Designing to Balance Function and Aesthetics: 
**Visualize VICTORY!**

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**Problem-solving Design Strategy**

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This design demonstrates a problem-solving design strategy wherein balancing function and aesthetics invites inquiry into multiple criteria within both domains. The abstract presented to detail this process was submitted along with photographs of the design for juried review. The design was accepted for and exhibited within the International Textile and Apparel Association Juried Show in Montreal, Canada. November 2011. It is retrievable at itaaonline.org and within the 2011 ITAA Exhibition Catalog

**Purpose**  
This design was created for highly competitive high school volleyball players wanting to look unique and tough enough to win! Playing hard was supported by great range of motion, minimizing sweating and looking visually dynamic.

**Process**  
A knit pant pattern developed in research was the base for both the shorts and sweat pants. The top was draped on a fit model to maximize range of motion. Raglan cap sleeves were selected for both this range of motion and to highlight the visual power of shoulder movements with the appliqués. Appliqués of interlock and rib knit were positioned while draping to create visual flow between the top and bottoms and at the raglan shoulder. Reoccurring V shapes were used to highlight the coach’s imagery of V stands for the Victory she visualizes…..and goes for! Expending energy makes a player hot so textiles were carefully chosen for thermal balance. The orange basket weave covering the body core where heat is highest is absorbent and has built-in ventilation in the weave. To avoid stickiness of a sweatshirt when resting, magnetically fastened removable sleeves in cotton rib knit were developed to add a layer to keep arms from chilling. They have well ventilated open armpits to make cooling down progressive. For visual punch, sleeves double as leggings while playing. Cotton sweatpants keep legs warm and coordinate with sleeves and top. They continue the visual energy of the design in the same orange basket weave as the top.

**Techniques and Materials**  
For comfort, all textiles used in the design were 100% cotton. For performance, the basket weave suiting was the base fabric on the uniform while appliqués on top an shorts were knits supported by the woven surface. The sweatpant knit was sturdier and was thus an effective base for appliqué of woven and interlock knit combined. Appliqués were created using alternating rib and interlock knit and basket weave stripes appliquéd with stretch stitching. The stitch was secure and did not ripple the knit textiles; this allowed creating stripes while minimizing the irritation of seams against the body. To make the waistline adjustable, the casing was filled with 2/3 non-roll elastic and 1/3 wide hidden tying shoelaces. Mesh pockets hidden inside hang from waistline to secure keys, money, and tissues. The shorts were lined with cotton batiste to help retain absorption and moisture transport characteristics while adding to opacity and stability. Magnetic fasteners made the removable sleeves easy to apply with one hand and to roll down out of the way when using sleeves as leggings.