Chapter 6

SUMMARY AND CONCLUSIONS

Interior design students’ study drawings were evaluated in two ways. First, the sketches were counted and evaluated on a numerical scale along with the final design product. This was done to determine the statistical relationship between drawing in process and the success of the final designed product. Additionally case studies were utilized to describe the design process as it is revealed through sketches.

Introduction

The review of the literature brought together theoretical implications that sketching, the design process and the final product existed in a dependent relationship. Human beings have an amazing ability, through the mind, to visualize things both seen and imagined. It is this ability that is the cornerstone of all thought processes, design is but one of those processes.

As a student is progressing through the design process, they engage in a conversation with themselves through the interactive media of sketching. This conversation may start with an image visualized in the mind. The student then externalizes this image through drawing. Perhaps the drawing lacks the richness of what is imagined, or maybe the imaged idea is too abstract to communicate in a drawing, whatever the reason, the drawing is then able to add back to or change the imaged thought. The student may then draw again a slightly altered version of the visual image. It is the evidence and effect of this conversation that was explored in this study.
Also observed in the literature were the patterns of this communication. The conversation of “mark / interpret / mark” can be described by viewing the adding and subtracting of detail and noting the tangents that are explored along the way. Additionally, the “mark / interpret / mark” conversation is perceived by the individual designing. While they may not refer to it as a conversation, students in interviews and talk through protocols refer to “seeing” something in the sketch that was not present in the imaged idea. The sketch then has the power to manipulate the design process. If this is true, then, a student's ability to sketch and willingness to sketch during process, could have a cause and effect relationship with the final designed product.

**Major Findings**

Student’s process sketches and final product were studied to see if there is evidence of the relationship of sketching to final designed product. The sketches were counted and evaluated on an eight-point scale. The projects were also evaluated on an eight-point scale. The multiple regression and hierarchical regression indicated a strong intercorrelation of all the variables. It was the hierarchical regression that organized the relationship of the independent variables, sketch creativity, sketch efficacy, and quantity of sketches to the dependent variables, creativeness of project and function of project.

Sketch creativity appeared to have the strongest effect on creativeness of product with sketch efficacy and quantity of sketches being insignificant above and beyond sketch creativity. Again in project function, sketch creativity had the strongest statistical relationship. Sketch efficacy also had a significant
relationship with project function. Quantity of sketches was not significant above and beyond the creativity and efficacy measures of the sketches.

For this population of students, this data suggests that the quality of process is more important than the quantity of process. If the student is not developing novel ideas during process, then sketching them time after time is not going to increase the creativeness of the final designed product. Also for this population of students the data suggests that creativity and the sketch's ability to communicate ideas back to the designer have a direct positive relationship with the project's functional qualities. Thus, the more creative and understandable the process is, the more potential there is for design success.

The case studies also supported this data. Three student project processes and final products were studied for evidence of the communication of student and design process. The process was described as to when the student was adding or subtracting from a design idea and the resulting effect on the next drawing. Additionally, it was noted when the student began to think about production issues such as materials and construction. Finally, similarities and differences in process styles were pointed out.

The case studies were selected because of the success of their final product and because of their differences in designing styles. One case study was almost purely a conversation between sketch and designer through sketches. One case study was almost all verbal conversation utilizing written words and only a few sketches. The last case study involved a second visual inspiration to
spur the process along. All three case studies seem to support the idea that quality not quantity of process was important in the final solution.

**Implications**

The implications of this information could reach into the classroom and modify how design process is taught. Perhaps more time could be allotted to the idea generation stage of a project. In lecture and studio, an instructor could model an positive attitude about the quality of process for the students that they could witness and adopt in their own work. Instructors could encourage experiential and explorative sketching in simple problem solving. Another change that might come about is that students could be taught drawing skills earlier in the interior design curriculum. As future research and class room experiences increase our understanding of this phenomenon, students can be taught skills and attitudes that will equip them to manipulate and exert some control over their design process and thus their final product.

**Recommendations**

This study has limited generalization qualities because of the small population that was measured and the single project that was evaluated. Future studies might look at the results of several design projects and a larger population of student designers. Additionally a longitudinal study that evaluated student’s process growth during design school would also bring more information to this area. A study comparing the design process in interior design students to interior design professionals could be pursued in order to understand how process styles might evolve from student work to professional work.
The results of this study may open up venues for further research in the drawing and design process area. Some subjects for future research may include interior design student’s attitudes towards drawing and drawing related fears while also looking at previous experience in art, design or drawing. Students could also be evaluated on process style before and after learning more process styles to see if improvement in design product occurred due to better or different process skills.

While this study may not be generalized to all design students and all design projects, it offers some compelling information about the design process. This study calls for a greater awareness of the private individual portion of the design process, sketching and visualization during idea generation. Additionally it indicates the relationship between quality of design process and the success of the design product. In conclusion, it illustrates that successful design takes time and thoughtful consideration.