



Half-Scale Dress Form as a Design and Fit Tool for Young Designers

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Introduction: For a young designer creating a look for a runway show can be an exciting and challenging process. Working with a model and achieving good fit and balance is often a time consuming and frustrating endeavor for a student with limited experience. Working with seven freshman enrolled in a draping class who had only one previous studio design class, we offered them the opportunity to have a custom half-scale dress form made of their model, allowing them to drape on the actual body they would be fitting.

Methods: At the start of the spring semester we worked with seven of our first-year designers to create half-scale dress forms of the models they selected for the annual fashion show. The half-scale forms were produced from 3D scans of the models and were made from numbered half inch foam slices registered with dowels. Students were given a 'kit' consisting of the foam slices for their model, dowels, knitted fabric to cover the form, a stiff felt 'collar' for the neck and shoulders, tagboard caps for the neck, armseyes and legs, and 1/8" style tape. They stacked the slices on the dowels, added the collar and shaped it to fit their model, covered it with the knit fabric, and finished it by gluing the tagboard caps on to create the custom form of their model. The students then used these forms to work through the design process of creating a look unique to them but also conforming to the overarching theme given to all of the first year designers. Once they were satisfied with their design we helped them digitize and true their patterns in Opitex, as they had not yet learned this in their classes. We then printed out both a half scale and full-size pattern from this digitized pattern for each student.

Though out the experience of using the half scale the students were monitored, they first answered a short survey asking "Have they ever worked with the half-scale form "and "What do you think the benefit/drawback will be of working with the half scale form?" Students kept a journal of thoughts, issues and overall experiences and we conducted a follow up interview when they finished. We also took photos of work in progress, of their first muslin fitting, and their final garments.

Results: One of best results of this project was seeing their faces when they the students put the first fitting muslin on their models. All but two of the students had achieved great fit with only minor alterations. Two of the students commented in their journal about their fitting muslins "Fit perfect!!" Others commented they were able to make changes to their designs quickly. We had

two students who had major fit issues to resolve at this stage; one student made a tight-fitting dress and stated during an interview that she thought she had pulled the fabric too tight, compressing the foam form. She also said working in half-scale was a learning curve for her, understanding that an inch in half-scale is two inches in full scale. The other student had not resolved the proportions or fit well in the half-scale. The use of these custom half scale form resulted in the student being able to spend more time on design and construction of final designs, leading to a strong group design concept exhibited at the annual fashion show.

We followed up with four students after their sophomore year fashion show. They once again created their own unique designs (this year creating two designs instead of one) within a common theme. Although they had received an email offering the option of creating a half-scale form of one of their models, this year they all used a traditional method of patternmaking, draping on full scale standard forms close to the measurements of the models they selected. Two students remarked they would have liked to use half-scale forms, but for different reasons. One student had designed a large collar which she said was extremely hard to handle at times. She made many iterations of this collar using a lot of material. When talking about the fit of her garments the size of her model made her life easy, she only had access to a size 8 dress form with legs, both of her models were smaller so everything she made was too big, she was able to make simple alterations by taking the garment in. In follow-up interview this students found working in half-scale to be more efficient, “quote about 60% of time used for fit because of the design elements. If she had the half scale form she had more time to refine her design faster.” The other student who would have like the half-scale form said she had a hard time creating a good silhouette for her model’s proportions, and she would have liked to try out several of her preliminary sketches on a half-scale form. When asked why she did not just create them in full scale she indicated she did not have enough time or resources to create muslins for several different looks. The third student mentioned she did not think the half-scale would have worked for her as she was doing some material manipulation that she did not think would translate well from the half-scale into full-scale. During our interview she mentioned she did not think there would have been a significant time saving using the half scale vs creating a second fitting muslin since her design was simple. The last student I talked with also indicated her designs this year were much less fitted so working in half scale would not have saved her any time.

Conclusion: Overall it would seem the use of custom half-scale forms can help young designers overcome the problems of fit issues and unique design elements. We will continue to offer the opportunity for students to create the custom forms to aid them in their creation of unique looks for the annual fashion show.