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Article

Inputs to Motorcycle Tune Up and Repair Module for a Training Program for 4Ps Beneficiaries of Bustos, Bulacan: A Needs Analysis

Butch Stephen C. Duay[1], **and Romar C. Ignacio**[1]

[1] Bulacan State University - Bustos Campus

Correspondence: butchstephen.duay@bulsu.edu.ph

Abstract

This cross-sectional descriptive quantitative and developmental research aimed to assess the knowledge of the 4Ps beneficiaries of the Municipality of Bustos in Bulacan in terms of basic motorcycle engine repair. Moreover, based on the result of the assessment, the knowledge gap served as input to the design and development of a module on basic motorcycle repair. This study is anchored with Rapid Prototyping Instructional Design (RPID) framework, wherein after the assessment, design and development, the evaluation of the experts in terms of the quality of content, format, presentation and organization and accuracy and up-to-datedness of information transpired. The result revealed that, the respondents (n=34) on the average marked a score of 8.12 out of 30 points in the test about basic and advanced motorcycle repair having a standard deviation of 2.87. Moreover, the evaluation in terms of the content, format and presentation and organization got a passing remark. However, the module failed to pass the criterion of accuracy and up-to-datedness. The module must be subjected to another cycle of evaluation after its revision of the accuracy and update of information. After the revision and further evaluation, implementation and testing effectiveness must follow.

Keywords: *4Ps, Bustos, Motorcycle Repair, Module, Needs Analysis, Philippines*

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Introduction

Pebriantika's (2019) research cited that a needs analysis is imperative to determine what instructional resources learners require to aid learning. As a result, the teaching materials that will be generated must be based on student characteristics. According to Morrison, Ross, and Kemp (2004), the instructional design process begins with identifying a problem or need.

Training needs analysis (TNA) aims to narrow the gap between current and desired circumstances by identifying differences in results, prioritizing them, and selecting the most critical for closure or decrease (Rothwell & Kazanas, 1998). The training needs analysis must be completed before the training activities are organized, as it ensures their success. It guarantees that individual learning requirements and the pursuit of efficiency (Potter et al., 2003). Moreover, according to Wright and Geroy (1992), training must be preceded by needs analysis. Furthermore, the success of a training program is attributed to one fundamental process: conducting a needs analysis (Brown, 2002). One of the reasons why the researchers conducted training needs analysis is to assess whether the participants' skills and knowledge in motorcycle repair are deficient.

In Higher Education Institutions, as stipulated in CMO No. 46, s. In 2012, one of the missions of universities and colleges was to improve the quality of human life in the country. Moreover, one of the trifocal functions of SUCs in the Philippines, like Bulacan State University, is to conduct extension services aside from research and instruction. In a study by Magnaye and Ylagan (2021), results revealed that the effective community extension program is for livelihood and entrepreneurship. In one of the state colleges in the Philippines, extension services have a satisfactory social and economic impact (Salazar, 2020). Moreover, Cruz et al. (2023), in their study about the perceived impact of LGU-funded extension programs, found a satisfactory impact on community service programs. However, from research by Labayo (2022), the implementation of an extension program on teacher training was successful but failed to assess changes in behavior in learning after the training program. This research is intended to support a program that will lead to more opportunities for the people in terms of motorcycle repair services and make it a source of income, particularly for the 4Ps beneficiaries of Barangay Poblacion, Bustos, Bulacan, in the Philippines.

Motorcycles are becoming a trend as a mode of transport for commuters in the Philippines. According to a 2022 report, there are about 8.5 million registered and non-conventional motorcycles in the country. Central Luzon, where Bulacan is situated, has the highest number of license registrations for tricycles (motorcycles with a sidecar attached). The motorcycles ranked second as a mode of public transportation, such as

jeepneys and buses (Motorcycle Industry in the Philippines, 2024). Moreover, in the Philippines, almost half of the households owned a motorcycle or a tricycle (Statista, 2023). According to Cipriano and Vicenta (2019), the motorcycle is now a popular choice in most ASEAN countries including the Philippines, for people seeking personal mobility. Based on this statistics and trend in terms of motorcycle utilization in the Philippines, this present study poses a significant contribution in the future training on basic techniques and troubleshooting of motorcycle repair by assessing the knowledge of 4Ps beneficiaries and then design and develop a module that will be utilized in the future training program of the researchers.

The study's participants are the beneficiaries of the Pantawid Pamilyang Pilipino Program (4Ps) in Poblacion, Bustos, Bulacan. The 4Ps program is a conditional cash transfer program. This poverty reduction strategy provides a monthly allowance to the poorest of the poor of the country to improve their health and support the educational needs of the children. According to the Department of Social Welfare and Development report in 2023, the 4Ps has already aided 5,544,832 poor households nationwide in the Philippines. Basiri (2024) studied the effects of 4Ps and found that it significantly positively affects human capital development. On the other hand, beneficiaries of the 4Ps are very satisfied with using the cash grants for educational purposes (De Jesus & Villanueva, 2023). Furthermore, a study found that the government's 4Ps program generates general and fundamental improvements in the lives of the beneficiaries (Canlas et al., 2022).

As faculty members of a State University, the authors want to extend and contribute their share in uplifting the lives of 4Ps beneficiaries in Bustos, Bulacan. The test results are also salient in the design and development of the module. The output of the training needs analysis is a learning module that features basic motorcycle repair. According to McGarry (2019), a training module is a one structured section of a course. Its content should be developed, designed, and created to support the learner's intake and retention of the information it contains. The objective of a training module is to create a step-by-step learning course. The first step in developing a training module is to know your audience, break the topics into modules, and then plan the content format. Afterwards, the module should also be added with knowledge checks. A study by Banandur et al. (2020) uncovered that respondents who attended a training and used a structured training module significantly improved their knowledge and attitude scores without improving their practical skills.

The future of this study is anchored with the Sustainable Development Goal of ending poverty and providing decent work for all. The training program allows the respondents to have decent work, which is fundamental to human dignity (Laborem

Exercens (September 14, 1981) | John Paul II, 1981). This may be done by equipping the participants with motorcycle repair skills, empowering them to provide service, contribute to society, and gain a sense of accomplishment. Based on the needs of the participants, the researchers will create a training initiative that encourages technical skills, human dignity, and economic empowerment.

The researchers constructed the training module and adapted the Rapid Prototyping Instructional Design (RPID) model. In the assessment part, the researchers employed a test to assess what the learners need to know to accomplish related tasks. In the design process, the researchers will conceptualize what the training module will look like. The researchers identified the learning objectives, content, learning methods, and needed resources for the development part. However, this study has not included the implementation part yet since the training program delivery has not transpired.

Objectives of the Study

Through a needs analysis, this study aims to identify the training that should be done, specifically for the household members of the 4Ps beneficiaries of the Municipality of Bustos in Bulacan. Another target of this study is the design, development, and evaluation of a training module that will be employed to train the respondents on basic and advanced motorcycle repair based on the needs assessment that transpired.

Statement of the Problem:

The main problem of the study is how to design, develop, and evaluate a training module on basic and advanced motorcycle repair based on the needs assessment that transpired. Specifically, it seeks to answer the following questions:

1. How can the respondents describe basic and advanced motorcycle repair knowledge?
2. How can a basic and advanced motorcycle repair training module be designed and developed?
3. How can the evaluation of the designed and developed module be described in terms of:
   3.1. Content;
   3.2 Format;
   3.3 Presentation and Organization; and
   3.4 Accuracy and Up-to-dateness of Information

Methodology

Research Design

This scholarly work will employ both descriptive quantitative design and developmental research design. The quantitative part was used to describe the respondents' training needs and to profile the experts' evaluation scores in the designed and developed training module. Moreover, in terms of designing, developing, and evaluating the training module, the developmental research is used (42: Developmental Research, 2001). Unlike simple instructional development, the processes involved in developmental research are systematic designing, developing, and evaluating instructional programs, processes, and products (Seels & Richey, 1994).

Population and Sample of the Study

The population of the study is composed of members of households in Poblacion, Bustos, and Bulacan, who are beneficiaries of the government's 4Ps program. The respondents are 18 years old and above. Convenience sampling was employed, and 34 respondents interested in joining the training program participated. Of the 34 respondents, 20 are females and 14 are males. Moreover, six experts from the faculty of Industrial Technology were also participants in the study, who evaluated the design and developed module.

Instruments of the Study

A thirty-item test that covers concepts in basic and advanced motorcycle repair was used in this study. Moreover, the instrument employed to evaluate the module is the Department of Education's Rating Sheet for PRINT Resources, which comprises four criteria: content; format, presentation, organization, accuracy, and up-to-datedness.

Data Analysis and Statistical Treatment

The researchers identified the items with the least number of correct responses. The test result is the basis for designing and developing the module. Subsequently, descriptive statistics are used to evaluate the experts' evaluation of the designed and developed module. For the content criterion, it should have at least a score of 21 out of 28 points to pass the criterion. For the format, 54 points out of 72 points to pass. On the other hand, for presentation and organization, it should be 15 points out of 20 points to pass the criterion. Moreover, to pass the criterion, accuracy and up-to-dateness of information must have a perfect score of 24 out of 24 points.

Ethical Considerations

Participation in the survey is voluntary. They sought consent requiring them to declare no conflicts of interest. After signing the consent form, they can still withdraw at any time without any consequence. The responses will be kept anonymous and confidential under the Data Privacy Act (DPA) of 2012 and its related laws and regulations. The respondents were made aware that there are no risks involved in participating in this study.

Results and Discussion

Research Objective 1: How may the respondents' knowledge of basic and advanced motorcycle repair be described?

On average, the respondents (n=34) scored 8.12 out of 30 points in the test about basic and advanced motorcycle repair, with a standard deviation of 2.87. The lowest score is 2, while the highest score obtained is 12. This result shows that there is a learning gap among the respondents in terms of the concepts of basic and advanced motorcycle repair. This would establish the need for the respondents to have a training program on the said topics because, on average, the respondents have low prior knowledge.

On the other hand, the five (5) items that got the lowest correct scores are about: how to adjust the valve clearance (3); stroke cycle (3); diagnosis of no compression (4); intake valve function (5); and sign of TDC compression stroke (6). The test results are also salient in the design and development of the module.

According to Berry (2008), the pre-test establishes a subject-knowledge baseline and judges the learners' depth of understanding about the concept. Teachers should carefully review pre-test findings before instruction (Kelly, 2019). A recent study revealed growing data about the impact of pre-testing and pre-questioning on learning transfer and memory (Pan & Carpenter, 2023).

Research Objective 2: How may a basic and advanced motorcycle repair training module be designed and developed?

In designing and developing the module, the researchers followed the RPID (Rapid Prototyping Instructional Design) model of construction of instructional materials. According to Jones and Richey (2000), RPID is an instructional design that involves the iterative development of a working model or prototype of an instructional

product early in a program to facilitate continuous analysis, design, and development of an instructional innovation.

The designed and developed module on basic and advanced motorcycle repair started with the training needs of the respondents. Based on the results, the authors designed the format of the module. Based on the needs analysis results through a test, the researchers have identified the characteristics of the participants. The participants are 4P beneficiaries of varying age groups and genders. The developed module's medium of instruction is in Filipino to set language appropriateness for the target beneficiaries for more comprehensive content. The title of the module is *MODYUL PARA SA PINADALING PAG-AAYUS AT PAGMEMENTENA NG MOTORSIKLO*, which translates to a module that simplifies the instructions of the fundamentals of motorcycle repair. The module started with an introduction and was followed by a pre-test to measure the prior knowledge of the target users. Then the basic techniques and operations of motorcycle repair were discussed, followed by the safety procedures, and a pre-test. The module is designed with an objective, introduction, pre-test, lesson proper, and post-test. The module comprises seven (7) parts, including: The Workshop and Basic Information; Tools and Equipment; Fundamentals of Motorcycle Engine; Engine Lubrication System; Carburetor Cleaning; Valve Adjustment; and Motorcycle Engine Overhauling.

Research Objective 3: How may the evaluation of the designed and developed module be described in content?

Table 1. Summary of the Evaluation of Experts in Terms of Content

CRITERIA	MEAN
1. Content is suitable for the student's level of development	4.00
2. Material contributes to the achievement of specific objectives of the subject area and grade/year level for which it is intended.	4.00
3. Material provides for developing higher cognitive skills such as critical thinking, creativity, learning by doing, inquiry, problem solving, etc.	3.67
4. The material is free of ideological bias. Cultural, religious, racial, and gender biases and prejudices	4.00
5. Material enhances the development of desirable values and traits	3.83
6. Material can potentially arouse the target reader's interest.	4.00
7. Adequate warning/cautionary notes are provided in topics and activities where safety and health are of concern	4.00
TOTAL	**27.5**

It can be gleaned from Table 1 that the evaluation scores of the experts are in terms of the content of the designed and developed module. On average, the score is 27.5 out of 28, meaning that the module passed the content criterion. However, the

lowest score (M = 3.67) was marked regarding providing content that develops higher cognitive skills. Since the module's content requires more psychomotor and manipulative skills, it was designed appropriately to develop these skills. The module's content validity is critical to obtain quality standards (Tarmizi & Janan, 2022). Moreover, Sifa et al. (2021) emphasized the effectiveness of a well-designed and developed module in enhancing the learning process.

Table 2. Summary of the Evaluation of Experts in Terms of Format

CRITERIA	MEAN
1.1 Size of letters appropriate to the intended user	3.83
1.2 Spaces between letters and words facilitate reading	3.83
1.3 Font is easy to read	4.00
1.4 Printing is of good quality (i.e., no broken letters, even density, correct alignment, properly placed screen registration)	4.00
2.1 Simple and easily recognizable	4.00
2.2 Clarify and supplement the text	4.00
2.3 Properly labelled or captioned (if applicable)	4.00
2.4 Realistic/appropriate colors	4.00
2.5 Attractive and appealing	4.00
2.6 Culturally relevant	3.83
3.1 Attractive and pleasing to look at	4.00
3.2 Simple (i.e., does not distract the reader's attention).	4.00
3.3 Adequate illustration of text	4.00
3.4 Harmonious blending of elements (e.g., illustrations and text).	3.83
4.1 Paper used contributes to easy reading	3.83
4.2 Durable binding to withstand frequent use	3.83
5.1 Easy to handle	4.00
5.2 Relatively light	4.00
TOTAL	**70.98**

Table 2 revealed the evaluation scores of the designed and developed module in terms of format. On average, the total score of the format quality of the module is 70.98 out of 72 points, which means the module passed this criterion. According to Burt and Burt (2023), during the planning stage of developing and mapping out a module, one of the factors to be considered is its format.

Table 3. Summary of the Evaluation of Experts in Terms of Presentation and Organization

CRITERIA	MEAN
1. Presentation is engaging, interesting, and understandable.	4.00
2. There is a logical and smooth flow of ideas.	4.00
3. Vocabulary level is adapted to the target reader's likely experience and level of understanding.	4.00
4. The length of sentences is suited to the comprehension level of the target reader.	4.00
5. Sentences and paragraph structures are varied and interesting to the target reader.	3.83
TOTAL	**19.83**

Table 3 summarizes the experts' evaluation in terms of the presentation and organization of the module. Overall, the module passed the criteria regarding its presentation and organization with a total score of 19.83 out of a perfect score of 20. On the other hand, the least scored item (M = 3.83) falls on the variety of sentences and paragraphs and how interesting it is to the target readers. According to Hativa (2000), an alternative dimension of effective teaching is to present materials interestingly and engagingly. Moreover, Renkl and Scheiter (2015) state that learners struggle with visual display because of interferences of extraneous yet perceived critical information. Additionally, presentation sequence influences the text's reading method and the perception of the learners' comprehension (Copeland & Gedeon, 2017).

Table 4

Summary of the Evaluation of Experts in Terms of Accuracy and Up-to-dateness of Information

CRITERIA	**MEAN**
Conceptual errors.	3.33
Factual errors.	3.50
Grammatical errors.	3.50
Computational errors	3.67
Obsolete information.	3.67
Typographical and other minor errors (e.g., inappropriate or unclear illustrations, missing labels, wrong captions, etc.).	3.83
TOTAL	**21.5**

The outline of the experts' evaluation in terms of accuracy and up-to-datedness of information was shown in Table 4, revealing a crucial area for improvement. The results revealed that the module failed to pass the standard in these criteria since it marked only 21.5 out of the required perfect score of 24. The presence of some conceptual errors (M = 3.33) got the lowest mean, which means that this criterion has the most errors, highlighting this as the most significant area of concern identified by the experts. The accuracy of the content of a learning material is crucial, and the information must be up to date (Zabidi et al., 2017). Moreover, the accuracy of the information is critical for easy understanding and avoiding misconceptions (Rahmawati et al., 2021).

This formative evaluation by content and pedagogical experts, comprising six faculty members from Industrial Technology, was an integral step in this study's iterative Rapid Prototyping Instructional Design Model. In line with the principles of rapid prototyping, which emphasize continuous feedback and refinement, these findings directly influenced the subsequent development and revision of the module. The experts' insights, particularly on conceptual accuracy, served as a vital diagnostic

tool, pinpointing specific areas where the content required immediate attention and correction.

Conclusions

This developmental research aimed to design, develop, and evaluate a training module on basic motorcycle engine repair for a training program designed for the indigent residents of Bustos, Bulacan, based on the training needs analysis conducted. The module is designed with an introduction followed by a pre-test to measure the prior knowledge of the target users. Then, the basic techniques and operations of motorcycle repair were discussed, as well as the safety procedures and a pre-test. The module is constructed with an objective, introduction, pre-test, lesson proper, and post-test. The module comprises seven (7) parts: The Workshop and Basic Information; Tools and Equipment; Fundamentals of Motorcycle Engine; Engine Lubrication System; Carburetor Cleaning; Valve Adjustment; and Motorcycle Engine Overhauling. The module evaluation revealed that the material passed the content, format, presentation, and organization criteria. However, the module failed to pass the criteria regarding the accuracy and up-to-dateness of information.

The overall positive evaluation of the module regarding content, presentation, format, and organization implies that the foundational design and structural elements were well-received. This suggests that the module efficiently organized and presented information in a user-friendly format, which may minimize the extraneous load, freeing up working memory for essential learning (Sweller, 1998). Practical components such as "The Workshop and Basic Information" and "Motorcycle Engine Hauling" align with the vocational nature of the training, suggesting the module's instructional scope is appropriate for the target learners.

However, the failure to meet the standard for accuracy and up-to-dateness directly impacts the core efficacy and reliability of the developed module as a stand-alone learning resource.

Therefore, the initial main argument, which might have implicitly posited the development of an entirely acceptable and ready-to-implement module, must be re-framed. The expert evaluation reveals that while the design and development process was largely successful in terms of structure and initial content inclusion, the evaluation phase critically identified that the module, in its current form at the time of the expert review, did not yet fully achieve its objective of providing perfectly accurate and current information.

Recommendations

In light of the above findings and conclusions, the following recommendations are offered:

1. The module must be subjected to another evaluation cycle after being revised for accuracy and information updates.
2. Implementation of the module and testing its effectiveness for the target beneficiaries may also be conducted.
3. Training needs analysis may also be done for other 4Ps beneficiaries in other barangays of Bustos, Bulacan.
4. Similar studies may also be done in other fields that may design and develop a module for a training program.
5. Create a training initiative that encourages technical skills, human dignity, and economic empowerment.

References

[1] Aaron, A. (2020). How can restaurants please Generation Z members, a Global Restaurant Industry Expert https://aaronallen.com/services

[2] Ahmed, L. (2024). Environmental ethics and cultural [1] Banandur, S. P., Sukumar, G. M., Arelingaiah, M., Garady, L., Koujageri, J. M., Sajjanar, S. L., Hadapad, B., Ramesh, M. S., & Gopalkrishna, G. (2020). Effectiveness of a structured training module on different learning domains among Yuva Parivarthakas under Yuva Spandana Program. Indian Journal of Psychological Medicine, 42(2), 182–188. https://doi.org/10.4103/ijpsym.ijpsym_144_19

[2] Basiri, N. (2024). Study on the effects of Pantawid Pamilyang Pilipino Program (4PS) on human capital development. Social Science Research Network. https://doi.org/10.2139/ssrn.4722880

[3] Berry, T. (2008). Pre-test assessment. American Journal of Business Education, 1(1), 19–22. https://doi.org/10.19030/ajbe.v1i1.4633

[4] Brown, J. (2002). Training needs assessment: A must for developing an effective training program. Public Personnel Management, 31(4), 569–578. https://doi.org/10.1177/009102600203100412

[5] Burt, R., & Burt, R. (2023, August 14). Successful training module creation: Your ultimate guide. Sensei LMS. https://senseilms.com/how-to-create-a-training-module/

[6] Canlas, C. S., Castillo, S. R. A., Estrella, J. P. D. R., & Rosete, M. A. L. (2022). Effectiveness of social assistance expansion: Pantawid Pamilyang Pilipino Program (4Ps) as a social development strategy in Quezon City. International Journal of Research in Engineering, Science and Management, 5(11).

[7] Copeland, L. D., & Gedeon, T. D. (2017). Tutorials in e-Learning—How presentation affects outcomes. IEEE Transactions on Emerging Topics in Computing, 5(1), 20–31. https://doi.org/10.1109/tetc.2015.2499257

[8] Cruz, J. L. D., Estrañero, A. G., & Rante, J. A. (2023). The perceived impact of the LGU-funded extension programs in Ilocos Sur Polytechnic State College – Santiago Campus. International Journal of Multidisciplinary, 4(7), 2636–2646. https://doi.org/10.11594/ijmaber.04.07.39

[9] De Jesus, F. S., & Villanueva, W. (2023). Satisfaction level of the beneficiaries of Pantawid Pamilyang Pilipino Program (4P's). American Journal of Society and Law, 2(2), 29–37. https://doi.org/10.54536/ajsl.v2i2.1535

[10] ElSayary, A., Eppard, J., Mohebi, L., Bailey, F., & Thomure, H. (2024). The effectiveness of an online training module for pre-service and in-service teachers: A case study. The Journal of Educators Online, 21(3). https://doi.org/10.9743/jeo.2024.21.3.13

[11] Fatima, R., Cipriano, John, Karl, S., & Vicenta. (2014). Safety evaluation of motorcycle lanes in Metro Manila.

[12] Hativa, N. (2000). Promoting student motivation. In Springer eBooks (pp. 229–237). https://doi.org/10.1007/9789401009027_15

[13] Jones, T. S., & Richey, R. C. (2000). Rapid prototyping methodology in action: A developmental study. Educational Technology Research and Development, 48(2), 63–80. https://doi.org/10.1007/bf02313401

[14] Kelly, M. (2019, November 19). Pre-tests. ThoughtCo. https://www.thoughtco.com/importance-and-uses-of-pretests-7674

[15] Labayo, C. (2022). Impact evaluation of teacher-training extension program in higher education: A qualitative assessment approach. The Normal Lights, 16(1). https://doi.org/10.56278/tnl.v16i1.1713

[16] Laborem exercens (September 14, 1981) | John Paul II. (1981, September 14). Vatican. https://www.vatican.va/content/john-paul-ii/en/encyclicals/documents/hf_jp-ii_enc_14091981_laborem-exercens.html

[17] Magnaye, R. P., & Ylagan, A. P. (2021). Effectiveness and impact of the community extension program of one Philippine higher education institution as a basis for sustainability. Asia Pacific Journal of Academic Research in Business Administration, 7(2).

[18] McGarry, O. (2019, November 20). How to develop an online training module for your corporate learning. LearnUpon. https://www.learnupon.com/blog/develop-online-training-module/

[19] Morrison, G. R., Ross, S. M., & Kemp, J. E. (2004). Designing Effective Instruction (4th ed.). Wiley.

[20] Pan, S. C., & Carpenter, S. K. (2023). Prequestioning and pre-testing effects: A review of empirical research, theoretical perspectives, and implications for educational practice. Educational Psychology Review, 35, 97.

[21] Pebriantika, L. (2019). Needs analysis for the development of e-modules as teaching materials. Asia Proceedings of Social Sciences, 4(3), 49–51. https://doi.org/10.31580/apss.v4i3.843

[22] Potter, M. A., Barron, G., & Cioffi, J. P. (2003). A public health workforce development model using the National Public Health Performance Standards Program. Journal of Public Health Management and Practice, 9(3), 199–207. https://doi.org/10.1097/00124784-200305000-00004

[23] Rahmawati, L. E., Octaviani, P., Kusmanto, H., Nasucha, Y., & Huda, M. (2021). The accuracy of the complex-procedures text material in the Bahasa Indonesia textbook for the first grade of senior high school. Asian Journal of University Education, 17(1), 91. https://doi.org/10.24191/ajue.v17i1.12607

[24] Renkl, A., & Scheiter, K. (2015). Studying visual displays: How to instructionally support learning. Educational Psychology Review, 29(3), 599–621. https://doi.org/10.1007/s10648-015-9340-4

[25] Rothwell, K. W. J., & Kazanas, H. (1998). Mastering the instructional design process: A systematic approach (2nd ed.). Jossey-Bass/Pfeiffer.

[26] Salazar, T. B. (2020). An impact study of the community extension programs in a state college in the Philippines. International Journal of Educational Sciences, 29(1–3). https://doi.org/10.31901/24566322.2020/29.1-3.1129

[27] Sifa, Rasna, I. W., Putrayasa, I. B., & Artawan, G. (2021). Developing a learning module with multicultural content: A millennial generation learning source. Dialogos, 25(2), 274–282. https://doi.org/10.4025/dialogos.v25i2.145

[28] Statista. (2023, June 28). Share of households owning vehicles in the Philippines 2022, by type. Retrieved from Statista database.

[29] Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. Cognitive Science, 12(2), 257–285. https://doi.org/10.1207/s15516709cog1202_4

[30] Tarmizi, M. H. M., & Janan, D. (2022). Content validity of the reading skills teaching module through a foreign language approach. Malaysian Journal of

Social Sciences and Humanities, 7(12), e001990. https://doi.org/10.47405/mjssh.v7i12.1990

[31] Topic: Motorcycle industry in the Philippines. (2024, March 22). Statista. https://www.statista.com/topics/12057/motorcycle-industry-in-the-philippines/#:~:text=Domestic%20motorcycle%20sales%20and%20production&text=In%202022%2C%20there%20were%20about,reported%20in%20Region%20IV%2DA

[32] Watkins, S. M. (1988). Using the design process to teach functional apparel design. Clothing and Textiles Research Journal, 7(1), 10–14. https://doi.org/10.1177/0887302x8800700103

[33] Wright, P. C., & Geroy, G. D. (1992). Needs analysis theory and the effectiveness of large-scale government-sponsored training programmes: A case study. Journal of Management Development, 11(5), 16–27. https://doi.org/10.1108/02621719210014527

[34] Zabidi, N. A., Woo, T. K., Kumar, P. R., Fadzil, M., & Husain, S. H. S. (2017). Quality assurance in learning material development at OUM. AAOU Journal, 12(1), 69–81. https://doi.org/10.1108/aaouj-01-2017-0014