

Collaborative Creativity in Cake Design

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Abstract

This is a reflective paper about my journey as a communication student, documentarian and filmmaker of *A Piece of Love*, a short documentary film. The film explores how collaborative creativity is realized in cake design through the lens of Sonnenburg's framework for collaborative creativity. The film sheds light on the differences and similarities of the manifestation of collaborative creativity across both Saudi, American and Latin cultures. The pre-production, production and post-production processes of making *A Piece of Love* are discussed and justified in this work. The current paper offers analysis of the study findings based on the guiding framework.

Keywords: art, cake, collaboration, creativity, culture, design, documentary

Collaborative Creativity in Cake Design

“ A party without cake is just a meeting” - Julia Child (as cited in Armour, 2013)

Cakes were first introduced as party centerpieces in the sixteenth century (Humble, 2010). They have evolved from being just “flat rounds of crushed grain” (Humble, 2010, p.10), as archaeologists discovered in one of the ancient villages in Switzerland, to being artistically designed and decorated. Over time, their appearance became valued as much as their taste (Humble, 2010). Antonin Carême (1784-1833), the first celebrity chef and a famous French patissier known for his classic French cooking books and fine architectural confections, was also one of the first chefs to draw the world’s attention to cake art stating that “the fine arts are five in number – painting, sculpture, poetry, music, architecture – whose main branch is confectionery” (Humble, 2010, p. 33).

This project focuses on one dimension of cake art: cake design and cake designers. Cake art, a branch of confectionery arts, is a broad term that encompasses the art of cake baking, cake decorating, and cake design. Among cake baking and decorating, cake design requires the highest level of skill. It requires the creation of new combinations of unfamiliar colors, textures and forms (Cohen, 2014) to deliver unique and original cake designs that are effective and valuable in their domains. Examples of professional cake designers include: Maggie Austin (a professional American designer well known for her sugar frills and flowers); Lori Hutchinson or “The Caketress,” (a Canadian designer famous for edible sequins); Zoe Clark, (a British designer well-known for her edible-lace techniques); and Nicholas Lodge, (a prominent American designer whose sugar flowers techniques are taught all over the world). Taking into consideration that novelty and effectiveness, or usefulness, are two key components of any creative product according to many scholars such as Amabile (1988) Mumford and Gustafson (1988) and George (2007). One can conclude that creativity forms the essence of the art of cake design.

Previous research on creativity varied from investigating the definition of creativity (Amabile, 1988; Robinson, 2006; Sternberg, 2001), the characteristics of creative individuals, ideas and products (Cropley, 2001; Mrnarevic, 2010; Sternberg, 2001) and creativity measurements and assessment (Cowdroy & Williams, 2006; Cropley, Kaufman & Cropely, 2011; Villalba, 2008). Some scholars studied creativity as an attribute of individuals (Plato, 1996; Wallace & Gruber, 1989) while others perceived it as a process (Robinson, 2006), and other theorists viewed creativity as social structure (Csikszentmihalyi, 1999). Moreover, additional studies examined creativity in relation to various art forms such as film production (Courtois, Mechant & De Marez, 2012), advertising (Sykes, 2012), theater (Sawyer & DeZutter, 2009), design (Cropley & Cropley, 2010; Demirkan & Haserci, 2009), and visual arts (Lindstrom, 2006) in addition to art in general (Cowdroy & Williams, 2006; Grierson, 2011; Smith, 2014).

Despite the diversity of research on creativity in art, the scholarship does not apply creativity to cake art and, in particular, cake design. Research on creativity and communication in cake design should be conducted amid the fast-paced development of this art all over the globe. This study aims to add to the understanding of collaborative creativity in the context of cake design. Accordingly, it could be used in baking and confectionery schools to help identify and encourage effective practices that foster cake designers' creativity. Investigating creativity in cake design will reveal the influence of communication practices and cultural structures on cake designers, which will facilitate the creation of a concrete common ground for all of cake designers in the world regardless of their cultures and backgrounds. Such research will pave the way for global collaboration to enrich the diversity in this creative sphere.

Although cakes acquire special position and symbolism in most cultures (Humble, 2010), and although the European traditions of pastry were borrowed from Arabs in the sixteenth century (Humble, 2010), Arabs' art of cake design did not actually flourish until the last few years. Being one of the first

generations of cake designers in Saudi Arabia, where no documentation or considerable recognition of this art exists, I took the initiative to combine my passion for cake design and my communication studies by examining the meaning of creativity from cake designer's perspective, and how collaboration in the context of cake design generates creativity.

Since collaboration plays a profound role in creative design work due to the fast-moving competition in the contemporary world (Feast, 2012), this research investigated whether collaboration represents a critical dimension of creativity in cake design or not. By making a short documentary film, in which I interviewed a number of Arabian and American cake designers, the similarities and differences in the manifestation of collaborative creativity in cake design across cultures were revealed.

The study was conducted through the lens of Sonnenburg's (2004) theoretical framework for collaborative product creation. Sonnenburg (2004) suggested that communication forms the foundation stone of any creative collaboration. Based on this model, the study investigates creativity in cake design in "specific collaborative situations" (Sonnenburg, 2004, p. 265) via examining the communication mediums and types, working styles and collaborative practices adopted by the study's participants during the creation of cake designs. This study attempts to answer the following research questions based on Sonnenburg's (2004) theoretical framework for collaborative creativity:

RQ 1: How is creativity realized through collaboration in the context of cake design?

RQ 2: What are the similarities or differences in the manifestation of collaborative creativity across cultures?

The decision to conduct this research as a documentary film stems from my belief that it is an effective medium to communicate a message to a target audience. A documentary film is an excellent vehicle to explore cake design because like film, cake design is a visual art. Presenting the information in this visual format is more effective than only presenting it as a written paper.

I selected documentary film as my methodology to illustrate the creative aspect of this art, which has been scholarly marginalized. I remember the first day I met my project advisor and informed her about my research topic. She was confused about what I mean by cake art or cake design. Her reaction, and the fact that cake art has not been academically studied, solidified my determination to shed light on it through the lens of collaborative creativity. Furthermore, in full disclosure, I am a cake designer myself and believe that research on cake art can enrich academic scholarship about communication and creativity.

Cake design involves many creative, collaborative, and communicative aspects because cake designers work with clients to fulfill their requests. All cake design orders require communication between the client and the designer. The client has to interact with the cake designer to place his/her request, to negotiate the cake design, which usually contributes to the creative process of cake design.

In the following sections, I considered my learning from this experience as a documentarian and filmmaker elaborating the entire process of making the documentary film, including the pre-production, production and post-production phases. The literature review that informed the content of this work is in Appendix A, and Sonnenburg's (2004) model for collaborative creativity, my guiding theoretical framework, is included in Appendix B. The paper aims to reflect on my journey in working on this project as a student of communication and media production.

Pre-Production

My capstone and project advisors played profound roles in informing me about the art of documentary making and equipping me with the necessary tools for this project. I have been introduced to the different approaches of documentaries, recommend watching some documentaries from each approach, and advised to read a number of materials concerned with documentary making, including

Documentary Storytelling: Creative Nonfiction on Screen by Sheila Curran Bernard (2011). After reading about the various approaches of documentaries and watching a number of documentaries such as *Spinning Plates* (2013), *Nobody's Business* (1996), *Indie Game: The Movie* (2012), *Seven Up!* (1964) and *Man with a Movie Camera* (1929), I decided to combine both first-person essay and group biography approaches in my film, where I interviewed seven cake designers and two of their assistants and one client in addition to narrating my own story as a cake designer.

The primary criteria for selecting the participants includes their high-quality work and innovative approach, their locations, and availability. The quality and novelty of the cake designers' creations were highly considered when selecting the study's participants. The work quality was measured in accordance to the standards of sugar art suggested by International Cake Exploration Société (ICES). The ICES is a non-profit organization founded in the United States in 1976 to promote the exploration of sugar arts (ICES, 2011). In 1982, the ICES introduced to the world a set of guidelines for cake show judging, and by time, they have structured the norms of cake art all over the globe. Therefore, I chose the cake designers who meet the basic standards of the original, neat, well-balanced cake design's qualifications set forth by the ICES.

Thus, I reached out a number of cake designers located in the States, namely in San Francisco, Raleigh, Tampa and Charlotte, and others located in Saudi Arabia and Qatar via E-mail, phone calls and WhatsApp, a smartphone instant messaging application. Many of them have not responded to my messages and calls; some of them rejected my offer, and a few accepted to participate in my study. To save time and effort and based on my instructors' advice, I narrowed it down to cake designers located in Charlotte and Saudi Arabia and ended up with ten participants, including me. The Saudi cake designers who agreed to participate in the film are Zahra Al- Moghalliq, Alaa Al- Hawaj and Salma Al- Hashimi. The American participants are Ella Hailey, Ella's husband and colleague, Curtis Bonwell, and

Lisa Toohey in addition to the Latino cake designer Ines Aranguren and her husband, Giulio Turturro, whose origins are Italian. Natalie Robinson, Ines's assistant and former client, is among the American participants, too.

The interview questions were set in accordance to Sonnenburg's (2004) model for collaborative creativity. In addition to asking the participants questions about their beginnings in the domain of cake design, their definitions of creativity, and their motivations for making cakes, the majority of the interviews' questions shed light on the key aspects of Sonnenburg's (2004) framework such as mediums of communication, different phases of collaborative creativity's process, and nature of relationships' between collaborators. Based on these questions, and after visualizing the film's structure, I created the film's storyboard, wrote the potential narration, acquired necessary equipment for production and travelled to Saudi Arabia to start the filming process.

Production

The production process started in Saudi Arabia in December 2014. I started filming the needed footage for the documentary's introduction and for the portions of the film that are about me. I also took the initiative and filmed few more hours of possible footage (e.g. cake decorating tools, food colorings, cake sketches, bridal bouquets, a wedding gown, fabrics... etc.) that might be used in the film during the other participant's interviews, and I did use them. Many of these shots were included in the storyboard I submitted within my project proposal.

The interviews were conducted in three cities on the eastern coast of Saudi Arabia: Saihat, Safwa and Al Khobar. The rest of interviews took place here in Charlotte. Due to the limited timeframe I had in Saudi Arabia in addition to the Saudi cultural issues in privacy, I was not able to conduct any interviews with cake designers' clients. Since all of the Saudi participants mostly work alone, I did not

interview any Saudi assistants or employees. Thus, Saudi participants were only cake designers while the American and Latino participants varied from cake designers and their assistants to their clients.

In Saudi Arabia, I spent around six hours, divided onto two days, with the cake designer, Zahra Al-Moghalliq to film her interview and shoot some footage of her while working on some sugar figurines, sugar flowers, wafer-paper flowers, and buttercream. I also filmed her while having a look at some of her favorite cake books. Similarly, I spent about seven hours, divided onto two days, with Alaa Al Hawaj and her family. In addition to filming her while working on two dummy cakes and some sugar flowers, I interviewed Alaa Al Hawaj and had the chance to talk to her mother and sister who support her and lend her a hand when she needs. I tried to convince her mother to be a part of my film after listening to her insightful contribution and witnessing her outstanding support for her daughter, but she refused to appear in the media, which I totally understand. I am Saudi and recognize how much Saudis highly value their privacy and, accordingly, a considerable number of Saudi females do not prefer to be seen in the media.

Salma Al Hashimi, the third Saudi participant, was interviewed and filmed for approximately three hours due to her busy schedule. Moreover, upon her request, I was not able to film her while working on her cakes in her kitchen due to privacy issues, again. Thus, I did not film adequate coverage for her part in the film, and, unfortunately, she was not collaborative enough to send me photos of her while working on her cakes or even send me HD photos of her cakes. These circumstances resulted in a tremendous lack of Salma's B-rolls in the film.

Due to my limited timeframe I had in Saudi Arabia, I was not able to film establishing shots of the different cities in Saudi Arabia, in which I conducted the interviews. Establishing shots are those by which the scene starts and that are "intended to help identify and orient the location or time for the scene and action that follow (as cited in Film Language Glossary, 2015). I handed over this task to my sister

and my friend when I came back to the States. They took some establishing shots of Eastern Province, Al Khobar and Saihat, where my home is located, but, unfortunately, they were not able to film the houses' of the Saudi cake designers because of privacy issues. As mentioned previously and repeatedly, the majority of the Saudi society is highly concerned about their privacy according to their tradition and culture, which also prevented me from interviewing any of the Saudi participants' clients, especially that most of them are female, and restrained me from taking establishing shots of their homes or even film enough coverage of one of the participants' work.

In each interview, I learned something new about filmmaking. Since this is my first experience as a documentarian and filmmaker, the film's cinematography and interviews were getting better each time. One of my priorities was reviewing each new interview before starting the other ones to recognize their weaknesses and strengths. This helped me a lot to avoid many mistakes regarding the speed of camera movements, focus, stabilization, shot's angles, and quality of sound. Moreover, the first couple of interviews opened my eyes to me the importance of having a good connection between the participants and me. For this reason, I paid more attention to creating common grounds between the American interviewees and me before starting filming to ensure conducting friendly, spontaneous interviews. Having the opportunity to review the Saudi interviews and shots before starting shooting in the United States helped me to avoid some mistakes and encouraged me, based on my advisor's advice, to use new techniques and equipment to enhance the quality of my cinematography, such as using a camera slider to film more professional shots.

In the United States, I had the chance during the past two months and half to interview four cake designers: Lisa Toohey, Ella Hailey, Curtis Bonwell and Ines Aranguren. I spent about six hours with Curtis, Ella and their little son for the interviews and coverage, which included filming them while working on a couple of dummy cakes, making wafer-paper flowers and practicing various cake

decorating techniques such as painting and piping. As for Lisa Toohey, her interview and B-rolls filming took about four hours, and since her schedule was too busy, I could not interview any of her clients or assistants.

Although Ines Aranguren was the last cake designer that agreed to participate in the project, she made valuable contributions to this study. She is Latino, which enriches the diversity aspect of my project. I had the opportunity to interview her husband, Giulio Turturro, who assists her in cake design, and Natalie Robinson, who happens to be a former client of Ines. Ines also wanted to provide me with another client for the interview, but, unfortunately, due to her busy schedule and due to a death in their family, I could not conduct this interview. However, the total duration of Ines, her husband and client's interviews and coverage is about ten hours in two visits. I filmed her while making wafer-paper flowers, buttercream, sketching a cake, airbrushing a cake, browsing some of her cake photos, and working with her assistant on cake pops. I interviewed Natalie as a client and as an assistant. Since Ines and Natalie were busy and actually working on a cake pops order the night I conducted Natalie's interview, we did not have the opportunity to film both of them discussing a cake design. Unlike Saudi Arabia, I did not encounter any considerable obstacles when filming Charlotte's establishing shots.

The cake designers were asked 24 questions whereas the assistants and client were asked six questions. The questions addressed the key components of Sonnenburg's (2004) model for collaborative creativity such as the stages of the creativity process as well as the influence of the medium of communication and the nature of connections among collaborators on their collaboration as well as their creativity in order to answer my research questions. In addition, the participants were asked to define creativity and creative cake artists to examine these definitions and compare them to pre-existing definition in creativity literature. Adding more vivacity to the film and inspiring the audience, the participants were also asked some questions about the reasons behind making cakes and what they have

acquired and learned from their journey in cake art, which I used to frame and bookend the beginning and ending of the film. In terms of cinematography, I relied on my previous amateur photography expertise guided by my instructors' advice and my photographer friends' suggestions and recommendations. Since the day I decided to make this documentary, I have been visualizing my scenes and sketching them out, which facilitated the filming phase of my project.

Post-Production

The post-production phase of this project included editing the documentary using Final Cut Pro X. This was my first time to use FCPX, but one of my project advisors, Professor Joseph Cornelius supplied me with the necessary information to explore this software. I had a workshop with Professor Cornelius, where he introduced me to FCPX and its tools. Thus, after categorizing the 20-hour footage I filmed, I started selecting the portions that help to answer my main research questions and assembling them employing the storyboard I created last semester and trying to follow the film structure I proposed last semester. Each piece of footage is in the film for a reason.

Since Sonnenburg's (2004) theoretical framework for collaborative product creation, which is concerned with the creativity process in certain creative, unique projects, I planned last semester to focus on one cake project for each cake designer in the film. Therefore, the participants were asked some questions about their experience in making one of their most creative cakes: whether the creation process was individualistic or collaborative and whether they faced any challenges during making these cakes or not. I meant to use their responses to these questions to take the audience to a journey to these cake designers' worlds, where the main characters, the participants, attempt to achieve particular goals (designing creative cakes) and satisfactory end (having creative designs). However, when I started editing the film, I was not able to confine it to this plan.

The main reasons I did not follow this plan in the film is because (1) the majority of the participants' answers to these specific questions are either too long or not informative or insightful enough, and (2) many of them do not have any photos of their most creative cakes anymore. This lack of compelling visual evidence contradicts the fundamental reason I selected the documentary film medium. Therefore, I changed my plans. Going through this experience and encountering this inconvenience turned me to a more flexible filmmaker that accepts the unpredictable and smoothly adapt to the change because when you make a documentary, you cannot be sure that you will stick to your original plans. You do not really know what your investigation will unveil or what your interviewees will reveal.

The film starts with selected commentary by some of the participants highlighting the diverse reasons behind their making of cake. Beginning the film with their cheerful commentary is a hook to attract the audience, introduce them to the majority of the film's participants and indicate the cultural diversity within the documentary. In the same manner, the film ends with voiceovers of some of the participants stating what they have acquired and learned from their journey in cake design followed by my voiceover narrating a brief conclusion. This conclusion is followed by commentary by one of the participants, Ines Aranguren: "The thing I have noticed among creative cake artists is this: Everybody is a complete different. That is the similarity. We are all as different as night and day." I wanted this statement to be the last thing the audience hear and see because it captures the essence of the entire film.

I avoided asking the participants direct questions about the general differences or similarities in the manifestation of collaborative creativity in cake design. This is to give the audience the freedom to anticipate, conclude and understand these similarities and differences based on the diverse experiences of the participants. The film intentionally includes responses of cake designers that address the same notion and might convey the same idea in order to indicate the similarities in the realization of collaborative creativity in cake designs across cultures. Several aspects of the film contribute to the

representation of cultural diversity. First of all, the participants speak two different languages: Arabic and English, and the film contains both Arabic and English subtitles as well. Second, the film contains a plethora of establishing shots of both Charlotte and the different Saudi cities, where the participants are located. Third, the appearance of each Saudi, American and Latino participant varies and represents a unique identity and different culture.

The majority of the filmed B-roll footage was used to illustrate the study's primary dimensions. For example, footage of two cake designers discussing one of their future sugar creations was used to illustrate some of the stages of the collaborative creativity process included in Sonnenburg's (2004) model such as brainstorming. Such footage also highlights the interaction among cake designers, which is, according to Sonnenburg (2004), the core of collaboration. The B-rolls of cake designers answering their clients calls and texting them using Whatsapp is used for the same purpose, shedding light on the interaction piece, as well as for indicating another aspect of Sonnenburg's (2004) framework, which is the influence of using different communication mediums on collaborative creativity. The same principle is applied to the parts of the film when one of the participants talks about collaboration or working with a team in cake design. Here, I used B-roll footage of her and her assistant working on a cake to illustrate and reinforce the collaborative dimension of their work.

Similarly, some of the footage was used to demonstrate specific cake design techniques that are difficult to explain or illustrate in written research. This is why I included footage of a cake designer "piping" a cake, making "wafer-paper" flowers and painting on a cake whenever an interviewees talk about these techniques. The shot material was also used to signalize the cultural differences. When one of the participants, for instance, mentions her Spanish heritage, the audiences see a Spanish-styled piece of fabric and hear Latin guitar. Assembling the film was a demanding and time-consuming task, but I

have learned a lot from this experience; I have realized the primary role of a film's editor, who is simply and basically the actual filmmaker.

The way the editor assembles the different bites of footage determines how the story is being told and how audience will receive it. Acknowledging this fact made me more precise when choosing the timing, content aesthetics of each single frame of the film in order to generate the desired intellectual or emotional effects, to highlight a particular aspect of the story, or to create a context for a presented fact or claim. For example, I intentionally ended the film with voiceovers of many of the participants about what they have learned from their journey in cake design accompanied by footage of them smiling and laughing to empower and inspire the audience. In regard to highlighting particular dimensions of the story, I chose to include Ella's part of the interview where she talked about her husband role in Ella's Celestial Cakes, followed by her husband interview talking about her role in their cake business, and then followed by Ines's response where she also talked about her husband and their complementary relationship. I intentionally edited this part of the film in this order to emphasize the dimension of Sonnenburg's (2004) framework about the influence of the nature of relationship between collaborators on their collaborative creativity. I wanted to highlight how the complementary relationship between Ines and her husband and between Ella and Curtis provokes their creativity. In addition, creating the context for cultural diversity is obvious in many parts of the film. For instance, I used Arabian music (Oud) and included a shot of Salma, a Saudi participant, holding a traditional cup of Arabian coffee right before when she talks about the traditions in Saudi Arabia and how the Saudi does not encourage face-to-face communication with her clients.

As a Student, As a Filmmaker

This research really was a profound opportunity to "launch my passion into practice", to apply a communication theoretical framework to a practical context. This study introduced me to the concept of

collaborative creativity. It enabled me to explore my passion, cake design, through a scholarly lens. Furthermore, this project was an exceptional experience to meet and form friendships with American and Saudi cake designers and examine their conceptions and insights on creativity, collaboration and communication in cake art discipline. This research opened my eyes to the fact that our similarities, as cake designers, surpass our differences.

However, the weird thing I have noticed about Saudi cake designers during conducting this research is that it is hard for them to admit they collaborate by any means. The definitions of collaborative and individualistic efforts are ambiguous in the Saudi cake's culture. Most of the Saudi participants, if not all, stated that they work individually without any kind of collaboration or external help. However, when I started asking them my questions regarding collaborating with family, friends and clients to design their cakes. They admitted they work along with the clients to design cake to match their occasions. The clients provide them with details about their parties and their demands in their cakes, and accordingly, the cake designer starts the brainstorming phase and re-interact with the client to negotiate his/her suggestions and ideas.

According to this study, as for the communication mediums (such as email, phone, etc.), there are obvious differences among the mediums Saudi Arabian cake designers use to contact and interact with their clients and those mediums used by American cake designers. Most of American cake designers rely on phone calls and email for placing cake requests, and when discussing the cake design with clients, they usually adopt another medium: Face to face interaction, especially in wedding cakes.

American cake designers prefer face-to-face interaction when negotiating cake designs with clients because it enables them to collaborate with them effectively, which is consistent with my personal beliefs and experience. According to the American and Latino participants, face-to-face interactions allow them to know the clients' backgrounds, cultures, personalities and preferences, and

accordingly, generate cake designs align with the clients' different backgrounds and personalities. Moreover, they reported that face-to-face communication facilitates building connections with the clients, which motivates both parties to maximize their potentials and unleash their creativity. When clients come over cake designers' houses or shops, they get the chance to examine samples of the different possible techniques that can be made in their cakes, which encourage them to get out of the box and give the designer the freedom to implement new techniques and styles. These findings align with Sonneburg's (2004) model for collaborative creativity, which considers the medium of communication as a main factor that impacts collaboration during any creative process. For this reason, I included some of the participants' answers in this regard in the film, trying to show the similarities and differences across cultures in this domain.

On the other hand, the majority of Saudi participants rely on tool-mediated communication, including E-mail, phone and WhatsApp, a smart phone instant texting application that enjoys a tremendous popularity in Saudi Arabia. Although they all agree on using these technology-mediated tools, they differ in their preferences. Two of the Saudi participants preferred E-mail for communicating with their clients and considered WhatsApp as an annoying, non-professional and useless method for negotiating cake designs with clients.

Surprisingly, the third Saudi participant, Zahra, perceives WhatsApp as the most effective medium to communicate with her clients and to discuss their cake designs. The synchronicity of WhatsApp and the multiple functionalities of this app such as sending and receiving instant text messages, photos, videos and even voice messages are the key attractors of WhatsApp, according to Zahra. As for me, I rely on E-mail for placing cake requests, phone calls for discussing some of the cake design's details and for getting to know the client more, and face-to-face interaction for negotiating further details in wedding cakes and to know the client's in depth and build connections with her.

Consistent with Sonnenburg's (2004) model, some of the participants (Salma, Ella, Curtis and Ines) indicated that their collaboration with their partners/co-workers is influenced by the nature of connection between them. Salma, for instance, reported that she collaborated with her instructor (a cake designer as well) to design her sister's wedding cake, and she believes her friendship relationship with her instructor impacted their ability to collaborate, and contributed to unlocking their creativity. Her instructor was a close friend of her. Based on their relationship, she trusted Salma and gave her the freedom to get creative when designing her sister's wedding cake. Unfortunately, I did not include this story in the film because it is too long for a short documentary. Salma also did not provide me with enough photos of the cake or even the photographs of her while making this particular cake, so I lacked the appropriate visual evidence to support her ideas in the film.

Moreover, Ines addressed the same notion. She stated that being close to her husband has negative and positive impacts on their process of creativity. Since they know each other well and understand each other, she forgets to ask him to get further information or suggestions, which might limit creative possibilities sometimes. Ella and Curtis reported similar responses. Although they appreciate having each other as collaborators in different stages of this process, they sometimes find it hard to align their different ideas and avoid conflicts that might spill over their personal lives since they are at-home co-workers and a couple.

Overall, the film highlights these findings: collaborative creativity in cake design can be realized via working within a team, a partner or an assistant in any of the different stages of making cakes starting with brain storming and ending with assembling the decorations to the cake. It also can be realized via negotiating the design with the client via different mediums: technology-based tools or face-to-face interactions. Getting to know fellow cake designers and looking at their designs to inspire original, unique designs is another way of manifesting collaborative creativity. Cultures do influence the

manifestation of collaborative creativity in cake design. Although cake designers across cultures differ in the choice of mediums through which they interact and communicate to realize collaborative creativity and in their preference of working with a team or solo, their similarities are much more. Cake designers from different cultures have much in common regarding their conceptions of collaboration in cake design, the stages of the collaborative creativity process they go through, their definitions of creativity in cake design, and the effect of the nature of relationship among collaborators on their creativity process.

This project introduced me to the art of filmmaking. It paved the way for me to recognize my aptitudes in this domain, including editing, directing and cinematography. With my advisors' guidance, by working on this project, I learned how to conduct fruitful interviews as well as how to set good interview questions. I learned the different approaches of documentary films and the principles of visual storytelling. Furthermore, I learned how to effectively edit films using advanced tools such as Final Cut Pro X. I learned how to create a storyboard for a film, and since I am a visual person, this was an easy task. This project unleashed my creativity and maximized my potentials, namely, in the fields of cinematography's potentials. Basically, this project turned me to a documentarian, to a filmmaker.

Limitations

Limitations that might affect the depth of the research include the limited demographic of my study sample. Only three cultures were investigated here: Saudi, American and Latino. The timeframe of the production process as well as the limited duration of the film prevented studying further cultures or more cake designers, their assistants or clients. For this reason, the results of this research might not be generalized to all of cultures or cake designers. Furthermore, since privacy is a major issue in the Saudi culture, I was not able to interview Saudi clients and take establishing shots film of the Saudi

participant's houses. The limited timeframe I had in Saudi Arabia and even in the States, and the busy schedule of the participants constrained me to spend more time with them and film more footage to illustrate each aspect of the research findings.

Project Benefits

Pursuing my path as being an inspiration for many cake designers and decorators in my country, Saudi Arabia, I decided to conduct this study to draw scholars' attention toward documenting this art, studying its diverse aspects, and perceiving it as a medium of communication through which cake artists convey their creativity, thoughts and insights. This research shed light on the essential role of communication in provoking collaborative creativity, which might trigger further research on communication and creativity in cake design, or confectionery arts in general. Further studies could investigate the influence of leadership styles on creativity in cake design and the role of cake designers' personality attributes in the actualization of the concept of creativity in their art. Food is a popular topic around the world. It is prevalent in private conversations and in mass media—particularly on reality television. Yet apart from the field's environmental and culinary science, little academic work is being done about the topic in regard to its creative and artistic potential. This project may open up the ways that scholars can investigate, discuss, and publish research about this critical global topic.

Possible benefits of this study may include stimulating communication, art and creativity scholars to explore this field of art. This documentary may encourage aspiring cake decorators to evolve into cake designers who deliver novel masterpieces that mirror their artistic palates and potentials and contribute to the evolution of cake art's domain. Also, including cross-cultural success stories, the film might inspire cake designers to collaborate and enhance their creative performance. The study might be utilized to identify effective practices to foster creativity in small businesses, art crafts, and confectionery schools and institutions. Overall, this study might enrich creativity research by adding

another branch of art to be explored, theorized and utilized to deeply examine the various conceptions of creativity.

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Academy of Management Review, 18, 293-321. Appendix One

Appendices

Appendix A Literature Review

The Meaning of Creativity

A perfect definition of creativity does not exist. Each definition sheds light on a certain aspect of creativity; however, previous research points to a consensus that effectiveness and novelty are fundamental components of any creative product or idea. James, Clark & Cropanzano (1999) defined creativity as “the ‘process’ of generation and elaboration of ideas or products that are both novel and useful” (p. 211). Amabile (1988), Mumford and Gustafson (1988), George (2007) and Ochse (1990) Sternberg’s (2001) cite similar definitions for creativity. Sternberg (2001), for instance, expressed this concept as the “ability” to produce ideas that are novel, high in quality, and appropriate to the task. Amabile (1988) and Scott & Bruce (1994) defined creativity as the generation of both useful and novel outputs. Woodman, Sawyer, and Griffin (1993) suggested that the creative outputs might be in a form of a product, service, idea, process or procedure.

In their research on positive and negative creativity, James, Clark and Cropanzano (1999) asserted that creative outputs must be both original (different from what is already existed in their domains) and useful in their fields (James, Clark & Cropanzano, 1999) unlike those generated by intelligent people, which are useful and high in quality, but not necessarily novel (Sternberg, 2001). Possessing only one of these two characteristics does not make the idea or product creative (James, Clark & Cropanzano, 1999). When addressing the novelty aspect of creativity, Sternberg (2001) indicated that creative ideas or products are also paradigm rejecting ones. They are beyond the common expectations and norms of their subject matter; creative products usually redirect their domains (Sternberg, 2001).

In this proposed study, the definition of creativity and the fundamental characteristics of creative products and ideas will be explored from the interviewees’ perspectives. They will be given the freedom

to generate their definitions of creativity from their points of view as cake designers. Accordingly, the participants' definitions of creativity will be compared to the definitions mentioned above and identify any differences or similarities taking into account the cultural diversity of the interviewees. However, it is worth mentioning that James, Clark and Cropanzano (1999) concurred with Lubart (1990) and Weisberg (1993) that assessing novelty and usefulness is culturally influenced and subject to the cultural and social norms of individuals and groups (James, Clark & Cropanzano, 1999). These studies demonstrate the importance of examining how creativity has been researched as a social phenomenon.

Creativity as a Social Phenomenon

Addressing scholarly research that discusses creativity as a social phenomenon proves essential to this study since it aims to shed light on the influence of cultural differences and similarities on creative collaboration. According to Winer and Ray (1994) collaboration usually results from social interaction that leads people to work together in novel ways. In this regard, Csikszentmihalyi (1990) proposed the systems model of creativity.

The systems model of creativity suggests that creativity results from interaction between three elements: the person, the domain, and the field. First, the *person* refers to the individual who makes a change in the domain (Csikszentmihalyi & Wolfe, 2000). Possessing certain qualities such as having considerable knowledge of the domain, and unique combination of personality traits such as constant curiosity, sensitivity and higher intellectual standards enable the person to generate original products and ideas that are valuable to their domains (Csikszentmihalyi & Wolfe, 2000). Second, the *domain* refers to the subject matter of the creative contribution. Assessing the novelty of the contribution requires exposing the contribution to the already-existed contributions, ideas, information and beliefs, which constitute the domain, and, accordingly, the culture (Csikszentmihalyi & Wolfe, 2000). The third component of the systems model consists of the *field*, which refers to the social structure, or “the social

organization of the domain,” which has the authority to evaluate the originality and usefulness of the contribution, product or idea (Csikszentmihalyi & Wolfe, 2000, p. 89).

Thus, according to this model:

“Creativity occurs at the interface of three sub-systems: An Individual who absorbs information from the culture and changes it in a way that will be selected by the relevant Field of gatekeepers for inclusion into the Domain, from whence the novelty will be accessible to the next generation” (Csikszentmihalyi & Wolfe, 2000, p.83).

Taking these three components and their relations into account paves the way for gaining broader understanding of creativity and its social aspects (Csikszentmihalyi & Wolfe, 2000). Miller (2012) referred to this model and clarified the affects of its various components. In this regard, Miller (2012) asserted that, according to the systems model, not only the individual is concerned with the creative process, but also the area, which determine the appropriateness of the product as well as the social context who accepts or rejects the creative product. In other words, any creative behavior should be observed and understood in accordance with its social context (Csikszentmihalyi, 1999) unlike Maslow’s (1963) argument, which devalues the role of social recognition and perceives the process of generating the creative product as the primary determinant of its creativity regardless of its social context. Csikszentmihalyi & Wolfe’s (2000) and Miller’s (2012) findings are consonant with Sternberg’s (2001), belief that assessing creativity requires a constructed system that creative individuals interact with and are evaluated based on the system.

In his text on culture and creativity, Ludwig (1992) addressed the relation between culture, also considered social structure, and creative behaviors. Ludwig (1992) concluded that culture has a considerable affect on the form, nature, and outlets for creative artistic works. According to Ludwig (1992), society plays a crucial role in fashioning the context of creative behaviors by the appreciation or

devaluation of certain behaviors, which makes studying this complex relation between cultural expressions, including the arts, and creative behaviors a necessity for understanding creativity.

Ludwig (1992) examined the various perspectives on what people considered valued and creative in several cultures and concluded that the American and German cultures appreciate novelty whereas Indian culture values curiosity. Ludwig (1992) also referred to the fact that every society contains individuals who challenge the existed social structures and attempt to re-initiate the social norms paving the way for crafting the nature and tailoring the form of art of that culture. This notion is similar to Sternberg's (2009) perspective previously mentioned that creative products redirect the norms of their domains. Considering these cultural differences and roles in addition to the other factors that influence creativity, which are discussed in the following section, equips me to conduct effective analysis of the study's participants' perspectives on creativity based on their cultural diversity and individual differences.

Creativity and Individual's Attributes

Communication forms the core of the creativity process according to Sonnenburg's (2004) theoretical framework for collaborative product creation. Therefore, examining scholarly research on the personal characteristics that impact an individual's creative ability is needed to realize the factors influencing an individual's tendency to collaborate and communicate effectively. In their study of leadership and employee creativity, Tierney, Farmer & Graen, (1999), pointed to two factors that influence the individual's ability to generate creative outputs: innovative cognitive style, and intrinsic motivation for creativity, which Runco (2007) also addressed.

Innovative cognitive style refers to an individual's ability to produce original ideas, while intrinsic motivation for creativity refers to an individual's pleasure when generating original ideas (Tierney, Farmer & Graen, 1999). During the problem-solving process, the core of the creative process,

individuals with innovative cognitive style tend to “integrate diverse information, redefine posed problems, and generate ideas likely to deviate from the norm” (Tierney, Farmer & Graen, 1999, p. 593). This is consistent with Ludwig (1992) and Sternberg’s (2009) conclusions that creativity requires challenging a pre-existing paradigm.

Tierney, Farmer & Graen (1999) investigated the relationship between these two personal traits and leadership styles, and their effect on the enhancement of creativity within organizational or social contexts based on the belief that creativity is influenced by the interaction between leadership patterns and the characteristics of the employee’s personality (Oldham & Cummings, 1996). They concluded that when individuals are intrinsically motivated to perform creative tasks, they are more likely to generate creative products or ideas (Tierney, Farmer & Graen, 1999). Moreover, the study indicated a relationship between that bosses and their employees possess the same level of innovative cognitive style and intrinsic motivation, and their ability to make creative contributions. Creativity occurs in the environments where both an individual, and his or her boss enjoy similar high levels of innovative cognitive style and intrinsic motivation for creativity (Tierney, Farmer & Graen, 1999).

Similarly, in his study on individual creativity and the impact of mindful leadership on innovation, Gehani(2011) highlighted three fundamental indicators of creative individuals: creative thinking personality and cognitive abilities, mastery of domain-specific discipline, and subjectivity of creative output and courage. Gehani (2011) indicated that a creative thinking personality possesses the quality of high tolerance for ambiguity, self-dependence and independence, lack of concern for social approval, persistent pursuit of a challenge, risk taking and an exploratory cognitive style or heuristics to seek new perspectives on a problem which can be improved through learning (Gehani, 2011). Some of these skills were addressed by other scholars such as lack of concern for social approval (Ludwig, 1992), risk taking (Runco, 2007), heuristics to seek new perspectives and challenge cultural context (Ludwig,

1992; Sternberg, 2009; Tierney, Farmer & Graen, 1999), tolerance to ambiguity (Runco, 2007), and the exploratory cognitive style, or curiosity (Ludwig, 1992; Runco 2007).

Mastery of a domain-specific discipline and acquiring enough expertise and broad knowledge of the subject matter equip an individual with the necessary tools to make creative contributions to the discipline (Gehani, 2011). As for subjectivity of creative output and courage, Gehani (2011) referred to the fact the creativity is subjective, and individuals hold different perspective regarding what constitutes innovative products or ideas. For this reason, according to Gehani (2011) and Runco (2007), one of creative individuals' attributes is courage. Creative individuals should be courageous enough to encounter their society's pre-existing interpretations of creative products or ideas (Gehani, 2011; Runco, 2007). Reviewing some of the scholarly texts on the various personal attributes of creative individuals will create the foundation for examining the different factors, including individual's personality traits that influence the process of collaborative creativity.

Creativity as a Process

Many scholars perceive creativity as a process (James, Clark & Cropanzano, 1999; Robinson, 2006; Woodman, Sawyer & Griffin, 1993) rather than just an individual attribute. The proposed research uses Sonnenburg's (2004) model as its guiding framework, which examines the collaborative process of generating creative products. It is important to highlight the research on creativity as a process and understand the different stages of the process and the key factors that influence the process of making creative contributions.

Cowdroy and Williams (2006) studied assessing creativity in creative arts and concluded that the manifestation of any work of art, a creative process of generating an innovative product, consists of three stages: conceptualization, schematization and actualization. According to Cowdroy and Williams (2006), each of these stages represents a certain level of creative ability. First, at the conceptualization

stage, the individual utilizes his intellectual abilities to initiate an original concept to be transformed into a product that conveys the individual's idea (Cowdroy & Williams, 2006). Second, at the schematization stage, the individual develops the novel concept and commits to manifesting it and translating it into a final product (Cowdroy & Williams, 2006). Third, at the actualization stage, the individual crafts the final product (Cowdroy & Williams, 2006). At a basic level, these three stages can be applied to the cake design process. First, the cake designer collects the necessary information about the cake and conceptualizes the basic idea. Second, the designer sketches and develops the idea. Third, the designer actualizes and translates it into a real, creative cake.

Amabile (1983) also investigated creativity as a process and suggested that any creative output requires three components that play equal roles in every stage of the process of generating creative outputs. These components are domain-relevant skills, creativity-relevant skills, and task motivation (Amabile, 1983). The importance of domain-relevant skills, the information relevant to the domain, stems from their necessity to produce an appropriate output (Amabile, 1983). The creativity-relevant skills, essential for the creative process, enable the individual to engage in the basic strategies for the creative process (Amabile, 1983). Task motivation is a key component of the process based on the fact that considerable influence of the attitude toward the product and the reason to accomplish it on the individual during the process of making creative contributions (Amabile, 1983). Amabile's (1983) aspects of the creative process are similar to those related to the individual's attributes mentioned earlier, and understanding these dimensions of the creative process as well as creative personality provides a pathway for exploring creative collaboration.

Creativity and Collaboration

Claude Lévi-Strauss (1973), a French anthropologist and ethnologist, once said: "in order to progress, people have to work together; and in the course of their collaboration, they gradually become

aware of an identification in their relationships whose initial diversity was precisely what made their collaboration fruitful and necessary” (p. 240). To utilize Sonnenburg’s (2004) framework for collaborative creativity in the proposed study, I must shed light on the scholarly work concerned with collaboration in the creativity process.

In the existing literature, several scholars have highlighted the idea that collaboration paves the way for sharing expertise, stimulating novel concepts, evaluating the originated ideas and fostering creativity (Amabile, 1988; Nemeth, 1997). This sharing of information and ideas enriches the expertise of the participants of the collaborative process and enables them to confront complex problems due to the diversity of the participants’ knowledge (Lewis, 1964; Peng, 1994). Harvey and Kou (2013) believed that in collective creativity, individuals go through two stages: idea generation and idea evaluation. They argued that the evaluation stage is the stage that generates collective contribution. Therefore, evaluation can be considered the essence of collective creativity (Harvey & Kou, 2013).

Feast (2012) addressed collaborative creativity in his research on collaborative design work. He confirmed Amabile (1988) and Nemeth’s (1997) perspectives that collaboration triggers creativity. Feast (2012) stated that: “collaboration is a means to bring together different stakeholders’ perspectives, skills, approaches and knowledge, to uncover hidden opportunities and deliver designs with greater depth and broader innovative power” (Feast, 2012, p. 227). In addition, Feast (2012) pointed to two facts crucial to this body of research. First, Feast (2012) concluded that design work is perceived as a social activity shaped by its participants’ roles, responsibilities and relationships.

The quality of collaborative work relies on the group members’ contributions (Feast, 2012). The roles of group members should be well defined during the collaboration process (Feast, 2012). However, in some cases, the members exploit the authority given to them based on their positions or roles in the organizations or groups and exceed their areas of expertise, which results in generating inappropriate

decisions that influence the quality of collaborative work (Feast, 2012). Also, Feast (2012) suggested that the harmony of different group members' personalities, motivations and egos is important to ensure group cohesion, healthy relationships between group members and balanced distribution of responsibilities within the collaboration process. Second, communication is a cornerstone of a collaborative creativity process (Feast, 2012), which is also a key aspect of Sonneburg's (2004) model. Accordingly, Feast (2012) suggested fostering informal and social communication among the group as well as problem-solving strategies as a means to enhance collaborative creativity.

Appendix B Guiding Theoretical Framework

Sonnenburg's (2004) theory on collaborative product creation provides the framework for this research project. This framework suggests that communication is a principle of any collaborative context (Sonnenburg, 2004). Likewise, Feast's (2012) research asserts that communication forms the foundation of any collaboration process. This section will discuss the major aspects of this framework such as the definition of the "creaplex" model and the key dimensions of this model, including the types of communication, working styles and the nature of problems and implications of solutions.

Based on the belief that communication forms the essence of the collaborative process, Sonnenburg's (2004) framework proposes a model called creaplex. According to Sonnenburg (2004), creaplex is defined as "a specific kind of a communication system from which collaborative creativity emerges" (p.255). The main purpose of creaplexes, whose content is determined by both the problem and solution, is to perform the duty effectively and find a solution that is high in quality (Sonnenburg, 2004).

Unlike previous creativity models, Sonnenburg (2004) indicated that the emphasis of this model remains on the activity rather than the different social entities. In other words, this model perceives collaborative creativity as a "dynamic and moment-to-moment phenomenon in a unique project" (Sonnenburg, 2004, p. 256). Thus, in this proposed study of collaborative creativity in cake design, the focus will be on specific cake design. Instead of emphasizing the constant creativity of a certain cake designer with his/her clients and/or employees in general, the study will pay attention to the collaborative creativity of the cake designer and his or her clients and/or in particular, cake projects. Accordingly, the communication process between the cake designer and his/her clients/employees during the collaboration will be examined.

Sonnenburg's (2005) framework relies on Luhmann's (1992, 1995) perception of communication. Luhmann (1992, 1995) believed that communication is a phenomenon that emerges from the interaction between alter and ego as the following: "(1) alter (usually sender) selects an information, (2) alter selects an utterance for this information, and (3) ego (usually receiver) understands the difference between information and utterance" (Sonnenburg, 2004, p.256). Sonnenburg (2004) believed that *understanding* is the key action among these three (selecting information, selecting an utterance, and understanding). Understanding relates information to and structures the network of communication (Sonnenburg, 2004).

Collaboration exists when the participants utter and express their thoughts. The communication process role here is the coordination of these uttered thoughts (Sonnenburg, 2004). To conclude, the collaboration process depends on the participants' interactions as well as their contributions (uttered thoughts) to the communication process (Sonnenburg, 2004). If the participants do not interact, there is no collaboration. It is all about interaction and participation in the communication process in order to create the communication networks between the participants (Sonnenburg, 2004).

One of the essential dimensions of the creaplex, from Sonnenburg's (2004) perspective, is the type of communication that is utilized during the collaboration process. The type of communication has a profound impact on collaborative creativity. According to Sonnenburg (2004), there are three types of communication: face-to-face *interaction*, tool-mediated *interaction*, and tool-mediated *communication* (Sonnenburg, 2004). The influence of these types of communication on the collaboration process varies from one type to another. Sonnenburg (2004) asserted that the more synchronous the type of communication is, the more the collaborators feel the togetherness, and the more they understand one another and collaborate effectively.

In face-to-face interaction, collaborators can interact using various senses through verbal,

musical and physical communication because collaborators are present at the same place and in the same time (Sonnenburg, 2004). Tool-mediated *interaction* relies on the method used for communication (e.g. telephone, videoconference, chat); however, collaborators in this type of communication are not present at the same place, and they usually interact via hearing, seeing or writing (Sonnenburg, 2004). Any technical difficulty in the medium of communication might affect the communication process in this type of communication (Sonnenburg, 2004). The third type of communication is tool-mediated *communication*, where writing (e.g. E-mail, mail, fax) is the medium usually used here (Sonnenburg, 2004).

The time aspect of the used communication type affects the efficiency of creaplexes (Sonnenburg, 2004). To elaborate, face-to-face interaction, for instance, enables the collaborators to interact synchronously, which gives the collaborators the opportunity to build on each other's ideas and perspectives immediately, "co-ordinate the content without delay" and foster the sense of "togetherness" (Sonnenburg, 2004, p.257). The influence of this dimension of collaborative creativity will be explored in the proposed study. The interviewees will be asked some questions about the type of communication (e.g. face-to-face, phone, E-mail...etc.) they have used during their collaboration in working on a specific cake project. The reason for investigating this dimension (the types of communication) is to identify the effect of the different types on the collaborative creativity and recognize the cultural differences and/or similarities in this regard. Examining the type of communication in the proposed study may lead to realize the influence of cultures on the preference of a certain type of communication and on the efficiency of using a particular type of communication.

According to Sonnenburg's (2004) framework, the start point of a creaplex's performance is a problem while a solution is the end of the course of performance. The course of performance in creaplexes, which is the creativity process, may take few hours or years; it depends on how sophisticated

the problem is (Sonnenburg, 2004). This model suggests that the course of performance in creaplexes consists of eight stages: problem finding, problem acceptance, preparation, incubation, illumination, verification, modification, and solution, which all may take place in both the presence and absence of the collaborators (Sonnenburg, 2004). It is also worth mentioning, according to (Sonnenburg, 2004), that every performance is complex and unique; each creativity process is subject to its situation rather than generalized standards or guidelines.

Any creativity process is based on problem finding, which is the first stage of the performance course of creaplexes. Problems can be preset by other parties or can be found by the participants of the collaborative creativity process during the creaplex (Sonnenburg, 2004). After defining the problems, the collaborators share their knowledge and expectations about the problem and start reaching a common understanding of the problem and this is called the problem acceptance stage. Problem acceptance stage is essential to coordinate the performance of collaborators later, paving the way for moving to the next stage: preparation (Sonnenburg, 2004). This is the stage where collaborators generate new ideas usually through verbal brainstorming via face-to-face interaction or tool-mediated interaction (Sonnenburg, 2004). The following stage is incubation, in which the collaborators privately study and individually develop the proposed ideas taking them to the next stage: illumination to find an extraordinary solution. Sonnenburg (2004) suggested that the collaborators in the next stage, verification, evaluate the solution to determine its creative qualities. Before the idea, or the extraordinary solution is approved as the final product or creative solution, it should go through modification (Sonnenburg, 2004).

The proposed research will investigate whether these stages are applied to the collaborative creativity process in cake design or not. This will be obtained through asking the interviewees specific questions about their collaboration process to compare them to this model. The realization of these

stages might differ from one culture to another, which will be taken into consideration during the research.

Sonnenburg (2004) also highlighted another dimension that impacts the productivity of the creaplex: the working style of the collaborators, which determines how the collaborators contribute to the communication process. The relations between the collaborators control their working styles (friendships, couples, families, movements, or organizations) (Sonnenburg, 2004). To guarantee high productivity of the creaplex, the creaplex requires open communication. Open communication is important because it releases the collaborators' contributions from any presumptions that on the roles of the working style, and, accordingly, every contribution should be regarded equally without marginalizing anyone's contribution because of their working style's roles (Sonnenburg, 2004).

The proposed study will discuss this dimension through shedding light on the nature of the connection between the collaborators (cake designers and their clients, employees and/or anyone they collaborate with). There will be some questions that address these connections as well as the influence of these connections on the collaborative creativity process. The study will investigate this dimension because many of the participants work with their family members or friends, and addressing this aspect might help to understand its implications on the productivity of their collaboration.

Another dimension that influences the content of the creaplex is the nature of problems and implications of solutions (Sonnenburg, 2004). The content of a creaplex is determined by both nature of the problem and solution. To ensure each collaborator's involvement in the process of finding a creative solution, it is necessary that they have a degree of autonomy (Sonnenburg, 2004). The freedom given to the collaborators has an effect on their contributions and the nature of problems and implications of solutions (Sonnenburg, 2004).

Moreover, Sonnenburg (2004) believed that restricting the autonomy of the collaborator during

the creative process limit his or her ability to unleash his creativity and utilize his or her potential. This limitation is usually resulted from the degree of authority given to the collaborator based on his or her position in the organization (Sonnenburg, 2004). The proposed study will not examine this dimension because it is more applicable to large organizations whereas the study's participants might be members of small businesses or home-based businesses. To conclude, the creaplex, three factors influence creaplexes: the type of communication (affects the efficiency of creaplexes), the working style (affects the productivity of creaplexes) and the nature of problems and implications of solutions (affects the content of creaplexes) (Sonnenburg, 2004).

As previously mentioned, cake design is a form of art, and art remains on creativity (Albernaz, 2010). As many scholars (Amabile, 1988; Feast, 2012; Nemeth, 1997) asserted that collaboration fosters creativity, Sonnenburg's (2004) model will be the guiding theoretical framework for the proposed study to explore the how creativity is realized in cake design, and what the similarities or differences in the manifestation of collaboration across cultures. This model will help to answer these questions because it suggests a comprehensive, detailed model for the collaborative creativity process, and indicates the different dimensions that influence the efficiency, productivity and content of the collaborative creativity process.

The stages of the collaborative creativity process mentioned in Sonnenburg's (2004) model will enable answering the question: How is creativity realized through collaboration in the context of cake design? Asking the study's participants specific questions about their collaboration process and comparing them to those stages suggested by Sonnenburg (2004) will facilitate understanding the study's participants methods to realize creativity through collaboration. In addition, asking the study's participants certain questions about their working style and the type of communication during collaboration and comparing their taking into consideration their cultural diversity will help to answer

the second research question: What are the similarities or differences in the manifestation of collaborative creativity?

All of these ideas lead to the following research questions posed in this study:

RQ 1: How is creativity realized through collaboration in the context of cake design?

RQ 2: What are the similarities or differences in the manifestation of collaborative creativity across cultures?

Appendix C
IRB Approval



October 23, 2014

Ghader Hussain AL Rabaan
Knight School of Communication

RESEARCH PROTOCOL APPROVAL, IRB FILE # 10-14-KSOC -00104

The Institutional Review Board reviewed your research request:

How to Communicate Creativity in Cake Design?

Your protocol (10/8/2014); Informed consent form, Focus group questions, Questionnaire; and Recruitment materials were approved for use within the facilities of Queens University of Charlotte. The Board determined your study poses minimal risk to subjects and meets the criteria for an exempt application. If you plan to use the protocol outside of Queens University of Charlotte, you may need to submit it to the IRB at that institution for approval.

This approval expires one year minus one day from date above. Before your study expires, you must submit a notice of completion or a request for extension. You are required to report any changes to the research study to the IRB for approval prior to implementation. This form can be found on the IRB site on MyQueens and should be sent to irb@queens.edu.

If we can be of further assistance, please do not hesitate to contact us. Please use the IRB file number when referencing your case.

Sincerely,

Laree Schoolmeesters

Laree Schoolmeesters, PhD, RN, CNL
Chair, IRB

Appendix D
Interview Questions

Questions for cake designers

- 1- Who are you? What is the story behind your bakery?
- 2- What is creativity? What does it mean to be a creative cake artist?
- 3- How do you inspire your designs?
- 4- What is your most creative cake project? Why do you think it is creative? Have you worked on it collaboratively or individually? Have you encountered any challenges during working on this design? How have you overcome them?
- 5- Do you think your leadership style/working style affects your and your employees' creativity?
- 6- Do you collaborate with your clients or/and employees? If so, how? Explain in detail please.
- 7- What is the nature of your connection (friendship, family, couples, organization, movement)?
Do you think this connection affect the way you work together?
- 8- Do you think the mediums through which you communicate with your collaborators/clients and employees influence your collaborative creativity? If yes, how?
- 9- When you work with clients, are you creative in how you explain your designs? If so, how?
- 10- Have you faced any challenges while collaborating with your employees and clients? If yes, have you overcome them? How?
- 11- Why do you make cakes?
- 12- Does any of your baking/art's childhood memory influence your creativity in cake design?
- 13- Does "any" thinking out the box means being creative?
- 14- What does it mean to be a creative cake artist? / What are the major characteristics of creative cake designers?

- 15- When do people “stop” being creative?
- 16- Do you perceive cake design as a collaborative process? If so, how?
- 17- Do you believe that your sugar creations communicate your creativity?
- 18- Do you feel working within a team limits your creativity? Or does it unlock it? Please explain.
- 19- Do you believe building connections and collaborating with other cake artists influences your and their creativity? How?
- 20- Based on your experience, what is your process for making creative cakes?
- 21- When you work with clients, are you creative in how you explain your designs? If so, how?
- 22- How does that creativity translate into the actual design itself?
- 23- Do you believe your culture/background impacts your creativity and collaboration? How?
- 24- What have you learned/acquired from your journey in cake design?

Questions for employees

- 1- What is creativity?
- 2- What is your most creative cake project? Have you encountered any challenges while during the work? How have you overcome them?
- 3- Does working within a team affect your creativity?
- 4- Do you collaborate with your employer, team and clients? If so, how do you collaborate? Explain in detail please.
- 5- Does this collaboration influence your creativity?
- 6- Does the medium through which you communicate with your boss and team impact on your collaborative creativity? (If applicable)
- 7- Why do you make cakes?

Questions for Clients

- 1- Has the cake designer succeeded in communicating his/her creativity through his/her piece of art? How?
- 2- What, in your opinion, does it mean to have a creative cake? Do you think the client or the cake designer is responsible for a creative cake design?
- 3- Have you collaborated with her/him to design your cake? If so, how? Explain in detail please.
- 4- If you have collaborated with her/him, do you think your collaboration have unleashed both of your creative potentials?
- 5- Has the cake designer been creative when explaining the cake design for you? If so, how?

Appendix E



Informed Consent | How to communicate Creativity in Cake Design?

I volunteer to participate in this research project conducted by Ghader AL Rabaan, a communication graduate student at Queens University of Charlotte. I understand that the project is designed to investigate how collaborative creativity is being communicated in cake design. I will be one of approximately 10 people being interviewed for this documentary film.

1. My participation in this project is voluntary. I understand that I will not be paid for my participation. I may withdraw and discontinue participation at any time without penalty.

2. I understand that most interviewees will find the discussion interesting and thought-provoking. If, however, I feel uncomfortable in any way during the interview session, I have the right to decline to answer any question or to end the interview.

3. I understand the purpose of this documentary film. I am aware of the potential benefits and risks of participating in this documentary film.

4. Participation involves being interviewed by Ghader AL Rabaan from Queens University of Charlotte. The interview will last approximately 45 minutes to three and half hours. Notes will be written during the interview. A video of the interview will be recorded and subsequent dialogue will be made. If I don't want to be video taped, I will not be able to participate in the study.

5. I understand that the researcher will identify me by name in the documentary film that contains this interview. I hereby release to Queens University and Ghader AL Rabaan all rights to exhibit this documentary film in electronic form publicly or privately and to market and sell copies. I waive any rights, claims, or interest that I have to control the use of my identity or likeness in whatever media used.

6. I understand that this research study has been reviewed and approved by the Institutional Review Board (IRB) for Studies Involving Human Subjects: Behavioral Sciences Committee at Queens University of Charlotte. For research problems or questions regarding subjects, the Institutional Review Board may be contacted through [information of the contact person at IRB office of Queens University of Charlotte].

7. I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this film.

8. I have been given a copy of this consent form.

Name: _____

Age: _____

Date: _____

Address: _____

E-mail: _____

Phone: _____

Signature: _____

For further information, please contact: Ghader AL Rabaan
E-mail: Ghadeer.alrabaan@gmail.com | Phone: 704-526-6189

Appendix F

Release Form for Media Recording

I, the undersigned, do hereby consent and agree that Queens University of Charlotte, its employees, students, or agents have the right to take photographs, videotape, or digital recordings of me and to use these in any and all media, now or hereafter known, and exclusively for the purpose of Queens University of Charlotte. I further consent that my name and identity may be revealed therein or by descriptive text or commentary.

I do hereby release to Queens University of Charlotte, its students, agents, and employees all rights to exhibit this work in print and electronic form publicly or privately and to market and sell copies. I waive any rights, claims, or interest I may have to control the use of my identity or likeness in whatever media used. I understand that there will be no financial or other remuneration for recording me, either for initial or subsequent transmission or playback. I also understand that Queens University of Charlotte is not responsible for any expense or liability incurred as a result of my participation in this recording, including medical expenses due to any sickness or injury incurred as a result.

I represent that I am at least 18 years of age, have read and understand the foregoing statement, and am competent to execute this agreement.

Name: _____

Date: _____

Address: _____

Phone: _____

Signature: _____

If the subject is under 18, parental consent is needed below.

Subject's Name: _____ Age: _____

Parent's Name: _____

As the legal parent or guardian of the subject above, I hereby give legal permission for my son/daughter to appear and participant in this media recording.

Signature: _____