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## **Teacher-made Learning Module and Emerging Learning Technologies (ELT) towards the Enhancement of Writing Research Report**

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### **ABSTRACT**

*The action research aims to use the Teacher-Made Learning Modules and Emerging Learning Technologies during remote learning to improve the research report writing skills to the Grade 11 HUMSS 1 students at Vicente Andaya Sr. National High School this school year 2020-2021. Using the pretest score, 15 out of 35 students have concerns in their research report writing skills. These students participated in the intervention for six weeks to enhance their research report writing skills. The result shows that students showed improvement in the students' report writing skills from meeting expectations to outstanding, which implies that the intervention was very effective in enhancing the students' understanding and improving their research report writing skills. With this, it is recommended that the school in the Division of Capiz should adapt the module and share it with the teachers to supplement the self-learning modules and students can produce a well-written research report.*

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### **Introduction**

It has been more than a year since the Philippines has been in varying stages of lockdown in its efforts to slow down the spread of coronavirus. It inevitably impacted the educational system. The classroom as we know were gone. Teachers and schools scrambled to find resources and master the varieties of remote teaching techniques (Briones, 2020). While the students find it difficult to understand the concept of the learning competencies and they were having a hard time applying skills they need to survive since there is no face-to-face interaction between teacher and students to guide and facilitate their learning.

In writing a research report, a researcher must be cautious because the researcher's work is found to be tedious and very tiring work to do. It is done in a precise, systematic, and scientific way of investigating and gathering information to answer a particular problem establishing facts and forming conclusions (Barrot, 2016). In some situations, it takes more time than what is planned, and there are stages in research work that are more difficult than what the researcher expects.

Writing a research report in this new normal is hard because it creates a gap in students' learning especially in schools that are using modular as their learning modality. Students are experiencing difficulties and problems like: (1) they face a perpetual struggle to secure finances to support their research because money is so tight that some students cannot afford to buy a load for internet connection or materials needed for the study. (2) they have poor designs in the published like statistical flaws or interpretation of the research result. (3) they have problems with their peer or group because some group members delay their work, provide an unhelpful contribution, or do not help at all. (4) they have problems with research accessibility. Some students can't access online sources to support their research because of lack or limited internet

connectivity in the location of their residence. Lastly, (5) there is a lack of adequate and accurate communication to apply the comments and suggestions for the revisions of the students' output because without face-to-face interaction it can lead to miscommunication, divided opinions, and a lack of informed decision-making among them.

To help students achieve students learning independence, they must complete small, manageable steps to reach their goal Vygotsky (1978) asserted. Therefore, a teacher-made module is one of the most effective ways to solve students' learning gaps in this pandemic because modules focus is a student-centered learning activity, and the method of teaching is based on building up skills and knowledge in discrete units. It developed active learning experiences to make students more engaged, understand real-world applications of the concepts, and further develop higher-order cognitive abilities.

The use of Emerging Learning Technologies (ELT) also addresses this distance learning problem because the application of ELT (tools, concepts, innovations, and advancements) in distance education (Veletsianos, 2010) such as using mobile apps, tablets, laptops, or AR/VR provides opportunities for teacher-students as well as student-student real-time and/or time-delayed collaboration. It makes learning interactive, and easily accessible which students can do at their own pace and not restricted by place or time. It also provides opportunities for students in rural and geographically dispersed settings to further their education (Rao and Giuli, 2010) and it disassemble barriers that have been constructed by poverty, location, disability, as well as other factors (Gilbert, 2015). It will keep students engage in even the realities of their lives impede the sustained focus on their education.

Incorporating modules and using ELT to the teaching approach in modular learning can greatly contribute to the research report writing skills of students. They can help students go past the most difficult research roadblocks in every step of writing a research report. Students learn best when they actively participate in the learning process, when they are engaged and motivated to learn, and when they build their learning from their existing knowledge and understanding.

Relevant to this, the researcher conducted a study on research report writing skills before and after using the Teacher-Made Learning Module and using Emerging Learning Technologies in remote learning of Grade 11 HUMSS 1 students at Vicente Andaya Sr. National High School. More specifically, this aims to answer the following questions below:

1. What is the level of students' research report writing skills before the teacher-made module and using emerging learning technologies were introduced?
2. What is the level of students' research report writing skills after the teacher-made module and using emerging learning technologies were introduced?
3. What are the students' thoughts, perceptions, or observations about their experience in answering the activities in the teacher-made module while using the emerging learning technologies?

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## Methodology

A mixed (quantitative-qualitative) method using one group pretest-posttest design is employed in this study. Fifteen (15) Grade 11 HUMSS 1 students at Vicente Andaya Sr. National High School for the school year 2020-2021 participants were utilized using purposive sampling in selecting a sample. Likewise, a list of qualifications was used to serve as a guide to know the best fit participants needed in the study. (1) taking English for Academic and Professional Purpose Class under the researcher's teaching load in the 1<sup>st</sup> semester for the school year 2020-2021, (2) participants must have gadget/cp/tablet or laptop/computer, (3) have internet connection and (4) consent will be signed by them and their parents for confidentiality. The researcher administered pretest and posttest as a basis of comparison if the participants' research report writing skills have improved. These underwent face and content validation and reliability testing using pilot tests and test item analysis. Few modifications were made to the tests to suit the instrument to the nature of the study. In-depth interviews and e-journals were also collected. The pretest and posttest were interpreted using frequency, mean scores, standard

deviation, and percentages while Braun and Clark's (2006) thematic analysis for the in-depth interview and the e-journal were used.

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## Result

***Level of Research Report Writing Skills of Students Before the Teacher-Made Module and Using Emerging Learning Technologies were Introduced.*** The result shows the students' level of research report writing skills were "meet expectations" ( $M = 30.93$ ,  $SD = 4.234$ ,  $MPS = 61.87\%$ ).

***Level of Research Report Writing Skills of Students After the Teacher-Made Module and Using Emerging Learning Technologies was Introduced.*** The result the students' level of research report writing skills were "outstanding" ( $M = 41.07$ ,  $SD = 1.486$ ,  $MPS = 82.13\%$ ).

***Thoughts, Perceptions or Observations of Students' Experience Answering the Teacher-Made Module while Using the ELT.***

***Students' Positive Perspective.*** The result revealed that the students were impressed, interested, enjoyed, fascinated, and liked the experience of answering the modules and using different Emerging Learning Technologies (ELT). Module 1: Preparing and Implementing Survey Questionnaire, Interview or Experiment was an easy task because the activities were about creating research instruments and gathering data. They were fortunate with the Emerging Learning Technologies (ELT) because it bridged the gap between teacher-students' communication. It helped the teacher guide their students to understand the task properly which led to the improvement of their outputs. ELT made students creative, made their tasks easier, enhanced their critical thinking skills, and lessen their stress, even in some cases the internet connection was still an issue. Their parents, classmate, and friends were also a big help and constant motivator to finish the tasks as well. In general, they were thankful that the researcher had chosen them to be part of the participants of the study.

***Students' Negative Perspective.*** However, some students find it difficult to understand some parts of the modules, especially on Module 2: Preparing and Implementing Visual, Table and Graphs and Module 3: Writing Research Report in which they need to analyze and interpret the actual and concrete data that they have collected to produce a well-written research report. It added in their difficulty that writing a research report was a first-time experience and they needed more time to finish the activities in the module. Others still prefer face-to-face instruction between teacher and student.

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## Discussion

***Level of Research Report Writing Skills of Students Before the Teacher-Made Module and Using Emerging Learning Technologies were Introduced.*** The students' research writing skills were average. They have some degree of conceptual understanding about research reports and adequate skill writing a well-written research report. The students still need assistance from the teacher and supplementary materials to fully understand the proper step-by-step procedure on the precise, systematic, and scientific way of investigating and gathering information to answer a particular problem, establish facts and reach a conclusion of writing a research report. Dangle et al., (2020) assert that the main challenges that the students have encountered during modular learning are lack of school funding in the production and delivery of modules. self-studying, lack of focus, and parents' lack of knowledge academically guide their child/children (Guaimalon, 2021).

***Level of Research Report Writing Skills of Students After the Teacher-Made Module and Using Emerging Learning Technologies was Introduced.*** The students' research writing skills were excellent. Students now have a full understanding of the proper step-by-step procedure and apply the precise, systematic, and scientific way of investigating and gathering information to answer a particular problem, establish facts, and reach a conclusion in writing a research report. Therefore, the teacher-made module and using emerging learning technologies (ELT) as an intervention to the students' problem on the conceptual understanding and writing a well-written research report were very effective. The study of Wu et al. (2020) stated that modules can improve the technical writing skills of students, and Clark, et al., (2018) added that technology-based instruction may supplement teachers' effort to deliver instruction. It can provide practice time to students, affording students extra opportunities to engage in writing both in and out of the classroom.

***Thoughts, Perceptions or Observations of Students' Experience Answering the Teacher-Made Module while Using the ELT.*** The students' thoughts, perceptions, or observations after answering the teacher-made modules and using the emerging learning technologies were very effective, especially with the help and guidance of their teacher, family, friends, and classmates. The students can fully understand the proper concept and the actual writing following the step-by-step method on how to write a research report. The pandemic did not obstruct the teaching and learning process because the teacher strategized and developed a plan of instruction that will cater to the learning needs of students. Using the teacher-made module on writing research reports integrated with the different emerging learning technologies is an effective approach. The result coincides with the study of Cramer et al., (2018) that there is a significant association between the module receipt and improved performance on the examination of students, regardless of when the modules were presented either before or after the examination. Additionally, students who completed the modules indicated that they enjoyed the instructors and educational developers' design and offer learning modules to the students to enhance success across the educational experience. John King (2017), the US Secretary of Education, quoted that one of the most important aspects of technology in education is its ability to level the field of opportunity for students. This can be a powerful tool for transforming learning, helping affirm and advance relationships between educators and students, reinventing our approaches to learning and collaboration, shrinking long-standing equity and accessibility gaps, and adapting learning experiences to meet the needs of all learners.

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## Reflection

Incorporating Teacher-Made Module and using Emerging Learning Technologies (ELT) to the teaching approach in distance learning can greatly contribute to the research report writing skills of students. They can help students go past the most difficult research roadblocks like choosing a topic, finding study participants, staying sane throughout the process, and every step in between. Students learn best when they actively participate in the learning process, when they are engaged and motivated to learn, and when they build their learning from their existing knowledge and understanding. The result of this study may serve as a springboard for the future improvements of the schools' existing programs and guidelines on the implementation of modular, online, or blended learning.

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