# Exploring Fabric Selection: An Educational Initiative for UiTM Negeri Sembilan Football Players on Optimal Sports Jersey Choices

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**Abstract**
This study aims to explore the knowledge and awareness of different types of sports jersey fabrics among football players. Specifically, it seeks to evaluate how well the collegiate football team members at Universiti Teknologi MARA, Negeri Sembilan, understand the characteristics and benefits of various fabric options available for their jerseys. By investigating their familiarity with these materials, the research intends to identify gaps in knowledge that may impact their choices and performance. Ultimately, the findings will contribute to a better understanding of how fabric selection can influence athletic performance and comfort, thereby informing educational initiatives and resource allocation within the sports program.
**Keywords:** Football Player, Sports Jersey, Knowledge Gap, Performance, Fabric Role

**Introduction**
In the realm of sports, the choice of apparel significantly impacts both performance and comfort (Kejkar, 2019; Öndoğan et al., 2016; Materials and Technology for Sportswear and Performance Apparel, 2015). This is particularly true for football players, whose performance can be affected by the materials used in their jerseys. Among various sports, football players depend on high-quality jerseys that not only enhance their performance but also provide optimal comfort during intense physical activity (Bishop, 2014; Kejkar, 2019; Bartels, 2011). The fabric used in these jerseys plays a crucial role in regulating temperature, moisture

management, and overall durability (Sarı & Oğlakçıoğlu, 2018; Chen et al., 2016; Nasrin et al., 2023). For athletes who engage in rigorous training and competition, the right fabric can influence factors such as breathability, flexibility, and the ability to wick away sweat, thereby enhancing overall athletic performance (Nasrin et al., 2023; Su, 2021; Mishra et al., 2021). This work explores to address the critical need for understanding how different jersey fabrics can enhance performance, comfort, durability, and overall athletic experience.

Despite the significance of fabric selection, a considerable deficiency exists in athletes' comprehension of the many materials available and their associated advantages (Nomikos, 2021). Numerous players may select jerseys based on visual appeal or brand allegiance rather than a comprehensive understanding of fabric characteristics (Kawabata & Niwa, 1989). This deficiency in awareness might result in suboptimal decisions that may impede their performance or comfort on the pitch. Comprehending the distinct advantages of various materials is crucial for athletes, as it can influence both their physical performance and their psychological preparedness and confidence during competition (Nomikos, 2021). This study examines the football players of Universiti Teknologi MARA (UiTM) in Negeri Sembilan, intending to assess their understanding of various sports jersey materials. This research aims to evaluate athletes' knowledge of different fabric types to ascertain their understanding of the impact of these choices on performance and comfort. The inquiry also examined aspects including personal experience, peer influence, and access to educational materials about sports apparel.

This research has significant implications for sports education and resource distribution within the athletic programs at UiTM. By pinpointing domains of insufficient knowledge, focused educational programs can be designed to adequately prepare student-athletes with the necessary information to make informed decisions regarding their apparel specifically in sports purposes. This may include workshops, seminars, or informational resources that elucidate the advantages and disadvantages of different fabrics, enabling participants to make informed choices. This study seeks to enhance fabric selection among football players, hence fostering individual performance and team success. The project aims to improve athletes' comprehension of fabric qualities to cultivate a culture of educated decision-making that emphasizes attractiveness, usefulness, and comfort in sports gear. This exploration aims to close the information gap and promote a more comprehensive approach to athlete education and performance enhancement.

This study is essential for several reasons, as it highlights the often-overlooked aspects of fabric selection, address significant knowledge gaps among athletes, and promotes informed decision-making regarding sports apparel. The benefits extend to athletes, coaches, manufacturers, academic institutions, and future researchers, making this research impactful across various domains. By prioritizing informed decision-making in fabric selection, this study supports a culture of excellence in sports performance and athlete education, ultimately contributing to the overall success of athletic programs. This research not only aims to fill the knowledge gap regarding fabric properties but also emphasizes the practical applications of this knowledge in optimizing sports apparel choices for football players.

## Methodology

### Research Setting

This study utilised a quantitative methodology, employing a structured questionnaire to collect data on football players' knowledge and experiences related to different sports jersey textiles. This study on the awareness of sports jerseys was performed among football players at UiTM Negeri Sembilan, facilitating a focused examination of a particular demographic, thereby enhancing the analysis of results and enabling the derivation of significant conclusions applicable to analogous contexts in other sports teams or institutions.

### Study Population and Sample Size

The research involved a cohort of 23 football players from Universiti Teknologi Malaysia Negeri Sembilan, who were actively participating in the football program. Their age range was between 18 and 30 years old, and their overall health was excellent, ensuring that they were injury-free during training sessions. The questionnaire was segmented into two separate sections to thoroughly evaluate the participants' comprehension and experiences with sports jersey materials.

The initial component of the questionnaire sought to assess the participant's knowledge and awareness of various sports jersey textiles before any practical experience. This section's enquiries centred on the players' acquaintance with different fabric kinds, their perceived advantages and disadvantages, and the determinants affecting their selections in sports gear. This section comprised multiple-choice questions, Likert scale items, and closed-ended questions to encompass a broad spectrum of responses.

The second component aimed to collect insights regarding the participants' experiences after they tested different sports jersey fabrics during their training sessions. This section sought to evaluate how the practical experience of wearing various textiles affected their thoughts and preferences. The enquiries encompassed participants' felt comfort, breathability, moisture-wicking efficacy, and overall happiness with the tested jerseys, employing a blend of multiple-choice and Likert scale questions, alongside open-ended responses to facilitate comprehensive input.

### Instrument of Data Collection

The data collection method for this study was a standardized questionnaire administered to 23 players from the UiTM Negeri Sembilan football squad. Each participant received one type of sports jersey weekly for four weeks, enabling them to explore four distinct jersey textiles during their training sessions. This experiential method allowed the players to evaluate the performance and comfort of each cloth in real time, cultivating educated judgements grounded on practical experience. Upon concluding the training sessions with all four jersey types, the players were administered a questionnaire to assess their knowledge and views of the different fabrics. The questionnaire comprised parts that evaluated their prior acquaintance with the materials before testing, as well as their experiences and preferences after using the jerseys. This method enabled a comprehensive assessment of the participant's comprehension of sports jersey textiles and yielded significant insights into the impact of various materials on their athletic performance and comfort during training.

*Data Analysis*
The questionnaire was administered to the participants before and after their participation in training sessions during which they evaluated various jersey fabrics. The pre-test replies established a foundational grasp of their prior knowledge, whereas the post-test responses illuminated any alterations in perceptions or insights acquired from their practical experiences. The data obtained from the questionnaires were evaluated using descriptive statistics to discern trends and patterns in the players' knowledge and experiences. This investigation sought to uncover relationships between prior knowledge and post-experience assessments, ultimately offering insights into players' comprehension of fabric selection and its influence on athletic performance. The technique was crafted to facilitate a thorough assessment of the participants' knowledge and experiences, enhancing the understanding of how education and practical exposure impact athletes' decisions on sports clothing.

**Results**
This study aims to investigate the knowledge and awareness of various sports jersey textiles among football players. A total of 23 students selected for the UiTM Seremban football team completed the questionnaire. Forty-one Likert scale questions, ranging from 1 (Very unfamiliar) to 5 (Very familiar), were administered before and following the football instruction. The questionnaire comprised two independent sections to thoroughly evaluate the participants' comprehension and experiences with sports jersey textiles.

In the initial portion concerning the evaluation of different jersey textiles, Table 1 displays the results of the students' comments describing their prior experience with the jerseys worn during training. A total of 23 individuals participated, with 43.48% demonstrating familiarity with various textiles utilized in sports jerseys. Approximately 39.13% demonstrated a neutral position. This indicates a moderate awareness level, underscoring the need for educational activities to enhance knowledge of diverse fabrics. Increased awareness may enable players to make more educated decisions about their jerseys, thus improving their performance and comfort (Silvestri et al., 2020).

The data indicates that most players (56.52%) are acquainted with various brands of sports jerseys, while 21.74% report being highly familiar. The elevated brand awareness indicates that players can be swayed by brand reputation and marketing in their jersey selection (Shoffian et al., 2021). Brands recognized for comfort and performance may possess a competitive edge in player preference (Shoffian et al., 2021; Jánošková & Kráľ, 2020).

A substantial majority (78.26%) recognized polyester as the predominant fabric utilized for football jerseys. This highlights the players' acknowledgement of polyester's prevalent application in athletic apparel, presumably owing to its advantageous characteristics, including durability and moisture-wicking features (Fabrics Used by Soccer Jersey Manufacturers, 2023; Nomikos, 2021; Kejkar, 2019). The restricted acknowledgement of alternate fabrics, like nylon and mixes, indicates a necessity for players to be informed about other materials that may equally improve performance.

Comfort was identified as the predominant criterion for jersey choosing, with 82.61% prioritizing it over other factors such as durability (4.35%), quick drying (8.70%), weight (0%), and cost (4.35%). This discovery underscores the essential significance of comfort in sports

performance. Players are more inclined to excel when they are at ease in their equipment, so it is crucial for teams to select fabrics that improve comfort during training and competition (Özkan et al., 2023; Synthetic Garments Enhance Comfort, Thermoregulatory..., 2022).

Table 1
*Before Testing Various Jersey Fabrics (n=23)*

| Questions | Frequency | Percentage (%) |
|---|---|---|
| **1. How familiar are you with the different fabrics used in sports jerseys?** | | |
| Very not familiar | 0 | 0 |
| Not familiar | 1 | 4.35 |
| Neutral | 9 | 39.13 |
| Familiar | 10 | 43.48 |
| Very familiar | 3 | 13.04 |
| **2. How familiar are you with the different brands used in sports jerseys?** | | |
| Very not familiar | 0 | 0 |
| Not familiar | 1 | 4.35 |
| Neutral | 4 | 17.39 |
| Familiar | 13 | 56.52 |
| Very familiar | 5 | 21.74 |
| **3. What types of fabrics do you believe are commonly used for football jerseys?** | | |
| Polyester | 18 | 78.26 |
| Nylon | 2 | 8.70 |
| Cotton | 0 | 0 |
| Blends | 3 | 13.04 |
| Not sure | 0 | 0 |
| **4. What factors do you consider most important when choosing a jersey?** | | |
| Comfort | 19 | 82.61 |
| Last Long | 1 | 4.35 |
| Quick Drying | 2 | 8.70 |
| Weight | 0 | 0 |
| Costing | 1 | 4.35 |

For the second section regarding their testing of the various jersey fabrics, Table 2 presents the results of the student's responses on their knowledge of the jersey after they have worn the four types of jersey for this study, which are eyelet, pin-dot, jacquard, and interlock. The feedback after the trial period reveals that a substantial majority of players (60.87%) were satisfied, and 34.78% were very satisfied with the jerseys they tested. This positive response indicates that the players appreciated the opportunity to experience different fabrics, suggesting that hands-on testing can lead to greater satisfaction with jersey choices.

Players reported significant satisfaction with the fabric of their team's jersey, with 43.48% indicating satisfaction and an additional 43.48% indicating very satisfaction. This indicates

that the current fabric satisfies the players' comfort and performance requirements, thereby supporting the conclusion that the team's existing selection is suitable.

Comfort emerged as the most valued attribute of the fabrics, with 65.22% of respondents deeming it essential. Quick drying, chosen by 26.09% of players, underscores its significance. This supports the notion that athletes exhibit improved performance when their clothing facilitates physical activity, highlighting the importance of jerseys that ensure comfort during training.

Feedback indicated that interlock fabric was regarded as the least favourable at 47.83%, whereas eyelet fabric was perceived as the most luxurious at 73.91%. This disparity underscores the impact of tactile experiences and visual aesthetics on players' perceptions of quality (Silvestri et al., 2020). Players may favour fabrics that exhibit both high performance and aesthetic appeal.

The strong preference for eyelet fabric as a premium choice indicates that athletes prioritize both performance and the visual attractiveness of their jerseys. The perception of jersey selection can influence team confidence and identity, highlighting the necessity for teams to evaluate both functionality and aesthetics in this process (Jukić et al., 2021).

Table 2

*After Testing Various Jersey Fabrics (n=23)*

| Questions | Frequency | Percentage (%) |
|---|---|---|
| **5. After trying various sports jerseys during training, how did you feel?** | | |
| Very Unsatisfied | 0 | 0 |
| Unsatisfied | 0 | 0 |
| Neutral | 1 | 4.35 |
| Satisfied | 14 | 60.87 |
| Very Satisfied | 8 | 34.78 |
| **6. How satisfied are you with the current fabric of the team's jersey?** | | |
| Very Unsatisfied | 0 | 0 |
| Unsatisfied | 0 | 0 |
| Neutral | 3 | 13.04 |
| Satisfied | 10 | 43.48 |
| Very Satisfied | 10 | 43.48 |
| **7. Which fabric properties do you find the most appealing?** | | |
| Comfort | 15 | 65.22 |
| Last long | 1 | 4.35 |
| Quick drying | 6 | 26.09 |
| Weight | 0 | 0 |
| Eco-green | 1 | 4.35 |
| **8. Which fabric feels cheap?** | | |
| Eyelet | 3 | 13.04 |
| Pin-dot | 4 | 17.39 |
| Jacquard | 5 | 21.74 |
| Interlock | 11 | 47.83 |
| **9. Which fabric feels luxurious?** | | |
| Eyelet | 17 | 73.91 |
| Pin-dot | 3 | 13.04 |
| Jacquard | 2 | 8.70 |
| Interlock | 1 | 4.35 |

## Discussion

The data indicates a moderate level of familiarity among players with different fabric types, which raises the question of whether this familiarity correlates with their satisfaction levels post-testing. It is plausible that players who possess more knowledge about the properties of various fabrics tend to have higher satisfaction with the jerseys they wear during training. This suggests a need for educational initiatives that inform athletes about the advantages of different materials, potentially leading to improved performance and comfort on the field.

The predominant focus on comfort as the primary criterion for selecting a jersey underscores its significance for athletic performance (Barbu et al., 2018). Comfortable jerseys can improve movement and minimize distractions, enabling players to concentrate on their performance (Bishop, 2014). Players' comfort in their gear can enhance their confidence and overall morale during training and competition (Rahschulte, 1999; Bishop, 2014). Consequently, teams ought to prioritize fabric selections that enhance comfort, especially during high-intensity training sessions.

The elevated brand awareness among players indicates that brand reputation plays a crucial role in shaping their preferences and decisions. Players may link specific brands to quality and performance, influencing their satisfaction levels. This insight is essential for sports apparel companies, underscoring the significance of sustaining a robust brand image and marketing strategies that highlight the advantages of their products for athletes (Erdumlu et al., 2017; Jánošková & Kráľ, 2020; Filo et al., 2007).

The results indicate that players preferred jerseys with comfort and quick-drying features, implying that teams should emphasize these fabric attributes in future choices. Identifying materials that effectively support players' needs across various training conditions can greatly improve their experience and performance (Chen et al., 2016). Coaches and managers ought to implement regular evaluations of player preferences to ensure that jersey selections meet their needs. One of the team members mentioned to the authors that when the jersey gets wet, it becomes heavier. However, another jersey can make the body feel good and light while not hindering their movement during practices.

The distinction between perceptions of luxury and inexpensive fabrics highlights the significance of aesthetics in sports apparel. The preference for eyelet fabric among players indicates that visual aesthetics may impact their confidence and sense of team identity. The relationship between aesthetics and functionality is significant, as it can influence team cohesion and morale (Yoshida & James, 2009). Teams should strive to achieve a balance between these qualities in jersey selection, promoting both performance and a cohesive team image.

The findings from this study can assist team management in making informed decisions regarding jersey procurement. Engaging players in the selection process may improve satisfaction and commitment to the selected materials. Furthermore, feedback mechanisms, including post-training surveys or focus groups, can facilitate the ongoing refinement of jersey selections informed by player experiences. This study provides opportunities for additional research, especially regarding the influence of fabric selection on performance metrics like speed and endurance. Future research may compare preferences among various sports teams

or levels of competition, thereby enhancing the understanding of athlete needs in diverse contexts.

This study provides valuable insights; however, it is important to recognize its limitations. The sample size of 23 players may lack the representativeness of a larger population, which could influence the generalizability of the results. The subjective nature of comfort and satisfaction assessments may introduce bias. Future research should incorporate larger and more diverse samples while integrating objective performance metrics with subjective feedback. The practical applications of these findings are substantial. Coaches and team managers can use this information to enhance decision-making regarding jersey selection, emphasizing player comfort and satisfaction. Educating players about fabric properties and involving them in the selection process can improve the athletic experience and promote a more positive training environment. This study underscores the importance of jersey fabric selection in improving player satisfaction and performance. Focusing on gathered insights enables teams to make informed decisions that enhance the performance of both individual athletes and the collective team.

**Conclusion**

The findings from this study provide valuable insights into knowledge and awareness of sports jersey fabrics among football players at UiTM Seremban. The emphasis on comfort and satisfaction highlights the importance of informed fabric selection in enhancing athletic performance. To further empower athletes in making educated choices, it is essential to implement specific educational initiatives. These could include workshops and seminars focused on the properties of various fabrics, interactive sessions with fabric experts, and the development of informative resources that outline the benefits and drawbacks of different materials. By increasing players' understanding of fabric characteristics, teams can foster a culture of informed decision-making, ultimately leading to improved performance on the pitch. The insights gained from this research can guide future jersey selections and educational programs, ensuring that athletes are better equipped to choose apparel that optimizes their comfort and effectiveness during training and competition.

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