

Revisiting Fashion Education: Inspiring transformative learning experiences for fashion design students

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Abstract

In her manifesto ANTI_FASHION: A manifesto for the next decade, trend forecaster Li Edelkoort claims that most fashion institutions encourage student designers to become unique individuals who aspire to future roles as celebrity runway designers for luxury brands (Edelkoort, 2014). A survey of five leading international undergraduate fashion design courses does not support this claim, instead revealing curriculum that engages with sustainable fashion design practices such as collaboration and exchange.

In addition, current literature indicates that transformative learning theory and teaching practice appear to be the main drivers for change, in delivering content around sustainability at a tertiary level, within similar design disciplines such as architecture. This paper argues that transformative learning theory and teaching practices can also be applied to fashion education to promote change-orientated fashion practices amongst design students.

A clear example of this theory in practice is the Nike Sustainable Materials Project; a partnership between London College of Fashion (LCF), its Centre for Sustainable Fashion (CSF) and Nike team members. This project aimed to "mobilize makers" into creating "aesthetically-relevant, beautifully-crafted products that illuminate sustainability as a driver of innovation" (LCF, 2016). A case study analysis of the project demonstrates how integrating these two theories, transformative learning and teaching practice, with traditional notions of fashion education created an environment that enabled student designers to critically reflect on the current fashion system.

The proposition is that the collaborative nature of the project, combined with the diverse experiences contributed by the participants, can provide an ideal setting to challenge students' perceptions of fashion design and the role of the future fashion designer.

Keywords

Fashion, design, education, transformative, sustainability

Article Classification

Research Paper

Foreword

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This paper focuses on the transformative nature of the teaching and learning present within the London College of Fashion's Nike MAKING studio, resulting in the students' ability to critically reflect on the current fashion system.

The case study presented within this paper forms part of a larger comparative analysis within a PhD project, which involves five international fashion programs and their innovative teaching and learning practices centred on sustainability in fashion education. This paper will be addressing only one of the five programs and its industry project: the London College of Fashion (LCF) collaboration with its Centre for Sustainable Fashion (CSF) and Nike on developing the Nike Materials Sustainability Index into an iOS based platform. The paper will include information collated through literature research and semi-structured interviews with industry professionals¹ involved in establishing the collaborative projects between London College of Fashion and Centre for Sustainable Fashion. These interviews discuss transformative methods for revisiting traditional fashion education, methods that enable fashion educators to become agents of change within the learning space.

Broader context

The aim of the broader PhD research project behind this paper is to understand and analyse transformative learning experiences that fashion students are engaging with, specifically in regards to sustainability. The findings from this research will aim to provide a set of proposed guidelines for fashion education programs interested in engaging with transformative fashion teaching practice and learning. These findings will be geared specifically toward equipping students with the tools to critically reflect upon and work towards a progressive and innovative future for fashion.

1. Introduction

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¹ CSF Director and Professor of Fashion Design for Sustainability Dilys Williams CSF Education for Sustainability Projects Manager Nina Stevenson CSF Manager Renée Cuoco

This paper discusses ideas of progress, innovation and possibilities for transformation present in fashion education practice and learning, specifically in reference to the fashion educator's role in enabling student designers to become critically aware of their place within the current fashion system. To transform ideas, to encourage or experience a shift in paradigm, requires the recognition and reinterpretation of what has come before. As Dominique Hes and Andreanne Doyon (2016) note in their article *Thriving, not just surviving* . . . , "the key is to change our attitude to development and growth, to change the story of what success looks like and the model by which we arrange our communities. This requires a shift in thinking from taking away from our world, community, economy and environment to giving to it" (Doyon, 2016).

In a fashion market that is being rapidly transformed by new business models, changing consumer values and developing technologies, the role of the fashion designer is constantly evolving (Mellery-Pratt and Amed, 2015). Director of Education and Professional Development at the Council of Fashion Designers of America (CFDA) Sara Kozlowski reports, "the [fashion] landscape is poised for new sectors within innovative and hybridised specialisations that include digital manufacturing, social innovation, sustainability and new business models."

One of the leading fashion design institutes delivering curriculum with consideration of this changing landscape is the London College of Fashion (LCF), the only college in the UK to specialise in fashion education, research and consultancy (Duff, 2014). The LCF hosts two world leading research centres, one of which is their Centre for Sustainable Fashion (CSF). The CSF places importance on partnering with industry as the foundation for many of the courses they offer to LCF students. Through collaborations with its Centre for Sustainable Fashion, LCF "pioneers world relevant curriculum" (LCF, 2016), including fashion teaching and learning practices that this paper argues are congruent with those of transformative teaching and learning theory.

CSF Manager Renée Cuoco contends that the projects CSF and LCF work on are a great example of collaboration, an exchange between industry, research and education (Cuoco, 2016). CSF Founder, Dilys Williams, explains that for specific projects with industry, such as the LCF and CSF collaboration with Nike, students are purposefully chosen to take part if they express interest in collaborative and participatory learning, noting that this was "fundamental to the selection process" (Williams, 2016).

This collaboration between a fashion college, its research centre and an industry member resulted in the development of an iOS app-based platform titled MAKING, freely available for

download, offering "a tool to inspire designers and creators to make better choices in the materials they use" (Corner, 2015). An analysis of this style of collaboration, between students, researchers, teachers and industry practitioners, and its synergy with transformative learning and teaching theories, seeks to demonstrate how integrating transformative learning theory and sustainable fashion practices can create an environment that enables student designers to reflect critically on the current fashion landscape and thus better understand their future within it.

1. 1. Introduction: Case Study

The London College of Fashion collaborative project with Nike was chosen for this study as it fulfilled the selection criteria established for the greater PhD project. The selection criteria (below) were developed from the work of Professor Theodore Schatzki. While Schatzki (2002) is not directly referring to a fashion education context, his ideas still provide a useful theoretical framework to analyse this field. Through a discussion of ideas of transformation and change, Schatzki outlines how a transformation in practice can occur in two different ways (Robinson, 2010):

- 1. Creating new ways of completing existing projects, and/or
- 2. Combining new and existing ways of completing new projects.

The Nike project selected for study combines new and existing ways of completing new projects. The researchers, educators and industry partners collaborate to deliver innovative fashion and sustainability content combined with traditional and transformative teaching and learning practices resulting in a new project outcome: an iOS app-based platform.

London College of Fashion & The Centre for Sustainable Fashion

London College of Fashion (LCF), one of the University of Arts London's six colleges, is Europe's largest arts university with approximately 5,500 students (Duff, 2014). Just under half the students, (48%) come from outside the UK (Europe and Overseas) (Duff, 2014), which creates an international student cohort and varying learning needs in the classroom. Head of LCF, Professor Frances Corner, points out that this large international representation within the cohort is unique. Corner's ongoing vision for LCF is to nurture a different way of thinking and doing, with a perspective firmly experienced in understanding current industry demands, and a desire to challenge existing industry conditions (Duff, 2014). There are clear parallels between the LCF education philosophy and transformative teaching and learning theories, which will be explored in the coming sections of this paper.

The London College of Fashion has been working to integrate sustainability through various Learning, Teaching & Research (LTR) initiatives: the Centre for Sustainable Fashion

collaborative projects, LCF's formal and informal curriculum, learning activities and collaborations with key industry partners (Stevenson, 2015). Nina Stevenson, CSF's Education for Sustainability Projects Manager, contends, "We think that through some excellent examples we have developed models of how sustainability can be exciting, relevant, useful, and support employability in an educational and lifelong learning context." An example of one of these models is the Nike Materials Sustainability Index Project partnership.

The Nike Materials Sustainability Index Project

A study of the Nike Materials Sustainability Index Project, run in collaboration with the Centre for Sustainable Fashion and London College of Fashion in 2013, reveals an educational project nurturing a 'shift in view' towards a better world amongst its students, through cultivating fashion practices that seek to challenge and develop student perceptions of sustainability.

"We've built an incredible relationship with the sustainability team at Nike," says CSF founder Dilys Williams. "Nike is very open, despite its size, to the challenges inherent in working towards a better world." (Earley, 2013)

Nike's app-based platform MAKING was created to help designers and product creators make more informed decisions about the materials they use in their design processes by incorporating, as stated on their website, "tips for improving the environmental impact of designs and a powerful comparison tool that allows you to compare the sustainability attributes of the materials." The Nike Materials Sustainability Index, which powers the MAKING application, was created using "publicly available" (MAKING, 2013) data on the environmental impacts of materials. This information is used to enable the MAKING app users to make "real-time, predictive decisions", helping transform the process behind their design practice. Utilising and developing a familiar platform such as this affords students the opportunity to engage with content about sustainability in an accessible, relevant and practical way.

As stated on Nike's MAKING website, it is not always easy for designers to make "informed choices" and so partnering with London College of Fashion's design students not only helped develop the usability of the application, but also highlighted areas in need of improvement. Furthermore, the collaboration enlightened students about the sustainable options available to them as designers, by educating them about the important environmental impacts of their choices. Commenting on the project, student Ashleigh Downer stated, "... the app really helped in terms of letting you find different fabrics, and fabrics that you may not have heard of before like polypropylene, so the more I used it, the more knowledge I gained" (LCF, 2013).

1. 2. Defining Transformation

The key notion of transformation discussed within this paper will utilise literature on transformative learning and teaching theory as a theoretical framework through which fashion education methods will be examined, using interviews in order to explore professional experiences and perspectives.

Transformation, as pioneering American environmental scientist, teacher, and writer Donella Meadows describes it, is situated in the space of mastery over paradigms (Meadows, 1997). Meadows believes transformation occurs when we experience a "shift in the way we view the world and its systems in order to correct our course" (Meadows, 2012). This shift in perspective affords us the ability to move beyond set ideas or patterns of thought established over many years of cognitive development. In 1996 Meadows founded the Donella Meadows Institute in the United States, with the mission to bring economic, social and environmental systems "into closer harmony with the realities of a finite planet . . . [and the human race]" (Meadows, 2012), by engaging with systems thinking, system dynamics and collaborative learning.

This idea of collaborative learning is an important component of the educational approaches that underpin the creation of transformative learning experiences. Students are encouraged to collaborate with classmates as well as their community in order to ground their learning in a relevant pre-existing environment (Singh, 2012). This helps students to associate real-life scenarios with their learning, and thus critically reflect upon and visualise the actual repercussions of their choices.

In addition to Meadows' work, transformative learning theorists Edward Taylor & Patricia Cranton (2012) argue that while a person's understanding of transformative learning may differ depending on their context or situation, the outcome is the same: "a deep shift in perspective." Consequently, this shift in perspective opens us up to "better-justified" perspectives (Mezirow, 1978).

The Nike Sustainable Materials Project is a clear example of this collaborative learning principle in practice. LCF ran the project, with Nike team members and both CSF and LCF mentors involved in teaching students. In addition to CSF and the mentors, LCF staff and technicians were on hand to "guide and support the process" for the thirty LCF undergraduate students

² 2013. Nike [Online]. London: University of Arts London. Available: http://sustainable-fashion.com/projects/ [Accessed 20th April 2016 2016].

involved. Adding to this collaborative mix of students and LCF/CSF staff were industry professionals: designers, technologists and leaders in sustainability innovation working alongside a "lead researcher and innovation managers" (Williams, 2013) at CSF. This active participation from fashion industry members created an environment geared towards "providing students with valuable live industry experience," supported by a diverse range of professionals within a real world context.

For the purposes of this paper, Meadows' idea of a 'shift in view' will be used to define transformation. Additionally, this definition will be applied when analysing current models of fashion education, more specifically the London College of Fashion collaborative studio with Nike and the Centre for Sustainable Fashion. Interviews with educators* who took part in this studio will help to answer the key question:

Q. Did participating in this studio encourage or achieve a shift in the way students view the fashion industry and its systems?

*Including survey results from students who participated in this project would have aided in creating a more holistic understanding of the impact it had on their perspective of the fashion industry, however for privacy reasons, considering these students no longer attend London College of Fashion, it was not possible to contact them.

2. Context: Current Fashion Climate

In her 2008 work, *Thinking in Systems: A Primer*, Meadows explores the conditions and precipitating factors for transformation, offering different ways of thinking about everyday problems found across business, society and nature through the analysis and clarification of ideas such as system functionality and leverage points for change. While these ideas are not directly linked to a critique of the fashion system, they can be used to help understand the current system and why it may be under strain. Meadows states that "any force applied to [a] system has consequences" (Meadows, 2012), a logic that can be applied to understand the forces fast fashion consumption and production has applied to the current fashion system. Meadows (2012) continues, "a well-designed system can absorb these forces and still maintain system functionality, a poorly designed system cannot absorb external forces, causing the system to collapse."

In this case it is not a question of design but rather the immense pressure of internal (production) and external (consumer demand) forces that have strained the resources supporting this system.

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³2016. Industry Projects [Online]. London: University of Arts London. Available: http://www.arts.ac.uk/fashion/business-and-innovation/industry projects/ [Accessed 29th April 2016 2016].

Fashion houses such as Burberry are responding to consumer pressure to make their collections immediately buy-able, this year trialling the 'click-to-buy' live-stream runway model along with major fast fashion company Topshop (Press, 2016). Furthermore, designers Tom Ford, Michael Kors and Tommy Hilfiger are leading conversations on whether or not the industry should adopt the 'see now, buy now' model, and whether fashion presentations should be solely consumer-focused events (Press, 2016). These designers announced in February 2016 that they would be appealing to the immediate wants of their consumers by making their luxury items immediately available for purchase off the runway.

However, there have been unfavourable reactions to these opinions on how the industry is transforming to appease consumer demand. In an interview for Buro247, Belgian designer Dries Van Noten and Eugene Rabkin discuss the rise of fast fashion and its power to encourage irresponsible consumption (Rabkin, 2016). Van Noten believes that luxury fashion has monopolised this consumer mindset, with buyers purchasing out of excessive need to have products, most of the time settling for 'affordable' luxuries such as perfumes, cosmetics or accessories in order to satisfy an insatiable desire to consume. In response to the fashion industry's current climate, Van Noten, with the help of his team, has chosen to concentrate on developing 'the stories' behind his collections. Van Noten believes that by focusing on textile development and working closely with master craftspeople in India, he is remaining true to his skills, and resisting producing for the sake of more product (Rabkin, 2016).

Belgian designer and creative director Bruno Pieters left his position at major fashion company Hugo Boss in order to help generate change within the fashion industry. Through founding his own fashion company, Honest by., Pieters has been able to pioneer "the world's first 100% transparent fashion business model" (Pieters, 2012). Each component of the life cycle of every garment sold through Honest by.'s online store is traceable, allowing consumers to understand the supply cost, manufacturing costs, production costs and business costs of the item they are purchasing. Pieters comments in an interview with *The Wild Magazine*:

"Full transparency on the manufacturing and pricing of a product is what I wanted myself, as someone who loves fashion, but at the same time [someone who] wants to make a responsible choice when purchasing something.... There are a lot of brands that claim to be responsible, but the information they offer is so vague it's almost offensive." (Pieters, 2016).

In 2016 the Italian Fashion Chamber's president Carlo Capasa formally rejected the 'see now, buy now' business model, stating, "the difference between creating a desire and satisfying a need is the difference between slow fashion and fast fashion" (Abnett, 2016). The 'see now, buy

now' model eliminates the traditional time period fashion companies have had between the presentation of their collection and its arrival in store. Without this, Capasa remarks, people will not have the time to understand the message, 'the stories', behind the collections, "because if a creator is a true creative, he is proposing something that doesn't really exist" (Abnett, 2016) and therefore, a concept that takes time to digest.

This call for a shift in the current fashion climate is raised not solely amongst fashion designers. Educators and researchers alike are publishing works reinforcing demand for transformation and change within current fashion practices in order to accommodate and sustain a future industry. In his 2010 paper, *Thematizing Change: Creativity, Dynamic Practices and Sustainability,* Robinson discusses a need to shift traditional representations of fashion "towards new directions and possibilities," (Robinson, 2010) a move that seeks to embrace a new understanding of fashion creativity beyond garment production; in essence a transformation, a view shared by Fletcher (2008) and Hethorn & Ulasewicz (2007). They argue that the present function of fashion design prioritises garment production, the selling and marketing of commodities, which in their opinion excludes the possibility for change-orientated forms of fashion practice and design (Fletcher, 2008; Hethorn and Ulasewicz, 2008).

This view of the state of the current fashion system highlights the importance of fashion education institutions in establishing the framework for change-orientated forms of fashion practice to evolve, which is a sentiment embraced and practiced by the London College of Fashion's ongoing educational collaboration with the Centre for Sustainable Fashion. On her website, London College of Fashion's Head of School, Frances Corner details the collaborative way LCF and CSF work with businesses to prioritise and influence change in the fashion industry;

"Changing what we teach and how we learn is one of the greatest contributions an educational establishment can make. Although we want to change outlooks on education here at LCF, making sustainability a key part of the curriculum, we also want to influence change in the industry. Our Centre for Sustainable Fashion aims to not only set new agendas in government by driving legislative change, but also work with businesses, small and large, to guide sustainability strategy." (Corner, 2015)

3. Context for Transformation: Fashion Education

A review of the current fashion climate indicates increasing opportunity for designers, and fashion educators, to develop new, alternative, business models and creative practices. Amy Williams (2013), chair of the Fashion Program at the Californian College of the Arts, notes that education could profit from informing and equipping students with the tools to overcome the creative challenges posed by the demand for alternative sustainable practices. Furthermore, Williams declares sustainable design curricula to be a 'smart investment' for student learning, adding that, in her opinion such education is "the future of our [fashion] industry" (Phelan, 2013). This claim highlights the responsibility of fashion education to equip future designers with innovative tools, through shifting their perspectives of fashion systems, to work towards transforming fashion practice in order to sustain the future of the fashion sector. Dilys Williams reiterates this notion of responsibility, stating; "[as] educators [we] have a duty of care to ensure that what is being taught and learnt is mindful of the wider current context of our lives" (Williams, 2016).

As Richardson et. al. (2005) highlight, the challenge with sustainable design education lies in understanding the means by which the industry could "shift sustainable design [thinking] into mainstream design thinking" (Richardson et al., 2005). In a report titled *Fashioning Sustainability*, UK based non-profit organisation Forum for the Future lists eight key issues that require urgent attention in the clothing supply chain in order to alleviate the negative impact that the fashion production cycle currently has on the planet. However, amongst these eight key issues there is no mention of educating the designers of tomorrow (emerging designers, current fashion design students) so that they feel informed and adequately equipped to incorporate sustainable practices when it comes to their eventual careers as practitioners.

Professor Stephen Sterling of Plymouth University, in his book *Sustainable Education: Revisioning Learning and Change*, contends progress "towards a more sustainable future relies on learning, yet most education and learning takes no account of sustainability" (Sterling, 2001). While the number of significant publications on sustainability in fashion⁴ and sustainable design education has grown substantially in the last fifteen years, there is a lack of substantial information to be found on transformative learning techniques or teaching practices geared toward creating an environment that enables student designers to reflect critically on the current fashion system, in order to identify and create a position for themselves in the future. Sterling (2001) goes on to argue that while progress toward the education for sustainable development is

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important, these progressions are "not sufficient in themselves to reorient and transform education as a whole." Sterling's perspective on learning theory and its relationship with sustainable education can be applied to fashion teaching practice.

As identified by Otago Polytechnic's Head of School Caroline Terpstra and Senior Lecturer Tracy Kennedy in their paper A Stitch in Time Saves Nine: Identifying Pedagogies for Teaching Sustainability Issues to Fashion Students, an area that is less understood is "how students become informed about sustainability issues and interpret and apply this knowledge to a fashion context" (Terpstra and Kennedy, 2013). As educators, Terpstra and Kennedy (2013) emphasise the importance of understanding what can "influence . . . and motivate" a student in order to encourage constructive fashion outcomes in response to their learning experience, and their understanding of the industry they will be entering.

Collaborative problem-solving with existing fashion companies is one transformative teaching method utilized at a tertiary level to engage students in the realities of industry practice. Susskind (2013) notes that industry partnerships are being adopted by many institutions of higher learning to allow undergraduate and graduate students to engage in "the world at large", reflecting an emphasis on "learning by doing" and "learning about the world" (Susskind, 2013). This notion is reflected in the collaborative project London College of Fashion launched with their Centre for Sustainable Fashion in partnership with Nike to develop the Nike Materials Sustainability Index. Nina Stevenson, CSF's Education for Sustainability Projects Manager, further states, "co-creation and collaboration are key to our work as we believe this to be one of the important defining features to sustainable development" (Stevenson, 2015).

Nike partnered with students, researchers and educators in order to create something informative, innovative and aesthetically relevant to enable and encourage designers to be more critical and conscious within their own design process. Frances Corner elaborates, "one of the major businesses CSF have worked with is Nike, who came to CSF with a question: How can we de-couple successful design from the degradation of nature? They [Nike] wanted to improve their material choices to decrease the effect they have on the environment, while still maintaining their honed aesthetic" (Corner, 2015).

3. 1. Theoretical Perspectives: Transformative Learning

In her manifesto ANTI_FASHION: A manifesto for the next decade, trend forecaster and Trend Union Founder Li Edelkoort claims that most fashion institutions encourage student designers to become unique individuals who aspire to future roles as celebrity runway designers for luxury brands (Edelkoort, 2014). However, a review of leading international undergraduate fashion design courses does not support this claim, instead revealing curriculum that engages with transformative sustainable fashion design practices such as collaboration and reflection, as affirmed by Centre for Sustainable Fashion Manager, Renée Cuoco:

"For us [the staff of the Centre for Sustainable Fashion] projects through which we work with industry are collaborative in the true sense – a process of knowledge sharing and exchange, rather than simply 'sponsored'. The Nike Making project is a great example of this sort of collaboration – a great exchange between industry, research and education." (Cuoco, 2016)

The theoretical basis for understanding how to go about developing this transformative shift within the classroom comes from transformative learning theory and its relationship with transformative teaching practice theory. Furthermore, the latter identifies the importance of the role the fashion educator plays in laying foundations for this shift in the mindset of emerging designers. While there is a lack of substantial literature on transformative teaching practice within the context of fashion education, this paper draws from existing material on adult educational development within the social sciences, transformative learning theory and its use within architecture, and literature on sustainable design education.

Virajita Singh, educator and researcher at the University of Minnesota's College of Design and the Centre for Sustainable Building Research, comments on the environment most likely to nurture a shift in perspective within the learning experience: "when we have experiences that touch our humanity at a deep level, transformation is likely to occur" (Singh, 2012). Experiences with great depth cannot be created artificially. Educators are required to equip students with the ability to critically reflect on their personal design practice methods, as well as encourage them to align these methods with a set of personal values. This onus of responsibility on the educator became evident when discussing teaching experiences with Dilys Williams at CSF, who notes that navigating ideas around sustainability in fashion can be difficult. Williams elaborates that for certain students, once you start to pose questions about 'what are your values and desires for the world', the learning process becomes quite an emotional and profound mutual journey for educator and learner.

To analyse this further, Jack Mezirow (2009), credited with the development of transformational learning theory in 1978, states that transformative learning is founded on transforming existing ways of thinking and doing, in essence a shift in paradigm. This type of learning theory requires a holistic orientation to teaching, validating the students' prior experience and knowledge, and emphasising engagement with other ways of knowing (Taylor, 1998). Mezirow (1996) theorizes that a perspective transformation is "a more fully developed (more functional) frame of reference . . . one that is more (a) inclusive, (b) differentiating, (c) permeable, (d) critically reflective, and (e) integrative of experience." Transformative teaching practice relies on similar defining characteristics.

Transformative teaching practice theory like transformative learning theory places importance on creating reflective, self-critical learners (Mintz; Steinberg & Kincheloe, 1998; Slavich & Zimbardo, 2012; Mezirow, 1996), encouraging learners to question what, how and why they learn. In addition, current literature indicates that ideas and characteristics associated with transformative learning theory and teaching practices appear to be the main drivers for change, in delivering content around sustainability at a tertiary level, within similar design disciplines such as architecture. This paper argues that transformative learning theory and teaching practices can be and are already being applied to fashion education to promote change-orientated fashion practices amongst design students, providing a description of a case study illustrating how this has been done.

3. 2. Fashion Education's Role: Emerging Designers

Within this project, the term 'emerging designer' is used to refer to students enrolled in tertiary-level fashion design education programs. A fair assumption could be made that the majority of students enrolled in an undergraduate fashion degree are aiming, at least while studying, to enter into the fashion industry, in some form or another, upon exiting their degree. In considering this aim, it seems logical for fashion educators to consider the future of the industry when developing course structures and curriculum in order to best equip their students with the tools the future industry will require.

Utilizing learning theories that develop a student's ability to absorb new concepts, challenge their own way of thinking and seeing and critically reflect on their learning process may help to equip a fashion student for the future of the fashion industry. In their paper *Transforming the Fashion and Apparel Curriculum to Incorporate Sustainability* authors Landgren and Pasricha (2011) note, "educational theories provide a teacher with multiple ways of thinking about how students learn." Learning theories that link active learning, collaboration and technology

encourage lasting learning experiences for students, creating life-long learners and 'team players' (Landgren & Pasricha, 2011; Cone, 2011).

London College of Fashion's Head of School Frances Corner actively works towards supporting sustainable innovative fashion practices through partnership with industry, recently signing a five-year partnership between their Centre for Sustainable Fashion and the Kering ⁵ group (owners of Gucci, Saint Laurent, Alexander McQueen, Balenciaga, Stella McCartney...). A partnership of this calibre aligns key players from the luxury fashion industry with the future minds of their sector, allowing students to put their learning into practice through interaction, collaboration and reflection: "the programme will act as incubator for new ways of thinking about sustainable fashion" (Corner, 2015). These ideas are fundamental elements in creating a transformative learning experience for the student, equipping them with the ability to put learning into real-world practice and reflecting on their output and responsibilities as designers beyond the classroom.

In an interview with the author, when asked her opinion of what fashion education's duty of care is to its students, Dilys Williams stated "I think [fashion education] has a duty of care to each individual that is within the educational process. Higher education is about exploring who you are as a person and your place in the world, and I think the duty of any educator to their students is to support this journey, whilst thinking about what the world actually needs and wants... considering beyond the specific needs of a particular industry or role" (Williams, 2016).

Williams also sheds light on a fashion institution's significant role in creating an environment that nurtures the fashion educator's ability to put transformative teaching into practice, adding: "educators themselves need to be given the space to be experimental and through their own working through of ideas they then work with students around those ideas" (Williams, 2016). This adds another dimension to learning about fashion and sustainability, illuminating the need for institutions to provide the freedom that allows for the practice of transformative teaching amongst staff.

⁵ Kering is a growing Group of 20 high profile, profitable brands that create apparel and accessories for the luxury and sport & lifestyle markets. Available: http://www.kering.com/en/group/about-kering [Accessed 23rd June 2016 2016].

3. 3. Theory in Practice: Case Study

Researchers, educators and practitioners at London College of Fashion's Centre for Sustainable Fashion prioritise engaging students in a mutual learning environment, finding ways to bring different scales and levels of participation to the classroom in order to help involve all types of student learners. Concepts such as participatory learning, collaboration, recognition of prior learning and reflection are all-important components of transformative learning theory and are also present within the fashion teaching practices of the CSF's Nike Materials Sustainability Index Project.

"Transformative learning is based on the notion that we interpret our experience in our own way, and that how we see the world is a result of our perceptions of our experience." (Cranton and Taylor, 2012)

In an interview, Dilys Williams discusses her use of transformational learning strategies in her instructional approach. Williams emphasises her belief in the need to cater to varying student needs by developing multiple learning platforms that can optimize student engagement in the classroom (Williams, 2016). On her personal beliefs relating to teaching practice Williams states, "[teaching] is about having a number of different ways in which to work, it is a balance of planning in advance and being instinctive and responding to what's going on at the time . . . For example, we have a number of different ways for working with students that are [varying levels of] participatory learning environments" (Williams, 2016). In the interview, Williams goes on to outline examples of various levels of engagement experienced in her classroom, depending on the preference of the individual student. The environments outlined range from open space group work, to one-on-one student interaction, to quiet personal reflection and writing. Williams notes that as different activities can be challenging to different students, she is always aware of developing "ways in which you can bring in those different scales and levels of participation" (Williams, 2016). Furthermore, the team at the Centre for Sustainable Fashion look to their students for feedback to understand "what has worked and what hasn't, in order to learn from that" to enhance future learning environments and student experiences.

This emphasis on environmental variation seeks to integrate all students regardless of preferred learning style, whereby student involvement is critical to successful and sustained learning (Johnson, 1991; McKeachie, 1999; cited by Cone, 2001). This allows students to feel represented in the learning process, thus encouraging an open mind when engaging with new and complex material. Consequently, students are able to reflect critically, laying the foundations for a potential transformation in opinion and outlook.

This approach is supported by transformative teaching practice theorists Baumgartner (2001), citing Davis and Ziegler (2000), and McGonigal (2005), who note that transformational learning environments need to be "safe, open and trusting," allowing "for participation, collaboration, exploration, critical reflection and feedback". Williams discusses her work with the London College of Fashion Masters students in more depth, stating that teaching practices encouraged at CSF integrate a three way notion of thinking about reflecting, "reflecting on your own practice and its impact, reflecting on the people you are directly involved with, and thinking about the wider implications of your work, and the indirect impacts and exchanges your work creates or does not create."

Furthermore, at the undergraduate level, Williams states that the use of critical reflection in teaching practice tends to be more focused on teaching students to reflect on their own practices and processes, and the direct and indirect implications of their work. Williams adds that when it comes to directing student opinions, she and her teaching staff do not provide students with all the answers to their questions. The reason for this is to provoke further reflection and also to reiterate the idea that teachers and students occupy a mutual learning environment.

Edward Taylor in *The Handbook of Transformative Learning* further discusses the link between the teachings of critical reflection and transformative learning theory. Taylor (1998) examines Jack Mezirow's (1996) established links between the developments of the practical strategies (such as teaching) of his transformative learning theory to the fostering of critical reflection in adulthood. Mezirow's ideas about transformation within the learning process are focused on understanding how "adults learn, transform and develop" (Cranton and Taylor, 2012), through the ability to encourage these learners to reflect critically on their own experiences and the personal meanings they attribute to these.

Similarly, Williams discusses the importance of ideas embedded within transformative learning theory, especially the recognition of each student having come from their own life experience before stepping into the classroom: "we have students that come from a diverse set of cultural, political and economic backgrounds, such diversity poses a huge challenge and amazing opportunity for all of us to learn from each other, and contribute to strengthening the conversation" (Williams, 2016). However, Williams also notes that while this diversity in life experience aids class development, students cannot be expected to always willingly participate. "The idea of the agency of the student is something that we all still and will continue to learn about."

4. Conclusion

Through their partnership with the Centre for Sustainable Fashion, LCF has been able to pioneer innovative classes to encourage students to engage with sustainable fashion theory in a practical and thought-provoking way. Linking students with large industry players such as the Kering and Nike groups, for example, allows students to discover how to use collaborative practice in a 'real-world' context while being encouraged to critically reflect on their impact from both personal and practitioner perspectives. Through participating in these classes, students are encouraged by LCF to take "their skills, knowledge and experience and change industry for the better" (Corner, 2015). Furthermore, this mode of teaching illustrates the change-orientated nature through which these students engage with curriculum around sustainable fashion practice.

CSF's Education for Sustainability Projects Manager Nina Stevenson aptly summarises, "we hope that the significant developments we have demonstrated can serve as best practice to build upon and give us a platform for our forthcoming endeavours, however we believe that we must embrace complexity and change to deal with the ever-evolving challenge of sustainable development and behaviour change for an equitable future" (Stevenson, 2015). The proposal is that the collaborative nature of the Nike Making project, combined with the diverse experiences contributed by the participants (students, mentors, industry partners and educators alike) can provide an ideal setting to challenge students' perceptions of fashion design and the role of the fashion designer in the 21st century, and thus to act as a model for equipping emerging designers with the tools necessary to sustain the future of the fashion industry.

This paper would have benefitted from including student survey responses from those who participated in the Nike MAKING project. A student survey was created in order to understand whether or not these students experienced a shift in their perspective on fashion after having participated in this project, however due to privacy issues and the amount of time that had passed since this project took place (2013), this survey was unable to be circulated, thus excluding the possibility of including such data.

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