ABSTRACT

THESIS: Identifying and Comparing the Influence of Instagram on the Creativity and Design Process of Female Fashion Design Students in Saudi Arabia and in the United States.

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Social media has become a fundamental part in today’s society, often controlling our daily life. Social media is one of the major ways individuals stay in touch with their friends and family and new communities are discovered. Fashion design students can use social media, specifically Instagram, to find new designs and to learn from popular designers.

The major purpose of this research study was to identify and compare the influence Instagram has on the creativity and design process of university fashion design students in Saudi Arabia as well as in the United States. This research examined the impact of the social media/Instagram with respect to the use in Saudi Arabia as well as in the United States. The effect of social media examined from the differences of adoption between the countries and how fashion design students from each country use Instagram in their design process.

Results from a survey indicated that Saudi Arabia fashion design students were more active on social media than fashion design students in the United States. The motivation for using Instagram was to increase knowledge about the design process and to communicate with designers. Therefore, allows a significant opportunity for fashion design students innovation. Fashion design students perceived their creativity and design process was influenced by their use
of Instagram. There was a significant difference of the influence of Instagram on the perceived creative ideas and design process between fashion design students in Saudi Arabia and in the United States.
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CHAPTER 1

INTRODUCTION

Social media has become an important part in our daily lives (Mizobe, 2014). Social media is one of the major ways we stay in touch with our friends and family, and how we discover new communities (Kaplan & Haenlein, 2010). Social media, which is accessed through online websites enable users to communicate with others and to exchange information. Social media also plays a role in areas outside the home such as in education and business (Menezes, 2013; Al-Khalifa & Garcia, 2013; O'Keeffe & Clarke, 2011). Instagram is a social media application that provides a platform for communication involving photographs, pictures, and messages. Instagram has been a frontrunner of the most popular social media platforms (Bergstrom & Backman, 2013) and is a tool which can help people to find others with the same interests or in similar fields with the use of hashtags (Huey & Yazdanifard, 2014).

Fashion design students can use social media to learn design processes, to discover new techniques, and to observe other’s ideas and products by following designers on various social media sites such as Instagram (Lawson, 2005). Design students collect imagery from this platform to stimulate ideas from other designers' work and to improve their own (Strickfadem, Stafiniak, & Terzin, 2015). A creative design seen on social media may provide inspiration to
others and lead students to come up with their own creative ideas during the design process (Runco, 2004).

Overall, social media is a popular way to deepen education among university students by allowing them to learn in an interactive and engaging manner. Social media can enhance the learning abilities of students by allowing them to exchange ideas and experiences with others in educational ways (Al-Khalifa & Garcia, 2013). The revolution of social media is reflected in the fashion design industry. Social media has impacted the fashion industry through the increase of people communicating their likes and dislikes (McMarthy, 2013). Designers share photos of their products because they understand the impact that social media has on their creations and their career. Likes and dislikes of fashion on social media by consumers have a major influence on which designs are accepted and which are not. No other venue can convey those attitudes and opinions faster than social media. Social media platforms can have a strong and positive impact on the fashion industry because they offer information and great deals about brands to attract consumers (Mohr, 2013).

Social media has shown steady growth in the number of users in the United States and Saudi Arabia. In both countries, people have a desire to being connected to others and sharing bits of their lives with family and friends. For example, an article can be shared in one language and with the click of a button the language can be translated. It is much easier to cross borders and find common interests when it is done through social media. Although the United States has more of the population using social media, there has been a significant and continuous growth of social media users in Saudi Arabia.

However, little is known about the impact of social media on the creativity and design process of fashion design students in Saudi Arabia and in the United States. Fashion design in
Saudi Arabia is only available for females, but not appropriate and acceptable for males. Saudi Arabia is based on traditional gender roles and culture, as a result, Saudi woman cannot wear their dresses and clothes in as many places outside of the home without an Abaya while the culture of United States of America gives women the freedom to wear any kind of clothes. In the United States both genders can study this major. The United States has a higher use of social media in the population and in the fashion industry than Saudi Arabia.

Problem

Rideout, Foehr, & Roberts (2010) stated that social media is one of the most powerful forces in young people’s lives. Its use has been increasing tremendously in the past five years among younger generations (Rideout, Foehr, & Roberts, 2010). An excellent resource for high-speed access to information, Instagram, in particular, has skyrocketed in use (Workman, 2015). It is not known, however, what influence social media has on the creativity of fashion design students. Identifying the depth and breadth of the impact of Instagram on the creativity and design process of fashion design students through their Instagram accounts might provide improvements into future fashion.

Purpose

The purpose of this study was to identify and compare the influence Instagram has on the creativity and design process of university female fashion design students in Saudi Arabia and in the United States. This study focused on university students because they are high social media users and design students are highly interested by seeking information about designers and creative ideas to produce their own creative designs.
Research Questions

Q1A: Does following fashion designers on Instagram have an impact on current university female fashion design students' perception of their creativity?

Q1B: Does following fashion designers on Instagram have an impact on current university female fashion design students' perception of their design process?

Q2A: Is there a difference in the influence of Instagram on the perceived creativity ideas between female fashion design students in Saudi Arabia and in the United States?

Q2B: Is there a difference in the influence of Instagram on the design process between female fashion design students in Saudi Arabia and in the United States?

Q3A: Does the use of social media platform give female fashion design students in Saudi Arabia and in the United States opportunities to communicate with designers?

Q3B: Does the use of social media platform help female fashion design students in Saudi Arabia and in the United States increase their knowledge and improve creative skills?

Hypotheses

H1A: Following fashion designers on Instagram has a significant impact on current university female fashion design students' perception of their creativity.

H1B: Following fashion designers on Instagram has a significant impact on current university female fashion design students' perception of their design process.

H2A: Instagram has a stronger influence on the perceived creativity ideas of female fashion design students in Saudi Arabia than ones in the United States.

H2B: Instagram has a stronger influence on design process on female fashion design students in Saudi Arabia than ones in the United States.
H3A: Using social media platforms gives female fashion design students in Saudi Arabia and in the United States opportunities to communicate with designers

H3B: Using social media platforms help female fashion design students in Saudi Arabia and in the United States increase their knowledge and improve their design skills.

Rationale

This study was important to current fashion students and those hoping to enter the fashion industry to understand the power a communication tool like Instagram can have. The use of Instagram among designers and fashion design students is a growing phenomenon. Instagram may be able to successfully impact the design process and reach design students in inspiring ways. By understanding the connection between creative ideas and the social media tool Instagram, designers new and old can reach new heights.

Assumptions

The researcher makes the following assumptions in the implementation of the study and in the interpretation of the data:

1. The survey instrument is able to adequately capture the relationship between creativity and use of Instagram.

2. Participants would express honest opinions regarding their use of social media in the design process.

Definitions

The terms listed below are presented to the reader to assist in comprehension of the study in its entirety.
1. **Instagram** -- an application which people use to share photos and videos with friends and followers (Bergstrom & Backman, 2013).

2. **Creativity** -- defined as the ability to use your imagination to produce unique ideas or artifacts that are new, surprising, and valuable (Boden, 2007).

3. **Design Process** -- a sequence of events that requires creative behavior and leads to the construction and creation of a product (Mckelvey & Munslow, 2011).

4. **Fashion** -- a form that demonstrates aesthetic, symbolism, and an expression of a person’s taste (Armstrong & LeHew, 2011).

**Summary**

Social media, specifically Instagram, has made an immense impact on fashion design students. Moreover, Instagram can be used as a tool to develop and enhance learning for apparel design students as they follow designers, brands, and companies, to become inspired and start creating their own ideas. The impact of social media on the creativity and design process of fashion design students of the United States and Saudi Arabia students varies by the amount of time using social media, inspiration into fashion programs from brands and designers on social media, and culture. The revolution of social media may be reflected in the impact on fashion design students' creativity and design processes.
Chapter 2

Review of Literature

The purpose of this study is to identify and compare the influence of Instagram on the creativity and design process of university female fashion design students in Saudi Arabia and in the United States. This chapter will present a review of the literature that describes: 1) social media and Instagram; 2) creativity and design process; 3) fashion design students; 4) fashion design programs in Saudi Arabia compared to the United States; and 5) use of social media and Instagram in Saudi Arabia compared to the United States.

Social Media and Instagram

Social media includes websites and other online means of communication that are used by large groups of people to share information and to develop social and professional contacts (Hughes & Palen, 2009). Social networking sites enable users of social media the chance to present themselves, connect with communities by providing the appropriate channels, and interact with others (Kaplan & Haenlein, 2010). In addition, users can exchange information, and share or receive content such as photos and videos (Kietzmann, Hermkens, & Mcmarthy, 2011). Kaplan & Haenlein (2010) stated that social media applications are developing rapidly and often
have many people using them. Social media sites attract the attention of millions of people (Boyd & Ellison, 2007).

Instagram is an application that people use to share photos and videos with family, friends, and followers. Individuals who have an active Instagram account can follow other users and write comments on their photos (Bergstrom & Backman, 2013). An American company, Instagram was launched in October 2010. Kevin Systrom and Mike Krieger (Instagram.com) designated this application “Instagram,” combining the words “instant” and “telegram.” They estimated at its infancy that Instagram was the beginning of something big. After the first couple months, users from all over the world had discovered Instagram for communicating visually with others, and the number of users has since increased to millions. By 2011, Instagram had grown to over 5 million users (Siegler, 2011). According to Systrom (2013), Instagram had become a tool to inspire, educate, and connect people. The 2016 Premium Stat Reports (DMR Instagram Statistics Report, 2016) stated that the Instagram platform was up to 400 million monthly active users, and the number of daily Instagram users was more than 75 million. From the Instagram platform, users can take, edit, filter, and share photos (Instagram.com).

Ante (2012) stated that Instagram has become a popular application because many celebrities, politicians, and clothing brands have created accounts. Using Instagram is an opportunity to promote whatever brand is at hand and makes the product/persons/message more accessible. Brand owners in the fashion industry, for example, have considered the role of Instagram extensively, noting that the platform allows people to become aware of the newest sensations in fashion (Beese, 2015). There are many brands that combine online activities every year to reach and connect with domestic and international people as well as new audiences through social media (Mizobe, 2014). Some studies have shown that social media is the most
important and effective tool in fashion because brands and companies use it to display their products, reach consumers, and give new designers attention (Mizobe, 2014; Bergstrom & Backman, 2013).

There are several reasons that make Instagram a powerful and engaging channel for the fashion industry: people can see who the brand owners are, a connection is made between designers and customers, and brand decision makers can answer consumer’s questions (Mizobe, 2014). With this, Instagram offers immediate feedback to clothing designers and increases the engagement a brand has with their marketing. The platform can be an effective and primary way for designers’ e-commerce business to show products (Lazazzera, 2015). Companies use different social media sites to observe sale rates, cost comparisons between brands, and if a product is expanding (Menezes, 2013). For this reason, social media and Instagram are a major part of fashion (Harris & Rae, 2009).

**Creativity and Design Process**

Creativity is defined as the ability to use your imagination to produce new ideas or artifacts that are new, surprising, and valuable (Boden, 2007). Creativity leads to evolution and innovation and can be used as a productive and positive reaction to the difficulties and evolutionary changes in life (Runco, 2004). Inspiration is the process of being mentally stimulated to do or feel something, especially to do something creative (Oxford English Dictionary.com). Strickfaden, Stricfaden, & Terzin (2015) noted that inspiration can lead to creativity.

The design process is a sequence of events that requires creative behavior and leads to the construction and creation of a product (Mckelvey & Munslow, 2011; and Rosner, 2014). Stages
of the design process include acceptance, analyze, definition, ideation, selection, implementation, and evaluation (Rosner, 2014; Koberg & Bagnall, 1974; Aspelund, 2006). The acceptance stage is the initial stage of design where an individual comes to terms with a design problem and commits themselves creatively to making sense of a need, to come up with an idea. The analyze stage occurs when data is collected and the designer can see what needs to be done more clearly. It is the process of analyzing and examining information gathered in order to have clear ideas about their designs (Koberg & Bagnall, 1974). For example, a fashion designer’s analyses of the many possibilities to identify the important elements that help them to have clear ideas before sketches or designs are found. The definition is the stage where designers must define the functionality of their ideas, to determine what it is to be used for and to know its boundaries for use. The ideation stage is when the creative process propels the designer forward, and the abstract idea becomes more tangible. The selection stage occurs when the designer makes decisions about how to proceed with the design. This is where logic and creativity meet. For example, a designer selects careful choices and ideas to make decisions and creates a new design. Implementation begins when the vision and ideas created during the process result in an actual finished prototype of the design. Evaluation is the final stage where goal criteria need to be assessed. Designers look at the design to evaluate three components specifically: aesthetic, function, and expressiveness.

Designers obtain creativity and inspiration from one or several sources: images, design environments, personal experiences, exhibitions, or previous design work. Sources of inspiration, for example, play a major role in the creative process of textile and apparel design (Mete, 2006). Materials such as types of fabric and tools used from previous design work or Internet searches can develop into design projects through collected imagery (Strickfadem, Stafiniak, & Terzin,
Designers can use inspiration as a tool to reinforce the design process (Aspelund, 2006). They can be inspired to find solutions and solve problems from experience, knowledge, imagination and creativity (Wylant, 2008).

Mete (2006) professed that designers are required to explore new sources of inspiration to produce creative ideas and solve a problem. Creativity in fashion design is critical for fashion students because designers use imagination and creative thinking during the process of sketching garments to come up with creative ideas. (Tsai, Alexander, & Alexander, 2013). According to Tsai et al. (2013), as the fashion industry changes, students can gain creative skills especially when the fashion design schools encourage creativity development.

Amabile (2012) defined creativity in his Componential Theory as solving a task or problem, creating an appropriate response, and producing something novel. The creative design seems to improve the process of taking new ideas and finding solutions for old problems (Dorst & Cross, 2001). The Componential Theory states that there are three factors that contribute to creativity: skills, creativity process, and task motivation (Amabile, 2012). Moreover, in the theory of Creative Design, the construct “surprise” has a role in the creative design process. This element of surprise is seen as novel and unique and is quite different from what has been experienced before (Schön, 1983). Jennings (2011) stated that creativity is the major part in fashion design because it is considered as the backbone of design. The criterion in fashion design is creativity, and designers recreate garments to express their creativity (Hethorn & Ulasewicz, 2008). To be creative in fashion design, the world should be explored to get inspiration (Aspelund, 2006).

**Fashion Design Students**
Fashion design students must be familiar with all aspects of fashion and design in order to be successful. Fashion reflects the cultural, artistic, and social aspects of modern culture (Frings, 2008; and Armstrong & LeHew, 2011). Fashion is a tool for self-expression and can create social acceptance (Fortunati, 2005; and McCarthy, 2013). According to Robinson (2011), the fashion industry includes the manufacture, wholesale and retail sale, of fibers, fabrics, and apparel. Textile product is deemed desirable by fashion magazines and marketing (Frings, 2008). According to Workman (2015), communication on social media sites like Instagram offer information and images related to fashionable styles to influence people.

Exploratory, transition, and resolution are the tools of practicing fashion design (Rosner, 2014). According to a survey by Hodges and Karpova (2009), family influence, a history of fashion, and a lifetime of making clothes are main reasons students enroll in fashion programs. Additionally, students are interested in having the ability to make creative clothes and want to make money. For many students, social media is their gateway into this world and their vehicle all the way through. According to Crews et. al. (2015), social media influences female college students because they use it to gather information about fashion and interact with fashion brands.

Fashion design programs in Saudi Arabia compared to the United States.

Almunajjed (2010) stated that there had been a recent interest in Saudi Arabia to develop home economics programs which include apparel and textiles, food and nutrition, and housing and home management among others. Apparel design and textile science are two areas that provide opportunities for fashion design students to find jobs and open their own business (Almunajjed, 2010). Fashion design in Saudi Arabia is available for females only. Males do not study any major relating to fashion and home economics (Alzahrani, 2015). Based on the
traditional life and gender roles, females tend to be interested in fashion while it is seen as inappropriate and unacceptable for males to study any major relating to home economics except art. As a result, universities in Saudi Arabia offer different majors in art, architecture, and design for males.

Saudi women are particularly interested in fashion since inside home, and when they meet with other women or with family, they may wear or dress in modern styles. However, outside the home and in public places women must wear a black outer cloak which covers the whole body called an ‘Abaya’ with a black scarf that is wrapped around the head (Le Renard, 2008) (Figure 1). Reem Al Kanhal is known as the most aspiring Saudi fashion designer in recent years. One example of her creativity was to smash the windows of her mansion for the purpose of using the broken glass in her design. She sewed the glass pieces into the bodice of an evening gown. Her design was created for the country's first fashion school. (Hack, 2012).

The advancements in the fashion industry of Saudi Arabia have been attributed to Princess Adwa bint Yazid bin Abdullah, the niece of King Abdullah. By 2007, Princess Abdullah opened the new Arts and Skills Institute in order to offer women of Saudi Arabia the opportunity to pursue a degree in fashion and the arts (Hack, 2012). According to Hack (2012), the ability for women to pursue a degree in fashion illustrates that there have been effective on-going accomplishments being carried out in the fashion design industry of Saudi Arabia.

The United States has over a million fashion professionals and the fashion industry is growing rapidly. Typically, fashion schools and higher education programs in the U.S. include: art and design technology, visual merchandising, retail management, and others. (Fashion-Schools.org). In American culture, unlike Saudi Arabia, women are not restricted as to what they can wear outside of the home and in public (Ferdman, 2015).
The Joint Economic Committee of the United States Congress in 2015 stated that the fashion industry in the United States is a major center of attraction. It has been able to gain major recognition because of the culture and jobs opportunities. The research reports that “Fashion is a $1.2 trillion global industry, with more than $250 billion spent annually on fashion in the United States” (Committee, 2015, p.1). The research report showed that the fashion industry has employed 1.9 million people in the United States and has had a positive impact on the regional economies across the entire country (Committee, 2015).

Use of Social Media and Instagram in Saudi Arabia compared to the United States.

While North America has the most users in social media, Saudi Arabia is very connected and statistics show that the numbers of users are becoming increasingly higher (Statista.com, 2015; Makki & Chang, 2015). In 2015, 35 percent of people in Saudi Arabia were active users of social media (Statista.com, 2015). According to a recent study (Arabnews.com, 2016), people in Saudi Arabia are very involved in social media. They have an average of six to ten mobile applications on their phones and use social media as much as five hours daily. The study showed that young people age 18-35 spend two to six hours a day on social media, and older people aged 36-55 spend 30 minutes to two hours a day on social media. The study revealed that 44 percent of the people liked social media because it provides useful information about brands and products. Information is now communicated in this way much more often than traditional methods of getting information about new products. Many people are proving that social media has become an important part of their lives because they are gradually moving away from past forms of communicating (Arabnews.com, 2016).
In contrast, Statista.com (2016) reported that 78 percent of the United States population used social media. According to Egan (2015), Instagram is the fifth most popular application in Saudi Arabia, while it is the eighth most popular app in the United States. According to Greenwood et.al. (2016), the majority of Americans is consistently using social media with 56 percent of adults actively engaged in a variety of social media platforms. American adults use an average of one to more than five social media platforms which include: Facebook, Instagram, LinkedIn, Twitter, and Pinterest per day. The study examined the frequency of engagement per day and revealed that the social media sites are used multiple times during a day. The study showed that 41 percent of Americans use social media to get news, 43 percent keep in touch with friends, and 39 percent fill their free time (Mansfield, 2016).

Summary

Social media platforms like Instagram are effective tools in the fashion industry because designers and consumers use them to engage in fashion-related activities. As a result, the immediate access to images of fashion provides inspiration to up-and-coming fashion design students and can lead to creativity. Social media and fashion have a relationship, they influence one another. Fashion design students have become aware of the opportunities and benefits of designs displayed through social media platforms such as Instagram to get feedback or reactions to their ideas. Ideas or pictures about a design can reach people more quickly on social media platforms. It is faster to post a picture on social media and reach not only a multitude of friends but also unknown as people share. There is a relationship between fashion design and social media. The social media will help the creation spread and provide feedback about the design. This may lead to an increased motivation to enhance creative process and a way to engage with
the industry. Moreover, since fashion design is a large interest area for Saudi Arabian women, they are very likely to use social media to share images and designs. In the United States, both men and women are likely to share images and information about fashion.
CHAPTER 3

METHODOLOGY

The purpose of this study was to identify and compare the influence of Instagram on the creativity and design process of university female fashion design students in Saudi Arabia and the United States. This chapter describes the methods used to conduct the study.

Institutional Review Board

Permission was requested from Ball State University Institutional Review Board (IRB) prior to implementing this study. After the proposal was review, the IRB at Ball State University granted this study an exempt status. The researcher conducting this analysis completed the Collaborative Institutional Training Initiative training (Appendix A).

Participants

The population for this study included female fashion design students at Ball State University, a midsize public university in the Midwest United States; female fashion design students at Jazan University, a public research university in Jazan, Saudi Arabia; and female fashion design students at Tabuk University, a public university in Tabuk, Saudi Arabia. This study included only females because no Saudi males are enrolled in fashion design programs. In order to have the groups consistent in size, the sample size of participants for this study consisted
of approximately 38 female fashion design students in Saudi Arabia and 38 female fashion design students from the United States.

**Instrument**

A survey (Appendix B) was used to assess how university female fashion design students view Instagram as having an influence on their creativity and fashion design process. The anonymous online survey was given using the Qualtrics platform. The survey was translated into Arabic by an expert in both Arabic and English languages. Content validity to ensure clarity and understanding of the questions were established by conducting two focus groups of five to ten people each, one for the English survey and one for the Arabic survey.

Next, a pilot test of the survey instrument was completed to establish reliability. Two groups of 10-20 people, one in English and one in Arabic who were not part of the study population completed the survey. The reliability of the survey was confirmed using Cronbach's alpha, and the criteria used to ensure the responses obtained were reliable with the alpha value scores of 0.7 or higher. The survey was revised as needed for clarity.

For this study, participants used a 5-point Likert Scale to rank the level of agreement to how Instagram is important in assisting a fashion design student in creativity and the overall design process of fashion projects, with the choices ranging from 1 being strongly disagree and 5 being strongly agree.

**Consent and Permission**

The permission to contact the female fashion design students at the Ball State University in the United States was given by Dr. Amy Harden, the faculty member (Appendix C-1). The
permission to contact the female fashion design students at Jazan University in Saudi Arabia was granted by Dr. Fadia Hesham, the faculty member (Appendix C-2) and the permission to contact the female fashion design students at Tabuk University was received from Dr. Hanan Alshkar, the faculty member. Consent to participate in the study was required from each participant prior to initiating the online survey (Appendix C-3).

**Methods**

An email invitation to participate in this study, with the Qualtrics link to the appropriate (English or Arabic) anonymous survey embedded into the message, was sent to female fashion design students at Ball State University in the United States, Jazan University, and Tabuk University in Saudi Arabia (Appendix D-1). A reminder email was sent one week after the first invitation e-mail to remind participants to complete the survey (Appendix D-2). A second reminder was sent the following week or two weeks after the initial request (Appendix D-3).

**Data Analysis**

Data from the surveys were downloaded and analyzed using SPSS v.23 for Windows (SPSS, 2016). Descriptive statistics and frequency counts were run on all variables. Frequency counts (number and percent) were used to determine the overall prevalence of specific survey questions. A chi-square test was used to determine any differences in the use of social media by fashion design students in the United States and Saudi Arabia. Statistical significance was set at p ≤ 0.05. Independent samples t-test was used to determine differences between two groups, namely the United States and Saudi Arabia. In addition, factor analysis was used for prior to hypothesis testing for further assessment at the latter stage of the analysis.
Summary

The anonymous online survey provided information about the use of Instagram on the creativity and design process of university female fashion design students in Saudi Arabia and in the United States. Data from the survey instruments were analyzed to determine the differences between the United States and Saudi Arabia university female fashion design students in their use and perceived influence of Instagram at creativity, technique, and design process.
CHAPTER 4

RESULTS

The purpose of this study was to identify and compare the influence of Instagram on the creativity and design process of university female fashion design students in Saudi Arabia and in the United States. Results of the study are presented in this chapter.

Participants

The sample for this study (n= 103) included female fashion design students from Ball State University (n= 35) in the United States and female fashion design students from Jazan University and Tabuk University (n= 68) in Saudi Arabia. The majority of the participants were age 25 years old or older (30.1%) and the next largest group was 21-year-old (19.4%), then the 20-year-old (13.6%). Between the United States and the Saudi Arabia groups, the age distribution is similar. The largest age group in the Unites States sample was the age of 25 or older group (42.9%), which is also the largest group within the Saudi Arabia samples (23.5%). The age distribution and comparison based on country are listed in Table 1.
Table 1: The Age Distribution

<table>
<thead>
<tr>
<th>Age</th>
<th>Total N (Percent of the Total)</th>
<th>United States n (Percent of the Total)</th>
<th>Saudi Arabia n (Percent of the Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>6 (5.8%)</td>
<td>1 (2.9%)</td>
<td>5 (7.4%)</td>
</tr>
<tr>
<td>20</td>
<td>15 (14.6%)</td>
<td>5 (14.3%)</td>
<td>10 (14.7%)</td>
</tr>
<tr>
<td>21</td>
<td>20 (19.4%)</td>
<td>6 (17.1%)</td>
<td>14 (20.6%)</td>
</tr>
<tr>
<td>22</td>
<td>17 (16.5%)</td>
<td>4 (11.4%)</td>
<td>13 (19.1%)</td>
</tr>
<tr>
<td>23</td>
<td>7 (6.8%)</td>
<td>2 (5.7%)</td>
<td>5 (7.4%)</td>
</tr>
<tr>
<td>24</td>
<td>7 (6.8%)</td>
<td>2 (5.7%)</td>
<td>5 (7.4%)</td>
</tr>
<tr>
<td>25 or higher</td>
<td>31 (30.1)</td>
<td>15 (42.9%)</td>
<td>16 (23.5%)</td>
</tr>
<tr>
<td>Total</td>
<td>103 (100%)</td>
<td>35 (100%)</td>
<td>68 (100%)</td>
</tr>
</tbody>
</table>

In terms of their usage of social media platforms, participants indicated that Snapchat was the most commonly used social media overall (41.7%), followed by Instagram (34%), Twitter (17.5%), and Facebook (9.7%) (see Table 2). However, the assessment of usage difference between the United States and the Saudi Arabia groups revealed that the social media platform used the most among the participants in the U.S. group was Snapchat (37.1%), followed by Instagram (28.6%). This trend of usage was similar in the Saudi Arabia group with the prominence of Snapchat (44.1%) followed by Instagram (36.8%). The total number of usage was larger (102.9%) because participants from Saudi Arabia chose two or more social media platforms as most used, compared to the participants from the United States.

Table 2: Percentage of Social Media Most Used

<table>
<thead>
<tr>
<th>Most Used</th>
<th>Total N (Percent)</th>
<th>United States n (Percent)</th>
<th>Saudi Arabia n (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
<td>10 (9.7%)</td>
<td>8 (22.9%)</td>
<td>2 (2.9%)</td>
</tr>
<tr>
<td>Instagram</td>
<td>35 (34%)</td>
<td>10 (28.6%)</td>
<td>25 (36.8%)</td>
</tr>
<tr>
<td>Twitter</td>
<td>18 (17.5%)</td>
<td>4 (11.4%)</td>
<td>14 (20.6%)</td>
</tr>
<tr>
<td>Snapchat</td>
<td>43 (41.7%)</td>
<td>13 (37.1%)</td>
<td>30 (44.1%)</td>
</tr>
<tr>
<td>Total</td>
<td>106 (102.9%)</td>
<td>35 (100%)</td>
<td>71 (104.4%)</td>
</tr>
</tbody>
</table>
Participants were asked to indicate how often they used each social media normally. When comparing the common usage of social media, mean scores were calculated based on the ranking of social media most used. The lower score indicates that such social media platform was used more commonly by participants. The results suggest that Instagram had a higher average usage among participants overall (m= 2.00), followed by Snapchat (m= 2.05), Twitter (m= 2.53), and Facebook (m= 2.84).

Between the United States and the Saudi Arabia samples, the usage pattern was the same with Instagram (m_{US}= 2.23, m_{SA}= 1.88, t= -1.460, p=.30) and Snapchat (m_{US}= 2.26, m_{SA}= 1.94, t= 1.288, p=.67). Yet, the U.S. participants reported using Facebook more often (m_{US}= 2.46, m_{SA}= 3.04, t= -2.093, p=.38). The only significant difference between the countries was in the use of Twitter with the Saudi Arabia participants reporting a greater use than those in the United States (m_{US}= 3.06, m_{SA}= 2.26, t= 3.566, p<0.05). The social media usage by participants is listed in Table 3.

### Table 3: The Social Media Usage

<table>
<thead>
<tr>
<th>Usage Score</th>
<th>Total Mean</th>
<th>United States Mean</th>
<th>Saudi Arabia Mean</th>
<th>t Value</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
<td>2.84</td>
<td>2.46</td>
<td>3.04</td>
<td>-2.093</td>
<td>.383</td>
</tr>
<tr>
<td>Instagram</td>
<td>2.00</td>
<td>2.23</td>
<td>1.88</td>
<td>1.460</td>
<td>.309</td>
</tr>
<tr>
<td>Twitter</td>
<td>2.53</td>
<td>3.06</td>
<td>2.26</td>
<td>3.566</td>
<td>.039*</td>
</tr>
<tr>
<td>Snapchat</td>
<td>2.05</td>
<td>2.26</td>
<td>1.94</td>
<td>1.288</td>
<td>.679</td>
</tr>
</tbody>
</table>

Note: * p<0.05

### Reliability Test

Reliability reflects the internal consistency of the items used in the study to measure interested constructs, the extent to which the items correlate well with one another and produces stable results. Cronbach’s alpha ranges from 0 to 1 and the results suggest how internally consistent a group of items is. In other words,
Cronbach’s alpha tells the extent to which a group of items measures the same thing. The scale will be deemed reliable when the Cronbach’s alpha is 0.7 or higher for the exploratory purpose of this study (Tavakol & Dennick, 2011).

This study used a three-item measurement to measure participants’ information seeking behavior through social media with a five-point Likert Scale, with 1 being ‘not at all’ and 5 as ‘more than 6 hours’. The results indicate that this set of items were deemed reliable (α= .767). The study incorporated an addition item assessing participants’ posting behavior on social media platforms with a four-point Likert Scale (1= never and 4= 5 or more per week) (α= .723). The study measured the agreement of social media usage (1= strongly disagree and 5= strongly agree) (α= .952). The study implemented a set of four items assessing fashion design students’ attribution of importance regarding social media in the creativity and design process (1= strongly disagree and 5= strongly agree) (α= .971). All these scales were deemed reliable because Cronbach's alpha coefficients are all above .7. The study also assessed the purpose of using social media programs by participants (1= not at all important and 5= very important) (α= .575). Although this set of measurement did not reach the acceptable level of reliability as described before, for the exploratory purpose of this study of using social media programs by participants, the data is included for further analysis and the interpretation was made with cautiousness.

After the reliability of measurement was assessed, a series of factor analyses were conducted and seven factors were extracted. These factors included “Demonstration” (Q8_1, 2, and 10 indicating the level of agreement of using social media: to share images about designs projects, to keep informed about fashion, and to showcase style and fashion design), “Inspiration” (Q8_3 ~ 9 indicating the level of agreement of using social media about: builds bridges of communication between
designers and fashion design students, belief that social media contributes to discovering creative ideas, developing design abilities by providing ideas, encouraging students to create new designs, getting inspiration from other designers' products, developing design abilities by informing people of new products, and interacting with various fashion brands), “Solution Seeking” (Q9_1 ~ 3 indicating the importance of belief about social media in identifying potential apparel problems, challenging to come up with new ideas, and seeking solutions), “External Influence” (Q9_4 ~ 6 indicating the importance of belief that social media is in assisting fashion design student: to communication with other designers to develop new ideas, analyzing information gathered from other designers before develop sketches, and during creation of sketches), “Idea Generation” (Q10_1 ~ 6 indicating the importance of belief that social media is in assisting fashion design student: defining main ideas, selecting which technique to use, providing references from other designers regarding their problems and solutions, finding clear ideas, selecting creatively ideas to make decisions, and filtering ideas to make decisions), “Implementation” (Q11_1 & 2 indicating the importance of belief that social media is in assisting fashion design student: implementing designs during the idea develops and during the garment construction), and “Execution” (Q11_3 ~ 5 indicating the importance of belief that social media is in assisting fashion design student in: evaluating the aesthetic components of design products, the function component, and the expressive component of design products). Both the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy (KMO>0.6) and Bartlett’s test of sphericity were adequate (p<.01), and each variable within each factor has a factor loading above 0.6. This result has met the requirement that the data set is fit for factor analysis and the extracted factors are appropriate for further analysis (Hair et al., 2004).
Analysis of Research Questions

Instagram is an online photo-sharing, video-sharing, and social networking service that enables its users to take pictures and videos, and share them either publicly or privately on the mobile app. It also allows users to connect through a variety of other social networking platforms, such as Facebook, Twitter, Tumblr, and Flickr. The present research is intended to assess the motivations behind using Instagram and its divergent impacts on students having fashion design as their major.

The first part of the research question one (RQ1a) examined whether or not following fashion designers on Instagram has an impact on current university fashion design students’ perception of their creativity. The mean score of the factor “Inspiration” was higher than the arithmetic median ($m=28.9$) ($\text{Max}=35$, $\text{min}=7$). The higher mean value indicates that the current university students’ creativity is highly motivated by the Instagram posts showcased by fashion designers. Each individual variable was measured using a five-point Likert Scale ($1=\text{Strongly Disagree}$ and $5=\text{Strongly Agree}$) within the factor “Inspiration”. The participants strongly believed that the social media builds bridges of communication between designers and students ($m=4.01$). Also, most of the participants strongly agreed that social media contributes to discovering creative ideas ($m=4.33$). The participants firmly believed the following: social media contribute to developing design abilities by providing new ideas of fashion ($m=4.24$), social media contribute to encouraging fashion design students to create new designs ($m=4.20$), social media contribute to getting inspiration from other designers ($m=4.18$), and social media contribute to developing design abilities by information ($m=4.12$). All variables within the “Inspiration” factor (Table 4) indicated that Instagram highly motivated the fashion
design students in their creativity. Finally, the participants also agree with the effect of interacting with various brands using the Instagram (m= 3.84). Therefore, the findings supported that social media indeed inspire fashion design students in terms of their creativity.

Table 4: Factor Inspiration

<table>
<thead>
<tr>
<th>Inspiration</th>
<th>Totals Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q8_3 - I think social media builds bridges of communication between designers and fashion design students.</td>
<td>28.93</td>
</tr>
<tr>
<td>Q8_4 - I believe social media contributes to discovering creative ideas.</td>
<td>4.33</td>
</tr>
<tr>
<td>Q8_5 - I believe social media contributes to developing design abilities by providing ideas for creativity.</td>
<td>4.24</td>
</tr>
<tr>
<td>Q8_6 - I believe social media contributes to encouraging me to create new designs.</td>
<td>4.20</td>
</tr>
<tr>
<td>Q8_7 - I believe social media contributes to get inspiration from other designers' products.</td>
<td>4.18</td>
</tr>
<tr>
<td>Q8_8 - I believe social media contributes to developing design abilities by informing people of new products.</td>
<td>4.12</td>
</tr>
<tr>
<td>Q8_9 - When I use social media I actively interact with various fashion brands that I like.</td>
<td>3.84</td>
</tr>
</tbody>
</table>

The second part of the research question one (RQ1b) investigated whether following fashion designers on Instagram ultimately affects the perceptions of the design process by the current university fashion design students. The first factor, named “Demonstration”, had a higher mean value than the arithmetic median (m= 11.4) (Max= 15, min= 3). This result indicates that the posts on Instagram by fashion designers have a great impact on the current university fashion students’ perception of their design process. To further understand the impact in a more specific way, this study also looked into the influences of the three variables within the “Demonstration” factor (Table 5), which used a five-point Likert Scale (1= Strongly
Disagree and 5=Strongly Agree) assessing the level of agreement by participants. The results suggest that participants agreed on the use of social media to share images about their design projects (m= 3.59), to keep themselves informed about fashion (m= 4.11), and to showcase their style and fashion design to others (m= 3.75).

Therefore, the high mean values of the two factors, namely “Inspiration” and “Demonstration”, as well as the individual variables within each factor, clearly signify the influence of Instagram on the university fashion student’s perception of the design process and creativity. The results suggest that Instagram is perceived by participants as affecting fashion design students’ perception about creativity and design process. Therefore, both hypothesis 1a and 1b were supported.

**Table 5: Factor Demonstration**

<table>
<thead>
<tr>
<th>Demonstration</th>
<th>Total Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q8_1 - I use social media to share images about my designs projects.</td>
<td>3.59</td>
</tr>
<tr>
<td>Q8_2 - I use social media to keep myself informed about fashion.</td>
<td>4.11</td>
</tr>
<tr>
<td>Q8_10 - I use social media to showcase my style and fashion design.</td>
<td>3.75</td>
</tr>
</tbody>
</table>

The first part of the research question two (RQ2a) explored whether or not the influence of Instagram on the perceived creativity ideas among the fashion design students varies by country. Similar to the previous procedure, the first factor examined was “Inspiration”. The Levene’s test of variance for the factor “Inspiration” indicates equal variance is assumed since the p-value (0.484) was greater than the level of significance (0.05). The results from independent samples t-tests suggest that there was a significant difference between the United States students and the Saudi Arabia students (m_{SA} = 30.00, m_{US} = 26.86, t = -2.010, p<0.05). The
Saudi Arabia students perceived that the Instagram had a stronger influence on their creativity than their U.S. counterparts.

When further examining individual variables within the factor (Table 6), the results suggest that there were some significant differences between both groups. For instance, participants from Saudi Arabia had a stronger agreement than United States participants that Instagram has higher impacts on building the bridges of communication between designers and the students ($m_{SA} = 4.19$, $m_{US} = 3.66$, $t = -2.037$, $p < 0.05$), encouraging new design ($m_{US} = 3.80$, $m_{SA} = 4.41$, $t = -2.572$, $p < 0.05$), and interacting with different brands ($m_{US} = 3.40$, $m_{SA} = 4.07$, $t = -2.518$, $p < 0.05$).

However, both United States and Saudi Arabia participants agreed that Instagram contributes to discovering creative ideas ($m_{US} = 3.97$, $m_{SA} = 4.38$, $t = -1.734$, $p = .66$), providing new ideas of fashion ($m_{US} = 3.97$, $m_{SA} = 4.38$, $t = -1.734$, $p = .08$), inspiring students by showing other designer’s fashions ($m_{US} = 3.91$, $m_{SA} = 4.32$, $t = -1.638$, $p = .10$), and developing design abilities by information ($m_{US} = 3.86$, $m_{SA} = 4.25$, $t = -1.555$, $p = .12$).

In general, there was a significant difference in terms of the influence of Instagram on the perceived creativity ideas between fashion design students in Saudi Arabia and in the United States. Therefore, hypothesis 2a was supported that there is a significant difference between the two groups.
### Table 6: Independent-samples T-tests Results on the Factor “Inspiration” and Included Variables.

<table>
<thead>
<tr>
<th>Question</th>
<th>Total Mean</th>
<th>United States Mean</th>
<th>Saudi Arabia Mean</th>
<th>t-value</th>
<th>p-value</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inspiration</strong></td>
<td>28.93</td>
<td>26.86</td>
<td>30.00</td>
<td>-2.010</td>
<td>0.047*</td>
<td>-3.142</td>
</tr>
<tr>
<td>Q8_3 - I think social media builds bridges of communication between designers and fashion design students.</td>
<td>4.01</td>
<td>3.66</td>
<td>4.19</td>
<td>-2.037</td>
<td>0.044*</td>
<td>-0.534</td>
</tr>
<tr>
<td>Q8_4 - I believe social media contributes to discovering creative ideas.</td>
<td>4.33</td>
<td>4.26</td>
<td>4.37</td>
<td>-0.435</td>
<td>0.664</td>
<td>-0.111</td>
</tr>
<tr>
<td>Q8_5 - I believe social media contributes to developing design abilities by providing ideas for creativity.</td>
<td>4.24</td>
<td>3.97</td>
<td>4.38</td>
<td>-1.734</td>
<td>0.086</td>
<td>-0.411</td>
</tr>
<tr>
<td>Q8_6 - I believe social media contributes to encouraging me to create new designs.</td>
<td>4.20</td>
<td>3.80</td>
<td>4.41</td>
<td>-2.572</td>
<td>0.012*</td>
<td>-0.612</td>
</tr>
<tr>
<td>Q8_7 - I believe social media contributes to get inspiration from other designers' products.</td>
<td>4.18</td>
<td>3.91</td>
<td>4.32</td>
<td>-1.638</td>
<td>0.104</td>
<td>-0.409</td>
</tr>
<tr>
<td>Q8_8 - I believe social media contributes to developing design abilities by informing people of new products.</td>
<td>4.12</td>
<td>3.86</td>
<td>4.25</td>
<td>-1.555</td>
<td>0.123</td>
<td>-0.393</td>
</tr>
<tr>
<td>Q8_9 - When I use social media I actively interact with various fashion brands that I like.</td>
<td>3.84</td>
<td>3.40</td>
<td>4.07</td>
<td>-2.518</td>
<td>0.013*</td>
<td>-0.674</td>
</tr>
</tbody>
</table>

Note: ** p<0.01 * p<0.05

The second part of the research question two (RQ2b) examined whether or not the influence of Instagram on the perceived design process ideas among the fashion design students in Saudi Arabia and in the United States. Similar to the previous
procedure, the second factor examined was “Demonstration”. The Levene’s test of variance for the factor “Demonstration” indicated that the equality of variance is assumed since the p-value (0.412) is greater than the level of significance (0.05).

Independent sample t-tests suggest that there was a significant difference between the United States students and the Saudi Arabia students (msa= 12.14, mus= 10.08, t= -3.131, p<.05). The Saudi Arabia students recognized that Instagram has a stronger impact on their design process than United States students. The results from examining individual variables within the factor suggest that there were some significant differences between both groups (Table 7). The participants from Saudi Arabia had a stronger agreement than United States participants that Instagram has a stronger impact on sharing images about their design projects (msa= 3.87, mus= 3.06 t= -3.060, p<0.5), informing about fashion (msa= 4.29, mus= 3.74 t= -2.347, p<0.5), and showcasing style and fashion design (msa= 3.99, mus= 3.29 t= -2.688, p<0.5).

Therefore, there was a significant difference in the influence of Instagram on the design process between female fashion design students in Saudi Arabia and in the United States. Hypothesis 2b was supported that there is a significant difference between the two groups.

Table 7: Independent-samples T-tests Results on the Factor “Demonstration” and Included Variables.

<table>
<thead>
<tr>
<th></th>
<th>Total Mean</th>
<th>United States Mean</th>
<th>Saudi Arabia Mean</th>
<th>t-value</th>
<th>p-value</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstration</td>
<td>11.4</td>
<td>10.08</td>
<td>12.14</td>
<td>-3.131</td>
<td>0.002**</td>
<td>-2.061</td>
</tr>
<tr>
<td>Q8_1 - I use social media to share images about my designs projects.</td>
<td>3.59</td>
<td>3.06</td>
<td>3.87</td>
<td>-3.060</td>
<td>0.003**</td>
<td>-0.811</td>
</tr>
<tr>
<td>Q8_2 - I use social media to keep myself informed about fashion.</td>
<td>4.11</td>
<td>3.74</td>
<td>4.29</td>
<td>-2.347</td>
<td>0.021*</td>
<td>-0.551</td>
</tr>
<tr>
<td>Q8_10 - I use social media to showcase my style and fashion design.</td>
<td>3.75</td>
<td>3.29</td>
<td>3.99</td>
<td>-2.688</td>
<td>0.008*</td>
<td>-0.700</td>
</tr>
</tbody>
</table>

Note: ** p<0.01 * p<0.05

The research question three (RQ3a & RQ3b) investigated whether or not the use of the social media platform gives fashion design students in Saudi Arabia and in the United States opportunities to communicate with designers and help them to increase their knowledge and improve skills respectively. The mean score of the factors were higher than the arithmetic median: “Solution Seeking” (m = 10.52) (Max = 15, min = 3), “External Influence” (m = 10.79) (Max = 15, min = 3), “Idea Generation” (m = 22.00) (Max = 30, min = 6), “Implementation” (m = 6.87) (Max = 10, min = 2), and “Execution” (m = 10.91) (Max = 20, min = 4). The higher mean value indicates that the current university students’ knowledge, skills, and communication is highly motivated by the use of social media.

The first factor examined was “Solution Seeking”. There was a significant difference in the perceived influence between the United States and Saudi Arabia participants (Table 8). The students from Saudi Arabia (mSA = 11.52) utilized Instagram more for the purpose of “Solution Seeking” than United States participants (mUS = 8.57) (t = -3.735, p<0.05), which included the communication with designers and helping students to increase their knowledge and improve skills.
In specific, the belief that social media can be used in identifying potential apparel problems in the design process was agreed more by participants from Saudi Arabia than the United States participants (m_SA = 3.72, m_US = 2.66, t = -3.731, p < .05).

There was a significant difference in terms of the perception that Instagram challenges students to come up with new ideas in their design process by nationality (m_SA = 3.91, m = 2.66, t = -2.717, p < .05). Saudi Arabia participants perceived that Instagram helps seeking solutions in the design process more than United States participants (m_SA = 3.90, m = 2.80, t = -3.676, p < .05).

### Table 8: Independent-samples T-tests Results on the Factor “solution seeking” and Included Variables.

<table>
<thead>
<tr>
<th></th>
<th>Total Mean</th>
<th>United States Mean</th>
<th>Saudi Arabia Mean</th>
<th>t-value</th>
<th>p-value</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solution Seeking</td>
<td>10.52</td>
<td>8.57</td>
<td>11.52</td>
<td>-3.735</td>
<td>0.000**</td>
<td>-2.957</td>
</tr>
<tr>
<td>Q9_1 - identifying potential apparel problems in my design process.</td>
<td>3.36</td>
<td>2.66</td>
<td>3.72</td>
<td>-3.731</td>
<td>0.000**</td>
<td>-1.063</td>
</tr>
<tr>
<td>Q9_2 - challenging me to come up with new ideas in my design process.</td>
<td>3.64</td>
<td>3.11</td>
<td>3.91</td>
<td>-2.717</td>
<td>0.008**</td>
<td>-.797</td>
</tr>
<tr>
<td>Q9_3 - seeking solutions in my design process.</td>
<td>3.52</td>
<td>2.80</td>
<td>3.90</td>
<td>-3.676</td>
<td>0.000**</td>
<td>-1.097</td>
</tr>
</tbody>
</table>

Note: ** p<0.01

The second factor examined was “External Influence”. There was a significant difference in the perceived influence of “External Influence” between the United States and Saudi Arabia participants (Table 9). The participants from Saudi Arabia (m_SA = 11.64) perceived that Instagram served as a stronger “External influence” in terms of increasing their knowledge and improving skills than United States participants (m_US = 9.65). (t = -2.349, p < 0.05).
The influence of social media in developing new ideas in the design process was agreed more by the participants from Saudi Arabia than the United States participants ($m_{SA} = 3.93$, $m_{US} = 3.03$, $t = -2.740$, $p < .05$). There was a significant difference in terms of the perception that Instagram helps students analyze information gathered from other designers before the students develop their ideas ($m_{SA} = 3.90$, $m_{US} = 3.26$, $t = -2.170$, $p < .05$), and analyze information during the creation of sketches ($m_{SA} = 3.82$, $m_{US} = 3.37$, $t = -1.500$, $p < .05$).

Table 9: Independent-samples T-tests Results on the Factor “External Influence” and Included Variables.

<table>
<thead>
<tr>
<th></th>
<th>Total Mean</th>
<th>United States Mean</th>
<th>Saudi Arabia Mean</th>
<th>t-value</th>
<th>p-value</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Influence</td>
<td>10.79</td>
<td>9.65</td>
<td>11.64</td>
<td>-2.349</td>
<td>0.021*</td>
<td>-1.989</td>
</tr>
<tr>
<td>Q9_4 - communicating</td>
<td>3.62</td>
<td>3.03</td>
<td>3.93</td>
<td>-2.740</td>
<td>0.008**</td>
<td>-0.898</td>
</tr>
<tr>
<td>with other designers to</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>develop new ideas in my</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>design process.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q9_5 - analyzing</td>
<td>3.68</td>
<td>3.26</td>
<td>3.90</td>
<td>-2.170</td>
<td>0.032*</td>
<td>-0.640</td>
</tr>
<tr>
<td>information gathered</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>from other designers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>before I develop sketches</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>or designs in my design</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>process.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q9_6 - analyzing</td>
<td>3.67</td>
<td>3.37</td>
<td>3.82</td>
<td>-1.500</td>
<td>0.137</td>
<td>-0.452</td>
</tr>
<tr>
<td>information from other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>designers during creation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>of sketches or designs in</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>my design process.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: ** $p < 0.01$ * $p < 0.05$

The third factor examined was “Idea Generation”. There was a significant difference in the perceived influence of “Idea Generation” between United States and Saudi Arabia participants (Table 10). The students from Saudi Arabia ($m_{SA} = 23.86$) used Instagram more for the purpose of “Idea Generation” than United States participants ($m_{US} = 18.37$, $t = -3.149$, $p < 0.05$), which reflects the idea that
communication with designers, even indirectly through Social media, is helpful to students to increase their knowledge and improve skills.

The influence of social media in defining main ideas in the design process of the students was agreed to more by the Saudi Arabia students than the United States students (m= 3.99, m= 2.94, t= -3.589, p<.05). There was a significant difference of the perception that Instagram helps students selecting which technique to use in the design process (m_SA= 3.90, m_US= 3.00, t= -3.017, p<.05), providing references from other designers (m= 4.03, m= 2.89, t= -4.171, p<.05), finding clear ideas for the design process (m_SA= 4.00, m_US= 3.03, t= -3.231, p<.05), selecting creative ideas to make decisions in the design process (m_SA= 4.03, m_US= 3.23, t= -2.494, p<.05), and filtering ideas to make decisions (m_SA= 3.93, m_US= 3.29, t= -2.127, p<05). Therefore, Saudi Arabia participants were influenced more by using Instagram than the United States students.
Table 10: Independent-samples T-tests Results on the Factor “Idea Generation” and Included Variables.

<table>
<thead>
<tr>
<th>Idea Generation</th>
<th>Total Mean</th>
<th>United States Mean</th>
<th>Saudi Arabia Mean</th>
<th>t-value</th>
<th>p-value</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q10_1 - defining main ideas in my design process.</td>
<td>22.00</td>
<td>18.37</td>
<td>23.86</td>
<td>-3.149</td>
<td>0.003**</td>
<td>-5.496</td>
</tr>
<tr>
<td>Q10_2 - selecting which technique to use in my design process.</td>
<td>3.63</td>
<td>2.94</td>
<td>3.99</td>
<td>-3.589</td>
<td>0.001**</td>
<td>-1.042</td>
</tr>
<tr>
<td>Q10_3 - providing references from other designers regarding their problems and solutions in my design process.</td>
<td>3.59</td>
<td>3.00</td>
<td>3.90</td>
<td>-3.017</td>
<td>0.003**</td>
<td>-0.897</td>
</tr>
<tr>
<td>Q10_4 - finding clear ideas for my design process.</td>
<td>3.64</td>
<td>2.89</td>
<td>4.03</td>
<td>-4.171</td>
<td>0.000**</td>
<td>-1.144</td>
</tr>
<tr>
<td>Q10_5 - selecting creatively ideas to make decisions in my design process.</td>
<td>3.67</td>
<td>3.03</td>
<td>4.00</td>
<td>-3.231</td>
<td>0.002**</td>
<td>-0.971</td>
</tr>
<tr>
<td>Q10_6 - filtering ideas to make decisions in my design process.</td>
<td>3.71</td>
<td>3.29</td>
<td>3.93</td>
<td>-2.127</td>
<td>0.036*</td>
<td>-0.641</td>
</tr>
</tbody>
</table>

Note: ** p<0.01 * p<0.05

The fourth factor examined was “Implementation”. There was no significant difference in the perceived influence of “Implementation” between United States and Saudi Arabia participants on communication with designers and helping students to increase their knowledge and improve skills (Table 11). The students from Saudi Arabia used Instagram similarly to United States participants (m_{SA}= 7.17, m_{US}= 6.28) (t= -1.391, p= .16) for the purpose of “Implementation”.

The influence of social media in implementing designs during idea development was agreed by the students from both countries (m_{SA}= 3.66, m_{US}= 3.14, t= -1.587, p= .11). There was no significant difference in terms of the perception that
Instagram is helpful in implement designs during the idea development and during the garment construction ($m_{SA} = 3.51$, $m_{US} = 3.14$, $t = -1.083$, $p = .28$). Both groups perceive that Instagram somewhat is helpful in implementing the idea.

Table 11: Independent-samples T-tests Results on the Factor “Implementation” and Included Variables.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Total Mean</th>
<th>United States Mean</th>
<th>Saudi Arabia Mean</th>
<th>t-value</th>
<th>p-value</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation</td>
<td>6.87</td>
<td>6.28</td>
<td>7.17</td>
<td>-1.391</td>
<td>0.167</td>
<td>-0.890</td>
</tr>
<tr>
<td>Q11_1 - implementing my designs during the idea develops.</td>
<td>3.49</td>
<td>3.14</td>
<td>3.66</td>
<td>-1.587</td>
<td>0.116</td>
<td>-0.519</td>
</tr>
<tr>
<td>Q11_2 - implementing my designs during the garment construction.</td>
<td>3.39</td>
<td>3.14</td>
<td>3.51</td>
<td>-1.083</td>
<td>0.282</td>
<td>-0.372</td>
</tr>
</tbody>
</table>

The fifth factor examined was “Execution”. There was no significant difference in the perceived influence of “Execution” between United States and Saudi Arabia participants (Table 12). The students from Saudi Arabia ($m = 11.48$) utilized Instagram for the purpose of “Execution” similarly to US participants ($m = 9.80$, $t = -1.797$, $p = .07$).

The influence of social media in evaluating the aesthetic components of students’ own design products was agreed by the students in both countries ($m_{SA} = 3.81$, $m_{US} = 3.31$, $t = -1.555$, $p = .12$). There was no significant difference in terms of the perception that Instagram helps students evaluate the aesthetic components of their own design products. There was also no difference in terms of evaluating the function component of design products ($m_{SA} = 3.84$, $m_{US} = 3.20$, $t = -1.979$, $p = .051$), and evaluating the expressive component of design products ($m_{SA} = 3.84$, $m_{US} = 3.29$, $t = -1.667$, $p = .09$). Therefore, hypothesis 3a and 3b were partially supported.

Table 12: Independent-samples T-tests Results on the Factor “Execution” and Included Variables.
<table>
<thead>
<tr>
<th></th>
<th>Total Mean</th>
<th>United States Mean</th>
<th>Saudi Arabia Mean</th>
<th>t-value</th>
<th>p-value</th>
<th>Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Execution</td>
<td>10.91</td>
<td>9.80</td>
<td>11.48</td>
<td>-1.797</td>
<td>0.075</td>
<td>-1.685</td>
</tr>
<tr>
<td>Q11_3 - evaluating the aesthetic components of my design products.</td>
<td>3.64</td>
<td>3.31</td>
<td>3.81</td>
<td>-1.555</td>
<td>0.123</td>
<td>-0.495</td>
</tr>
<tr>
<td>Q11_4 - evaluating the function component of my design products.</td>
<td>3.62</td>
<td>3.20</td>
<td>3.84</td>
<td>-1.979</td>
<td>0.051</td>
<td>-0.638</td>
</tr>
<tr>
<td>Q11_5 - evaluating the expressive component of my design products.</td>
<td>3.65</td>
<td>3.29</td>
<td>3.84</td>
<td>-1.667</td>
<td>0.099</td>
<td>-0.553</td>
</tr>
</tbody>
</table>

**Summary**

Hypotheses and research questions were generally supported. Fashion design students perceived their creativity and design process was influenced by their use of Instagram. There was a significant difference of the influence of Instagram on the perceived creative ideas and design process between fashion design students in Saudi Arabia and in the United States. The results also indicated that social media platform, specifically Instagram in this study, helped fashion design students to increase their knowledge about design process and gave them opportunities to communicate with designers. For the most part, there were significant differences identified that Saudi Arabia participants' scores were higher than the United States students on “Inspiration”, “Demonstration”, “Solution Seeking”, “External Influence”, and “Idea Generation”.

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CHAPTER 5

DISCUSSION

The purpose of this study was to identify and compare the influence of Instagram on the creativity and design process of university female fashion design students in Saudi Arabia and in the United States. A discussion of the results in relation to the research questions will be presented in this chapter.

Previous literature has shown that social media has become an effective tool on fashion students in different areas such as in education, life, and fashion (Mizobe, 2014; Bergstrom & Backman, 2013). Instagram has become popular among the fashion design students as an easy way to show products, discover new techniques, and observe other’s products on Instagram (Lazazzera, 2015). The findings from this study revealed that although Instagram was often used, Snapchat was identified as the most popular social media platform used by participating fashion design students in Saudi Arabia and in the United States.

The sample of this study included fashion design students (n=103) in Saudi Arabia and the United States. Interestingly, approximately 30% of the participants were 25 years old or older. These results could suggest that a higher number may have been pursuing an advanced or secondary degree, they may have started school later than traditional college students, they may not have had the financial means to attend
immediately following high school, or they may have had additional life responsibilities balancing work and family.

**Research Question 1A:** Does following fashion designers on Instagram have an impact on current university female fashion design students' perception of their creativity?

**Hypothesis 1A:** Following fashion designers on Instagram has a significant impact on current university female fashion design students' perception of their creativity.

Creativity is the ability to use one’s imagination to produce new ideas which can lead to the creation of new, surprising and valuable designs (Boden, 2007). The findings showed that following fashion designers on Instagram influenced fashion design students’ perception of their creativity. Furthermore, participants were motivated to create new designs, discover creative ideas, and develop design ability by accessing information from Instagram. This study found that there was a significant effect of Instagram in interacting with various brands because students can view different products to increase their awareness about styles, fabric, and to learn about raw material for the purpose of producing high quality and stylish designs. Previous studies suggest that student designers use Instagram to gather information, give feedback and build connection with designers (Mizobe, 2014; Crews et. al, 2015; Bergstrom & Backman, 2013). Student designers gather information to help them discover strategies for solving designing problems. They have the ability to research for the important elements, structures, and ideas to create the design. The results support previous studies (e.g. Lazazzera, 2015; Menezes, 2013) that there are many brands that connect with people through social media and this platform is used to show their products.
Instagram is a powerful tool that can help to inspire people and help them to connect with others (Systrom, 2013; Mizobe, 2014). Inspiration is the process of imagination to produce creative ideas and solve problems (Wylant, 2008; Mete, 2006). Using Instagram can lead students to discover creative ideas and communicate with other designers. There was a significant relationship between Instagram and perceived creativity in fashion because it has a great impact on fashion design students to obtain creativity and inspiration. Fashion design students used Instagram to gain ideas about choice colors, shapes, and styles and to become inspired in order to create functional and creative garments. These photos of ideas are gathered through clothes from fashion designers. Similar to Mete (2000), results indicated that designers inspired fashion students in many ways by their posts including images, design environment, personal experience, and previous design work.

Research Question 1B: Does following fashion designers on Instagram have an impact on current university female fashion design students' perception of their design process?

H1B: Following fashion designers on Instagram has a significant impact on current university female fashion design students' perception of their design process.

The design process is an approach to solving a problem and constructing or designing a product (Rosner, 2014; Mckelvey & Munslow, 2011). The results of this study demonstrated that there was a statistically significant difference of fashion students' perception of their design process through viewing posts from other designers' work, sharing images about design products, and showcase style and fashion design on Instagram, which is a useful platform for students to keep themselves informed about fashion and new products.
This study supports previous research that indicated fashion design students collected fashion images to keep up with the newest fashion style and beauty to develop their design product. (Strickfadem, Stafiniak, & Terzin, 2015). The current study’s findings confirmed that there was a significant impact of Instagram on current university female fashion design students' perception of their design process. The current fashion design students followed fashion designers on Instagram to explore various approaches of the design process. Design students collected images from other designers' postings of garments to select and analyze design problems. Instagram impacts the perception of the design process because it provides multiple opportunities for design students to view new creations and to reflect with improvements on the design.

Q2A: Is there a difference in the influence of Instagram on the perceived creativity ideas between female fashion design students in Saudi Arabia and in the United States?

H2A: Instagram has a stronger influence on the perceived creativity ideas of female fashion design students in Saudi Arabia than ones in the United States.

The findings of this study showed that Instagram influenced the perception of students' creativity ideas, which had a greater impact on Saudi Arabia fashion design students than students in the United States. When the factor was assessed, there was a statistically significant higher impact of the factor “Inspiration” that indicated that female fashion design in Saudi Arabia had a greater agreement that Instagram can lead to building bridges of communication, encourage new design, and interact with different brands than students in the United States. This finding may be a result of that there are a lot of emerging Saudi fashion designers who love fashion and are striving
to become famous and successful designers. They open stores, create accounts in different platforms, and display their products in exhibitions to keep their customers familiar with the newest products. Saudi Arabia fashion designers compete to create unique and stylish garments. Additionally, in Saudi Arabia, only women are looking for fashion on Instagram. This would encompass much of the population in the study because men do not participate in fashion in Saudi Arabia whereas in the United States there are many male fashion designers.

However, results showed that there was no significant difference between students from the two countries in the use of Instagram for the discovery of creative ideas, providing new ideas of fashion, inspiring students by showing other designer's fashions, and developing design abilities. This suggests that fashion design students from both countries are interested in pursuing their interests in fashion design through Instagram. The access to new ideas in apparel and design from Instagram may provide opportunities to research the fashion world. This is consistent with previous study that social media provide opportunities to produce creative clothes and get into fashion world (Hodges and Karpova, 2009).

**Q2B: Is there a difference in the influence of Instagram on the design process between female fashion design students in Saudi Arabia and in the United States?**

**H2B: Instagram has a stronger influence on design process on female fashion design students in Saudi Arabia than ones in the United States.**

The findings from the analysis support that there was a significant difference between the United States students and the Saudi Arabia students in the influence of using Instagram in the design process. Saudi Arabia female students had a
significantly stronger agreement that Instagram has an impact on sharing images about their design projects, informing about fashion, and showcasing style and fashion design. This result might be because Saudi Arabia fashion design students use social media to see how designers compete in the fashion industry to have their own lines and have a brand with their names. However, the United States fashion design students may not use social media as much to learn about fashion because they attend fashion shows and many have internship opportunities to work with designers and learn from them.

**Q3A:** Does the use of social media platform give female fashion design students in Saudi Arabia and in the United States opportunities to communicate with designers?

**Q3B:** Does the use of social media platform help female fashion design students in Saudi Arabia and in the United States increase their knowledge and improve creative skills?

**H3A:** Using social media platforms gives female fashion design students in Saudi Arabia and in the United States opportunities to communicate with designers

**H3B:** Using social media platforms help female fashion design students in Saudi Arabia and in the United States increase their knowledge and improve their design skills.

There were five factors (“Solution Seeking”, “External Influence”, “Idea Generation”, “Implementation”, and “Execution”) that were proposed in this study regarding using social media platforms to help female fashion design students to communicate with designers in the United States and Saudi Arabia. The results suggest that Instagram gives them opportunities to increase their knowledge and
improve their creative skills. “Solution Seeking” is the stage of identifying the problem in the design process. In this stage designers seek information to help find ideas and solutions. This factor is similar to the acceptance stage of the design process where designers identify a problem in the design and seek to find solutions (Rosner, 2014; Koberg & Bagnall, 1974; Aspelund, 2006). The “Solution Seeking” factor demonstrated that Saudi Arabia students perceived a greater influence in identifying potential apparel problems in the design process than the United States participants. Saudi Arabia students perceived the use of Instagram provided challenges to produce new ideas and seek solutions during the design process more than United States students. Saudi Arabia students viewed images about fashion and styles to know what women are interested in.

The factor, “External Influence” consisted of the influence of information which is gathered from one or more sources and affects designers to produce ideas and design. The analyze stage in the design process (Koberg & Bagnall, 1974) is similar to this factor in that designers commit themselves to creatively come up with an idea by analyzing information to produce designs. “External Influence” indicated Saudi Arabia fashion design students perception of using social media affects the development of new ideas. Saudi Arabia fashion design students perceived that Instagram impacted their analysis of information gathered from other designers before developing their ideas, and analyze information during the creation of sketches in the design process. There was a significant difference in terms of the perception among both groups. Saudi Arabia fashion design students who use social media perceived that Instagram increases knowledge and improves design skills and gives them opportunities to communicate with designers more than United States participants. This perception may be because that Saudi Students depend on Instagram as the way
for sharing fashion ideas. However, United States students may use other ways to learn about fashion such as fashion shows and magazines.

The factor, “Idea Generation” consisted of the process of producing creative new ideas and developing creative designs. Rosner (2014) defined ideation as the process that designers follow to have an abstract idea. “Idea Generation” indicated that participants from Saudi Arabia used Instagram to define main ideas and select which technique to use in the design process more than the United States. Following designers in social media provided references for students to find clear ideas in the design process. The results showed that Saudi Arabia students may select creative ideas to make decisions, and filter ideas to make decisions more than the United States students in the design process. Saudi Arabia designers do not have as many retailers available to display their products, so their stores display their own collections, and they use their own social media accounts to promote their work. Also, brand stores open only in a few cities in Saudi Arabia, and fewer magazines display photos of designers’ products; this may be a result of the fact that not all Saudi Arabia fashion design students are able to travel to view new designs. They may be looking for creative ideas through Instagram to explore ideas and make their own designs. In contrast, brands have multiple stores throughout the United States in easily accessible locations, and they show their products in magazines and through advertising; this may give the United States fashion design students more options to encounter creative ideas instead of looking on Instagram.

The factor, “Implementation” consisted of the process of implementing design after getting the ideas and making the decision to finish the design. This is consistent with the Implementation stage of the design process because it begins to finish the design after ideas created (Rosner, 2014; Koberg& Bagnall, 1974; Aspelund, 2006).
The findings of “Implementation” factor revealed that participants from Saudi Arabia used Instagram similarly to the United States in implementing designs during idea development and during the garment construction. The designer actively applies the ideas they previously gathered when the begin their design. The factor, “Execution” consisted of evaluating various concepts of the design and is similar to the design process stage of evaluation of ideas and design. The findings of the “Execution” factor suggested that both groups utilize Instagram in similarly in evaluating the aesthetic components, function components, and expressive components of designing products. This final stage of the design process showcases the effort and creativity of the designer.

**Summary**

The research questions were assessed and the proposed hypotheses were mainly supported that fashion design students use social media to influence their perception of creativity for their design and design process. The research compared Saudi Arabia fashion design students with fashion design students in the United States. Fashion design students from both countries shared a common practice in using Instagram to learn about new ideas in fashion. Both groups are similar in using the ideas from Instagram in their own creations and carried the ideas to the finished product. However, there were differences between the two groups. Saudi Arabia fashion design students used Instagram to a larger extent than the United States fashion design students. This may be because United States students have more options to learn about fashion. Saudi Arabia students use Instagram because is easier and fast way to learn about fashion from their homes, and they do not have many options similar to the United States students.
CHAPTER 6

CONCLUSION, LIMITATIONS, AND FUTURE RESEARCH

The purpose of this study was to identify and compare the influence of Instagram on the creativity and design process of university female fashion design students in Saudi Arabia and in the United States. The conclusion of the study, limitations, and recommendations for future research are presented in this chapter.

Conclusions

The purpose of this research was to determine whether Instagram has an influence on the creativity and design process of university female fashion design students in Saudi Arabia and in the United States. The results provided evidence that using Instagram influenced fashion design students on perceived creativity and design process among fashion design students in Saudi Arabia and in the United States. Following fashion designers in Instagram increased students’ knowledge about the design process and gave opportunities to communicate with designers. There was a relationship between Instagram and creativity because it led to increased levels of inspiration. The inclusion of social media communications between designers and fashion design students within the Instagram platform has many advantages for developing the design process and inspiring creative products.
Limitations of the Study

When the results of this study were examined, there were several limitations on the current research that must be considered. The findings of this study are limited in that the sample included only female fashion design students and could have potentially different results if the sample were conducted on both female and male fashion design students. Furthermore, the size of the sample size prevents generalizing the results to the population of female fashion design students. Another limitation is that the percentage of the participants age 25 or older was larger than expected. Additional categories in the age ranges could have provided more detail as well as including a question related to students' classification. It would be interesting to research other groups to participate in the study such as fashion merchandising students. They could have provided information about the benefits they get for selling their products through social media and the potential benefits from communication with customers through social media.

Recommendations for Further Research

There are several recommendations for future research. As only apparel design students were surveyed, future studies could include fashion merchandising students and designers and how using Instagram impacts their strategies to increase purchases of their products. Studies could show how merchandisers come to determine their sales ratio and how the use of Instagram assists them in attracting and reaching a wider range of consumers. It could be interesting to test the differences of the influence of using Instagram on the classification of students: freshman, sophomore, junior, senior, and graduate students. A greater depth of information to explore the use
of social media among different classifications of students and among students who are more interested in fashion and use Instagram to interact with brands rather than using Instagram for entertainment could also be fruitful. Future research could examine how using Instagram impacts textile and apparel design by providing information about the quality of materials, different techniques used to produce designs, and it could examine how Instagram enhances the performance of products.
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APPENDIX A

INSTITUTIONAL REVIEW BOARD MATERIALS

A-1 LETTER OF APPROVAL

A-2 CITI CERTIFICATE OF COMPLETION
APPENDIX A-1 LETTER OF APPROVAL

Office of Research Integrity
Institutional Review Board (IRB)
2000 University Avenue
Muncie, IN 47306-0155
Phone: 765-285-5070

DATE: August 31, 2016
TO: Khawlah Otayf
FROM: Ball State University IRB
RE: IRB protocol # 944234-1
TITLE: IDENTIFYING AND COMPARING THE INFLUENCE OF INSTAGRAM ON THE CREATIVITY AND DESIGN PROCESS OF FEMALE FASHION DESIGN STUDENTS IN THE SAUDI ARABIA AND IN THE UNITED STATES
SUBMISSION TYPE: New Project
ACTION: APPROVED
DECISION DATE: August 31, 2016
REVIEW TYPE: EXEMPT

The Institutional Review Board reviewed your protocol on August 31, 2016 and has determined the procedures you have proposed are appropriate for exemption under the federal regulations. As such, there will be no further review of your protocol, and you are cleared to proceed with the procedures outlined in your protocol. As an exempt study, there is no requirement for continuing review. Your protocol will remain on file with the IRB as a matter of record.

Exempt Categories:

<table>
<thead>
<tr>
<th>Category 1: Research conducted in established or commonly accepted educational settings, involving normal education practices, such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X Category 2: Research involving the use of educational test (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior</td>
</tr>
<tr>
<td>Category 3: Research involving the use of educational test (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under category 2, if: (i) the human subjects are elected or appointed officials or candidates for public office; or (ii) Federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.</td>
</tr>
<tr>
<td>Category 4: Research involving the collection of study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or</td>
</tr>
</tbody>
</table>

- 1 -
Appendix A-2 CITI Certificate of Completion

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)
COURSEWORK REQUIREMENTS REPORT*

* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See the list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- **Name:** Khawlah Otayf (ID: 5385895)
- **Email:** kotayf@bsu.edu
- **Institution Affiliation:** Ball State University (ID: 1568)
- **Institution Unit:** Family and consumer science
- **Curriculum Group:** Social & Behavioral Research - Basic/Refresher
- **Course Learner Group:** Same as Curriculum Group
- **Stage:** Stage 1 - Basic Course
- **Description:** Choose this group to satisfy CITI training requirements for Investigators and staff involved primarily in Social/Behavioral Research with human subjects.

- **Report** 187454
- **Completion** 03/26/20
- **Expiration** Date: 03/26/20
- **Minimum** Passing: 8
- **Reported** 9

**REQUIRED AND ELECTIVE**

<table>
<thead>
<tr>
<th>Module</th>
<th>Date</th>
<th>SCO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belmont Report and CITI Course Introduction</td>
<td>0/21</td>
<td>33</td>
</tr>
<tr>
<td>Students in Research (ID: 0/21)</td>
<td>0/21</td>
<td>55</td>
</tr>
<tr>
<td>History and Ethical Principles - SBE</td>
<td>0/21</td>
<td>55</td>
</tr>
<tr>
<td>Defining Research with Human Subjects - SBE</td>
<td>0/21</td>
<td>55</td>
</tr>
<tr>
<td>The Federal Regulations - SBE</td>
<td>0/21</td>
<td>55</td>
</tr>
<tr>
<td>Assessing Risk - SBE</td>
<td>0/21</td>
<td>55</td>
</tr>
<tr>
<td>Informed Consent - SBE</td>
<td>0/21</td>
<td>55</td>
</tr>
<tr>
<td>Privacy and Confidentiality - SBE</td>
<td>0/21</td>
<td>55</td>
</tr>
<tr>
<td>Research with Prisoners - SBE</td>
<td>0/11</td>
<td>55</td>
</tr>
<tr>
<td>Research with Children - SBE</td>
<td>0/11</td>
<td>55</td>
</tr>
<tr>
<td>Research in Public Elementary and Secondary Schools - SBE</td>
<td>0/11</td>
<td>45</td>
</tr>
<tr>
<td>International Research - SBE</td>
<td>0/21</td>
<td>45</td>
</tr>
<tr>
<td>Internet-Based Research - SBE</td>
<td>0/21</td>
<td>55</td>
</tr>
<tr>
<td>Research and HIPAA Privacy</td>
<td>0/21</td>
<td>45</td>
</tr>
<tr>
<td>Vulnerable Subjects - Research Involving</td>
<td>0/21</td>
<td>44</td>
</tr>
<tr>
<td>Conflicts of Interest in Research Involving Human</td>
<td>0/21</td>
<td>55</td>
</tr>
<tr>
<td>Unanticipated Problems and Reporting Requirements in Social and Behavioral</td>
<td>0/21</td>
<td>55</td>
</tr>
<tr>
<td>Ball State University (ID: 1568)</td>
<td>0/21</td>
<td>No</td>
</tr>
</tbody>
</table>
APPENDIX B

SURVEY INSTRUMENTS

B-1 Instrument in English
B-2 Instrument in Arabic
APPENDIX B-1 Survey Instrument in English

Survey

Please take 10-15 minutes to complete this survey to help us understand the influence of Instagram on the creativity and design process of female fashion design students. Please answer as honestly as possible. Your participation in this survey will remain anonymous. You will not be asked to give your name or any other identifying information. Your participation in this study is completely voluntary, and you are free to withdraw your participation for any reason without penalty or prejudice. Thank you for taking the time to complete this survey. Your participation is appreciated.

1. What is your gender?
   ____ Male
   ____ Female

2. Please indicate your age
   ____ 19
   ____ 20
   ____ 21
   ____ 22
   ____ 23
   ____ 24
   ____ Other __________

3. How often do you use the following social media platforms?

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Seldom</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Twitter</td>
<td></td>
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<td></td>
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<tr>
<td>Instagram</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Snapchat</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

4. Please Indicate the average amount of time you use social media each day

<table>
<thead>
<tr>
<th>Purposes</th>
<th>Not at all</th>
<th>less than 1 hour</th>
<th>1-3 hours</th>
<th>4-6 hours</th>
<th>more than 6 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Seeking information about fashion trends?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Seeking information about fashion brands?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Seeking information about fashion designers?</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. Please rank the following purpose regarding your use of social media programs.

<table>
<thead>
<tr>
<th>Purposes</th>
<th>Not at all important</th>
<th>Slightly important</th>
<th>Important</th>
<th>Fairly important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>-To socialize with friends and family.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-To post fashion and clothing images.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To improve my design skills.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. Please indicate the frequency of your posting behavior on social media programs.

<table>
<thead>
<tr>
<th>Purposes</th>
<th>Never</th>
<th>1-2</th>
<th>3-4</th>
<th>5 or more /Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>-post things about fashion?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-repost things about fashion?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- post an ‘outfit of the day’?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- post photos of your original design projects?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. How many fashion designers do you follow on social media?

<table>
<thead>
<tr>
<th>Number of designers</th>
</tr>
</thead>
<tbody>
<tr>
<td>__0</td>
</tr>
<tr>
<td>__1-3</td>
</tr>
<tr>
<td>__4-6</td>
</tr>
<tr>
<td>__7-9</td>
</tr>
<tr>
<td>__more than 9</td>
</tr>
</tbody>
</table>

8. For the following statements, indicate your level of agreement from (1=Strongly Disagree, 1=Disagree, 2=Neutral, 4=Agree, 5=Strongly Agree).

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I use social media to share images about my designs projects.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I use social media to keep myself informed about fashion.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
I think that social media builds bridges of communication between designers and fashion design students.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I think that social media builds bridges of communication between designers and fashion design students.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I believe that social media contributes to discovering creative ideas.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I believe that social media contributes to developing design abilities by providing ideas for creativity.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I believe that social media contributes to encouraging me to create new designs.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I believe that social media contributes to getting inspiration from other designers' products.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I believe that social media contributes to developing design abilities by informing people of new products.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>When I use social media I actively interact with various fashion brands that I like</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I use social media to showcase my style and fashion design.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

9. Indicate below how important you believe social media is in assisting you as a fashion design student in your creativity and design process of fashion projects. (1=Strongly Disagree, 1=Disagree, 2=Neutral, 4=Agree, 5=Strongly Agree)

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Social media is helpful in identifying potential apparel problems in my design process.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Social media is helpful in challenging me to come</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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</tr>
<tr>
<td>up with new ideas in my design process.</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>3. Social media is helpful in seeking solutions in my design process.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Social media is helpful in communicating with other designers to develop new ideas in my design process.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Social media is helpful in analyzing information gathered from other designers before I develop sketches or designs in my design process.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Social media is helpful in analyzing information from other designers during creation of sketches or designs in my design process.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Social media is helpful in defining main ideas in my design process.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Social media is helpful in selecting which technique to use in my design process.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. Social media is helpful in providing references from other designers regarding their problems and solutions in my design process.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. Social media is helpful in finding clear ideas for my design process.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. Social media is helpful in selecting</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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</tr>
<tr>
<td>creatively ideas to make decisions in my design process.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Social media is helpful in filtering ideas to make decisions in my design process.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Social media is helpful in implementing my designs during the idea develops.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Social media is helpful in implementing my designs during the garment construction.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Social media is helpful in evaluating the aesthetic components of my design products.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Social media is helpful in evaluating the function component of my design products.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Social media is helpful in evaluating the expressive component of my design products.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
ما هو جنسك؟
- رجل
- أنثى

يرجى الإشارة إلى عمرك
- 19
- 20
- 21
- 22
- 23
- 24

أخرى

كم عادة تستخدم برامج التواصل الاجتماعي التالية؟

<table>
<thead>
<tr>
<th></th>
<th>دائمًا</th>
<th>غالبًا</th>
<th>أحيانًا</th>
<th>نادرًا</th>
<th>أبداً</th>
</tr>
</thead>
<tbody>
<tr>
<td>فيسبوك</td>
<td></td>
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<tr>
<td>تويتر</td>
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<tr>
<td>انستقرام</td>
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<td>سناب شات</td>
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يرجى تحديد متوسط مقدار الوقت في استخدامك لوسائل التواصل الاجتماعي في كل يوم:

<table>
<thead>
<tr>
<th>الهدف</th>
<th>أكثر من 6 ساعات</th>
<th>أقل من 1 ساعة</th>
<th>1-3 ساعات</th>
<th>4-6 ساعات</th>
</tr>
</thead>
<tbody>
<tr>
<td>البحث عن معلومات حول اتجاهات الموضة؟</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>البحث عن معلومات حول ماركات الأزياء؟</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>البحث عن معلومات حول مصممي الأزياء؟</td>
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</tbody>
</table>

يرجى التصنيف الأغراض التالية فيما يتعلق باستخدامك لبرامج ووسائل التواصل الاجتماعي:

<table>
<thead>
<tr>
<th>الهدف</th>
<th>ليس على الإطلاق</th>
<th>مهم قليلاً</th>
<th>مهمًا إلى حد ما</th>
<th>مهمًا جداً للاتصال مع الأهل والأصدقاء.</th>
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</thead>
<tbody>
<tr>
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</table>

إضافة صور الأزياء والملابس.
لتحسين مهارات التصميم الخاص بك، يرجى الإشارة إلى عدد المرات التي تنشر السلوك الخاص بك على برامج ووسائل التواصل الاجتماعي.

<table>
<thead>
<tr>
<th>كم مرة أو أكثر في الأسبوع</th>
<th>4-3</th>
<th>2-1</th>
<th>أبداً</th>
</tr>
</thead>
<tbody>
<tr>
<td>تنشر أشياء عن الموضة؟</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>إعادة نشر أشياء عن الموضة؟</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>تنشر اللباس اليومي؟</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>تنشر صور من المشاريع التصاميم الأصلية الخاصة بك؟</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

كم عدد مصممي الأزياء الذين تتبعهم على وسائل التواصل الاجتماعي؟

- 0
- 1-3
- 4-6
- 7-9
- أكثر من 9

بالنسبة للعبارات التالية، يرجى الإشارة إلى مدى موافقتك من (1 = لا أوافق بشدة، 2 = لا أوافق، 3 = محايد، 4 = موافق، 5 = أوافق بشدة).

<table>
<thead>
<tr>
<th>العبارات</th>
<th>لا أوافق بشدة</th>
<th>لا أوافق</th>
<th>محايد</th>
<th>موافق</th>
<th>أوافق بشدة</th>
</tr>
</thead>
<tbody>
<tr>
<td>استخدم وسائل التواصل الاجتماعي لتبادل الصور حول مشاريع التصاميم الخاصة بي.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>استخدم وسائل التواصل الاجتماعي كي أبقي نفس مطورة على الأزياء.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>اعتقد أن وسائل التواصل الاجتماعي تبني جسور تواصل بين المصممين وطلاب تصميم الأزياء.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>اعتقد أن وسائل التواصل الاجتماعي تسهم في اكتشاف الأفكار الإبداعية.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
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أعتقد أن وسائل التواصل الاجتماعي تساهم في تنمية قدرات التصميم عن طريق إعلام الناس عن المنتجات الجديدة.

عند استخدام وسائل التواصل الاجتماعي أتفعل بنشاط مع العديد من ماركات الأزياء التي أحبها.

أستخدم وسائل التواصل الاجتماعي لعرض أسلوبي وتصميم الأزياء. وأتولد مشاعر التحقق من معرفتي بمعالجة علامة تجارية معينة في التواصل الاجتماعي. 

تحدد الأفكار الرئيسية في عملية تصميمي

ويساعد في اتخاذ 决策 في عملية تصميمي

ويساعد في تحليل المعلومات من المصممين الآخرين خلال عملية تصميمي

ويساعد في اختيار الطريقة المناسبة للاستخدام في عملية تصميمي

ويساعد في اختيار الأفكار الرئيسية في عملية تصميمي

ويساعد في تحديد الأفكار الرئيسية في عملية تصميمي

ويساعد في اتخاذ 决策 في عملية تصميمي

وضع أدناه بمدى أهمية وسائل التواصل الاجتماعي باعتقادي في مساعدتك كطالب تصميم الأزياء في عملية الإبداع والتصميم للمشاريع الموضة الخاصة بك (1 = لا أوافق بشدة , 2 = لا أوافق , 3 = محايد , 4 = موافق , 5 = أوافق بشدة )

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وسائل التواصل الاجتماعي تساعد في تزويدى بالمراجع من مصممين آخرين فيما يتعلق بالمشكلات والحلول في عملية تصميمي.

وسائل التواصل الاجتماعي تفيد في إيجاد أفكار واضحة لعملية تصميمي.

وسائل التواصل الاجتماعي تساهم في استقبال الأفكار الإبداعية لإتخاذ القرارات في عملية تصميمي.

وسائل التواصل الاجتماعي تساعد في تنقية الأفكار المناسبة لإتخاذ القرارات في عملية تصميمي.

وسائل التواصل الاجتماعي تفيد في تنفيذ تصاميمي خلال تطور الفكرة.

وسائل التواصل الاجتماعي تفيد في تنفيذ تصاميمي خلال خياطة الملابس.

وسائل التواصل الاجتماعي تساعد في تقييم العناصر الجمالية لتصميم منتجاتي.

وسائل التواصل الاجتماعي تساعد في تقييم وظيفة العنصر في تصميمي منتجاتي.

وسائل التواصل الاجتماعي تساعد في تقييم المكون التعبيري في تصميمي منتجاتي.
APPENDIX C

LETTERS OF CONSENT AND PERMISSION

C-1  Letter of permission to send survey link to female fashion design students at Ball State University, USA

C-2  Letter of permission to send survey link to female fashion design students at Jazan University, Saudi Arabia

C-3  Letter of permission to send survey link to female fashion design students at Tabuk University, Saudi Arabia

C-4  Consent to Participate in the Survey
C-1 Letter of permission to send survey link to female fashion design students at Ball State University

Department of Family and Consumer Sciences

To: Khawlah Olayf, Master candidate and Dr. Amy Harden, Thesis chair

Re: Research Project: IDENTIFYING AND COMPARING THE INFLUENCE OF INSTAGRAM ON THE CREATIVITY AND DESIGN PROCESS OF FEMALE FASHION DESIGN STUDENTS IN SAUDI ARABIA AND IN THE UNITED STATES

Date: August 10, 2016

You have permission to collect information for the project: "IDENTIFYING AND COMPARING THE INFLUENCE OF INSTAGRAM ON THE CREATIVITY AND DESIGN PROCESS OF FEMALE FASHION DESIGN STUDENTS IN SAUDI ARABIA AND IN THE UNITED STATES" to Ball State University, Fall 2016. You also have permission to utilize a survey “The Influence of Instagram on the creativity and design process of fashion design students” as part of the research project.

Amy J. Harden

Amy J Harden, PhD
Director of Graduate Studies
Associate Professor of Fashion Merchandising
Department of Family and Consumer Sciences
Ball State University
206E Applied Technology Building
Muncie, IN 47306
C-2 Letter of permission to send survey link to female fashion design students at Jazan University, Saudi Arabia

University of Jazan
Faculty of Architecture and Design
Department of Applied Arts

To: Khawlah Alayf, Master candidate and Dr. Amy Harden, Thesis chair

Re: Research Project: IDENTIFYING AND COMPARING THE INFLUENCE OF INSTAGRAM ON THE CREATIVITY AND DESIGN PROCESS OF FEMALE FASHION DESIGN STUDENTS IN SAUDI ARABIA AND IN THE UNITED STATES

Date: August 15, 2016

You have permission to collect information for the project "IDENTIFYING AND COMPARING THE INFLUENCE OF INSTAGRAM ON THE CREATIVITY AND DESIGN PROCESS OF FEMALE FASHION DESIGN STUDENTS IN SAUDI ARABIA AND IN THE UNITED STATES" to Ball State University. Fall 2016. You also have permission to utilize a survey "The Influence of Instagram on the creativity and design process of fashion design students" as part of the research project.

Fadia M Hesham

Dr. Fadia M Hesham, PhD
Assistant Professor in Department of Applied Arts
Jazan University
Faculty of Architecture and Design
Phone: 09986580707057
Email:kenny497@yahoo.com
Riyadh Rd., Debate UNIT No. 3179
Jazan 62215 - 8080
C-3 Letter of permission to send survey link to female fashion design students at Tabuk University, Saudi Arabia

university of Tabuk
College of Home Economics
Department of clothing and textiles

To: Khawlah Oluy, Master’s candidate and Dr. Amy Harden, Thesis chair

Re: Research Project: IDENTIFYING AND COMPARING THE INFLUENCE OF INSTAGRAM ON THE CREATIVITY AND DESIGN PROCESS OF FEMALE FASHION DESIGN STUDENTS IN SAUDI ARABIA AND IN THE UNITED STATES

Date: August 20, 2016

You have permission to collect information for the project: “IDENTIFYING AND COMPARING THE INFLUENCE OF INSTAGRAM ON THE CREATIVITY AND DESIGN PROCESS OF FEMALE FASHION DESIGN STUDENTS IN SAUDI ARABIA AND IN THE UNITED STATES” to Ball State University, Fall 2016. You also have permission to utilize a survey “The influence of Instagram on the creativity and design process of fashion design students” as part of the research project.

Hanan AlASHHKAR

Hanan ALASHHKAR, PhD
Assistant professor of fashion design
university of Tabuk
College of Home Economics
Department of clothing and textiles
office phone: 00966144247204
depth phone: 00966535651415
e-mail: hanan052@gmail.com
baleshkar@vit.edu.vi
Appendix C-4– Letter of Informed Consent

**Study Title**  Identifying and comparing the influence of Instagram on the creativity and design process of female fashion design students in Saudi Arabia and the United States.

**Study Purpose and Rationale**
The purpose of this study is to identify and compare the influence of Instagram on the creativity and design process of female fashion design students in Saudi Arabia and in the United States. Findings from this study may help current fashion students and those hoping to emerge within the fashion industry to understand the power a communication tool like Instagram can have. The use of Instagram among designers and fashion design students is a growing phenomenon. Instagram may be able to successfully impact the design process and reach design students in inspiring ways. By understanding the connection between creativity and this social media tool, designers new and old can reach new heights.

**Inclusion/Exclusion Criteria**
To be eligible to participate in this study, you must be 18 years of age and a female apparel/fashion design student.

**Participation Procedures**
For this project female fashion design students will be asked to complete a survey, about Instagram’s impact on creativity and design process. It will take approximately 10-15 minutes to complete the survey. Surveys will be completed anonymously. The electronic survey will be sent to female fashion design students at Ball State University by Dr. Harden, to female fashion design students at Jazan University by Dr. Fadia Hesham, and to female design students at Tabuk University by Hanan Alshgr. Participants will receive an email requesting they complete the survey on the web using the survey software program Qualtrics. Two reminder emails will be sent the following two weeks. Overall a reminder will be sent two times.

**Data Confidentiality or Anonymity**
All data will be collected anonymously and no identifying information such as names, or any identifying characteristics will be gathered.

**Storage of Data**
The responses and data obtained from the Qualtrics survey will be entered into a software program and stored on the researcher’s password-protected computer for three years and then deleted. Only members of the research team will have access to the data.
**Risks or Discomforts**
There are no perceived risks for participating in this study. The participants may choose not to answer any question that makes them uncomfortable, and they may quit the study at any time.

**Who to Contact Should You Experience Any Negative Effects from Participating in this Study**
Should you experience any feelings of anxiety, you should contact counseling services available to you locally. You will be responsible for the any cost of care that may be provided.

**Benefits**
Benefits to participating in this study may increase knowledge about creativity and design process. For participants in this study who study fashion design and use Instagram, it provides an opportunity to share their experiences and ideas about the relationship between Instagram and fashion.

**Voluntary Participation**
Your participation in this study is completely voluntary, and you are free to withdraw your participation for any reason without penalty or prejudice. Please feel free to ask any questions of the investigator before signing this form and at any time during the study.

**IRB Contact Information**
For one’s rights as a research subject, you may contact the following: Office of Research Integrity, Ball State University, Muncie, IN 47306, (765) 285-5070, irb@bsu.edu

**Study Title**  Identifying and comparing the influence of Instagram on the creativity and design process of female fashion design students in Saudi Arabia and the United States.

**********

**Consent**
By continuing to the survey, I indicate my agreement to participate in this research project entitled, “Identifying and comparing the influence of Instagram on the creativity and design process of female fashion design students in Saudi Arabia and the United States”. I have read the description of this project and give my consent to participate. I understand that I, if requested, will receive a copy of this informed consent form to keep for future reference.

To the best of my knowledge, I meet the inclusion/exclusion criteria for participation (described on the previous page) in this study.

_________________________________  __________________
Participant’s Signature                     Date
Researcher Contact Information

Principle Investigator:  
Khawlah Otayf, Graduate Student  
Ball State University  
Muncie, IN 47306  
Telephone: (720)345-3601  
Email: kotayf@bsu.edu

Faculty Supervisor:  
Dr. Amy Harden  
Ball State University  
Muncie, IN 47306  
Telephone: (765)285-5958  
Email: aharden@bsu.edu
عنوان الدراسة:

عنوان الدراسة تحديد ومقارنة تأثير الانستقرام على الإبداع وعملية التصميم لطلابات تصميم الأزياء في المملكة العربية السعودية والولايات المتحدة.

الغرض من الدراسة والأسس المنطقي:

الغرض من هذه الدراسة هو تحديد ومقارنة تأثير الانستقرام على الإبداع وعملية التصميم لطلابات تصميم الأزياء في المملكة العربية السعودية والولايات المتحدة. كما أن تحديد هذه الدراسة قد تتضمن طالبات تصميم الأزياء الحالية وأولئك الذين ينويون في الظهور في صناعة الأزياء هم قوة التواصل بها والوصول لها. إن استخدام الإنستقرام بين المصممين وطلابات تصميم الأزياء يكون بشكل متزايد. وتساعد هذه الدراسة لفهم مدى تأثير الإنستقرام على التأثير في عملية التصميم والاستمتاع بالعمل على طرقم مهملة في إنتاج عملية التصميم من خلال فهم العلاقة بين الإبداع وهذه الوسيلة ووسائل التواصل الاجتماعي بالسعة.

المصممين الجدد والقدامى الوصول إلى إفكار جديد في عملية التصميم.

معايير الإدراج والاستبعاد:

لتكون مؤهلًا للمشاركة في هذه الدراسة، يجب أن يكون عمرك 18 سنة فما فوق وتم قبول طالبات تصميم الأزياء/الملابس.

إجراءات المشاركة ومدة الزمان:

يطلب هذا المشروع استكماله من طالبات تصميم الأزياء وتم قبول هذه الدراسة من مدى تأثير الإنستقرام على الإبداع وعملية التصميم. يستلزم هذا الاستبان حوالي 10 دقائق لإنكماله. كما أن عملية المشاركة في الاستبان من الإنستقرام سوف تظهر مجهولة دون الكشف عن هوية المشترك الإنستقرام الألكتروني لطلابات تصميم الأزياء بالجامعة BALL STATE، وطلابات تصميم الأزياء بجامعة JAZAN سوف يرسل إلى الدكتورة نسيم أحمد، وطلابات تصميم الأزياء بجامعة GAZIANTEP سوف يرسل إلى الدكتور بلال راجي. وطلابات تصميم الأزياء بجامعة BALL STATE سوف يرسل إلى الدكتورة حنان الأشقر. وطلابات تصميم الأزياء بالجامعة JAZAN سوف يرسل إلى الدكتورة فادية هشام.

الاستبان الالكتروني لطلاب تصميم الأزياء سيم إرسال بالبريد الإلكتروني إلى المشاركين الذين يرغبون في المشاركة.

المخاطر أو المضايقات:

لا يوجد مخاطر محددة في هذه الدراسة. قد يختار المشاركين عدم الإجابة على أي سوال لا يريحهم، وقد ينسحبون من الدراسة في أي وقت.

الفوائد:

إذا واجهت أي مشكلة أو قلق، يجب عليك الاتصال بمكتب المشورة المتاحة لك محلية، سوف تكون مسؤولة عن أي تكاليف للرعاية التي يمكن تقديمها.

الفوائد:

الإجابات التي تعود على المشاركين في هذه الدراسة قد تزداد من المعرفة حول الإبداع وعملية التصميم لطلابات تصميم الأزياء واستخدام الانستقرام في إنتاج الفرصة لتبادل الخبرات والأفكار حول العلاقة بين الإنستقرام والأزياء.
المشاركة التطوعية:

تم تحديد مشاركتكم في هذه الدراسة هي مشاركة تطوعية بحتة ويحق لك تماما الانسحاب من الاستبيان لأي سبب كان وفي أي وقت دون عقوبة. لا تتردد في طرح أي سؤال للباحث في أي وقت خلال وقت نشر الاستبيان.

معلومات الاتصال:

بإمكانك التواصل مع مدير مكتب البحوث عن الحقوق التي يتمتع بها موضوع البحث.

Ball State University, Muncie, IN, 47306
irb@bsu.edu

عنوان الدراسة:

تحديد ومقارنة تأثير الانستقرام على عملية الإبداع والتصميم لطالبات تصميم الأزياء في المملكة العربية السعودية والولايات المتحدة.

الموافقة:

من خلال الاستمرار في الدراسة، أنا أوافق على المشاركة في هذا المشروع البحثي بعنوان "تحديد ومقارنة تأثير الانستقرام على عملية الإبداع والتصميم لطالبات تصميم الأزياء في المملكة العربية السعودية والولايات المتحدة". وقد وصفت الدراسة لي وقد أجبت على أسئلتي بصورة مرضية. قد قرأت وصفا لهذا المشروع وأعطيت موافقتي على المشاركة.

على حد علمي، لقد حققت معايير الاشتمال / الاستبعاد للمشاركة

معلومات اتصال الباحث:
APPENDIX D

LETTER TO CONTACT STUDENTS

D-1  Initial Letter of Request
D-2  Second Letter of Request
D-3  Third Letter of Request
D-1 Initial Letter of request

Email for female fashion design students

Hello,

My name is Khawlah Otayf. I am a graduate student at Ball State University, in Apparel Design in the Department of Family and Consumer Sciences. I am contacting you about a study I am doing. I am studying the influence of Instagram on the creativity and design process of fashion design students in Saudi Arabia and the United States. Participating will require about 10-15 minutes of your time. If you would be willing to help me with the study, please click on the link below to begin the survey.

https://bsu.qualtrics.com/SE/?SID=SV_1LFB8OerGxDchy5

Thank you very much for your time and cooperation

Khawlah Otayf
D-2 Second letter of request

Reminder to complete survey

Hello,

This is a reminder email about my survey. My name is Khawlah Otayf. I am a graduate student at Ball State University, in Apparel Design in the Department of Family and Consumer Sciences. I am contacting you about a study I am doing. I am studying the influence of Instagram on the creativity and design process of fashion design students in Saudi Arabia and the United States. Participating will require about 10-15 minutes of your time. If you would be willing to help me with the study, please click on the link below to begin the survey.

https://bsu.qualtrics.com/SE/?SID=SV_1LFB8OerGxDchy5

Thank you very much for your time and cooperation

Khawlah Otayf
Hello,

This is a final reminder email about my survey. My name is Khawlah Otayf. I am a graduate student at Ball State University, in Apparel Design in the Department of Family and Consumer Sciences. I am contacting you about a study I am doing. I am studying the influence of Instagram on the creativity and design process of fashion design students in Saudi Arabia and the United States. Participating will require about 10-15 minutes of your time. If you would be willing to help me with the study, please click on the link below to begin the survey.

https://bsu.qualtrics.com/SE/?SID=SV_1LFB8OerGxDchy5

Thank you very much for your time and cooperation

Khawlah Otayf