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CREATIVE DESIGN METHODOLOGIES FOR TEXTILES AND FASHION EDUCATION

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Key words: design, Research methodologies, textiles, fashion, trends.

Abstract. Understanding market intelligence, trends, influences and personal approaches are essential tools for design students to develop their ideas in textiles and fashion. Identifying different personal approaches including, visual, process-led or conceptual by employing creative methodologies are key to developing a brief. A series of ideas or themes start to emerge and through the design process serve to underpin and inform an entire collection. These investigations ensure that the design collections are able to produce a diverse range of outcomes. Following key structures and coherent stages in the design process creates authentic collections in textiles and fashion.

Introduction

The focus of this paper is to consider the importance of authentic concepts and ideas in textile and fashion design education. The BA (Hons) Textile Art, Design and Fashion course encompasses embroidery, knit, print, weave and pattern construction with outcomes for fashion, interiors, product or artwork. Understanding how to nurture creativity and ideas generation will be investigated through a range of different approaches and ways of developing original work. Comprehending key trends and market intelligence, while important, can result in pastiche outcomes, while a unique design collection is often the catalyst for finding graduate employment. Threshold concepts in design education may be laden with anxiety for the learner, overcoming this liminal state can result in the creation of original design collections and graduate employment. Therefore understanding how students engage with design development through visual investigation, process-led and conceptual starting points is essential for success.

Research Methodologies

The research methodology employed will be reflective, qualitative and quantitative in enquiry. Qualitative method includes student, external examiner and industry feedback following 3-year interventions. Quantitative research will focus on the marks profile, graduate destinations and employability statistics over 3 years. Categorizing students as visual investigators, with observational drawing, conceptually led where they have an idea to pursue or process-led where process is the key driver to their inspiration. In this context process-led will include embroidery, print, knit, weave, and pattern cutting/draping. Understanding Kolb’s learning cycle and the principles of divergent and convergent gathering and editing of the information is also part of the liminal experience for the design student.



Figure 1: Kolb’s learning cycle

Approaches to design

Understanding market intelligence and customer buying trends are essential for textiles fashion. This awareness is honed through visiting trade shows such as Pitti Filatti, Pitti Uomo, Premier Vision, and the London Design Festival.

Online platforms also give direction with a plethora of information, instantly accessible for students such as ‘Trend Tablet’ and Worth Global Style Network (WGSN). While these are essential tools for educational development it is also important for a design student to understand where they are positioned within this framework. Some of the ‘starting points’ in this research refer to approaches whether an individual is concept, visual or process driven. The first step in the design process is the selection of themes or ideas to work on as Mbonu states that,

“Research is what defines each season or collection. It starts with the very first decision – so at that stage I try to surround myself with what I understand to be the ‘right’ stuff for the season, including good books films and images” (Mbonu, p20).

Some of the recurrent themes with longevity include,

Memory: The use of objects, photographs, memorabilia invoking an emotional response or journey that is personal to an individual but can evoke a response with a wider audience through its individual setting or period of history.

Nature: looking at aspects of nature, one final year student recorded her location during placement through photography and blogs.

“Creating a tonal range of colour has been an essential part of my collection. As my work is process driven through rigorous experimentation, I work with the machine to see how the yarn will react and sit on the body. This forms the main ethos of my work”. Jordan Currie, Graduate TADF 2016.

Architecture: Award winning knit graduate explains,

“I have quite a minimalist aesthetic. I took a trip to New York last year, and I was influenced by the architecture but I wanted to look at it more in depth. I wanted to focus on the aspects of it that are overlooked because when people say architecture, they think buildings and stuff like that. I was inspired by the repetition and the print. For example, looking at the shapes of the windows. There are so many buildings and so many windows, and those were kind of my starting point. I was looking at everything from their shapes to their properties as well as the materials and their translucency. Also the reflection of the windows, which is where I got my colours from” Natalia Lees.

Music, and Film genres, can convey an era and depict the mood. Fabric Collections, such as jacquards, prints, checks, paisleys and then imagining how these fabric collections previously made by designers and working backwards examining how they developed their ideas becomes the story.

Often it is difficult to start work and the creative process can become a series of words, colours and processes selected by the throw of a dice to take away decision making and create a more random or abstract approach, removing direct decisions from the designer.

Iteration occurs through drawing or making the same object, place or person over a period of time. With this approach each time applying the elimination of a mark, or reducing the allocated time allowing for economy of line.

The Muse or narrative is often important to forming ideas in textiles and fashion and the storytelling or narrative aspect of this approach can result in an interesting and eclectic collection of information with juxtaposition unique to the designer.

Following these starting point's visual and written mind-maps were created charting ideas in a more formal and theoretical way exploring many aspects of the concept. This way of divergent thinking supports ideas exploration. Following the divergent thinking students then engage in convergent thinking techniques to focus on the essence of the project by editing ideas.

Results

While students found this methodology challenging, overcoming threshold concepts in design is evident in the final outcomes and the elevation of student confidence. The increase in confidence over the 3 years is evident in the marks profile and the final classifications, the information below clearly maps progress particularly in the elimination of fails and the improvements in the 2:1 and 1st category.

Marks Profile 2013

1 st	2	3%
2:1	18	31%
2:2	22	38%
3 rd	11	19%
Fail	5	9%

Marks Profile 2014

1 st	3	5%
2:1	39	63%
2:2	11	18%
3 rd	9	14%

Marks 2015

1 st	10	23%
2:1	25	58%
2:2	6	14%
3 rd	1	2.5%

Design Studies Map of Employability

Employability Cambridge 2015	Employability East London 2015	Employability Ulster 2015
80%	77%	90%

Graduate destinations have increased with a greater number of students in graduate positions within 6 months. The diversity of graduate skills and experience, work-based learning and placement opportunities have enabled this increase. The burgeoning film industry in Northern Ireland has also been pivotal in providing employment over the past 5 years, and this is clearly a growth area for the textile and fashion industry with HBO Game of Thrones and the course has made provision for this expansion through incremental change and revalidation.

Employer responses to the course have been very positive with industry stakeholders seeing the benefits of tripartite relationships through Knowledge Transfer Partnerships and IntertradeIreland Fusion Projects,

“No other educational institution is teaching knitted textiles on the island of Ireland like Ulster University, and we are benefiting from talented and dedicated placement students” Tarlach de Blacam Inis Meain Knitting Company.

Graduates have been selected for external exhibitions and exposure with online networks including Not Just a Label and Fashion Houses such as Bureau Seutail, with invites to attend Copenhagen, Shanghai and Toronto Fashion week. Graduates have also been winners of national competitions such as New Designers and Graduate Designer of the Year, Ireland.

Comments from the external examiner have included,

“Best features of the course include the diversity of student outcomes. This clearly indicates how the change to course structure now allows students to take an individual approach to their study programme and approach to contextual outcomes. This celebrates the diverse nature of the course itself and also accommodates for the diverse range of students coming on to the course. Programme curriculum incorporates an approach to pedagogy that is both agile and flexible to meet with the challenge of delivering a programme that includes textiles and fashion from both an art and a design perspective” Julie Haslam, MMU.

Conclusion

Therefore through the diverse approaches supporting individual learning styles the outcomes can be authentic, original and rich. The resultant work has rigor in its development and creates confident graduates who can identify and discuss the uniqueness of their own work and its relevance to the identified client or market. The marks profile improved as the work is contemporary, and the rigor and authenticity of the journey is as important as the final outcome. External feedback is the real test, and through responses observed by external stakeholders such as the external examiner, industry, and national competitions such as New Designers the results show that original work needs to have a firm foundation at the inception stage. The importance of students identifying their individual approach and creating novel work brings innovation and improvement in the overall marks profile. Students raise the reputation of the course through ambition and success at national and international level. Furthermore produces an increase in graduate employability and opportunities for entrepreneurship and the development of a community of practitioners.

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RATIONAL FOR CHOOSING PHASE CHANGE MATERIALS FOR THE PRODUCTION OF THERMOREGULATION TEXTILE MATERIAL

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Key words: phase change materials, thermoregulation, textile material, microcapsulation, thermal properties.

Abstract. The article deals with the concept of "phase change material", defined the principle of their action. Designated substances which have thermoregulation properties which can be used in the manufacture of textile materials intended for making clothes. Noted that as thermoregulation materials are optimal paraffin's. Maximum specific heat capacity and optimum temperature of the phase transition material have octadecane (C₁₈H₃₈) and nonadecan that can provide the most comfortable settings space under clothing. To preserve the thermoregulation properties of the materials used microencapsulation technology.

Phase change materials (PCM) - a substance that can change phase (aggregate) state in a specific temperature range. Latent heat energy released (absorbed) in the phase transition between the liquid and solid states is about 200 times more than during the heating (cooling) of the same material by weight.

When heated PCM absorbs a small amount of heat, and the temperature is constantly increasing. When the melting temperature of the phase transition occurs and further there is the absorption and conservation of latent heat. This PCM and the environment temperature remains constant. When PCM cooling and crystallization, heat is released and moves into the environment. This PCM and environment temperature also remains constant.

The ability to absorb or release such a large amount of latent heat without temperature change makes PCM attractive for use as a means of storing heat [1].

There are about 500 kinds of substances that can change phase state of a change in temperature and absorb heat, but not all maybe used in practice.

So, today, widely used phase change materials for the production of a new generation of textile and clothing, providing a comfortable climate under clothing in all weather conditions. Great development such materials have been in the European Union and the United States of America.