent learning. In cooperative  
272 learning, students were formed in a group so that they collectively work the task given.  
273 Usually in cooperative learning, the group chose its leader who steered the group. On the  
274 other hand, in demonstration, the teacher followed the modeling approach where he or she  
275 performed the task first for the students to follow. The focus of this approach was on the  
276 process on how something was to be done appropriately. Thus, students learn the skill.  
277 Lastly, teachers allowed the students to have independent learning which aimed at allowing  
278 the students to constructively discover knowledge and skills on their own **way**.<sup>23</sup> mention  
279 that TLE teachers should emphasize the development of skills among students such as  
280 teamwork, communication, and problem solving. On the other hand, <sup>57</sup> assert that for the  
281 transfer of ability to be successful, teachers should use metacognitive teaching strategy  
282 which includes independent learning. By this, students learn to discover their technical skills.

### 284 **3.5 Aspiration for certification**

285 Despite all the challenges the teachers were dealing with, the lack of technical trainings,  
286 seminars, and the lack of materials, they were optimistic to be globally competitive. This  
287 implies that the TLE teachers do not give up easily **rather motivated**. These teachers  
288 clamor for certification because they wanted their TLE programs to be recognized,  
289 competitive, and attractive. Certification of program implies quality<sup>27</sup> and good management  
290 <sup>45</sup>. Thus, certification is an important means of legitimizing the TLE as a good course to take.

### 292 **3.6 Recommendations for improvement**

293 Interestingly, all the teachers' recommendations did not focus on addressing their needs  
294 rather on developing their personal character so that their teaching goals were met.  
295 According to <sup>19</sup> personal indicators such as expectations about the job become the reasons  
296 some individuals **look for strive** to understand teachers' expectations. Moreover, <sup>28</sup> say that  
297 making learning personally meaningful comes from the constructivist perspective, which  
298 stresses cooperation to accommodate the many time-constraints imposed by personal  
299 responsibilities and commitments.

### 301 **What recommendations do the researchers have?**

## 302 **4. CONCLUSION**

303 Generally, **the** TLE teachers are enjoying their jobs despite the difficulties they faced.  
304 However, this happiness may be short-lived if the Department of Education will remain  
305 unmindful of the needs of TLE teachers. Moreover, the teacher-participants showed their  
306 dismay because they **haven't had not** been attended trainings to enrich their skills and to  
307 learn new knowledge. Due to the lack of equipment and supplies, teachers bring their own  
308 tools and share the same with others. It implies that the TVE program is implemented  
309 despite the inadequacy of materials or budget. On the other hand, only three teaching  
310 strategies are used by the study-participants. This only shows that TLE teachers lack  
311 knowledge of the many teaching strategies. This can be addressed through trainings and  
312 workshops. However, despite their conditions, teacher-participants remain positive that  
313 sooner or later their TLE program will be accredited and recognized locally and

314 internationally. Ironically the participants did not suggest improvement for the schools rather  
315 improvement for themselves. ~~This implies that TLE materials may be easy to acquire but not~~  
316 ~~the attitude.~~

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#### 318 **4.1 Implication for practice**

319 The challenges in teaching TLE in public high schools are real. It can't be solved by the TLE  
320 themselves rather by a strong and concrete **solution involving other stakeholders**. Re-  
321 training of TLE teachers are necessary and needs to be prioritized. Aside from re-training,  
322 TLE equipment should be given attention. No matter how motivated the teachers are, they  
323 cannot do anything without the necessary equipment for the tasks.

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#### 327 **COMPETING INTERESTS**

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329 The was no competing interest exist in the conduct of this study.

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#### 332 **ETHICAL APPROVAL**

333 To address the ethics in conducting a research study, the researchers considered some  
334 measures to handle the confidentiality of the participants and the information obtained.  
335 Firstly, consent letters were given to the participants to seek for their permissions. Secondly,  
336 the interview protocol which states that no revelation of true identity shall be done and  
337 participants may opt to use pseudonyms to hide their identities was strictly observed. Thirdly,  
338 the in-depth interview was conducted in a secluded office that provided ample privacy, little  
339 distractions, and comfortable environment to the participants. Lastly, the participants were  
340 assured that the recorded interview was kept by the researchers for safe-keeping and would  
341 be destroyed after two years. Moreover, the information obtained were to be used for  
342 research purposes only.

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