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An FEA Needs Model Evaluation of the Marching Band Uniform

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Introduction: Marching band uniforms have been adding color and pride to marching bands for ages, dating back to ancient and military roots. As marching bands became popular at universities, and football game half-time shows emerged, band uniforms began to distinguish one college marching band from another, allowing each band to create their own identity (Brightspark, 2015). In recent years, marching band shows have become more theatrical, using the music and pictures on the field to tell a story (Brightspark, 2015). These shows also require increased athleticism and exaggerated visual body movements from the marchers to enhance the expression of the story-telling (V. Sawdon, personal communication, May 7, 2018).

As marching band performance needs evolve, it is important for marching band directors and uniform designers to understand the functional, expressive, and aesthetic needs of the marcher as applied to the marching band uniform. Lamb and Kallal's (1992) Functional, Expressive, and Aesthetic Consumer Needs Model (FEA Model) has been used successfully to evaluate wearer needs and design criteria for a variety of sports uniforms (e.g., Bye & Hakala, 2005; Chae & Evenson, 2014; Jin & Black, 2012). Although marching band uniforms are worn in similar environmental conditions as other sports uniforms, the unique characteristics that blend athleticism, musical performance, and art require a distinct evaluation. The purpose of this study was to identify the functional, expressive, and aesthetic needs of marching band uniform wearers and to recommend design improvements based on these needs.

**Method:** After receiving IRB approval, a focus group was conducted with three University of XX marching band members. The participants were observed wearing the marching band uniform, and responded to open-ended questions related to Lamb and Kallal's (1992) FEA criteria. The participants each belonged to a different instrument carriage category—Participant 1 played the Baritone, Participant 2 played the Tenor Saxophone, and Participant 3 played the Flute.

**Results:** The following results summarize the most important functional, expressive, and aesthetic needs identified through the focus group.

Functional Needs. Four needs categories that influence the function of the uniform were identified through focus group discussions: Donning/doffing, Comfort, Fit and Range of Motion, and Temperateness and Breathability. The participants identified the center back jacket zipper as the most challenging aspect of donning the uniform. The participants found the uniform to be "somewhat comfortable," but mentioned the itchy fabric, hard to reach pocket, stiffness of the collar, shako chin strap, and bulky gloves to cause the most discomfort. The participants determined that the fit of the bib pants most affects range of motion and the fit of the jacket most affects instrument carriage. The participants stated a need for temperateness and breathability in the uniform because it is worn in extreme hot and cold temperatures while the marchers perform strenuous exercise.

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Expressive Needs. Two needs categories that influence the expression of the uniform were identified through focus group discussions: Identity and Pride, and Performance and Self-Esteem. The participants communicated that the uniform conveys messages of pride, hard-work, school-spirit, and professionalism, which must be reflected in uniform design. The participants recognized that wearing the uniform motivates them to perform better because they are representing something larger than themselves. However, poor uniform fit was mentioned to cause negative self-esteem and poor performance.

Aesthetic Needs. Two needs categories that influence the aesthetic of the uniform were identified through focus group discussions: Story-Telling and Design Elements. The participants expressed that the aesthetic of the uniform can communicate the theme of the marching band show to the audience and enhance the expression of the music. The participants stated that design elements such as color contrast, stripes, and uniformity contribute to the visual effect of the marching band show.

**Discussion:** The FEA needs of marchers identified in this study can be used as criteria for a redesign of the marching band uniform. Based on the wearer's needs recognized in this study, the following design improvements are recommended.

Functional Recommendations. The recommended functional improvements to the marching band uniform include the use of athletic fabrics and streamlined silhouettes. Athletic stretch fabrics with dry-fit and wicking abilities, such as lycra and spandex, will provide marchers with increased comfort, ease of donning/doffing, increased range of motion, improved fit, and greater breathability. Streamlined silhouettes that remove bulk and shoulder pads will improve the fit and comfort of the uniform.

Expressive Recommendations. The recommended expressive improvements to the marching band uniform include the continued use of school colors/logos and streamlined fit. The continued use of school colors/logos in the marching band uniform is necessary for band members to express allegiance to and pride for the marching organization. In addition, improving the fit of the marching band uniform will increase the self-esteem of the wearer, thus improving their performance ability.

Aesthetic Recommendations. The recommended aesthetic improvements to the marching band uniform include the use of transitional pieces and metallic/light effects. The use of transitional pieces will improve the aesthetic variation of the uniform. Transitional pieces can be worn in different combinations to change the aesthetics of the uniform from show to show, and even within one show. The use of metallic/light effects will enhance the aesthetics of a uniform which will be worn during the day and at night. The use of fabrications that reflect the light of the sun or technology that produces light-up effects at night will enhance the story-telling of the marching band show.

Conclusions and Future Research: This preliminary study was limited to three members of the XX marching band, due to convenience. The study would be strengthened by the inclusion of marching band members who play instruments not analyzed in this study— such as clarinet, trombone, tuba, and drums. Further research also might obtain participants from high school bands, college bands, and drum corps around the country. Marching band directors should be included in discussions of the role of the uniform in the expression of the marching band show. Although the sample size was small, the focus group interviews support the use of Lamb and Kallal's (1992) functional, expressive and aesthetic consumer needs model to develop design criteria for marching band uniforms. The next step of this research is to

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use the above design criteria and design ideas to develop prototypes for wear-testing with marching band members from many different schools and drum corps.

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