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DEVELOPMENT AND ACCEPTABILITY OF THE MASTERING APPAREL PATTERNS (MAP) MODULE FOR TECHNOLOGY AND LIVELIHOOD EDUCATION

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ABSTRACT

This study developed and evaluated the acceptability of Mastering Apparel Patterns (MAP) Learning Module to enhance the learners' understanding and skills in apparel pattern-making under the Technology and Livelihood Education (TLE) curriculum. Pattern-making is a fundamental competency in dressmaking however; learners often experience difficulties due to its technical complexity and the lack of learner-centered instructional materials. To address this gap, the MAP module was developed to provide structured, contextualized and competency-based learning experiences aligned to technical-vocational education standards. The study utilized a descriptive-quantitative research design to identify the acceptability of the MAP module. The respondents were twenty-nine (29) learners who were enrolled in Dressmaking specialization. The study utilized a researcher-adapted questionnaire to assess the content, format, presentation, and accuracy of the module. Data were analyzed using weighted mean and standard deviation. Results showed that the MAP module obtained an overall weighted mean of 3.60, which was interpreted as Very Satisfactory. The presentation received the highest average out of the indicators, content and format had the second highest average and accuracy had the lowest average, but was within the very satisfactory range. The results show that the module was well structured, relevant and effective in facilitating learning in pattern making as perceived by the learners. The study concludes that the MAP Learning Module is very acceptable as an instructional material in dressmaking and it can be an effective tool to improve learner engagement and skill development in TLE. The results provide support for the use of contextualized and learner-centered instructional materials in technical-vocational education to improve the competency-based learning outcomes.

KEYWORDS: Technology and Livelihood Education (TLE), Dressmaking, Apparel Pattern-making, Instructional Module, Acceptability, Development

INTRODUCTION

Technology and Livelihood Education (TLE) is important in providing learners with practical knowledge and technical competencies for employment, entrepreneurship and lifelong learning. One of its specializations is the dressmaking course. Students will study the basic skills of making apparel patterns, the basis of creating garments. The mastery of pattern-making is an important skill in technical-vocational education, as it enables learners to make garments that follow the design and body measurements.

Instructional modules enhance learner engagement, understanding, and academic performance in technical-vocational education (Ampera, 2017; Portana, et al., 2021; Lacanilao, 2023; Madrideo, 2023). Additionally, it is determined that well-designed learning materials that include relevant content, are well presented, are in the appropriate format, and contain accurate information can increase learners' motivation and provide meaningful learning experiences (Comia & Aquino, 2023; Talimodao & Madrigal, 2021; Rahayu & Muhlisin, 2024).

Pattern making, however, is often considered one of the more difficult skills to learn because it requires accuracy, visualization and the ability to use math and technical skills. Many learners still have difficulties developing the skills required for pattern-making due to the difficulties of the drafting procedures and the lack of learner-centered instructional materials, despite its importance. Traditional teaching methods often rely on lectures and textbooks, which may not be adequate for the varied learning needs of students or allow for sufficient independent and experiential learning opportunities. As a consequence, learners might find it challenging to understand the ideas of pattern construction, which may result in less engagement and skill acquisition.

This gap emphasizes the need to develop and evaluate contextualized instructional materials that address the learning demands of dressmaking education. A learner-centered module on apparel pattern-making can provide systematic learning experiences to promote conceptual understanding, skill development and learner engagement as well as support teachers in implementing competency-based instruction.

Thus, the study developed the Mastering Apparel Patterns (MAP) Learning Module and assessed learners' acceptability of the content, presentation, format, and accuracy. The findings of this study are anticipated to add to the increasing body of knowledge regarding instructional material development and provide empirical evidence to the integration of contextualized learning modules into the Technology and Livelihood Education, particularly in the instruction of dressmaking.

METHODOLOGY

Research Design

The study utilized a descriptive-quantitative research design to evaluate the acceptability of MAP module. Descriptive research is appropriate for research studies that are concerned with systematic description and assessment of the phenomenon based on the experiences and judgments of the respondents. In this case, the design was used to collect and analyze the assessments of instructional specialists on the coherence of the module with the content and the factor, presentation, and accuracy of the module. The quantitative approach allowed the researcher to assign numbers to learners' ratings and to statistically determine the acceptability of the instructional material.

Respondents of the Study

The respondents of the study were twenty-nine (29) learners enrolled in Dressmaking specialization under Technology and Livelihood Education (TLE). Purposive sampling was used to select the respondents, with each participant fulfilling the predetermined inclusion criteria. The inclusion criteria for the study consisted of the learners being officially registered in the Dressmaking specialization, actively studying apparel pattern-making, agreeing to participate in the implementation of the Mastering Apparel Patterns (MAP) Learning Module, and completing the evaluation questionnaire. Their responses were used to assess the acceptability of the MAP module as the instructional material for apparel pattern making.

Research Instrument

The study utilized a researcher-adapted questionnaire based on the guidelines of DepEd Memorandum No. 441, s. 2019, which provides standards for evaluating instructional materials in terms of quality, usability, and relevance. The instrument was modified to suit the context of the Mastering Apparel Patterns (MAP) Learning Module and the learners' level in Technology and Livelihood Education (TLE), specifically in Dressmaking specialization.

The questionnaire was designed to determine the acceptability of the MAP Learning Module and consisted of four (4) indicators, namely: content, presentation, format, and accuracy. Each indicator contained specific statements that assessed the quality and effectiveness of the instructional material in supporting learners' understanding of apparel pattern-making.

Data Gathering Procedure

Prior to data collection, a formal request for permission to conduct the study was submitted to the Schools Division Superintendent of Butuan City Division. Once approval was received, a further request was then submitted to the school principal for the learners' participation.

The learners were informed about the purpose, procedures and ethical issues of the research, including their rights as research participants. Parents' consent and Student assent were obtained prior to participation and participation was voluntary. The researcher then administered the acceptability

evaluation instruments to the learners who were included in the study.

The learners were given enough time to evaluate the Mastering Apparel Patterns (MAP) Learning Module using the acceptability instrument. After the questionnaires were completed and gathered, the complete responses were checked for their completeness and accuracy. The data were then sorted and prepared for statistical analyses. During the entire process, the anonymity and confidentiality of the learners' responses were strictly preserved.

Statistical Treatment of the Data

The Weighted Mean was utilized to assess the acceptability level of the Mastering Apparel Patterns (MAP) module across various dimensions, from the input data of the learners. In this case, the weighted mean was an effective method in the summarization of ratings and the description of an overall interpretation of the evaluations given by the learners. The computed weighted means served as the basis for determining the acceptability of the MAP module in terms of content, factor, presentation, and accuracy.

RESULTS AND DISCUSSIONS

The table presents the level of acceptability of the Mastering Apparel Patterns (MAP) module as evaluated by the learners. The acceptability of the module was assessed in terms of presentation, content, format, and accuracy.

Among the indicators assessed, the Presentation obtained the highest mean weighted average of 3.68 with a standard deviation of 0.352 interpreted as Very Satisfactory. The relatively low standard deviation indicates consistency in the learners' responses in relation to how the module presented information and learning activities. This result shows that the MAP module was able to structure content and learning tasks in a way that made the content engaging, understandable and contributed to learning. Well-designed instructional materials can increase learners' interest, participation, and understanding, thus providing a more meaningful learning experience (Rahayu & Muhlisin, 2024; Comia & Aquino, 2023).

Table 1. Level of Acceptability of Mastering Apparel Patterns

Indicators	Average Weighted Mean	SD	Verbal Description
Content	3.65	0.421	Very Satisfactory
Factor	3.61	0.380	Very Satisfactory
Presentation	3.68	0.352	Very Satisfactory
Accuracy	3.44	0.593	Very Satisfactory
Average	3.60	0.437	Very Satisfactory
Legend: 1.00 – 1.74 (Poor)		1.75 – 2.49(Fair)	
2.50 – 3.24 (Satisfactory)		3.25 – 4.00(Very Satisfactory)	

The second-highest rating is Content, with an average weighted mean of 3.65 and a standard deviation of 0.421 which was interpreted as Very Satisfactory. This result indicates that students considered the module content useful, informative and appropriate in improving their knowledge and skills in apparel pattern-making. The findings imply that the module was successful in providing learning experiences that enhanced the learners' understanding and application of concepts that are important in technical-vocational education. Instructional materials with relevant and meaningful content are more likely to lead to learner engagement and the development of competencies (Poirier & Remsen, 2017; Portana et al., 2021).

In terms of Format, the module obtained an average weighted mean of 3.61 with a standard deviation of 0.380 interpreted as Very Satisfactory. The results show that learners found the module visually attractive, easy to read and easy to use. The physical and visual characteristics of instructional materials play a significant role in supporting comprehension and learner motivation. A good format of the learning resources enhances their usability and effectiveness, since the information can be accessed and understood more easily (Talimodao & Madrigal, 2021; Johan et al., 2022; Rahayu & Muhlisin, 2024).

Lastly, Accuracy obtained the lowest average weighted mean of 3.44 with a standard deviation of 0.593, although it remained within the Very Satisfactory range. The relatively higher standard deviation suggests slightly greater variation in the learners' perceptions regarding the accuracy and currency of the information presented. Nevertheless, the findings indicate that learners generally viewed the module as accurate, reliable, and appropriate for instructional use. Accuracy in instructional materials is essential for ensuring that learners receive correct information and develop the intended competencies without misconceptions (Dios et al., 2023).

The Mastering Apparel Patterns (MAP) module obtained an average weighted mean of 3.60 with a standard deviation of 0.437, interpreted as Very Satisfactory. This indicates that the learners considered the module highly acceptable and effective in supporting the teaching and learning of apparel pattern-

making. The consistently high ratings across all dimensions suggest that the MAP module provides relevant content, effective presentation, appropriate format, and reliable information that contribute to meaningful learning experiences. Therefore, the module may be considered an acceptable instructional material for enhancing learners' knowledge and skills in dressmaking and pattern-making (Lacanilao, 2023; Angelo et al., 2023). These findings are consistent with previous studies that reported high levels of learner acceptance and effectiveness of researcher-developed instructional modules in technical-vocational education (Ampera, 2017; Isla, 2023; Madrideo, 2023).

CONCLUSION

The study's findings reveal that the Mastering Apparel Patterns (MAP) Learning Module is highly acceptable as an instructional material to the learners in Dressmaking specialization under Technology and Livelihood Education. Overall acceptability of the module was rated as Very Satisfactory, which indicates that the learners perceived the module as useful, appropriate and effective in supporting their understanding of apparel pattern-making.

Presentation scored highest out of all the indicators assessed, which suggests that the organization and delivery of content were effective in supporting learner engagement and understanding. Content and Format were also rated very satisfactorily indicating that the module was perceived as relevant, well-structured and user friendly. Accuracy, despite its lowest mean, still remained in the Very Satisfactory level, implying that there is a general confidence on the reliability of the instructional content, with minor variations in learner perception.

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