

Effect of Proper Body Measurement Techniques on the Fit Quality of Sewn Garments among Grade 8 TLE Students

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ABSTRACT: This study examined the effect of proper body measurement techniques on the fit quality of sewn garments among Grade 8 TLE students. A quasi-experimental design was used, involving twenty students divided into two groups: Group A, which received training on standardized body measurement techniques, and Group B, which used their usual informal methods. Both groups constructed the same blouse design using their recorded measurements. The finished garments were evaluated by three TLE teachers using a Fit Quality Rating Scale that assessed accuracy, symmetry, comfort, and overall alignment.

Results revealed a significant difference in the fit quality between the two groups. Group A achieved a mean fit score of 92%, while Group B scored 78%. Students in Group A also demonstrated higher measurement accuracy (90–95%) compared to Group B (60–70%). Common errors among Group B included incorrect tape placement, uneven shoulder measurements, and inconsistent bust and waist readings, leading to poor garment fit.

The findings indicate that proper body measurement techniques greatly improve the fit and overall appearance of sewn garments. The study concludes that measurement mastery is essential in dressmaking and recommends integrating focused measurement training in TLE Dressmaking classes to enhance students' garment construction skills.

KEYWORDS: Proper body measurement, garment fit quality, dressmaking, TLE students, sewing accuracy, pattern drafting, measurement techniques, garment construction, body measurements, sewing performance

I. INTRODUCTION

Dressmaking is an essential component of the Technology and Livelihood Education (TLE) curriculum, equipping students with practical skills in garment construction. One of the most important competencies in dressmaking is the ability to take accurate body measurements, as these measurements serve as the foundation of a well-fitted garment. Incorrect measurement often leads to garments that are too tight, too loose, uneven, or uncomfortable.

Many Grade 8 students struggle with garment fit because they often rely on informal or inconsistent measuring methods. Improving their measurement skills may enhance the quality of their finished garments.

This study aims to determine the effect of proper body measurement techniques on the fit quality of garments produced by Grade 8 TLE students. By comparing students who use standardized measurement techniques with those who use informal methods, the study seeks to understand whether mastering measurement skills significantly improves garment fit.

This study aims to:

1. To identify the common body measurement techniques used by Grade 8 TLE students in dressmaking.
2. To compare the fit quality of garments made using proper measurement techniques and those made using informal or incorrect techniques.
3. To evaluate the accuracy of students' measurements in relation to the finished garment's fit.
4. To assess the common measurement errors that affect garment fit among students.
5. To determine whether training in proper body measurement techniques improves students' performance in sewing well-fitted garments.

II. METHODOLOGY

This chapter presents the research design, materials, procedures, experimental treatments, data gathering, and statistical tools used.

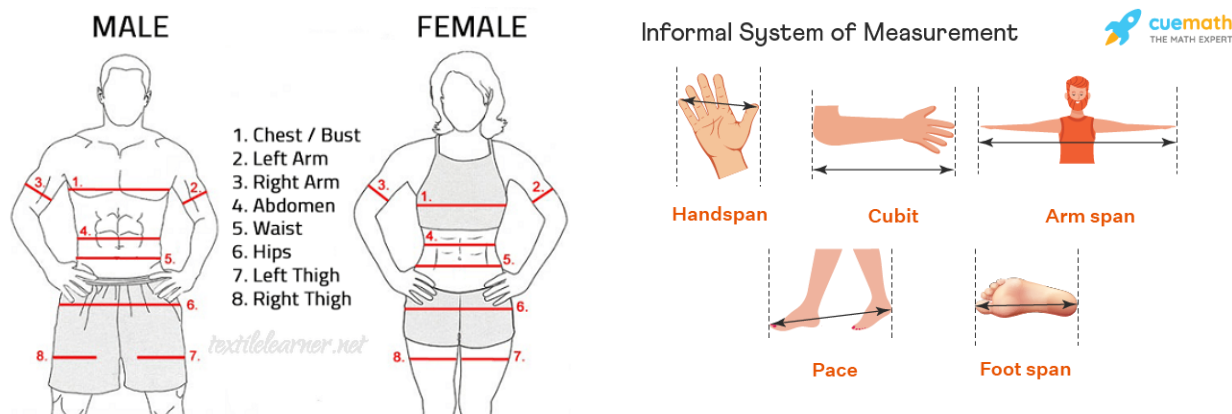
Research Design

This study employed a quasi-experimental research design to determine the effect of proper body measurement techniques on the fit quality of sewn garments. Two groups of Grade 8 TLE students completed the same sewing project but used different measurement methods: one group used standardized techniques while the other used informal methods.

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III. RESULTS AND DISCUSSION

This chapter presents the results, discussion, and the personal insight that the researcher had gathered.



The section presents the comparison of the fit quality of garments produced by two groups of Grade 8 students:

- **Group A (Experimental Group)**- used proper body measurement techniques
- **Group B (Control Group)**- used informal or usual measuring methods

1. Fit Quality Scores

The garments were evaluated by three TLE teachers using a Fit Quality Rating Scale. The average scores are shown below:

Group	Mean Fit Quality Score	Description
Group A (Proper Techniques)	92%	Excellent Fit
Group B (Informal Methods)	78%	Satisfactory but needs improvement

2. Measurement Accuracy

Group	Average Measurement Accuracy
Group A	90% - 95%
Group B	60% - 85%

3. Observed fit Characteristics

Garments from Group A showed:	Garments from Group B showed:
- Accurate bust, waist, and shoulder fit - Correct Garment length - Even seams and proper symmetry - Minimal need for alterations - Smooth overall appearance	- Tight or loose bust area - Misaligned shoulder seams - Uneven hemlines - Side seams not aligned properly - Wrinkling and poor garment drape

4. Common Errors Identified

Group B committed more frequent measurement- related errors such as:

- Incorrect tape measurement reading
- Not keeping the tape horizontal around the bust
- Inconsistent shoulder length measures
- Failure to double check measurements

IV. DISCUSSION

The results show that proper body measurement techniques have a significant effect on the fit quality of sewn garments. Students who used correct and standardized measurement procedures produced garments with better alignment, accuracy, and overall fit.

1. Impact of Proper Measurement Techniques

The higher average score of 92% in Group A indicates that:

- Accurate measurements lead directly to better-fitting garments.
- Proper technique reduces sewing mistakes and prevents the need for major alterations.
- Students become more confident in drafting patterns when they know their measurements are precise.

The lower score of 78% in Group B highlights the problems caused by informal or inconsistent measurements:

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- Poor fit is often traced back to incorrect bust, shoulder, or waist measurements.
- Measurement errors result in garments that do not match the body shape of the wearer.
- Uneven seams and misalignment show how inaccurate measurements affect the whole sewing process.

2. Relationship Between Measurement Accuracy and Garment Fit

Data shows a strong relationship between measurement accuracy and garment fit quality:

- Group A (90–95% accuracy) achieved excellent fit scores.
- Group B (60–70% accuracy) achieved only satisfactory scores.

This supports the idea that measurement accuracy is the foundation of good garment construction.

3. Educational Implications

The findings suggest that teaching proper measurement techniques must be a major focus in TLE Dressmaking classes. Without mastery in measurement:

- Students will continue to produce garments with poor fit.
- Sewing skills cannot be fully developed.
- Errors will persist even if students improve their sewing machine skills.

Providing regular training and supervised practice will help students internalize the correct techniques.

4. Support for Hypothesis

The results support the alternative hypothesis (H_1):

Proper body measurement techniques significantly improve the fit quality of sewn garments.

IV. CONCLUSION

The findings show that proper body measurement techniques significantly improve the fit quality of sewn garments among Grade 8 TLE students. When learners apply accurate and systematic measurement procedures, their finished garments are more comfortable, proportionate, and aligned with the intended design. In contrast, inaccurate or careless measurements often lead to garments that are too tight, too loose, or poorly shaped. Therefore, mastering correct measurement skills is essential in developing students' competency in dressmaking, enhancing their confidence, and ensuring successful garment construction in TLE. Proper measurement serves as the foundation of quality workmanship and is a vital skill for future learning and practical application.

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