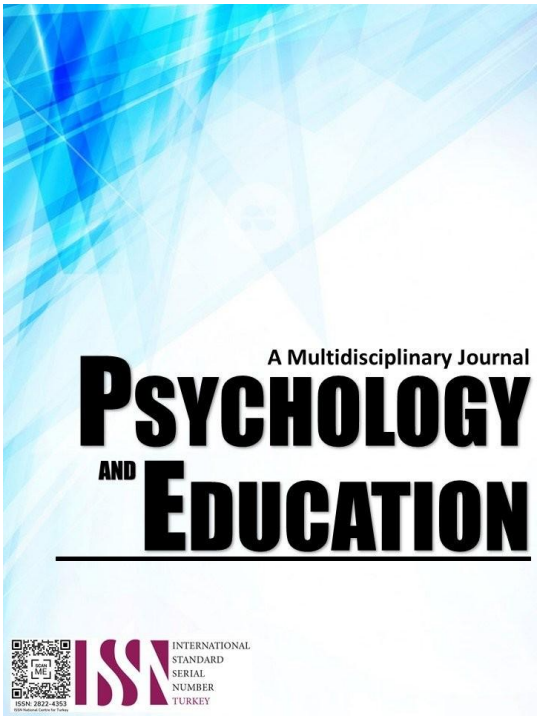
SIMPLIFIED PATTERN DRAFTING PROCEDURES FOR CASUAL APPAREL IN TAILORING NC II



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Research Article

Simplified Pattern Drafting Procedures for Casual Apparel in Tailoring NC II

Louei Lamayo Suma-Oy,* Daisy L. Obiso
For affiliations and correspondence, see the last page.

Abstract

This study examined the effectiveness of simplified pattern drafting procedures for casual apparel among Grade 10 students enrolled in Tailoring NC II at Toledo National Vocational School during the 2025–2026 school year. The findings served as the basis for a proposed Enhancement Action Plan. Specifically, the study described the demographic profile of the respondents, including gender, participation in related activities or competitions, and time spent on pattern drafting outside the classroom. It also assessed students' perceptions of the simplified procedures on ease of use, clarity, and usefulness, and evaluated their performance in terms of accuracy, time efficiency, and the quality of their output. Furthermore, the study determined the relationship between students' perceptions and their performance levels. Data were collected from 50 students using a researcher-adapted survey questionnaire. Descriptive statistics, including frequency, percentage, weighted mean, and standard deviation, were used to summarize the data, while Pearson's correlation coefficient was employed to examine the relationship between variables. Results indicated that students had highly positive perceptions of the simplified procedures, particularly in terms of ease of use, clarity, and usefulness. These perceptions were associated with strong performance in accuracy, efficiency, and output quality. In contrast, standard procedures were perceived as more difficult, leading to moderate performance outcomes. A significant positive correlation was found between students' perceptions and performance, suggesting that more favorable perceptions contribute to improved skill development. The findings support the development of an instructional toolkit to enhance teaching strategies, refine learning materials, and improve student outcomes. Overall, the study highlights the value of simplified procedures in promoting confidence, competence, and efficiency in pattern drafting within the Tailoring NC II curriculum.

Keywords: *simplified pattern drafting procedures, casual apparel, tailoring NC II, student performance, pearson correlation*

Introduction

The Technical-Vocational Education and Training (TVET) curriculum in Junior High School aims to equip learners with competencies that integrate theoretical knowledge and practical skills. In tailoring, pattern drafting serves as a fundamental component of garment construction, ensuring accuracy, quality, and creativity in apparel design. However, traditional pattern drafting procedures are often complex and time-consuming, which can overwhelm learners and hinder skill development.

In the classroom context, students at Toledo National Vocational School experience recurring difficulties when applying conventional drafting methods. Learners often struggle with understanding step-by-step procedures, applying accurate measurements, and completing tasks within limited timeframes. Many are required to spend additional hours outside class to finish or refine their work, indicating inefficiencies in the current instructional approach. These challenges highlight the need for simplified procedures that can enhance clarity, improve efficiency, and maintain the quality of outputs.

Globally, studies emphasize the shift toward simplified and innovative approaches in garment construction. For instance, Bakker-Edoh et al. (2021) demonstrated how simplified drafting and free-hand cutting techniques influence garment fit and style. Li et al. (2023) highlighted the role of technological advancements in improving efficiency and precision in tailoring processes, while Campbell (2024) proposed hybrid systems that integrate simplified and digital pattern-making methods. Earlier work by Bakker-Edoh et al. (2018) and recent findings by De Silva et al. (2024) further confirm that simplifying drafting techniques enhances accuracy and supports emerging automated systems. Collectively, these studies reflect a global trend toward simplification and innovation in pattern drafting.

In the Philippine context, research likewise supports the adoption of innovative strategies in garment education. Asuncion et al. (2023) developed a skill-based e-toolkit that improved student competencies, while Calaranan and Corpuz (2023) found that needs-based interventions significantly enhanced learning outcomes. Masilungan-Manuel et al. (2022) emphasized the role of digitization in modernizing traditional garments, and Cabusas et al. (2023) highlighted efficiency improvements in the apparel sector. Additionally, Ab Hamid et al. (2022) introduced practical innovations that simplify tailoring processes for learners. These studies underscore the importance of accessible and efficient approaches in both education and industry.

At the local level, emerging literature reinforces the value of learner-friendly and simplified instructional methods. Nakayama et al. (2025) introduced AI-assisted garment prototyping systems, while Temple (2022) demonstrated the effectiveness of video-based instruction in improving clarity in garment construction lessons. Christensen (2023) emphasized process-oriented creative approaches, and Wachinger et al. (2023) highlighted the importance of simplified frameworks in enhancing user understanding across disciplines. These findings suggest that simplifying complex procedures can significantly improve learning experiences in technical fields.

Despite these advancements, a clear gap remains. While existing studies highlight innovation and simplification in tailoring, limited research has specifically examined simplified pattern drafting procedures for casual apparel in Junior High School TVET programs. Moreover, the relationship between students' perceptions of these procedures, particularly ease of use, clarity, and usefulness, and their actual performance outcomes, such as accuracy, time efficiency, and output quality, remains underexplored. Addressing this gap is essential for developing effective instructional strategies and improving student performance.

Therefore, this study evaluates the effectiveness of simplified pattern drafting procedures for casual apparel in the Tailoring NC II program at Toledo National Vocational School. Specifically, it aims to describe the students' demographic profile, assess their perceptions of the simplified procedures, evaluate their performance outcomes, determine the relationship between perceptions and performance, and develop a toolkit to enhance instruction in pattern drafting.

Research Questions

This study evaluated the effectiveness of simplified pattern-drafting procedures for casual apparel in Tailoring NC II among Junior High School students at Toledo National Vocational School during the school year 2025–2026. The findings served as the basis for developing a toolkit on simplified pattern drafting procedures. Specifically, the study sought to answer the following questions:

1. What is the demographic profile of the Junior High School students in terms of:
    1.1. gender;
    1.2. exposure to or participation in related subjects or activities; and
    1.3. number of hours spent on pattern drafting-related activities outside the classroom?
2. What is the students' perception of the effectiveness of the simplified pattern drafting procedures in terms of:
    2.1. ease of use;
    2.2. clarity; and
    2.3. usefulness in creating casual apparel patterns?
3. What is the students' performance level using the simplified pattern drafting procedures in terms of:
    3.1. accuracy in pattern drafting for casual apparel;
    3.2. time efficiency in completing pattern drafting tasks; and
    3.3. quality of the final pattern output?
4. What is the students' perception of the effectiveness of the standard pattern drafting procedures in terms of:
    4.1. ease of use;
    4.2. clarity; and
    4.3. usefulness in creating casual apparel patterns?
5. What is the students' performance level using the standard pattern drafting procedures in terms of:
    5.1. accuracy in pattern drafting for casual apparel;
    5.2. time efficiency in completing pattern drafting tasks; and
    5.3. quality of the final pattern output?
6. Is there a significant relationship between students' perceptions of the simplified pattern drafting procedures and their performance levels?
7. What challenges do students encounter when using the simplified pattern drafting procedures?
8. Based on the findings, what toolkit can be developed to enhance simplified pattern drafting procedures for casual apparel in Tailoring NC II?

Literature Review

This study is anchored in the theories of experiential learning, constructivism, and authentic assessment, which collectively emphasize that technical skills are best developed through hands-on engagement, guided practice, and performance-based evaluation. Experiential Learning Theory, Constructivist Theory, and Authentic Assessment Theory provide a strong conceptual foundation for tailoring education, where learners must actively construct knowledge and demonstrate competencies through real outputs such as garment patterns. These perspectives are further reinforced by Philippine educational policies, including Republic Act No. 10533, Republic Act No. 7796, and DepEd Order No. 031 s. 2020, which institutionalized competency-based, skills-oriented, and performance-driven instruction in Technical-Vocational Education and Training (TVET).

From a theoretical standpoint, experiential learning highlights the cyclical process through which learners acquire and refine skills. In pattern drafting, students engage in concrete experiences by creating patterns, reflect on their outputs, conceptualize underlying principles such as measurement accuracy and proportion, and reapply improved techniques. This iterative process aligns with studies showing that repeated, scaffolded practice enhances technical skill mastery and learner confidence. However, literature also suggests that when procedures are overly complex, cognitive overload may occur, limiting students' ability to engage in the learning cycle fully. Thus, simplified procedures serve as a critical intervention to optimize experiential learning by reducing unnecessary complexity while preserving essential competencies.

Constructivist perspectives further emphasize that learning occurs through guided interaction and scaffolding. In tailoring education,

complex tasks such as pattern drafting require structured support, especially for novice learners. Studies across technical education consistently demonstrate that breaking down procedures into manageable steps improves comprehension, task completion, and learner independence. Simplified pattern drafting procedures function as scaffolds that align with learners' Zone of Proximal Development, enabling gradual progression from assisted to independent performance. Moreover, collaborative learning environments, where peers exchange feedback and strategies, enhance understanding and skill acquisition. Synthesizing these findings, it becomes evident that simplification is not merely a matter of convenience but a pedagogical strategy that supports deeper learning and skill internalization.

Authentic assessment theory reinforces the need to evaluate learning through real-world performance tasks. In tailoring, this translates to assessing the accuracy, efficiency, and quality of drafted patterns rather than relying solely on theoretical tests. Prior studies in TVET contexts indicate that performance-based assessment improves skill transferability and better reflects workplace readiness. Importantly, research also shows that when instructional methods are aligned with assessment tasks, such as using simplified procedures that mirror actual practice, students demonstrate higher levels of competence and confidence. This alignment underscores the dual role of simplified procedures as both instructional and evaluative tools.

Empirical literature on garment construction and pattern drafting further supports the shift toward simplification and innovation. Global studies highlight the effectiveness of simplified drafting techniques, hybrid systems, and technology-assisted approaches in improving accuracy and efficiency in apparel production. These studies collectively indicate a trend toward reducing procedural complexity while maintaining precision and design quality. At the national level, Philippine research echoes similar findings, demonstrating that instructional innovations such as toolkits, digitized resources, and needs-based interventions significantly enhance student performance in garment-related programs. Local studies also emphasize the role of accessible instructional materials, including video-based demonstrations and AI-assisted tools, in improving learner understanding of complex technical processes.

Despite these advancements, the literature reveals a notable gap. While existing studies affirm the benefits of simplified and innovative approaches in tailoring, there is limited research specifically examining simplified pattern drafting procedures for casual apparel within Junior High School TVET programs. More importantly, prior research tends to focus either on instructional strategies or performance outcomes, with minimal integration of both. The relationship between students' perceptions, particularly ease of use, clarity, and usefulness, and their actual performance outcomes remains insufficiently explored.

Additionally, an emerging but underexamined dimension in the literature is the role of learning resources as moderating factors. Access to tools such as drafting instruments, instructional materials, workspace, and guided support may influence how effectively students benefit from simplified procedures. Studies in broader educational contexts suggest that adequate resources enhance the implementation of instructional innovations, while limited resources may constrain their effectiveness. However, this moderating role has not been explicitly examined in the context of pattern drafting in tailoring education. This gap suggests that understanding effectiveness requires not only evaluating procedures and outcomes but also considering the conditions under which learning occurs.

In summary, the reviewed literature establishes that simplified, scaffolded, and performance-aligned approaches are essential for effective skill development in tailoring. The integration of experiential learning, constructivist principles, and authentic assessment provides a robust theoretical basis for this study, while existing empirical research supports the value of instructional simplification. However, gaps remain in examining the combined influence of students' perceptions, performance outcomes, and contextual factors such as resource availability. Addressing these gaps, this study investigates the effectiveness of simplified pattern drafting procedures for casual apparel in Tailoring NC II and contributes to the development of a toolkit that enhances both instruction and learning outcomes.

Methodology

Research Design

This study employed a quantitative, descriptive-correlational research design to evaluate the effectiveness of simplified pattern-drafting procedures for casual apparel in Tailoring NC II among Grade 10 students at Toledo National Vocational School during the school year 2025–2026. The design was appropriate for systematically describing variables and examining their relationships within a real classroom context.

The descriptive component presented the demographic profile of the respondents, including gender, participation in related activities, and time spent on pattern drafting outside the classroom. It also described students' perceptions of the simplified pattern-drafting procedures in terms of ease of use, clarity, and usefulness, as well as their performance levels in terms of accuracy, time efficiency, and output quality.

The correlational component examined the relationships between students' perceptions of the simplified procedures and their performance outcomes. To provide a more robust analysis of these relationships, the study utilized Partial Least Squares Structural Equation Modeling (PLS-SEM). This approach enabled the simultaneous assessment of measurement and structural models, allowing for the evaluation of latent constructs and their interrelationships. In addition, PLS-SEM was employed to examine the potential moderating effect of learning resources on the relationship between students' perceptions and performance.

Descriptive statistics, including frequency, percentage, weighted mean, and standard deviation, were used to summarize the data, while PLS-SEM analysis was conducted to test the hypothesized relationships and moderation effects. This combination of methods strengthened the analytical rigor of the study by moving beyond simple association toward predictive and explanatory modeling.

Consistent with the work of Ghalandari et al. (2024), descriptive-correlational designs are appropriate for analyzing naturally occurring variables without manipulation while identifying significant relationships among them. The integration of PLS-SEM further enhances this design by enabling a deeper understanding of how students' perceptions influence performance under varying contextual conditions.

Overall, this research design is aligned with the study's objectives, as it not only describes students' experiences and outcomes but also explains the relationships among key variables, thereby providing a strong empirical basis for developing an evidence-based instructional toolkit for simplified pattern drafting procedures.

Respondents

The respondents of this study consisted of 30 Junior High School students enrolled in the Tailoring specialization under the Technical-Vocational-Livelihood (TVL) track at Toledo National Vocational School during the school year 2025–2026. The sample included both male and female students who were actively participating in pattern drafting and garment construction activities as part of their coursework.

The participants were selected using purposive sampling, a nonprobability sampling technique that allows the deliberate selection of individuals with specific characteristics relevant to the study. In this case, the primary inclusion criteria were: (1) enrollment in the Tailoring specialization, (2) prior or current engagement in pattern drafting activities for casual apparel, and (3) exposure to both standard and simplified pattern drafting procedures during instruction. These criteria ensured that all respondents had sufficient experience and familiarity with the processes being evaluated.

The use of purposive sampling was appropriate for this study, as it allowed the researcher to focus on a group of learners directly involved in the skill area under investigation. This ensured that the collected data were context-specific and aligned with the study's objective of evaluating the effectiveness of simplified pattern-drafting procedures. However, it is acknowledged that the use of non-probability sampling may limit the generalizability of the findings beyond the study population.

The selection of tailoring students was particularly significant, as they regularly engage in hands-on tasks such as taking body measurements, drafting patterns, and constructing garments. These experiences provided a reliable basis for assessing both their perceptions of the simplified procedures and their actual performance outcomes in pattern drafting.

Instrument

The primary instrument used in this study was a researcher-adapted survey questionnaire designed to measure the study's key variables, including students' demographic profiles, perceptions of simplified pattern-drafting procedures, and performance in pattern drafting for casual apparel.

The questionnaire consisted of three parts: the first gathered data on respondents' demographic profiles. It included items on gender, frequency of participation in school-related activities or competitions involving pattern drafting, and the average weekly hours spent on pattern drafting outside the classroom. The researcher developed this section to provide contextual information that may influence students' perceptions and performance.

The second part assessed students' perceptions of the effectiveness of the simplified pattern drafting procedures. It covered three dimensions: ease of use, clarity, and usefulness, with each dimension consisting of five items. Responses were measured using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Sample items included: "The simplified pattern drafting procedures are easy to follow step by step," "The diagrams or illustrations enhance my understanding of each step," and "The simplified procedures help me complete pattern drafting tasks successfully." The items in this section were adapted from the constructs of perceived ease of use and perceived usefulness based on the Technology Acceptance Model.

The third part measured students' performance in pattern drafting for casual apparel in terms of accuracy, time efficiency, and output quality, with five items for each dimension. The same five-point Likert scale was used for consistency. Example statements included: "My drafted patterns accurately follow the required measurements," "I can complete pattern drafting tasks within the given time," and "My finished patterns are neat and professionally presented." These items were adapted from established measures of academic performance and self-regulated learning.

To ensure the instrument's validity, the questionnaire was subjected to expert validation by specialists in tailoring education, research methodology, and technical-vocational instruction. Their feedback was used to refine item clarity, relevance, and alignment with the study variables.

The instrument's reliability was determined through a pilot test with a group of students with characteristics similar to those of the actual respondents. Internal consistency was measured using Cronbach's alpha coefficient, yielding values of 0.87 for ease of use, 0.89

for clarity, 0.91 for usefulness, and 0.90 for performance, indicating high reliability. These results confirm that the instrument is both consistent and suitable for measuring the study's constructs.

Overall, the questionnaire was deemed valid and reliable for assessing students' perceptions and performance related to simplified pattern drafting procedures.

Procedure

The researcher initiated the study by securing formal approval from the school principal of Toledo National Vocational School through a written transmittal letter. Upon approval, coordination was established with the subject teachers handling Tailoring NC II classes to identify qualified student-respondents who met the inclusion criteria.

Prior to data collection, an orientation session was conducted to explain the purpose, objectives, and procedures of the study. The researcher emphasized that participation was voluntary, responses would be treated with strict confidentiality, and the data would be used solely for academic purposes. Since the respondents were minors, parental consent was secured through signed consent forms distributed prior to the activity. In addition, students provided their assent to participate, ensuring ethical compliance with research standards involving minors.

The primary data collection instrument was a researcher-adapted survey questionnaire composed of three parts: (1) demographic profile, (2) students' perceptions of the effectiveness of simplified pattern drafting procedures, and (3) performance in pattern drafting for casual apparel. The questionnaire underwent prior validation and reliability testing before administration.

The questionnaires were personally administered by the researcher during scheduled class hours, with the subject teacher's prior permission to avoid disruption of regular instruction. Each data collection session lasted approximately 30 to 45 minutes, allowing sufficient time for respondents to read and answer all items carefully. Clear and standardized instructions were provided before distribution, and the researcher remained present throughout the process to address any clarifications without influencing the participants' responses.

After completion, the questionnaires were immediately collected and reviewed for completeness and consistency. Any missing or unclear responses were verified on-site, when possible, to ensure data accuracy. The validated responses were then systematically encoded into a data matrix for analysis.

Subsequently, the data were prepared for statistical treatment, including descriptive statistics and Partial Least Squares Structural Equation Modeling (PLS-SEM), to examine relationships among variables and test the study's proposed model. Throughout the entire process, ethical standards were strictly observed, including voluntary participation, informed consent and assent, anonymity of responses, and secure handling of all collected data.

Data Analysis

The data collected in this study were analyzed using both descriptive and inferential statistical techniques to examine the effectiveness of the simplified pattern drafting procedures and their relationship with students' performance in tailoring. In addition to descriptive statistics, Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed to test the measurement and structural models, including the hypothesized relationships and moderation effects.

Frequency and Percentage. Frequency and percentage were used to describe the demographic profile of the respondents with respect to gender, participation in pattern drafting-related activities or competitions, and the average number of hours spent on pattern drafting outside the classroom. Frequency represented the number of respondents under each category, while percentage indicated their proportion relative to the total sample. These descriptive measures provided a contextual background for interpreting students' perceptions and performance outcomes.

Weighted Mean. The weighted mean was used to determine students' perceptions of the simplified pattern drafting procedures in terms of ease of use, clarity, and usefulness. Responses were rated using a five-point Likert scale, and corresponding weights were assigned to compute the mean scores. The results provided an overall evaluation of students' agreement levels and identified areas of strength and aspects needing improvement in the simplified procedures.

Standard Deviation. The standard deviation was computed to assess the degree of variability in students' responses regarding their perceptions and performance. A lower standard deviation indicated homogeneity of responses, suggesting consistent experiences among learners, while a higher standard deviation indicated greater variability in perceptions and performance levels.

Partial Least Squares Structural Equation Modeling (PLS-SEM). PLS-SEM was used to examine the structural relationships among latent variables, specifically the relationship between students' perceptions of the simplified pattern drafting procedures and their performance in pattern drafting for casual apparel. This approach also allowed testing the moderating effect of learning resources on the relationship between perception and performance.

The PLS-SEM analysis followed a two-step procedure:

Measurement Model Assessment. This involved evaluating the reliability and validity of the constructs. Internal consistency reliability was assessed using Cronbach's alpha and composite reliability. Convergent validity was determined through Average Variance Extracted (AVE), while discriminant validity was evaluated using the Fornell–Larcker criterion and cross-loadings.

Structural Model Assessment. This included testing the hypothesized relationships among variables. Path coefficients were analyzed to determine the strength and significance of relationships, while bootstrapping procedures were used to test statistical significance.

Moderation Analysis. The moderating effect of learning resources was examined by creating an interaction term between perception and resources. The significance of the interaction effect was assessed using bootstrapping, and changes in the coefficient of determination (R^2) were analyzed to determine the extent of moderation.

Model Fit and Predictive Relevance. The model was further evaluated using predictive relevance (Q^2) and effect size (f^2) to assess its explanatory power and practical significance.

Pearson correlation was no longer used as the primary inferential tool, as PLS-SEM provided a more comprehensive analysis of both direct and moderating relationships among variables.

Overall, the use of PLS-SEM ensured a robust examination of the measurement model, structural relationships, and moderating effects, thereby providing deeper insights into how students' perceptions of simplified pattern drafting procedures influence their performance in tailoring.

Ethical Considerations

This study strictly adhered to ethical standards in conducting research involving Junior High School students. Since the respondents were minors, informed consent was obtained from their parents or legal guardians prior to data collection. In addition, student assent was obtained to ensure that participation was fully voluntary and based on students' understanding and willingness to participate in the study.

Before administering the survey, the researcher clearly explained the purpose, objectives, and procedures of the study to both students and parents or guardians. It was emphasized that participation would not affect students' academic standing and that the information gathered would be used solely for academic and research purposes.

Confidentiality and anonymity of all respondents were strictly maintained throughout the study. No names or other identifying information were included in the questionnaire, and all responses were coded for analysis purposes only. All collected data were stored securely and accessed only by the researcher to prevent unauthorized disclosure or misuse.

Participation in the study was entirely voluntary. Respondents were informed that they had the right to refuse participation or withdraw at any stage of the study without any form of penalty or academic consequence. The study also ensured that no physical, psychological, or emotional harm was inflicted on the participants, as the data collection involved only surveys on perceptions and self-reported performance.

Finally, this research complied with the ethical guidelines of the Department of Education (DepEd) and institutional research protocols governing studies involving human participants. Through these measures, the study upheld the principles of respect for persons, beneficence, and justice, ensuring the protection of the rights and welfare of all respondents throughout the research process.

Results and Discussion

Demographic Profile of the Respondents

This section presents the demographic profile of the Junior High School students who participated in the study. The data described the respondents in terms of their gender, their exposure to or involvement in subjects or activities related to pattern drafting, and the number of hours they spent on pattern drafting tasks or projects outside the classroom. These characteristics provided essential context for understanding their perceptions and performance in the succeeding analyses.

Gender of the Respondents

This subsection presented the distribution of the respondents according to gender. Understanding the gender composition of the Junior High School students provided essential context in evaluating how students engaged with the Simplified Procedures in Pattern Drafting for Casual Apparel, as gender representation could influence both their perceptions of the procedures and their performance in related drafting tasks.

Table 1. *Gender of the Respondents*

Gender of the respondent	*f*	*%*
Male	8	26.67
Female	22	73.33
Total	30	100.00

Table 1 presents the distribution of the respondents according to gender. The data showed that the majority of the respondents were female, accounting for 73.33%, while male students comprised 26.67% of the total respondents. The findings indicated that there was a higher representation of female students among the Junior High School participants in the study. This result may have reflected the general trend in vocational or technical education programs where female students were more inclined to enroll in courses related to tailoring and apparel design, which were often perceived as aligned with their interests or career aspirations. Additionally, the predominance of female respondents could have been influenced by social and cultural factors that shaped the participation of students in home economics or technical-vocational tracks.

The implications of this distribution suggested that the analysis of students' perceptions and performance in using the Simplified Procedures in Pattern Drafting for Casual Apparel largely reflected the experiences and preferences of female students. Educators and program developers may have needed to consider strategies that ensured male students were equally engaged and supported in pattern drafting activities, so that learning outcomes were balanced across genders. This finding aligned with recent literature, which highlighted gender trends in vocational education. Bakker-Edoh et al. (2021) noted that female students tended to dominate enrollment in tailoring and garment-related courses, influencing both participation and skill development in pattern drafting. Understanding the gender composition of students was therefore essential in designing instructional approaches and interventions that catered to the needs of the majority while promoting inclusive learning for all students.

Number of Times Joins Competition

This subsection presented the frequency with which the respondents participated in competitions related to pattern drafting and tailoring. The data provided insight into the students' prior experience and exposure to practical applications of their skills, which could influence their performance and perception of the Simplified Procedures in Pattern Drafting for Casual Apparel.

Table 2. *Number of Times Joins Competition*

Number of Times	*f*	*%*
None	22	73.33
1-2	6	20.00
3-5	2	6.67
Total	30	100.00

Table 2 presents the distribution of the respondents according to the number of times they joined competitions related to pattern drafting or tailoring. The data showed that the majority of the respondents, 73.33%, had never joined any competition, while 20% participated in 1–2 competitions, and only 6.67% had joined 3–5 competitions. The findings indicated that most Junior High School students had limited exposure to competitive activities in pattern drafting. This low participation may have been influenced by factors such as a lack of awareness of competitions, limited opportunities provided by the school, or students' prioritization of classroom tasks over extracurricular activities. The small proportion of students who had joined competitions may have gained additional hands-on experience, which could have enhanced their skills and confidence in pattern drafting.

The implications of this distribution suggested that students' minimal participation in competitions might affect their practical application of skills and overall performance in pattern drafting activities. Enhancing opportunities for students to engage in contests could improve their skill development, creativity, and motivation to excel in tailoring tasks, particularly when using Simplified Procedures. This finding is supported by Ramly and Shaari (2020), who reported that active involvement in pattern drafting activities, including competitions, positively influenced skill acquisition and performance in apparel pattern drafting among TVET students. Therefore, understanding the extent of students' competitive exposure is essential for designing strategies that strengthen their practical competence and readiness for real-world tailoring challenges.

Hours of Week Spend on Pattern Drafting Outside the Class

This subsection presented the number of hours the respondents spent on pattern drafting activities outside the classroom each week. The data provided insight into the students' level of engagement and commitment to practicing and developing their skills beyond formal instruction, which could influence their performance and perception of the Simplified Procedures in Pattern Drafting for Casual Apparel.

Table 3. *Hours of Week Spend on Pattern Drafting Outside the Class*

Hours of Week Spend	*f*	*%*
0-2	16	53.33
3-5	9	30.00
6-8	4	13.33
9-11	1	3.34
Total	30	100.00

Table 3 presents the distribution of the respondents according to the number of hours they spent on pattern drafting activities outside the classroom each week. The data showed that 53.33% of the students spent 0–2 hours, 30% spent 3–5 hours, 13.33% spent 6–8 hours, and only 3.34% spent 9–11 hours on pattern drafting tasks. The findings indicated that the majority of Junior High School students

devoted limited time to practicing pattern drafting outside of class. This result may have been influenced by factors such as competing academic demands, limited access to materials and resources, or insufficient motivation to engage in additional practice. Conversely, the small proportion of students who spent more hours on pattern drafting likely had a greater opportunity to refine their skills, improve accuracy, and enhance the quality of their outputs.

The implications of this distribution suggested that students' limited out-of-class practice could affect their overall performance and mastery of pattern drafting using the Simplified Procedures. Encouraging students to allocate more time for independent practice could strengthen their technical skills, time management, and confidence in creating casual apparel patterns. This finding is supported by Liu, Chow, and Zhao (2020), who emphasized that consistent engagement in apparel-related tasks outside formal instruction significantly enhanced skill development and operational proficiency in garment production. Therefore, understanding the extent of students' engagement in out-of-class practice was essential for planning interventions that promoted practical competence and effective learning outcomes.

Perception of Junior High School Students on the Effectiveness of the Simplified Pattern Drafting Procedures

This section presents the perception of Junior High School students on the effectiveness of the Simplified Pattern Drafting Procedures. The data provided insight into how students evaluated the procedures in terms of ease of use, clarity, and usefulness in creating casual apparel patterns, which served as a basis for assessing the overall effectiveness of the instructional approach.

Perception on the Effectiveness of Simplified Pattern Drafting Procedures as to Ease of Use

This subsection presented the respondents' perception of the effectiveness of the Simplified Pattern Drafting Procedures in terms of ease of use.

Table 4. *Perception on the Effectiveness of Simplified Pattern Drafting Procedures as to Ease of Use*

Indicators	*WM*	*Verbal Description*
1. The simplified pattern drafting procedures are easy to understand step by step.	4.00	Strongly Agree
2. I can apply the procedures with little to no supervision.	4.00	Strongly Agree
3. The simplified steps are less complicated than standard ones.	3.90	Strongly Agree
4. I can quickly recall and follow the steps when drafting patterns.	4.10	Strongly Agree
5. I rarely encounter confusion when using the simplified procedures.	3.82	Strongly Agree
Aggregate Mean	3.96	Strongly Agree

Table 4 presents the respondents' perception of the effectiveness of the Simplified Pattern Drafting Procedures in terms of ease of use. The data showed that the aggregate mean of 3.96 indicated Strongly Agree, suggesting that students generally found the procedures very easy to use. Notable indicators included "I can quickly recall and follow the steps when drafting patterns" with a weighted mean of 4.10 and "The simplified pattern drafting procedures are easy to understand step by step" with a weighted mean of 4.00. These indicators reflected the highest levels of agreement among the respondents.

The findings indicated that students perceived the simplified procedures as accessible and straightforward. This may have been influenced by the step-by-step design, which reduced complexity compared to standard procedures, and the structured format that allowed students to follow instructions with minimal supervision. The slightly lower rating on "I rarely encounter confusion when using the simplified procedures" with a weighted mean of 3.82 suggested that, while the procedures were generally clear, occasional difficulties were experienced, possibly due to differences in prior experience or familiarity with pattern drafting concepts.

The implications of these results suggested that the Simplified Pattern Drafting Procedures effectively supported independent learning and reduced cognitive load, enabling students to apply the steps accurately and efficiently. Students' strong agreement on ease of use indicated that the procedures could enhance confidence, engagement, and overall performance in creating casual apparel patterns, thus improving the effectiveness of instruction in Tailoring NC II. These findings were supported by Kimura, Peterson, and Lin (2022), who emphasized that clear and culturally relevant fashion procedures enhanced learners' comprehension, engagement, and practical application in apparel design education.

Perception on the Effectiveness of Simplified Pattern Drafting Procedures as to Clarity

This subsection presented the respondents' perception of the clarity of the Simplified Pattern Drafting Procedures, focusing on how well students understood and applied the steps in drafting casual apparel patterns.

Table 5. *Perception on the Effectiveness of Simplified Pattern Drafting Procedures as to Clarity*

Indicators	*WM*	*Verbal Description*
1. The instructions are written in clear and simple language.	4.20	Strongly Agree
2. The diagrams or illustrations help me better understand each step.	3.96	Strongly Agree
3. The steps are presented in a logical sequence.	4.20	Strongly Agree
4. Each instruction directly matches the pattern drafting action required.	3.96	Strongly Agree
5. There is no ambiguity in interpreting the instructions provided.	3.64	Strongly Agree
Aggregate Mean	3.99	Strongly Agree

Table 5 presents the respondents' perception of the effectiveness of the Simplified Pattern Drafting Procedures in terms of clarity. The data showed that all indicators received high ratings, with weighted means ranging from 3.64 to 4.20 and an aggregate mean of 3.99, interpreted as Strongly Agree. Notable indicators included "The instructions are written in clear and simple language" and "The steps are presented in a logical sequence," both with weighted means of 4.20, reflecting the highest levels of agreement among respondents.

The findings indicated that students generally perceived the simplified procedures as clear and well-structured. The high ratings may have been influenced by the straightforward language, logical sequencing of steps, and supportive diagrams or illustrations that minimized ambiguity in interpreting instructions. The slightly lower rating on "There is no ambiguity in interpreting the instructions provided" with a weighted mean of 3.64 suggested that occasional confusion still occurred, likely due to differences in prior experience or individual comprehension levels.

The implications of these results suggested that clarity in the procedures facilitated accurate application and reduced errors in pattern drafting. Ensuring that instructions are clear and logically sequenced enhanced students' ability to follow procedures independently, supporting better performance and confidence in creating casual apparel patterns.

These findings were supported by Medalla et al. (2021), who highlighted that clear and well-structured procedures enhanced comprehension and practical application in contexts requiring step-by-step instruction, emphasizing the importance of minimizing ambiguity for effective learning and performance outcomes.

Perception on the Effectiveness of Simplified Pattern Drafting Procedures as to Usefulness

This subsection presented the respondents' perception of the effectiveness of the Simplified Pattern Drafting Procedures in terms of usefulness. The data focused on how students evaluated the practical value of the procedures in creating casual apparel patterns and their contribution to accomplishing pattern drafting tasks efficiently.

Table 6. *Perception on the Effectiveness of Simplified Pattern Drafting Procedures as to Usefulness*

Indicators	*WM*	*Verbal Description*
1. The simplified procedures help me complete my projects successfully.	3.90	Strongly Agree
2. I can use these procedures for personal sewing or casual apparel projects outside school.	3.62	Strongly Agree
3. The simplified steps increase my confidence in pattern drafting.	3.78	Strongly Agree
4. The procedures are applicable to different casual apparel designs.	3.94	Strongly Agree
5. Using these simplified procedures makes learning more enjoyable and motivating.	3.64	Strongly Agree
Aggregate Mean	3.78	Strongly Agree

Table 6 presents the respondents' perception of the effectiveness of the Simplified Pattern Drafting Procedures in terms of usefulness. The data showed that all indicators received high ratings, with weighted means ranging from 3.62 to 3.94 and an aggregate mean of 3.78, interpreted as Strongly Agree. Notable indicators included "The procedures are applicable to different casual apparel designs" with a weighted mean of 3.94 and "The simplified procedures help me complete my projects successfully" with a weighted mean of 3.90, reflecting the highest levels of agreement among respondents.

The findings indicated that students generally perceived the simplified procedures as useful in completing pattern drafting tasks and applying the skills to different casual apparel projects. The slightly lower ratings on indicators such as "I can use these procedures for personal sewing or casual apparel projects outside school" and "Using these simplified procedures makes learning more enjoyable and motivating" suggested that while students recognized the practical benefits of the procedures, their application beyond the classroom or their motivational impact varied among individuals.

The implications of these results suggested that the Simplified Pattern Drafting Procedures effectively supported students in accomplishing pattern drafting tasks, enhancing their confidence and adaptability in creating casual apparel patterns. The perceived usefulness of the procedures indicated that they could serve as a reliable tool for skill development and practical application, both in school projects and potentially in personal or extracurricular sewing activities.

These findings were supported by Omoavowere and Gloria (2020), who emphasized that adapted pattern drafting and free-hand cutting techniques improved practical outcomes and skill development in clothing construction, highlighting the importance of clear and applicable procedures in apparel education.

Performance Level of the Students Using the Simplified Pattern Drafting Procedure

This subsection presented the performance level of the students using the Simplified Pattern Drafting Procedure. The data focused on evaluating the students' accuracy, time efficiency, and quality of output in drafting casual apparel patterns, providing a basis for assessing the effectiveness of the procedures in actual practice.

Performance Level of the Students Using the Simplified Pattern Drafting Procedure as to Accuracy of Pattern Drafting for Casual Apparel

This subsection presented the performance level of the students using the Simplified Pattern Drafting Procedure in terms of accuracy

of pattern drafting for casual apparel.

Table 7. *Performance Level of the Students Using the Simplified Pattern Drafting Procedure as to Accuracy*

Indicators	*WM*	*Verbal Description*
1. The simplified procedures help me complete my projects successfully.	4.14	Strongly Agree
2. I can use these procedures for personal sewing or casual apparel projects outside school.	4.04	Strongly Agree
3. The simplified steps increase my confidence in pattern drafting.	4.00	Strongly Agree
4. The procedures are applicable to different casual apparel designs.	4.02	Strongly Agree
5. Using these simplified procedures makes learning more enjoyable and motivating.	4.00	Strongly Agree
Aggregate Mean	4.04	Strongly Agree

Table 7 presents the performance level of the students using the Simplified Pattern Drafting Procedure in terms of accuracy in pattern drafting for casual apparel. The data showed that all indicators received high ratings, with weighted means ranging from 4.00 to 4.14 and an aggregate mean of 4.04, interpreted as Strongly Agree. Notable indicators included "The simplified procedures help me complete my projects successfully" with a weighted mean of 4.14 and "I can use these procedures for personal sewing or casual apparel projects outside school" with a weighted mean of 4.04, reflecting the highest levels of performance among respondents. The findings indicated that students were able to follow the simplified procedures accurately, producing patterns that met the required specifications and standards. This high level of accuracy may have been influenced by the clear, step-by-step instructions and structured design of the procedures, which minimized errors and allowed students to confidently execute pattern drafting tasks. The implications of these results suggested that the Simplified Pattern Drafting Procedure effectively supported students in achieving precise outcomes in casual apparel pattern drafting. The demonstrated accuracy reinforced the procedure's practicality and reliability as a learning tool, indicating its potential to enhance both classroom performance and independent practice in tailoring.

These findings were supported by Bakker-Edoh et al. (2021), who reported that structured pattern drafting and free-hand cutting methods improved apprentices' ability to achieve accurate apparel fit, highlighting the importance of clear instructional procedures in promoting precise and reliable outputs in apparel education.

Performance Level of the Students Using the Simplified Pattern Drafting Procedure as to Time Efficiency

This subsection presented the performance level of the students using the Simplified Pattern Drafting Procedure in terms of time efficiency. The data focused on how quickly and effectively students were able to complete pattern drafting tasks, providing a measure of the procedure's practicality and impact on workflow in creating casual apparel patterns.

Table 8. *Performance Level of the Students Using the Simplified Pattern Drafting Procedure as to Time Efficiency*

Indicators	*WM*	*Verbal Description*
1. I can complete pattern drafting tasks within the given time limit.	4.00	Strongly Agree
2. Using simplified procedures reduces the time needed to finish patterns.	4.08	Strongly Agree
3. The steps are presented in a logical sequence.	4.20	Strongly Agree
4. I rarely experience delays when drafting patterns.	4.04	Strongly Agree
5. I can balance accuracy and speed when working on drafting tasks.	4.12	Strongly Agree
Aggregate Mean	4.09	Strongly Agree

Table 8 presents the performance level of the students using the Simplified Pattern Drafting Procedure in terms of time efficiency. The data showed that all indicators received high ratings, with weighted means ranging from 4.00 to 4.20 and an aggregate mean of 4.09, interpreted as Strongly Agree. Notable indicators included "The steps are presented in a logical sequence" with a weighted mean of 4.20 and "I can balance accuracy and speed when working on drafting tasks" with a weighted mean of 4.12, reflecting the highest levels of performance among respondents. The findings indicated that students were able to complete pattern drafting tasks efficiently, following the procedures in a logical sequence and balancing speed with accuracy. The high ratings may have been influenced by the simplified and clearly structured steps, which minimized delays and allowed students to manage their time effectively during drafting activities.

The implications of these results suggested that the Simplified Pattern Drafting Procedure not only supported accuracy but also improved students' efficiency in completing tasks. High time efficiency could enhance productivity and reinforce students' confidence in applying the procedures both in classroom projects and independent practice, highlighting the practical advantages of the simplified approach in tailoring education.

These findings were supported by Kim, Fujii, and Takatera (2019), who reported that adaptive and clearly structured pattern-making methods improved learners' efficiency while maintaining accuracy, emphasizing the importance of organized instructional procedures in apparel education.

Performance Level of the Students Using the Simplified Pattern Drafting Procedure as to Quality of Output

This subsection presented the students' performance using the Simplified Pattern Drafting Procedure in terms of the quality of their final pattern outputs, assessing precision, completeness, and overall standard.

Table 9. *Performance Level of the Students Using the Simplified Pattern Drafting Procedure as to Quality of Output*

Indicators	*WM*	*Verbal Description*
1. My finished patterns are neat and professional-looking.	4.06	Strongly Agree
2. My drafted patterns are ready to be used for garment construction.	4.08	Strongly Agree
3. My outputs meet the standards expected by my teacher.	4.08	Strongly Agree
4. My work is organized, with proper markings and measurements.	4.12	Strongly Agree
5. The quality of my final patterns has improved through simplified drafting.	4.06	Strongly Agree
Aggregate Mean	4.08	Strongly Agree

Table 9 presents the performance level of the students using the Simplified Pattern Drafting Procedure in terms of the quality of output. The data showed that all indicators received high ratings, with weighted means ranging from 4.06 to 4.12 and an aggregate mean of 4.08, interpreted as Strongly Agree. Notable indicators included "My work is organized, with proper markings and measurements," with a weighted mean of 4.12, and "My drafted patterns are ready to be used for garment construction," with a weighted mean of 4.08, reflecting the highest levels of performance among respondents.

The implications of these results suggested that the Simplified Pattern Drafting Procedure effectively enhanced the quality of students' pattern outputs, promoting professionalism, accuracy, and readiness for practical application. High-quality outputs reinforced the procedure's value as a teaching tool and indicated its potential to improve students' confidence and competence in pattern drafting.

The high performance level of the students in terms of quality of output indicated that the Simplified Pattern Drafting Procedure was effective in translating theoretical knowledge into practical results. By following the structured steps, students were able to maintain accuracy in measurements, proper alignment of pattern components, and professional finishing touches, which are essential skills in tailoring. This suggested that simplifying complex procedures did not compromise the quality of learning; instead, it provided learners with a clear framework that enhanced both skill acquisition and the standard of outputs. Such an approach not only benefited classroom performance but also prepared students for real-world applications, reinforcing the relevance and practicality of the simplified procedures in tailoring education.

These findings were supported by Lee and Kwon (2020), who reported that structured pattern drafting combined with proper measurement techniques significantly enhanced learners' ability to produce precise and professional-quality garments. Their study emphasized that using systematic steps, clear instructions, and accurate sizing methods not only improved the technical accuracy of patterns but also promoted consistency, efficiency, and overall confidence among students in garment construction.

Perception of Junior High School Students on the Effectiveness of the Standard Pattern Drafting Procedures

This subsection presented Junior High School students' perception of the Standard Pattern Drafting Procedures, focusing on ease of use, clarity, and usefulness in learning and performing casual apparel pattern drafting.

Perception on the Effectiveness of the Standard Pattern Drafting Procedure as to Ease of Use

This subsection presented the perception of the effectiveness of the standard pattern drafting procedure in terms of ease of use.

Table 10. *Perception on the Effectiveness of Standard Pattern Drafting Procedures as to Ease of Use*

Indicators	*WM*	*Verbal Description*
1. The simplified pattern drafting procedures are easy to understand step by step.	2.75	Neutral
2. I can apply the procedures with little to no supervision.	3.10	Neutral
3. The simplified steps are less complicated than standard ones.	3.33	Neutral
4. I can quickly recall and follow the steps when drafting patterns.	2.62	Neutral
5. I rarely encounter confusion when using the simplified procedures.	2.78	Neutral
Aggregate Mean	2.92	Neutral

Table 10 presents the respondents' perception of the effectiveness of the Standard Pattern Drafting Procedures in terms of ease of use. The data showed that all indicators received moderate ratings, with weighted means ranging from 2.62 to 3.33 and an aggregate mean of 2.92, interpreted as Neutral. Notable indicators included "The simplified steps are less complicated than standard ones" with a weighted mean of 3.33, reflecting the highest level of agreement, while "I can quickly recall and follow the steps when drafting patterns" had the lowest weighted mean of 2.62, suggesting some difficulty in application.

The findings indicated that students perceived the standard procedures as less user-friendly compared with simplified procedures. The moderate ratings may have been influenced by the complexity and length of the standard steps, which could make it challenging for students to recall or follow them efficiently without guidance.

The implications of these results highlighted that standard procedures, although comprehensive, may hinder ease of learning and efficiency for Junior High School students. This suggested the need for instructional modifications or supplementary guidance to enhance usability and ensure students could effectively apply the procedures in both classroom and independent pattern drafting activities. These findings were supported by Khalil (2023), who emphasized that complex pattern drafting methods often pose challenges for learners, particularly in terms of clarity and practical application, underscoring the importance of structured and

simplified steps to improve comprehension, confidence, and performance in apparel education.

Perception on the Effectiveness of Standard Pattern Drafting Procedures as to Clarity

This subsection presented the respondents' perception of the effectiveness of the Standard Pattern Drafting Procedures in terms of clarity. The data focused on how clearly students understood the instructions, diagrams, and sequence of steps, providing insight into the comprehensibility and instructional effectiveness of the standard procedures in casual apparel pattern drafting.

Table 11. *Perception on the Effectiveness of Standard Pattern Drafting Procedures as to Clarity*

Indicators	*WM*	*Verbal Description*
1. The instructions are written in clear and simple language.	2.77	Neutral
2. The diagrams or illustrations help me better understand each step.	2.78	Neutral
3. The steps are presented in a logical sequence.	2.70	Neutral
4. Each instruction directly matches the pattern drafting action required.	2.84	Neutral
5. There is no ambiguity in interpreting the instructions provided.	3.00	Neutral
Aggregate Mean	2.82	Neutral

Table 11 presents the respondents' perception of the effectiveness of the Standard Pattern Drafting Procedures in terms of clarity. The data showed that all indicators received moderate ratings, with weighted means ranging from 2.70 to 3.00 and an aggregate mean of 2.82, interpreted as Neutral. Notable indicators included "There is no ambiguity in interpreting the instructions provided" with a weighted mean of 3.00, reflecting the highest agreement, while "The steps are presented in a logical sequence" had the lowest weighted mean of 2.70, suggesting some difficulty in understanding the order of steps.

The findings indicated that students perceived the standard procedures as moderately clear, with some challenges in fully comprehending the sequence and application of instructions. The moderate ratings may have been influenced by the complexity of the steps and the detailed nature of the standard procedures, which required more attention and effort to interpret correctly. These results suggested that although the instructions were available, students sometimes struggled to follow them efficiently without additional guidance.

The implications of these results highlighted the need for clearer, more structured instructions or supplementary materials to improve comprehension and ensure that students could accurately follow the standard procedures. Enhancing clarity could reduce errors, improve confidence, and support better learning outcomes in casual apparel pattern drafting.

These findings were supported by Guo and Istook (2022), who emphasized that complex procedures in apparel production technologies can present challenges for learners, and that structured, well-organized, and clearly communicated steps are essential to improve comprehension, product quality, and learner confidence in practical applications.

Perception on the Effectiveness of Standard Pattern Drafting Procedures as to Usefulness

This subsection presented the respondents' perception of the effectiveness of the Standard Pattern Drafting Procedures in terms of usefulness. The data focused on how students evaluated the practical application of the standard procedures in completing pattern drafting tasks, creating casual apparel, and transferring the skills to both classroom and independent projects, providing insight into the overall functional value of the procedures.

Table 12. *Perception on the Effectiveness of Standard Pattern Drafting Procedures as to Usefulness*

Indicators	*WM*	*Verbal Description*
1. The simplified procedures help me complete my projects successfully.	2.84	Neutral
2. I can use these procedures for personal sewing or casual apparel projects outside school.	3.00	Neutral
3. The simplified steps increase my confidence in pattern drafting.	2.91	Neutral
4. The procedures are applicable to different casual apparel designs.	2.82	Neutral
5. Using these simplified procedures makes learning more enjoyable and motivating.	2.87	Neutral
Aggregate Mean	2.89	Neutral

Table 12 presents the respondents' perception of the effectiveness of the Standard Pattern Drafting Procedures in terms of usefulness. The data showed that all indicators received moderate ratings, with weighted means ranging from 2.82 to 3.00 and an aggregate mean of 2.89, interpreted as Neutral. Notable indicators included "I can use these procedures for personal sewing or casual apparel projects outside school" with a weighted mean of 3.00, reflecting the highest agreement, while "The procedures are applicable to different casual apparel designs" had the lowest weighted mean of 2.82, indicating some limitations in perceived applicability.

The findings indicated that students perceived the standard procedures as moderately useful, suggesting that while the procedures could be applied to complete projects, their complexity may have limited confidence, motivation, and ease of transferring skills to other projects. The moderate ratings may have been influenced by the detailed steps and instructional demands of the standard procedures, which required additional effort to apply effectively.

The implications of these results highlighted the need for instructional support or procedural modifications to enhance the perceived usefulness of the standard methods. Improving usability and adaptability could help students apply the procedures more confidently in both classroom and independent pattern drafting projects, reinforcing the functional value of the instructional approach.

These findings were supported by Guo and Istook (2022), who emphasized that in apparel production and related technologies, complex or detailed procedures may limit learners' perception of usefulness unless steps are clearly structured and adaptable, underlining the importance of user-friendly methods to improve skill transfer, practical application, and learner engagement.

Performance Level of the Students Using the Standard Pattern Drafting Procedure

This subsection presented the performance level of the students using the Standard Pattern Drafting Procedure. The data focused on evaluating students' outcomes in terms of accuracy, time efficiency, and quality of output, providing a comprehensive view of how effectively the standard procedures supported learning and practical application in casual apparel pattern drafting.

Performance Level of the Students Using the Standard Pattern Drafting Procedure as to Accuracy

This subsection presented the performance level of the students using the Standard Pattern Drafting Procedure in terms of accuracy. The data focused on how precisely students followed the standard steps to produce patterns that met the required measurements and specifications for casual apparel.

Table 13. *Performance Level of the Students Using the Standard Pattern Drafting Procedure as to Accuracy*

Indicators	*WM*	*Verbal Description*
1. The simplified procedures help me complete my projects successfully.	2.84	Neutral
2. I can use these procedures for personal sewing or casual apparel projects outside school.	2.82	Neutral
3. The simplified steps increase my confidence in pattern drafting.	2.72	Neutral
4. The procedures are applicable to different casual apparel designs.	2.69	Neutral
5. Using these simplified procedures makes learning more enjoyable and motivating.	3.04	Neutral
Aggregate Mean	2.82	Neutral

Table 13 presents the performance level of the students using the Standard Pattern Drafting Procedure in terms of accuracy. The data showed that all indicators received moderate ratings, with weighted means ranging from 2.69 to 3.04 and an aggregate mean of 2.82, interpreted as Neutral. Notable indicators included "Using these simplified procedures makes learning more enjoyable and motivating" with a weighted mean of 3.04, reflecting the highest agreement, while "The procedures are applicable to different casual apparel designs" had the lowest weighted mean of 2.69, suggesting limitations in students' perception of adaptability and precision.

The findings indicated that students' accuracy when using the standard procedures was moderate, reflecting some challenges in applying the steps precisely without additional guidance. The moderate ratings may have been influenced by the complexity and detailed nature of the standard procedures, which required more cognitive effort and practice to achieve consistent accuracy.

The implications of these results highlighted the need for additional instructional support or step simplification to improve accuracy and confidence. Enhancing the structure and clarity of the standard procedures could enable students to follow steps more effectively, produce precise patterns, and gain practical competence in casual apparel pattern drafting. These findings were supported by Fujii, Takatera, and Kim (20), who reported that combinations of complex patternmaking methods and dress forms can affect garment appearance and learner performance, emphasizing that structured and clear procedures are essential for achieving precise and professional outputs in garment construction.

Performance Level of the Students Using the Standard Pattern Drafting Procedure as to Time Efficiency

This subsection presented the performance level of the students using the Standard Pattern Drafting Procedure in terms of time efficiency. The data focused on how effectively students were able to complete pattern drafting tasks within the given time, providing insight into the procedural demands and practical application of the standard steps in casual apparel pattern drafting.

Table 14. *Performance Level of the Students Using the Standard Pattern Drafting Procedure as to Time Efficiency*

Indicators	*WM*	*Verbal Description*
1. I can complete pattern drafting tasks within the given time limit.	2.91	Neutral
2. Using simplified procedures reduces the time needed to finish patterns.	2.67	Neutral
3. The steps are presented in a logical sequence.	2.88	Neutral
4. I rarely experience delays when drafting patterns.	3.03	Neutral
5. I can balance accuracy and speed when working on drafting tasks.	3.05	Neutral
Aggregate Mean	2.91	Neutral

Table 14 presents the performance level of the students using the Standard Pattern Drafting Procedure in terms of time efficiency. The data showed that all indicators received moderate ratings, with weighted means ranging from 2.67 to 3.05 and an aggregate mean of 2.91, interpreted as Neutral. Notable indicators included "I can balance accuracy and speed when working on drafting tasks" with a weighted mean of 3.05, reflecting the highest agreement, while "Using simplified procedures reduces the time needed to finish patterns" had the lowest weighted mean of 2.67, suggesting that the standard procedures were perceived as relatively time-consuming.

The findings indicated that students' time efficiency when using the standard procedures was moderate, reflecting challenges in completing pattern drafting tasks quickly without compromising accuracy. The moderate ratings may have been influenced by the complexity and length of the standard steps, which required additional effort and focus, making it more difficult to work efficiently within limited time frames.

The implications of these results highlighted the need for instructional support or procedural adjustments to improve time management and efficiency. Streamlining certain steps or providing guided practice could help students complete tasks faster while maintaining accuracy, enhancing both learning outcomes and practical skills in casual apparel pattern drafting.

These findings were supported by Lee and Suh (2020), who reported that complex patternmaking methods, such as lining pattern techniques for stretchable fabrics, can influence the speed of task completion, emphasizing the importance of structured and clearly sequenced procedures to enhance efficiency and overall performance in garment construction.

Performance Level of the Students Using the Standard Pattern Drafting Procedure as to Quality of Output

This subsection presented the performance level of the students using the Standard Pattern Drafting Procedure in terms of the quality of output. The data focused on how well students produced patterns that were neat, organized, and ready for garment construction, providing insight into the effectiveness of the standard procedures in achieving professional and accurate results in casual apparel pattern drafting.

Table 15. *Performance Level of the Students Using the Standard Pattern Drafting Procedure as to Quality of Output*

Indicators	*WM*	*Verbal Description*
1. My finished patterns are neat and professional-looking.	3.00	Neutral
2. My drafted patterns are ready to be used for garment construction.	3.00	Neutral
3. My outputs meet the standards expected by my teacher.	3.20	Neutral
4. My work is organized, with proper markings and measurements.	2.85	Neutral
5. The quality of my final patterns has improved through simplified drafting.	2.73	Neutral
Aggregate Mean	2.96	Neutral

Table 15 presents the performance level of the students using the Standard Pattern Drafting Procedure in terms of quality of output. The data showed that all indicators received moderate ratings, with weighted means ranging from 2.73 to 3.20 and an aggregate mean of 2.96, interpreted as Neutral. Notable indicators included "My outputs meet the standards expected by my teacher" with a weighted mean of 3.20, reflecting the highest agreement, while "The quality of my final patterns has improved through simplified drafting" had the lowest weighted mean of 2.73, indicating that some students perceived limited improvement in output quality when using the standard procedures.

The findings indicated that students' performance in producing high-quality patterns using the standard procedures was moderate, reflecting challenges in consistently achieving professional and organized outputs.

The implications of these results highlighted the need for instructional support, practice, or adjustments in the standard procedures to improve output quality. Enhancing the clarity, structure, and guidance of the standard steps could help students produce more accurate, neat, and professional patterns, thereby strengthening their technical skills in casual apparel pattern drafting.

These findings were supported by Song, Kim, and Ashdown (2021), who reported that the quality of clothing outcomes varies significantly between novice and experienced individuals, emphasizing that structured, clear, and well-guided procedures are critical for achieving precise, professional, and high-standard results in pattern drafting and garment construction.

Test of Relationship Between the Perception of Junior High School on Effectiveness of Simplified Drafting Procedure and Their Level of Performance

This subsection presented the test of the relationship between the perception of Junior High School students on the effectiveness of the Simplified Pattern Drafting Procedure and their level of performance. The data focused on examining whether students' views on ease of use, clarity, and usefulness of the simplified procedures were associated with their actual performance in terms of accuracy, time efficiency, and quality of output in casual apparel pattern drafting.

Table 16. *Test of Relationship Between the Perception of Junior High School on Effectiveness of Simplified Drafting Procedure and their Level of Performance*

Variables	*r-value*	*Strength of Correlation*	*p - value*	*Decision*	*Remarks*
Perception of Junior High School and Level of Performance	0.73	Strong Positive	<0.05	Reject Ho	Significant

**significant at p<0.05 (two-tailed)*

Table 16 displayed the test of the relationship between the perception of Junior High School students on the effectiveness of the Simplified Pattern Drafting Procedure and their level of performance. The Pearson correlation coefficient showed an r-value of 0.73 with a p-value less than 0.05, indicating a strong positive correlation. Since the p-value was below the 0.05 level of significance, the

null hypothesis was rejected, confirming a significant relationship between students' perception and their performance.

These results suggest that students who perceived the simplified procedures as easier to use, clearer, and more useful tended to perform better in terms of accuracy, time efficiency, and quality of output. The strong positive correlation indicates that favorable perceptions of procedural clarity and usability were associated with higher competence in pattern drafting tasks. Students who understood and felt confident in using the steps of the simplified procedure were more likely to apply them effectively, reducing errors, completing tasks faster, and producing outputs that met or exceeded the expected standards.

The findings were supported by Huang and Sahari (2025), who emphasized that positive learner perception of fit customization procedures improves practical performance and engagement. Similarly, Forster and Irene (2012) noted that structured and clear pattern-cutting instructions enhance students' skill acquisition, while Kim, Nam, and Han (2019) highlighted that ease of use in pattern allowances is critical for accuracy and efficiency. Furthermore, Seif and Almarwani (2024) indicated that instructional clarity directly influences learners' ability to produce high-quality outputs in garment construction.

The alignment of these studies with the current findings may be attributed to the simplified procedures, structured and logical approach, which reduced cognitive load, increased confidence, and allowed students to focus on precise execution. In contrast, more complex or less intuitive procedures often limit learners' understanding and reduce performance, demonstrating the importance of usability, clarity, and learner-centered design in practical skill acquisition. Overall, the strong relationship between perception and performance underscores that positive learner attitudes toward instructional methods significantly influence measurable outcomes, highlighting the value of clear, engaging, and user-friendly procedural design in enhancing technical competence in casual apparel pattern drafting.

Conclusions

The demographic profile of the respondents revealed that female students dominated the tailoring classes at Toledo National Vocational School, while male participation was relatively low. Most students had no prior experience in joining tailoring competitions, indicating limited exposure to competitive or performance-based skill enhancement opportunities. In addition, students generally devoted only a small number of hours per week to pattern drafting activities outside the classroom, suggesting that independent practice was minimal.

Overall, the students expressed a very favorable perception of the Simplified Pattern Drafting Procedures. They strongly agreed that the procedures were easy to use, logically organized, and straightforward to follow. The clarity of instructions, supported by diagrams and structured sequencing, was also highly appreciated. Likewise, students viewed the procedures as useful in completing projects successfully, building confidence, and supporting applications across various casual apparel designs. These findings indicate that simplifying complex drafting procedures significantly improves students' understanding and engagement in tailoring tasks.

In terms of performance, students demonstrated consistently strong outcomes when using the simplified procedures. Their outputs reflected high levels of accuracy, efficient completion of tasks, and good-quality finished patterns. This indicates that simplified instructional steps effectively support the development of technical skills and enhance students' ability to translate learning into practical outputs. In contrast, the standard pattern drafting procedures were generally perceived as less effective. Students showed only moderate agreement in terms of ease of use, clarity, usefulness, and performance outcomes. The results suggest that traditional procedures may be more complex and time-consuming, which can hinder students' confidence, efficiency, and overall quality of work in pattern drafting activities.

A strong positive relationship was found between students' perception of the simplified procedures and their performance. This means that students who found the procedures easier to understand and more useful tended to perform better in terms of accuracy, speed, and output quality. This highlights the importance of learner-friendly instructional materials in improving practical skill development in tailoring.

Overall, the study concludes that the Simplified Pattern Drafting Procedures for Casual Apparel are effective in improving both learning experience and performance among Junior High School students in Tailoring NC II. The approach enhances understanding, supports skill acquisition, and leads to better practical outputs compared to standard procedures. From a practical standpoint, the findings suggest potential benefits beyond the classroom. Simplified pattern drafting can be adopted by students who assist in family tailoring businesses or small home-based garment production, as it promotes faster learning, fewer errors, and improved confidence in actual sewing tasks.

Based on the findings, the following recommendations are proposed:

The school may formally adopt the Simplified Pattern Drafting Procedures as a primary instructional approach in Teaching Tailoring NC II to improve student comprehension and performance. Teachers are encouraged to develop supplementary visual guides (e.g., step-by-step illustrated manuals or short video demonstrations) to further strengthen clarity and independent learning. Students should be encouraged to increase their out-of-class practice time through structured homework tasks or guided practice modules to enhance mastery and retention. School administrators may support the conduct of intra-school tailoring showcases or competitions to increase students' exposure, motivation, and real-world application of skills. For family and community linkage, parents or guardians involved in small tailoring or sewing businesses may be engaged as learning partners, allowing students to apply simplified drafting techniques in real household or entrepreneurial settings. Future researchers may further explore the long-term impact of simplified procedures on

employability, entrepreneurial readiness, and integration with digital or computer-aided pattern drafting systems.

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Affiliations and Corresponding Information

Louei Lamayo Suma-Oy
Toledo National Vocational School – Philippines
loueisumaoy1991@gmail.com

Daisy L. Obiso
Cebu Technological University
Barili Campus – Philippines