Chapter 12

Cognitive Processes in Fashion Design: Designing of Modelling Projects for the Visually Handicapped

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ABSTRACT

This chapter is concerned with the teaching and learning of modelling in fashion design courses. Following a series of observations, it was found that fashion design students, with normal sight, have difficulties in fully understanding how an item of clothing can be transposed to a modelling display bust, which represents the body of the wearer. The same obstacle affects visually-handicapped students. This study seeks to explore ways of overcoming this problem. It involves seeking to introduce features into teaching that can allow a comprehensive learning program to be taught and in particular, to concentrate on certain key factors - cognition, constancy and abstraction - with regard to the information on fashion projects that can be found in the surrounding learning environment.

INTRODUCTION

It was clear from the teaching practices of this author that a large number of students face obstacles in understanding modelling in fashion design when carried out in a creative way. This includes the question of how to devise a system to transpose the mould of items of clothing to form a three-dimensional structure. Problems regarding the teaching and learning system of modelling have been found in other research studies (Caro et al., 2014; Costa e Lima, 2006; Menezes e Spaine, 2010). The same problem of how to transpose the mould to a display bust in situations when the students were visually handicapped (either suffering from poor eyesight or blindness) was made apparent during the “Feeling and Dressing for Fashion” course which was run for this public.

In the light of this evidence, it was decided to investigate how this problem could be overcome. This involved attempting to introduce features in the learning which could enable the students to obtain infor-
mation about transposing a two-dimensional mould to a three-dimensional human body, as represented by the display bust. In this way, it was possible to recapture the whole period when they made the attempt or in other words, the learning could be shown to be complete.

The course referred to above is based on a higher education course in fashion design which was concerned with the learning activities for the creation of items of clothing and was aimed at visually handicapped people (VHs), such as students. The aim of this study is to describe the stages that must be followed by students in the area, whether they are students with normal sight or VHs, when undertaking all the detailed tasks of modelling and their application for creating an item of clothing. The purpose of this is to outline the necessary parameters for a methodology in which the teaching and learning of fashion design and the VHs are interwoven, and in this chapter, link this to a planned model for fashion design.

In seeking to employ a methodology which could assist in the key areas of the subject (apart from the research conducted in this area by the authors cited above) some important benchmarks were found in the work of Medeiros (2010), Souza (2007), Spaine (2010, 2013). These are research studies on the teaching and learning of planned modelling that underpin the ideas formulated here. In this way, an attempt is made to determine what resources will be employed, apart from the usual materials made use of in the classroom, for the teaching of modelling in fashion design to the students in question, while taking full account of their particular learning needs. According to Menezes and Spaine (2010), “the preparation of a mould includes a phase which involves studying ergonomic factors, anthropometry and a knowledge of the wearer’s body”, and for this reason, an understanding is required of the forms, volumes and structures which shape the human body.

The mould for an item of clothing is first cut out of paper and is made up of all the parts of the garment; care is taken to ensure that it has the correct physical volume when it is manufactured in fabric and later worn. Each of the parts contains the formal elements needed to make the adjustment to the corresponding body of the wearer, with the aim of ensuring a match and meeting “the needs of comfort, durability and functionality” (Menezes & Spaine, 2010). However, the need to understand this is not always grasped by the students because they are unable to visualize the planned object – the mould and its parts – or obtain the right volume for the wearer’s body. As can be expected, this is a problem which students (whether able to see or not) have difficulty in tackling.

In view of this, this course combines knowledge related to the area of fashion design with research studies originating from different specialists in Neuro-science (Ackerman, 1992; Carter, 2012; Damásio, 2004, 2011, 2012; Martin, 2013;), particularly, factors related to cognition, constancy and abstraction with regard to information obtained from the surrounding environment and the objects found there (Gilead et al, 2014; Perlovsky e Ilin, 2012; Nee et al, 2014; Zeki, 2000, 2001). These are factors of great importance for learning in so far as the activities of each of them allow objects to form and materialize in the realm of fashion design projects. It is also important to enter into a dialogue with research studies aimed at the education of people with special needs who include those with visual impairments (Ballestero-Álvarez, 2003; Barros, 2013; Lima, 2006).

**ABSTRACTION AND LEARNING**

The brain is an organ that makes continuous contact with the environment. It is the means by which a person is able to assimilate information, reflect, understand and take action. Moreover, it intervenes in one’s feelings and the way that the outside world is perceived, as well as taking part in human activities