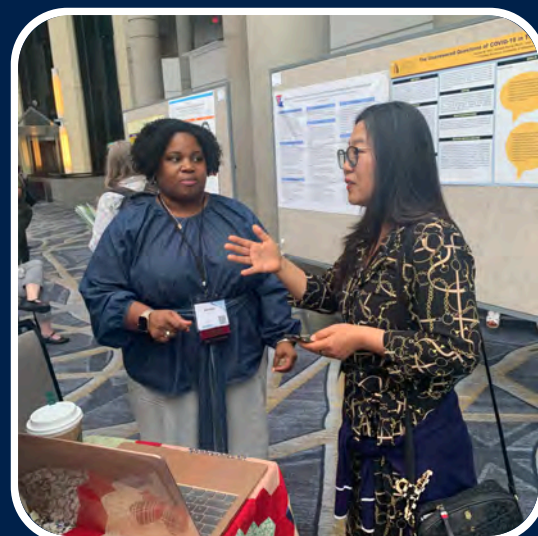




# 2025 AAFCS Conference Proceedings

Kansas City, Missouri



571-534-5015



[www.aafcs.org](http://www.aafcs.org)



1410 King Street, 2<sup>nd</sup> Floor,  
Alexandria, VA 22314





# Table of Contents

<b>INTRODUCTION</b>	i-iii
---------------------	-------

<b>APPAREL, TEXTILE, AND DESIGN SHOWCASE</b>	A1-66
--	-------

<b>AWARD AND GRANT RECIPIENTS</b>	B1-8
-----------------------------------	------

<b>EDUCATIONAL SESSIONS</b>	C1-39
-----------------------------	-------

<b>RESEARCH POSTERS</b>	D1-50
-------------------------	-------

<b>ASSEMBLY OF HIGHER EDUCATION UNDERGRADUATE RESEARCH</b>	E1-18
--	-------

<b>COUNCIL FOR ACCREDITATION STUDENT/ FACULTY PROJECTS</b>	F1-50
--	-------

## **We Are a Mighty Cadre of Professionals!**

2025 AAFCS Annual Conference Proceeding Message

**Barbara L. Stewart, Ed.D., CFCS**

I have long thought that within Family and Consumer Science we hold the content and expertise to powerfully impact the current and future affairs of our world. We have only to peruse the news headlines to see where the skill sets of FCS professionals can have powerful impacts. We cannot be timid! We can boldly act on the multiple stages on which our professional practices take place - some may be very public, others will be intimately personal and private - and yet, in each realm, ours is the power for impact.

The collegially of those engaged in this 2025 AAFCS Annual Conference was highly evident. I hope that each of the connections made, whether renewal of existing bonds or creation of new and emerging relationships, will lead to professional action and change for the good. The essence of my AAFCS Annual Conference experience leads me to summarize:

- We are a mighty cadre of committed professionals!
- We have talents, skills, connections, and resources that make a difference!
- We have much work to do!



# 2025 AAFCS Annual Conference

## 2025 AAFCS Annual Conference Proceeding Message

**Cara Winston Simmons, Ph.D., CFCS**  
**AAFCS President, 2025 - 2026**

The 2025 AAFCS Annual Conference in Kansas City, Missouri, held June 25 -27, was a vibrant celebration of innovation, collaboration, and professional development within family and consumer sciences. This year's event brought together educators, extension professionals, researchers, practitioners, and students from across the nation to explore emerging trends, share research, and strengthen the collective impact of our profession.

Highlights of the week included dynamic general sessions such as the launch of the Re-Tooled FCS Body of Knowledge, thought-provoking keynotes on global perspectives and nutrition education, and an impressive array of concurrent sessions addressing topics from AI integration and trauma-informed practices to sustainability and financial literacy. The conference also featured robust research engagement through oral presentations, poster sessions, and showcases that underscored the depth and diversity of scholarship in our field.

Equally important were the opportunities for networking and leadership development whether through the Leadership Academy, student engagement sessions, or community meetings. These connections reflect the heart of AAFCS: a commitment to advancing the well-being of individuals, families, and communities through education and practice.

The proceedings that follow capture the intellectual contributions and innovative ideas shared during the conference. They represent not only the dedication of individual authors but also the collective strength of our profession. We extend sincere appreciation to all presenters, reviewers, and volunteers whose efforts made this event a success.

As we look ahead, your continued engagement will be essential in shaping the future of family and consumer sciences. Together, we are building knowledge, fostering leadership, and creating meaningful change. In a world of constant change, FCS adapts to meet and lead the changing needs of individuals, families, and communities.



# Apparel, Textile, and Design Showcase



**American Association of Family and Consumer Sciences  
Apparel, Textiles & Design Community (ATD)  
2025 Juried Design Showcase Submission**

**Design Title:** *reJEANerated*

**Author or Authors:**

Lauren Lansdell, Auburn University

**Level:** Student

**Category:** Apparel

**Abstract (500 words maximum)**

*Introduction to the Design Concept:* This design, reJEANerated, has taken damaged skinny jeans and “regenerated” them into another garment. Apparel waste is one of the highest pollutants in the world (Maiti, 2005) and upcycling has become a popular creative way for discarded clothing to be reused (Blaazer, 2024). Sanders (2006) suggests four levels of creativity doing, adapting, making, and creating, which rely on an individual’s motivation and skill level. Creating is the highest level which consists of not using pre-made patterns and relies more on the individual’s experience. In terms of upcycling, Lapolla and Sanders (2015), suggest learning new skills was a barrier when beginning to upcycle clothing, but once those skills were achieved, they were inspired to create more. Thus, the goal of this design was to creatively give a second life to unwearable jeans to create an elevated garment.

*Method/Design Development Process:* This design consists of a strapless corset-style bodice with hip gussets developed using a combination of draping and flat pattern methods. The neckline was slightly rounded to mimic the line of the hip gussets and plastic ½” boning was added to the corset bodice for shape and structure. Each pair of jeans was deconstructed along the inseam and rise. To maximize the amount of fabric for the hip gusset pieces, two pant legs were sewn together, allowing for the hip gusset pieces to be cut. The length of the dress was determined by how much fabric was available to cut the hip gussets. The original side seams from the jeans are showcased on the gusset, creating a three-panel pieced look. To accommodate the different washes, the lightest colored jeans were used at the hip gussets while the darkest shade is located on the corset sides. The remaining two medium shades were used at the center front and back. Additionally, there was not enough length to cut the center front and back panels, therefore the pattern was adjusted to create a curved seam to reflect the neckline. An invisible zipper was added at the center back for donning and doffing and the dress is lined in 100% polyester satin.

*Conclusion:* Although working with skinny jeans creates limitations with designing, it also allows for more creativity when working around the problems that arose during its construction. The fabric limitations required the designer to alter her original plan to accommodate the pant shapes. This design furthers research with upcycled clothing by drawing on Sanders’s (2006) highest level of creativity, creating, to regenerate five pairs of skinny jeans into a new garment.

## References

- Blazzer, E. (2024, January 8). *Making something new from something existing is 'in': This is upcycling*. Fashion United. <https://fashionunited.com/news/background/making-something-new-from-something-existing-is-in-this-is-upcycling/2024010857698#>
- Lapolla, K., & Sanders, E. B. N. (2015). Using cocreation to engage everyday creativity in reusing and repairing apparel. *Clothing and Textiles Research Journal*, 33(3), 183-198. <https://doi.org/10.1177/0887302X15572877>
- Maiti, R. (2025, January 20). *The environmental impact of fast fashion, explained*. Earth. <https://earth.org/fast-fashions-detrimental-effect-on-the-environment/>
- Sanders, E. B. -N. (2006). Scaffolds for building everyday creativity. In J. Frascara (Ed.), *Design for effective communications: Creating contexts for clarity and meaning* (pp. 65–77). Allworth Press.





**American Association of Family and Consumer Sciences  
Apparel, Textiles & Design Community (ATD)  
2025 Juried Design Showcase Submission**

**Design Title:** *Sequoia sempervirens*

**Level:** Student

**Category:** Apparel

**Author or Authors:**

Kassandra Lee and Ann Wright,  
University of Arkansas

**Abstract**

*Introduction to the Design Concept:* Drawing inspiration from the majestic *Sequoia sempervirens* of Northern California's coast, this dress design serves as both an artistic tribute and an environmental statement for the protection and awareness of our national forests. This dress emerged from a deep-rooted connection I have to these ancient giants, transforming sustainable fashion principles into wearable art. Every element was purposefully integrated, including utilizing the scientific name of the Redwood trees as the title of my dress. This conscious material selection directly challenges the fashion industry's traditional practices, which have historically prioritized profit over planetary health (Fletcher & Grose, 2012). My design aims to demonstrate how high fashion can harmonize with environmental stewardship, creating a visual dialogue between nature's timeless beauty and contemporary design. By interweaving traditional dressmaking techniques with sustainable materials and processes, this piece exemplifies how fashion can evolve beyond mere aesthetics to become a powerful medium for environmental advocacy.

*Method/Design Development Process:* The creation of the *Sequoia sempervirens* dress was an intricate journey that began with my experience and love for the Redwood trees of Northern California. The design process was meticulously crafted to reflect my connection, starting with the selection of organic cotton as the primary fabric, chosen for its eco-friendly attributes. Ethically sourced Redwood seed cones turned into extracts were used to dye the fabric, infusing it with the very essence of these majestic trees. The dyeing process was conducted using well water, natural tannins, and soda ash, which was later recycled for garden irrigation, exemplifying a closed-loop system. To achieve the natural green of the snake ferns, dehydrated marigold petals and indigo powder were applied to cotton fabric to create fern motifs reminiscent of the Redwood National Park's iconic Fern Canyon (Krause, 2024). All the dye pulp was later composted for my home garden. The dress design incorporated a custom-developed pattern I created in Browzwear, featuring pin tucks across the bodice that embodied the textural elements of tree bark. The strategic placement of cut out snake fern frond appliqués adorn both the neckline and the hem, creating a whimsical aesthetic. I repurposed the invisible zipper and used remnants of interfacing and horsehair from prior projects. Each step, from conceptualization to the final stitch, was a blend of technical skill and creative exploration, aiming to harmonize fashion with the principles of sustainability and environmental consciousness.

*Conclusion:* Every element of the design works in cohesion to tell a compelling story: from the naturally dyed organic cotton that captures the essence of the Redwoods (*Sequoia sempervirens*), to the brilliant green snake ferns (*Botrychium virginianum*) that pay homage to the forest's other ecosystems. This dress pushes boundaries in sustainable fashion by demonstrating how natural dyeing processes can achieve sophisticated results while maintaining environmental integrity. By

incorporating actual elements and motifs from Redwood National Park, my design bridges the gap between fashion and environmental stewardship. This approach can be inspirational for future designers, showing how fashion can become a medium for environmental storytelling while maintaining minimal ecological impact.



## References

Fletcher, K., & Grose, L. (2012). *Fashion and sustainability: Design for Change*. Laurence King Publishing.

Krause, Steven. *Redwood National and State Parks (U.S. National Park Service)*. (Feb. 22, 2024). <https://www.nps.gov/redw/index.htm>



**American Association of Family and Consumer Sciences  
Apparel, Textiles & Design Community (ATD)  
2025 Juried Design Showcase Submission**

**Design Title:** Streams of Fate: Rekha's Fighter Robe

**Level:** Student

**Category:** Apparel

**Author or Authors:**

Audrey Anhart and Dr. Jinhee Nam,  
Ball State University

**Abstract (500 words maximum)**

***Introduction to the Design Concept:*** This costume design is part of a series developed alongside an original fictional storyline set in a neo-medieval period, exploring the narrative of conflict between heart and duty.

The two main characters, Rekha Ailen and Nyura Íde, embody this struggle. Rekha is from a highly militarized matriarchal society. Her upbringing and culture are distinctive characteristics of her appearance shown in her black and red color palate. Nyura, a kind-hearted scholar-turned-warrior, was orphaned twice before finding purpose in the Knight's Guild, where her intellect earned her a high rank. Their journey unfolds in three acts: Act 1: Streams of Fate, Act 2: Valley of Ash, and Act 3: Death's Shadow, exploring love, rivalry, and identity. This design is created for Act 1, where Rekha and Nyura meet as prisoners, escape together, and fall in love, sealing their bond through the forbidden Ritual of Fate. However, upon returning home, they face rejection and rising tension.

The purpose of this design is to reflect Rekha's unique identity Act 1 through the costume, seamlessly blending elements of Eastern clothing, as well as medieval fantasy motifs.

***Method/Design Development Process:***



Sketched with Adobe Illustrator, the costumes were developed to align with the historical influences, character personalities, and pivotal acts of the story. The fighter robe, developed from a fitted princess line sloper, was adjusted for an asymmetrical tie front design. Red pleated side panels, starting at the waist and ending at the hem, were drafted using the flat pattern technique. Each pleat was machine-stitched, folded at the top, and sewn into the side seam, allowing the panels to fan out with movement. Black cording was hand-sewn for fastening, similar to a karate gi. Black and silver braid trim across the neckline and outer edges of the robe draw from medieval fantasy motifs, and a buttonhole fastener with leather chording and bone highlights regional influence of organic materials. The harem pants were drafted from a standard straight pants sloper. The waist and ankle widths were increased to accommodate a wide leg design. Interfaced waist and ankle bands were added to contrast and contain the billowing pants.



***Conclusion:*** This design for Act 1 captured the historical and cultural influences, character personalities, and pivotal acts of the story. The design is inspired from the elements of Eastern and Medieval clothing including tie front design, fanning pleats, black cording, braid trim, and harem pants. By blending cultural and historical motifs with emotional depth, the design enhances the narrative using elements such as color, silhouettes, and fabrications. This approach offers a dynamic and inclusive framework for character-driven costume designs, combining cultural influences, functionality, and storytelling, with the potential to influence future costume design.

## References

- Hanfu Forum & Community. (2022, March 2). *Ancient Chinese clothing timeline - Hanfu development*. Retrieved from <https://www.newhanfu.com/6168.html>
- World4 Costume Culture History. (2023, June 10). *Byzantine fashion history: Costumes and modes from the 5th to 6th century*. Retrieved from <https://world4.eu/byzantine-fashion/>
- K. R. (n.d.). *Overview of the folk costumes of Poland. Part I, the West*. Retrieved from <https://folkcostume.blogspot.com/2019/04/overview-of-folk-costumes-of-poland.html>
- Lee, K. (n.d.). *The history and revival of ancient Chinese Hanfu: A visual guide*. *South China Morning Post*. Retrieved from <https://multimedia.scmp.com/infographics/culture/article/3241304/hanfu-part-1/>





**American Association of Family and Consumer Sciences  
Apparel, Textiles & Dress Community (ATD)  
2025 Juried Dress Showcase Submission**

**Dress Title:** Transforming and Exploring the Potential of Soy in Fashion

**Level:** Student

**Category:** Apparel

**Author or Authors:**

Kassandra Lee and Ann Wright,  
University of Arkansas

**Abstract**

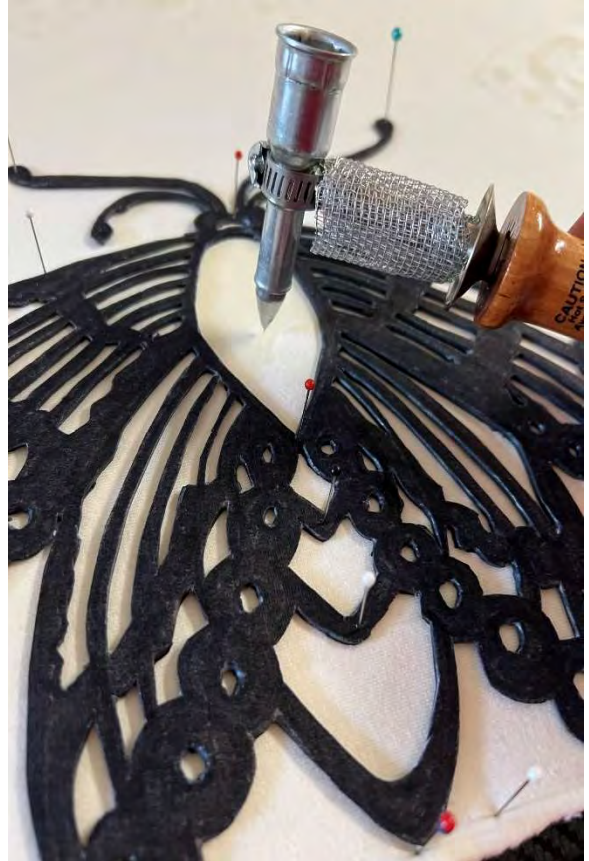
*Introduction to the Dress Concept:* My dress design explored sustainable fashion through innovative soy-based materials, drawing inspiration from the transformative nature of moths. I aimed to design a dress with an environmentally conscious alternative to traditional textiles while maintaining aesthetic appeal and functionality. This design addressed pressing environmental concerns in textile production, as conventional methods have contributed significantly to climate change and pollution. The textile industry is a major contributor to environmental degradation, with significant impacts on climate change, water pollution, and deforestation. Traditional textile production relies heavily on non-renewable resources, such as petroleum for synthetic fibers and water-intensive processes, leading to substantial energy consumption and waste generation (Filho et al., 2022). My design and methods aimed to explore the potential of soy-based materials as a sustainable alternative in textile design and production. I was able to successfully demonstrate how soy-derived materials serve as sustainable alternatives in fashion, particularly through a textile made from soy by-product, soy wax flakes, soy silk thread, soy roving fibers, soymilk, earth pigments, and BioTex enhanced luxury soy leather. The moth motif featured on the dress symbolizes the fashion industry's potential for transformation and renewal, perfectly aligning with my design and sustainable vision.

*Method/Dress Development Process:* My design process began with careful material preparation using soy-based French terry cloth as the foundation. Fresh soymilk, made from overnight-soaked soybeans that were blended and strained, served as a crucial binding agent between the fabric and MAIWA Earth Pigments - a discovery that shaped the entire technical approach. The fabric underwent a meticulous preparation sequence, including a 24-hour soda ash soak and 48-hour curing period. After the material soaked in fresh soymilk for another 24 hours, I created a moth stencil using the BioTex soy leather and strategically applied soy wax onto the fabric with an electric tjanting tool, creating raised relief patterns. Afterwards, I continued with the process of dyeing the fabric with the earth pigment "Rose Earth" from MAIWA and fresh soymilk combination that took two weeks for the pigment bonding period. The reason for the meticulous fabric preparation sequence was to ensure that the protein fibers from the soy were to properly bind to the proteins of the soymilk and earth pigment – acting as a binder and not as a mordant (DuFault, 2023). After the appropriate time frame I washed out the excess dyestuff, I followed my process with careful wax removal through ironing between recycled newspaper to absorb the excess wax. For dimensional interest, I hand-stitched soy roving fibers with soy silk thread onto the moths' upper bodies, creating a subtle three-dimensional effect.

*Conclusion:* The finished textile exhibited exceptional qualities, including natural elasticity, antibacterial properties, and a remarkably soft hand feel, while maintaining crucial performance characteristics such as breathability and moisture-wicking capabilities (Pickering International, n.d.). This exploration into soy-based textile design didn't just produce an aesthetically pleasing garment—it revealed a viable path forward for sustainable fashion production. The success of this design suggested that soy-based textiles offer a practical alternative to conventional materials, supporting both agricultural sustainability and the growing demand for environmentally conscious fashion.

## References

- DuFault, A. 2023. MORDANT MONDAY: Is soy milk a mordant? - Botanical colors. Botanical Colors. <https://botanicalcolors.com/mordant-monday-is-soy-milk-a-mordant/#:~:text=It%20is%20not%20considered%20a,soymilk%20before%20applying%20the%20pigment>.
- Filho, W. L., P. Perry, H. Heim, M. a. P. Dinis, H. M. Moda, E. E. Ebhuoma, and A. M. F. D. Paço. 2022. An overview of the contribution of the textiles sector to climate change. *Frontiers in Environmental Science*, 10. <https://doi.org/10.3389/fenvs.2022.973102>
- MAIWA Handprints Ltd. (n.d.). Earth Pigments. <https://cdn.shopify.com/s/files/1/1086/6542/files/earthpigments.pdf?84265170706311998>
- Pickering International. (n.d.). Soy protein fiber. <https://picknatural.com/pages/soy-protein-fiber>





**American Association of Family and Consumer Sciences  
Apparel, Textiles & Design Community (ATD)  
2025 Juried Design Showcase Submission**

**Design Title:** The Death of the American Cowboy

**Author or Authors:**  
Melissa Abner, University of  
Central Missouri

**Level:** Student

**Category:** Apparel

**Abstract**

*Introduction to the design Concept:* The death of the American cowboy symbolizes the fading of the original cowboy lifestyle. Today's 'cowboy' is often reduced to a stereotype—think Beyoncé in a white Stetson, iconic cowboy movie stars like John Wayne, or the Marlboro Man in traditional cowboy attire. As Schweiger (2024, para 11 ) notes, “The practical elements of what cowboys wore were adopted by the fashion industry and transformed into style symbols.” The cowboy style has become a misinformed, fashion-driven, money-making trend that ignores the realities of agriculture and the cowboy lifestyle. The real cowboys are barely surviving as land is sold to build suburbs and they sink into debt to keep ranches afloat. Plus, cowboy livelihoods are at risk with the volatility of the cattle market (Irvine, 2024).

I grew up on a cow calf operating farm and have seen first hand how those in agriculture struggle. My designs are inspired by the traditional fashion worn by cowboys in my upbringing, with modern twists that reflect how society has reinterpreted the cowboy image. This design features jeans, a cowboy wardrobe staple, and belt bag made from upcycled Wranglers. My garments primarily feature black and red. Black represents the death of the American cowboy, while red symbolizes the blood, sweat, and tears that come with the cowboy lifestyle.

*Method/Design Development Process:* The jeans and bag were made using altered premade patterns. The original jeans pattern had a shorter, looser fit, so I extended the leg length and adjusted the sides for a tighter, flare-style fit. I made the belt loops larger to draw attention to the waist and used a hook and eye for a flat seam, but added a false button hole for detail. I used 99% cotton and 1% spandex denim and fasteners from Joann Fabrics, sewn with a home sewing machine, and serged the inner seams for a clean finish.

For the bag, I thrifted a pair of Wrangler jeans for the outer fabric and used leftover 100% cotton fabric for the lining. The pocket features a hand-embroidered cowboy roping design, traced from a cowboy outline and hand-stitched onto tear away stabilizer. The bag was assembled with a sewing machine. For the leather strap, I hand-tooled, painted, and tanned vegetable-tanned leather, then stitched it with hand-sewn

buckstitch using kangaroo leather. The tooled designs are my brand name, a horseshoe, and an Aztec inspired design that I drew on my Ipad and transferred to the leather using a sculpting tool.

*Conclusion:* The designs in this collection reflect the evolution of traditional western fashion—past, present, and future. The red and black detail on the bag correspond with the colors of the jeans, making the look cohesive. The jeans and belt bag are items worn by modern females, but the traditional tooling methods and designs keep them rooted in the western lifestyle. Recently cowboy fashion has become mainstream, so I wanted to highlight the enduring connection between cowboy culture and modern fashion.

### References

- Clare, A. (n.d.). A Dying Breed. *The Cowboy Way*.  
<https://ac.nau.edu/omeka-s/s/the-cowboy-way/page/a-dying-breed>
- Irvine, J. (2024, November 13). Cowboy Culture's Global Impact on fashion trends: Western style 2024. *Simply Texan*.  
<https://www.simplytexan.com/spurs-and-spirits/the-impact-of-cowboy-culture-on-modern-global-fashion-trends/#:~:text=Fringed%20jackets%2C%20a%20staple%20of,with%20updated%20silhouettes%20and%20washes>.
- Schweiger, C. (2024, October 9). Rugged roots: The influence of Cowboy Culture on American Pop Culture. *The Cowboy Accountant*.  
<https://cowboyaccountant.com/2024/10/06/rugged-roots-the-influence-of-cowboy-culture-on-american-pop-culture/>



**American Association of Family and Consumer Sciences  
Apparel, Textiles & Design Community (ATD)  
2025 Juried Design Showcase Submission**

**Design Title:** Old Soul, New Stitch: Quilted Comfort for the Modern Day

**Level:** Student

**Category:** Apparel

**Author or Authors:**

Melissa Abner, University of  
Central Missouri

### **Background and Inspiration**

Inspiration for this design was found through Pinterest where I saw multiple posts with younger women wearing apparel that was either made from repurposed quilts or sewn in a quilted way. The recent social media micro-trend *Cottagecore* includes quilting and a *grandmother's house* aesthetic, but is popular for young people (WGSN Forecast Team, 2024). Further, a WGSN projected trend for 2025-2026 includes a theme called *future heirlooms* where quilting, crochet, and vintage elements are on apparel for younger consumers (Rechner, 2024).

An article in Parents Magazine, explained that younger people are starting to do “grandma” hobbies like crochet, needlepoint, and quilting. Some of them are inspired by social media to make things they see and it is easier to learn with video tutorials (Curran, 2025). These screen free and tactile hobbies can help with mental health and foster creativity and productivity (Curran, 2025). I had never quilted before this project, but my childhood babysitter was a very talented quilter. Growing up around someone who was always sewing and helped create an appreciation of the art for me. The average quilter identifies as female, is retired, and in her 60’s (Glassenberg, 2025). While quilting is typically a hobby for older people, it is becoming a trend for younger people to wear quilted clothing; this inspired me to create a quilted jacket myself.

### **Method**

To create this jacket, 6 different prints of 100% cotton fabric were bought. A total of 187, 4 x 4 inch squares were cut and sewn together in 5 different panels. A panel for each sleeve, front left, front right, and back. A layer of 100% cotton batting and a fabric backing were added to each of the panels. The panels were then quilted on a sewing machine using the “stitch in the ditch” method around each quilt square. Jacket pattern pieces were created by using an existing jacket as a guideline and each of the quilted panels were cut to the correct size and shape. The pieces were assembled and the edges were hemmed to complete the quilted jacket.

To go with the jacket, I created jeans with a matching quilted inset. I used jeans from my closet and slit the outside seams. Then, I sewed more quilt panels to match the jacket and inserted the panel into the slit in the jeans to create a wider leg. Once the panel was inserted, I hemmed the pants to create a clean edge.

### **Conclusion**

The final jacket includes neutral shades of beige and cream. There is no collar and a slit side seam for versatility. I paired it with a plain black shirt so the jacket is the main point of focus. The jeans with matching side panels tie the look together. Overall, the outfit is cohesive and unique; it fits the trend that inspired me. I plan to design more items with quilting and would like to incorporate crochet into future items also.



## References

Curran, E. J. (2025). Old fashioned 'grandma' hobbies are boosting teen mental health: Here's how. *Parents*.

[https://www.parents.com/grandma-hobbies-teens-8774147?link\\_source=ta\\_first\\_comment&taid=679027151614be000169880c&utm\\_campaign=parents&utm\\_content=&utm\\_medium=social&utm\\_source=facebook.com&fbclid=IwY2xjawIDfGRleHRuA2FibQlxMAABHYauAJQwFM30\\_TI-LK1\\_ZQyJUBt6OetptnqF5QybDWrYpjwfq24Sr5wZIQ\\_aem\\_j8Gc0s5QIHfTpnjilzvBw](https://www.parents.com/grandma-hobbies-teens-8774147?link_source=ta_first_comment&taid=679027151614be000169880c&utm_campaign=parents&utm_content=&utm_medium=social&utm_source=facebook.com&fbclid=IwY2xjawIDfGRleHRuA2FibQlxMAABHYauAJQwFM30_TI-LK1_ZQyJUBt6OetptnqF5QybDWrYpjwfq24Sr5wZIQ_aem_j8Gc0s5QIHfTpnjilzvBw)

Glassenberg, A. (2024). The Size of the Quilting Market: Quilting Trends Survey Results 2024. *Craft Industry Alliance*.

<https://craftindustryalliance.org/the-size-of-the-quilting-market-quilting-trends-survey-results-2024/>

Noel, N. (2024). 13 Stylish Quilt Coat Patterns: Sew this Season's Hottest Trend. *Sew can She*.

<https://sewcanshe.com/13-stylish-quilt-coat-patterns-sew-this-seasons-hottest-trend/>

Rechner, E. (2024). Kidswear Forecast A/W 25/26: Re/Generations. *WGSN*.

<https://www.wgsn.com/fashion/article/65b406c9f06cfa84cab82c?lang=en>

WGSN Forecast Team. (2024, Nov. 14). #quilting #grandmothershouse #cottagecore #gentleretro #patchwork #homespun [photograph]. Retrieved from WGSN.



**American Association of Family and Consumer Sciences  
Apparel, Textiles & Design Community (ATD)  
2025 Juried Design Showcase Submission**

**Design Title:** Fantasia: Co-Designing Apparel with an Intellectually Disabled Individual

**Level:** Professional

**Category:** Apparel

**Author or Authors:**

Dawn Marie Michaelson,  
Auburn University

**Abstract**

*Introduction to the Design Concept:* Designing inclusive apparel for people living with disabilities (PLWD) has gained traction in research, but co-designing for individuals with intellectual disabilities (ID) remains underexplored (Kosinski et al., 2018; McBee-Black et al., 2015). ID affects 2-3% of Americans and involves varying levels of intellectual and adaptive functioning, often compounded by comorbidities such as mobility issues or autoimmune disorders (Luna MD, 2024; Schalock et al., 2021). This project aimed to co-design a garment with an ID woman with comorbidities, emphasizing user-centered design principles.

*Method/Design Development Process:* The design process involved weekly meetings over six weeks between two designers and an ID woman. The woman had mild ID, short stature, an autoimmune condition affecting skin and hair, and two missing fingers. The designers used simple language, slower speech, and frequent pauses to accommodate her cognitive needs to ensure understanding.

The team discussed her clothing needs, preferences, and challenges in the initial meeting. This open dialogue helped build trust and identify design goals. Based on her input, a dress was the final decision. Measurements were taken in week two, and a torso sloper was drafted. While the woman preferred fittings over her existing clothes for modesty, this posed challenges in achieving an accurate fit. Gradually, she became more comfortable with the process and wore more form-fitting clothing, allowing for better-fitting sessions.

In week three, four colorized fashion sketches were developed based on prior conversations to visually communicate line, balance, silhouette, styles, and prints. The woman experienced some conceptual difficulties when the designers discussed how the sleeves, skirt lengths, and waistline styles could be interchanged to design the dress of her choice. Due to these conceptual difficulties, the team had to choose an initial design and reassured the woman that changes would be possible in the coming weeks.

At week four, unanticipated mobility issues arose when the designers realized she could not fully raise her arms. These insights prompted design adjustments, including relocating a side zipper to the front for easier donning and doffing. Additional changes, such as altering neckline depth and sleeve length and adding faux buttons for dexterity, were also incorporated.

Fabric selection was guided by narrowing down overwhelming options. Samples were draped on the woman to help her visualize the final look. She chose a floral border print on cotton voile with contrasting red accents. By week five, the final prototype fitting confirmed the designer's success, requiring no further adjustments. The final dress incorporated all her functional and aesthetic needs, allowing her to don it independently.

*Conclusion:* The project demonstrated the importance of adaptability, communication, and user-centered design in co-creating apparel for individuals with ID. Key takeaways included conducting range-of-motion tests, setting clear expectations for fittings, simplifying fabric selection, and using dress forms to aid visualization. The woman expressed joy and satisfaction with the experience, which empowered her through active participation in the design process. This project highlights how inclusive, collaborative design can improve the lives of individuals with disabilities while offering valuable insights for future endeavors.

## References

- Kosinski, K., Orzada, B., & Kim, H.-S. (2018). Commercialization of adaptive clothing: Toward a movement of inclusive design. *International Textile and Apparel Association Annual Conference Proceedings* 75(1).
- Luna MD, R. E. (2024). *What is Intellectual Disability?* American Psychiatric Association. Retrieved 03/27/2024 from <https://www.psychiatry.org/patients-families/intellectual-disability/what-is-intellectual-disability>
- McBee-Black, K., McAndrews, L., & Kabel, A. (2015). Designed to include: A pilot study offering creative design solutions for people living with disabilities. *International Textile and Apparel Association Annual Conference Proceedings* 72(1).
- Schalock, R. L., Luckasson, R., & Tassé, R. (2021). *Intellectual Disability: Definition, Diagnosis, Classification, and Systems of Supports* (12th Edition ed.). American Association on Intellectual and Developmental Disabilities.





**American Association of Family and Consumer Sciences  
Apparel, Textiles & Design Community (ATD)  
2025 Juried Design Showcase Submission**

**Design Title: Fashion Activism and Wearable Art Apparel Design**

**Level: Professional**

**Category: Apparel Design**

**Author or Authors:**

Sandra Starkey,  
University of Nebraska-  
Lincoln

**Abstract**

*Introduction:* Educating community through fashion activism was a central goal of this project. Design activists set themselves apart from other activists by using their skills to encourage change (Thorpe, 2011). In this case, apparel designers created wearable art to communicate about the harmful effects of microplastics. Consumers need clear information to make informed sustainable choices (Bealby-Wright & Leurent, 2024). The project is vital because the inefficient disposal of single use plastics is a serious problem. Dating from the 1950s, more than 8 billion tons of plastic have ended up in landfills worldwide and the United States ranks second to China in total amounts of plastic waste produced (Environmental Coalition on Standards, 2023). Starting in the mid-1990s when synthetic textiles became increasingly popular, the wear and washing of garments became a major contributor to microplastic pollution. A second goal was to utilize a research through practice framework to answer the following question (Bye, 2010, Mäkelä, 2007). How can apparel designs engage, educate and incorporate interactive components encouraging investment in critical topics? The act of making and the resulting apparel outcome were vital parts of the research. Building on the research teams earlier fashion activism research, this project adds to the development of a methodological framework for fashion activism.

*Method:* The outcomes resulted from exploring the role of designer as activist and the belief that direct action is necessary to achieve change (Fletcher & Grose, 2012). The ensemble is intended to be displayed in exhibitions and at community events to serve as a *messenger*, a role that fashion plays (Tonchi, 2018). In this case the message is based on research and is intended to educate individuals about the harmful effects of microplastic fibers and particles through interactive experiences. A wearable art ensemble was developed to attract attention due it's unique one-of-a-kind nature. The silhouette was inspired by jellyfish images, specifically, the Sea Nettle species with long cascading oral arms and tentacles (Hutchins et al., 2003). The jellyfish was chosen as inspiration to visually engage participants of all ages. Additionally, in 2021, marine biologists identified jellyfish mucus as a viable means to trap micro plastics (Lengar, 2021). The ensemble was flat patterned and is comprised of a bubble top, skirt with fringe and a detachable cape. Leftover silk and natural fibers were sourced to promote fabrics that don't shed microplastics. The detachable fringe was constructed of fabric and plastic strips to enhance cohesiveness. Plastic bottles were cut, melted and combined with fabric strips and freshwater pearls to create coral reef like flowers for contrast. The back of the cape will house plastic elements that incorporate community pledges to use less plastic.

*Conclusion:* This research adds to the limited body of scholarship implementing fashion activism promoting interactive components (Hirsher, 2013). We explored ways to educate and encourage investment in the perils of microplastics via community outreach. Future research will continue to explore interactive fashion activism, sustainability and apparel design research practices.

## References

- Bealby-Wright, O., & Leurent, H. (2024). Shifting the needle: Can we build the next generation of consumer activism and advocacy for sustainable fashion? In M. Charter, B. Pan, & S. Black (Eds.), *Accelerating sustainability in fashion, clothing and textiles* (pp. 203-215). Abingdon, Oxon; New York, NY: Routledge.
- Bye, E. (2010). A direction for clothing and textile design research. *Clothing and Textiles Research Journal*, 28(3), 205-217. <https://doi.org/10.1177/0887302X10371505>
- Environmental Coalition on Standards. (2023). *Microplastics and textiles*. Retrieved from <https://ecostandard.org/wp-content/uploads/2023/05/ECOS-Infographic-Microplastics-and-Textiles-May-2023.pdf>.
- Fletcher, K., & Grose, L. (2012). *Fashion & sustainability, design for change*. Lawrence King Publishing Inc.
- Hirsher, A. L. (2013). Fashion activism: Evaluation and application of fashion activism strategies to ease transition towards sustainable consumption behaviour. *Research Journal of Textile and Apparel*, 17(1), 23-38. <https://doi.org/10.1108/RJTA-17-01-2013-B003>
- Hutchins, M., Evans, A. V., Jackson, J. A., Kleiman, D. G., Murphy, J. B., & Thoney, D. A. (2003). *Grzimek's animal life encyclopedia* (2nd ed., Vol. 1). Detroit, MI: Gale.
- Lengar, Ž., Klun, K., Dogsa, I., Rotter, A., & Stopar, D. (2021). Sequestration of polystyrene microplastics by jellyfish mucus. *Frontiers in Marine Science*, 8. <https://doi.org/10.3389/fmars.2021.690749>
- Mäkelä, M. (2007). Knowing through making: The role of the artefact in practice-led research. *Knowledge, Technology, & Policy*, 20, 157–163. <https://doi.org/10.1007/s12130-007-9028-2>.
- Thorpe, A. (2011). Defining design as activism. *Journal of Architectural Education*. Retrieved from <https://api.semanticscholar.org/CorpusID:9196246>
- Tonchi, S. (2018). Fashion is the messenger. *W Magazine*, 4, 82-86.





**American Association of Family and Consumer Sciences  
Apparel, Textiles & Design Community (ATD)  
2025 Juried Design Showcase Submission**

**Design Title:** Beauty in Two Parts, Part One: Desire  
**Level:** Professional  
**Category:** Apparel

**Author or Authors:**  
Micheal Rowley,  
Illinois State University

**Abstract (500 words maximum)**

*Introduction to the Design Concept:*

In our current society we desire so many things in order to be accepted socially and to chase what we consider beautiful (The Wellcome Collection, 2023). Sometimes in the chase of this beauty we start to forget some of the pieces of ourselves that others consider to be beautiful. As Naomi Wolf (1991) notes, it is not the myth of beauty through aesthetics that harms women rather it is being stuck or forced between “freedom and compulsion.” The purpose of this design is to demonstrate that plus-sized bodies can be highlighted in couture techniques and not just hidden in baggy clothing. This is further illustrated by keeping the design on the core of the body to be as that of the couture moulage created to fit one person to honor their body and femineity as conceptualized through Judith Butler (1988, 2011) and Simone de Beauvoir (2009). This design embraces the simplistic lines to enhance the natural beauty of the wearer while letting us ask where we got lost in our perspective, as many would view plus-size outside of what we deem beautiful. The sleeves draw inspiration from Escher’s *Relativity*, alluding to the journey that we take to discover our beauty.

*Method/Design Development Process:*

A basic flat pattern block was drafted based on measurements of the intended wearer. This was transferred to a muslin mock-up to create fit adjustments so that the finished garment would fit as desired. Fit adjustments were made through two fittings with the third fitting confirming the fit of the moulage. The sleeve pattern was created by starting with the sleeve block without seam allowances on dotted pattern paper. A compass was used to draw a circle at the bicep line for the desired opening, a French curve was then utilized to draw the curved seam lines to make nine pieces to the sleeve.

For construction of the garment, first the darts were sewn on all pieces before the skirt and bodice were attached at the waistline. Next, the shoulder and side seams were completed. All seams were a half-inch seam allowance and finished utilizing a three-thread overlock stitch. The sleeve pieces were sewn together by matching the convex and concave curves, and then grading the seams after sewing. The sleeve was mounted to the armhole after the gathering was adjusted to give the desired fullness. A lining was then sewn-in, and a hem added.

*Conclusion:*

This design brings in cultural references to social issues that are being actively discussed in various spaces. The overall design utilizes a mixture of methods not commonly seen together in one design. To highlight the beauty of the body the moulage was kept the same as the fitting garment, with the only design changes occurring in the sleeve. The neutral palette of the of the final core fabric allows us to focus on the beauty of the wearer’s body with emphasis coming from the color and lines of the sleeves.

## References

- de Beauvoir, S. (2009). *The second sex*. Vintage Books.
- Butler, J. (2011). *Gender trouble: Feminism and subversion of identity*. Routledge.
- Butler, J. (1988). Performative acts and gender constitution: An essay in phenomenology and feminist theory. *Theatre Journal*, 40(4), 519-531.
- Escher, M.C. (1953). *Relativity* [Lithography]. Escher in het Paleis, The Hague, Netherlands.  
<https://www.escherinhetpaleis.nl/showpiece/relativity/?lang=en>
- The Wellcome Collection. (October 26, 2023-April 28, 2024). *The Cult of Beauty*. London, United Kingdom.
- Wolf, Naomi. (1991). *The beauty myth: How images of beauty are used against women*. Vintage Books.



**American Association of Family and Consumer Sciences  
Apparel, Textiles & Design Community (ATD)  
2025 Juried Design Showcase Submission**

**Design Title:** Beauty in Two Parts, Part Two: Absence  
**Level:** Professional  
**Category:** Apparel

**Author or Authors:**  
Micheal Rowley,  
Illinois State University

**Abstract (500 words maximum)**

*Introduction to the Design Concept:*

In our current society we desire so many things to be accepted socially and to chase what we consider beautiful (The Wellcome Collection, 2023). Sometimes in the chase of this beauty we start to forget some of the pieces of ourselves that others consider to be beautiful. As Naomi Wolf (1991) notes, it is not the myth of beauty through aesthetics that harms women rather it is being stuck or forced between “freedom and compulsion.” Sometimes these violent acts of altering our persons leaves behind traumatic scars. In the journey to fit in to be considered beautiful, do we instead lose ourselves to the void? This piece is altered from a moulage of a plus-sized garment that leans into the simplistic lines of the wearer’s beauty. The purpose of this design is to illustrate the pieces that we have removed of ourselves to fit into the ideals of society can be seen on the cutting room floor as we move towards to what we think we want. This is further encapsulated in the control to the point of policing body and femineity as conceptualized through Judith Butler (1988, 2011) and Simone de Beauvoir (2009). Suturing on the garment is based on sutures for large wounds in the dermis as noted by Bittner and Edwards (2019) and Giddings (2022), that was then modified if one was to complete the suture on themselves.

*Method/Design Development Process:*

The flat pattern for the moulage of a plus-size garment was modified to a smaller size through grading the pattern down. Then the seam lines and darts were moved around to adjust to princess seams. The curved seams on the front and back of the garment were adjusted to one-inch seam allowances.

Utilizing various dye mediums, a textile paint was mixed to color match human bloodstaining on a sample of the fabric. This was applied in thin layers utilizing a base color, a diluted base with 16% tap water, and a diluted shade of the base with 23% tap water. These layers were painted utilizing different brushes and brush strokes to simulate the spreading of a viscous liquid.

Coloring based on venous or arterial blood was mapped out based on anatomical mapping.

The garment was then placed on a dress form so that the jute cording could be installed utilizing suturing techniques and a tapestry darning needle. Diluted paint base was dry-brushed and rubbed into the points of contact.

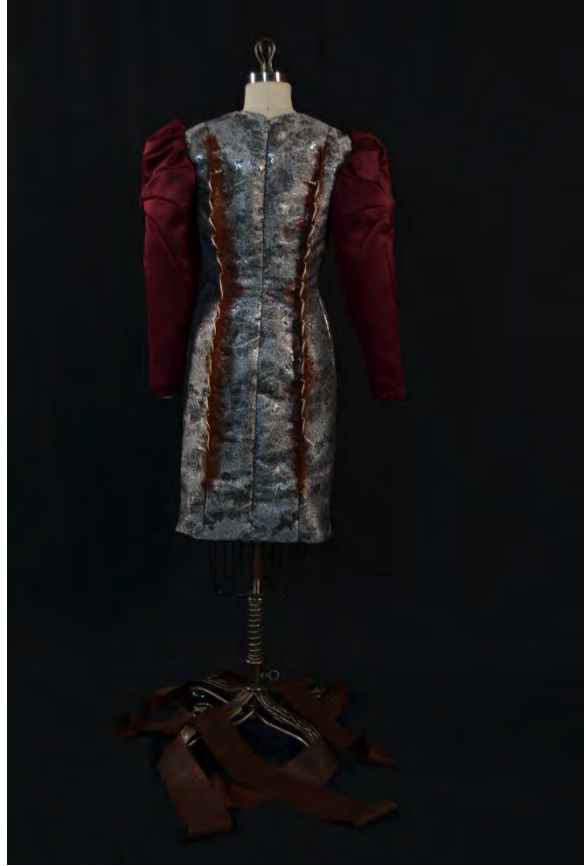
*Conclusion:*

This design brings in cultural references to social issues that are being actively discussed in various spaces. The overall visuals of the design highlight the violent acts that people commit over time in the name of the myth of beauty. The overall design utilizes a mixture of methods not commonly seen together in one design. The sleeves bring in curved seams with a statement sleeve that opens to the bicep of the wearer. The outer seams utilize a variety of surface design mediums to give emphasis to the design.

## References

- Bittner, J. G., & Edwards, M. A. (2019). *Basic suturing*. American College of Surgeons.  
<https://www.facs.org/media/f5bpb1kq/basic-suturing-module.pdf>
- de Beauvoir, S. (2009). *The second sex*. Vintage Books.
- Butler, J. (2011). *Gender trouble: Feminism and subversion of identity*. Routledge.
- Butler, J. (1988). Performative acts and gender constitution: An essay in phenomenology and feminist theory. *Theatre Journal*, 40(4), 519-531.
- Escher, M.C. (1953). *Relativity* [Lithography]. Escher in het Paleis, The Hague, Netherlands.  
<https://www.escherinhetpaleis.nl/showpiece/relativity/?lang=en>
- Giddings, F. D. (2022). *Surgical Knots and Suturing Techniques* (6<sup>th</sup> edition). (n.p.).
- The Wellcome Collection. (October 26, 2023-April 28, 2024). *The Cult of Beauty*. London, United Kingdom.
- Wolf, Naomi. (1991). *The beauty myth: How images of beauty are used against women*. Vintage Books.





**American Association of Family and Consumer Sciences  
Apparel, Textiles & Design Community (ATD)  
2025 Juried Design Showcase Submission**

**Design Title:** *Exuding Confidence with the Mindfulness of Crochet*

**Author or Authors:**  
Shannon Marie North,  
Belmont University

**Level:** Professional

**Category:** Apparel

**Abstract**

*Introduction to the Design Concept:* Exuding Confidence with the Mindfulness of Crochet identifies eleven pressure points to explore the garment's relationship to the body. Research of anxiety relieving coping mechanisms including Traditional Chinese Medicine (TCM) acupressure, deep touch pressure (DTP), weighted blankets, and compression were combined with the learnings from the new field of fashion psychology to inform the formal design process and aesthetic decisions of the artifact. The therapeutic properties of handcraft, specifically crochet, were explored in the process. Linking TCM, fashion psychology, and the wellness of mindful manufacturing results in an aesthetically pleasing anxiety reducing garment.

*Method/Design Development Process:* The relationship of body to fiber is a critical factor of this work. Natural textiles have been shown to improve the body's response to triggers (Kang et. al., 50). Choosing tactile fibers engages the senses without disruption to the body's natural coping process (Dearborn, 24). The balance of two contrasting materials, leather and cotton-linen yarn, are symmetrically crocheted together over a body form, aligning identified acupressure points. Repeating medallions along the bottom portion allow the focal gaze to be drawn to the bodice front and back. Traditional crochet methods were informed by new technologies. Using 3D software, acupressure points were outlined on avatars, then weighted panels were aligned to those 3D avatars, and optimal placements for acupressure relief were defined. Scaled iterations of laser cut paper patterns were placed on a physical form marked with acupressure points. After iterative refinement, the paper materials were replaced by felt with similar properties to leather that, when cut appropriately, behaved similarly to crochet trim. The felt prototype was stitched to the form to further inform size of components, balance of materials, and negative space to be filled by chainwork. After determining the final metrics and calculations, footwear industry scrap leather was laser cut into multiple patterns, incorporating connection areas for crochet. An organic oval shape created the most aesthetic and feminine form to balance the masculine appearance of the leather. Focus placed on acupressure points LU1, CV20, GB21, GV14, and SI-15 provides anxiety relief and enhances aesthetics by framing the face and highlighting the shoulders (Au et.al., 353-9). Points CV19-21 and ST12-15 inspire the bodice collar design and create a tranquil feeling for the wearer. The mid-calf length aligns with pressure point ST36 and allows for full range of motion. After careful consideration to meet design aesthetics, cotton-linen yarn crocheted medallions intersect negative space with the human figure for optimal adornment and functionality. The hand stitched full zip back allows easy on and off. Machine knit undershorts provide modesty.

*Conclusion:* Collaboration with students, anxiety sufferers, and testing produced the final garment incorporating anxiety relief. Trials indicate the optimal weight of the artifact, the comfort of the chosen materials, and the arrangement of materials which guide the final garment design. Building on Chen's 2011 study measuring heart rate variability (HRV) as an indicator for anxiety relief, respondents' heart rates were measured before and after wearing the artifact (468). Overall, HRV lowered, indicating favorable results and validating the need for garments that ease anxiety for the wearer.

## References

- Arnold, Rebecca. *Fashion, Desire and Anxiety: Image and Morality in the 20th Century*. (2001). I.B. Tauris & Co Ltd.
- Au, Doreen W., Hector W. Tsang, Paul P. Ling, Christie H. Leung, P. K. Ip, and W. M. Cheung. (2015). "Effects of Acupressure on Anxiety: A Systematic Review and Meta-Analysis." *Acupuncture in Medicine*, 33(5), 353–59. <https://doi.org/10.1136/acupmed-2014-010720>.
- Browzwear. VStitcher. V. 2023.3. Browzwear. Mac OS.
- Chen, Hsin-Yung, Yang, Hsiang, Chi, Huang-Ju, and Chen, Hsin-Ming. (2013). "Physiological Effects of Deep Touch Pressure on Anxiety Alleviation: The Weighted Blanket Approach." *Journal of Medical and Biological Engineering*, 33(5), 463-470. <https://doi:10.5405/jmbe.1043>.
- Corkhill, Betsan. (2016). *Crochet Therapy: The Soothing Art of Savoring Each Stitch*. Abrams.
- Dearborn, George Van Ness. (1918). "The Psychology of Clothing." *Psychological Review Company*, 26(1), 1-72. [https://openlibrary.org/works/OL7706788W/The\\_psychology\\_of\\_clothing](https://openlibrary.org/works/OL7706788W/The_psychology_of_clothing).
- Goncu-Berk, Gozde, Tara Halsted, Ruoyu Zhang, and Tingrui Pan. (2020). "Therapeutic Touch: Reactive Clothing for Anxiety." *PervasiveHealth '20: Proceedings of the 14th EAI International Conference on Pervasive Computing Technologies for Healthcare*, 239-242. <https://dl.acm.org/doi/abs/10.1145/3421937.3421962>.
- Hart, Trevor A., David B. Flora, Sarah A. Palyo, David M. Fresco, Christian Holle, and Richard G. Heimberg. (2008). "Development and Examination of the Social Appearance Anxiety Scale." *Assessment*, 15(1), 48–59. <https://doi.org/10.1177/1073191107306673>.
- Kang, Ju-Young M., Kim K.P. Johnson, and Jieun Kim. (2103). "Clothing Functions and Use of Clothing to Alter Mood." *International Journal of Fashion Design, Technology and Education*, 6(4), 43–52. <https://doi.org/10.1080/17543266.2012.762428>.
- Mair, Carolyn. (2018). *The Psychology of Fashion*. Routledge.
- Yang, Juan, Mallory MJ, Wahner-Roedler DL, Chon TY, Bauer BA. (2021). "Acupressure: An Effective and Feasible Alternative Treatment for Anxiety During the COVID- 19 Pandemic." *Glob Adv Health Med.*, 10, 1-5. <https://doi.org/10.1177/21649561211058076>.



**American Association of Family and Consumer Sciences  
Apparel, Textiles & Design Community (ATD)  
2025 Juried Design Showcase Submission**

**Design Title:** *Framing Emotion with Tradition and Technology*

**Author or Authors:**  
Shannon Marie North,  
Belmont University

**Level:** Professional

**Category:** Apparel

**Abstract**

*Introduction to the Design Concept:* Framing Emotion with Tradition and Technology demonstrates the support clothing may have on the wearer's emotional wellbeing as it relates to anxiety and its triggers. Exploring the connection of apparel to the maker's and wearer's experience enables a new interconnection for apparel. The submitted artifact intends to share the process and results of concepts reducing anxiety in wearers through the exploration of acupressure used in Traditional Chinese Medicine (TCM) and learnings from the field of fashion psychology. The research culminates in the hypothesis that combining weighted crocheted textiles with acupressure points may improve anxiety relief for sufferers. Acupressure points LU1, SI-15, GV14, GB21 and CV20 are used in the work (Au, et al.).

*Method/Design Development Process:* This work builds on concepts that frame the body in comforting silhouettes to understand how the garments may ease anxiety through the tactile feel on the body and their alignment with defined acupressure points. For the coat, 100% linen yarn is precisely crocheted around upcycled laser cut leather for optimal alignment with acupressure points. The design creates volume and harmonious balance, allowing one freedom from body conscious styling. Edged in rayon thread, the silk ribbons are woven between crocheted frames made of recycled yarn that sculpt a dress. This rhythmic structure stretches to support the body, reducing the anxiety created by revealing too much of oneself. Natural colors offer calm for the wearer and interest to the onlooker (Dearborn, 35). The tangible nature of the materials, fiber combinations, and garment composition combine to enwrap the body in confidence. The process to create the garments bridges traditional skills with technology. Using 3D apparel simulation software technology, pressure maps align textile placement to acupressure points on avatars, which are translated to physical dress forms. Patterns created from the software are draped, prototyped, fitted, and refined to reach optimal anxiety relief on the body.

*Conclusion:* Collaboration with students and anxiety sufferers to test feasibility and heart rate variability (HRV) produced final garment iterations incorporating anxiety relief. Trials indicated optimally weighted, comforting materials and the deployment methodologies which guided the final garment design and concepts. Favorable HRV responses to garments were measured and recorded. Most participants noted the calm feeling generated by the garments. This work is not meant to replace smart textiles used in therapy and/or medical products; rather explores the softer, emotional response of materials and how they impact the senses, creating joy and comfort for the wearer. Being able to calm the mind and focus in the moment, as supported by products being worn, delivers invaluable strength. The interconnectedness of handcrafted object to wearer is beginning to be explored. Ongoing studies are understanding how handcraft may manage chronic pain, relieve depression and anxiety, and enable connection to alleviate loneliness (Corkhill, 39). This work goes further to align handwork and textiles to specific areas of the body to provide anxiety relief. The connection of the maker to the wearer and garment to body is a continuously evolving concept. Offering aesthetic apparel with functional solutions supports new possibilities for development.



## References

- Arnold, Rebecca. *Fashion, Desire and Anxiety: Image and Morality in the 20th Century*. (2001). I.B. Tauris & Co Ltd.
- Au, Doreen W., Hector W. Tsang, Paul P. Ling, Christie H. Leung, P. K. Ip, and W. M. Cheung. (2015). "Effects of Acupressure on Anxiety: A Systematic Review and Meta-Analysis." *Acupuncture in Medicine*, 33(5), 353–59. <https://doi.org/10.1136/acupmed-2014-010720>.
- Browzwear. VStitcher. V. 2023.3. Browzwear. Mac OS.
- Chen, Hsin-Yung, Yang, Hsiang, Chi, Huang-Ju, and Chen, Hsin-Ming. (2013). "Physiological Effects of Deep Touch Pressure on Anxiety Alleviation: The Weighted Blanket Approach." *Journal of Medical and Biological Engineering*, 33(5), 463-470. <https://doi:10.5405/jmbe.1043>.
- Corkhill, Betsan. (2016). *Crochet Therapy: The Soothing Art of Savoring Each Stitch*. Abrams.
- Dearborn, George Van Ness. (1918). "The Psychology of Clothing." *Psychological Review Company*, 26(1), 1-72. [https://openlibrary.org/works/OL7706788W/The\\_psychology\\_of\\_clothing](https://openlibrary.org/works/OL7706788W/The_psychology_of_clothing).
- Goncu-Berk, Gozde, Tara Halsted, Ruoyu Zhang, and Tingrui Pan. (2020). "Therapeutic Touch: Reactive Clothing for Anxiety." *PervasiveHealth '20: Proceedings of the 14th EAI International Conference on Pervasive Computing Technologies for Healthcare*, 239-242. <https://dl.acm.org/doi/abs/10.1145/3421937.3421962>.
- Hart, Trevor A., David B. Flora, Sarah A. Palyo, David M. Fresco, Christian Holle, and Richard G. Heimberg. (2008). "Development and Examination of the Social Appearance Anxiety Scale." *Assessment*, 15(1), 48–59. <https://doi.org/10.1177/1073191107306673>.
- Kang, Ju-Young M., Kim K.P. Johnson, and Jieun Kim. (2103). "Clothing Functions and Use of Clothing to Alter Mood." *International Journal of Fashion Design, Technology and Education*, 6(4), 43–52. <https://doi.org/10.1080/17543266.2012.762428>.
- Mair, Carolyn. (2018). *The Psychology of Fashion*. Routledge.
- Yang, Juan, Mallory MJ, Wahner-Roedler DL, Chon TY, Bauer BA. (2021). "Acupressure: An Effective and Feasible Alternative Treatment for Anxiety During the COVID- 19 Pandemic." *Glob Adv Health Med.*, 10, 1-5. <https://doi.org/10.1177/21649561211058076>.



**American Association of Family and Consumer Sciences  
Apparel, Textiles & Design Community (ATD)  
2025 Juried Design Showcase Submission**

**Design Title:** *ModuGown*

**Level:** Professional

**Category:** Apparel

**Author or Authors:**

Kyung-Hee Choi and  
Rachel Eike,  
Hansung University and  
Iowa State University

**Abstract (500 words maximum)**

*Introduction to the Design Concept:* Personal protective equipment (PPE) is essential for healthcare workers (HCWs) to prevent exposure to infectious microorganisms. Current isolation gowns, whether disposable or reusable, face significant limitations. Disposable gowns, while effective against liquid penetration, contribute substantially to textile waste, with U.S. hospitals generating 14,000 tons of waste daily (Jain & LaBeaud, 2022). Reusable gowns degrade over time and may provide inconsistent protection (Kilinc, 2015). Existing designs also lack adaptability for transitioning between varying risk levels in dynamic healthcare settings. This design challenge aimed to create a modular isolation gown, *ModuGown*, that is sustainable, versatile, and adaptable across all protection levels (FDA, 2022). Guided by a User-Centered Design (UCD) framework, the design incorporates HCW preferences to ensure safety, comfort, and mobility. This work builds on prior research highlighting the need for customizable PPE (Cho, 2006; Townsend et al., 2022) while addressing gaps in design opportunities to improve sustainability and functionality.

*Method/Design Development Process:* The development of *ModuGown* followed an iterative process grounded in the User-Centered Design (UCD) framework. Insights were gathered from a focus group interview with 14 nursing students, whose feedback was analyzed using NVivo software to prioritize key themes: protection, ease of donning and doffing, comfort, and mobility. These themes directly informed material selection, design features, and prototyping. A cotton-polyester blend was selected for durability and breathability, with mesh inserts incorporated for additional ventilation in the back and cuffs. For high-risk zones, disposable Tyvek® modules were used to ensure lightweight, water/liquid protection. The gown was designed to adapt to varying risk levels, with single-panel designs for low-risk (levels 1–2), double-panel configurations with reusable modules for medium-risk (level 3), and additional Tyvek® components for high-risk (level 4). Adjustable closures, magnetic snaps, and Velcro® ensured easy assembly and secure fit, while gussets, elastic shirring, and thumbhole cuffs enhanced mobility and comfort. Prototyping was conducted using CLO3D software, enabling precise virtual modeling and adjustments for fit and functionality. Visual elements, including digital renderings and a fabricated physical prototype, were integral to refining the design. These visual artifacts allowed HCWs to assess the gown's adaptability and modularity, strengthening the connection between the concept and execution.

*Conclusion:* *ModuGown* integrates content, concepts, visuals, and techniques to achieve its purpose: enhancing HCW safety and operational use while reducing textile waste. The modular

design allows for seamless adaptation to varying risk levels, offering a practical solution in dynamic healthcare environments. Feedback from healthcare professionals emphasized its innovation in combining modularity, comfort, function and ease of use, and sustainability. The inclusion of visual prototypes not only illustrated the use of design principles but also enhanced stakeholder understanding, ensuring that the final product aligned with user needs. This design contributes new ideas to PPE development, addressing critical gaps in adaptability and environmental impact. Future applications include wear trials with HCWs, refining the design for manufacturing, and collaborating with PPE producers to advance sustainable practices. *ModuGown* sets a benchmark for user-centered, modular PPE design, inspiring further research and innovation in the field.

## References

- Cho, K. (2006). Redesigning hospital gowns to enhance end users' satisfaction. *Family and Consumer Sciences Research Journal*, 34(4), 332-349.  
<https://doi.org/10.1177/1077727X06286570>
- Jain, N., & LaBeaud, D. (2022). How should US health care lead global change in plastic waste disposal? *AMA Journal of Ethics*, 24(10), 986-993.  
<https://doi.org/10.1001/amajethics.2022.986>
- Kilinc, F. S. (2015). A review of isolation gowns in healthcare: Fabric and gown properties. *Journal of Engineered Fibers and Fabrics*, 10(3), 180–190. <https://pubmed.ncbi.nlm.nih.gov/26989351/>
- Townsend, K., Sterman, S., Salter, E., & Harrigan, K. (2022, June 16). Out of isolation: Designing reusable PPE gowns based on an understanding of healthcare workers' lived experiences. DRS2022: Bilbao. <https://doi.org/10.21606/drs.2022.732>
- U.S. Food & Drug Administration. (2022, July). *Medical gowns*. <https://www.fda.gov/medical-devices/personal-protective-equipment-infection-control/medical-gowns>





**American Association of Family and Consumer Sciences  
Apparel, Textiles & Design Community (ATD)  
2025 Juried Design Showcase Submission**

**Design Title: Radios and Honeycombs**

**Author or Authors:**

**Level: Professional**

Melissa Clark, Utah  
State University

**Category: Apparel**

**Abstract**

Texture and hand embellishment techniques have played a significant role in apparel design throughout history, often serving both aesthetic and functional purposes. In fashion today, it is suggested that texture not “be randomly applied due to the functional requirements of the garment,” but that it be used to “express a designer’s aesthetic perspective and design concept” (Gong and Shin 2013). One textural embellishment technique, smocking, has had a place in apparel since the Middle Ages in Europe and can still be seen in fashions today (Gupta 2021). Smocking remains relevant in fashion for its aesthetic appeal with its “artistic means of controlling a garment’s fullness” and its function of providing a “close fit while maintaining a certain degree of stretch” (Ren, Segall and Sorkine-Honung, 2024).

This dress was designed as the fourth piece in a collection titled *Radios and Honeycombs*. This smocked dress is meant to explore the textures and lines found in early 20th century radios – invoking the lines, forms, and most importantly the textures of the crosshatching on the radio speakers. The smocking allows for areas of the dress to be more fitted, then allowing the fabric to release into fullness and flow freely in the skirt.

The history of smocking and the smock frock informed the choice of materials and the anachronistic cottagecore aesthetic of the design, reflecting a nostalgic, simple, and rural life. The fabric, a hemp and cotton blend plain weave, was also selected for its softness, drape, and

ability to absorb dyes effectively. The slopers for the pattern were hand drafted from body measurements. The smocking intake and fullness were calculated and applied to key areas such as the neck, shoulders, waist, and wrists during the flat patternmaking process. Each section of the dress was marked, gathered and then smocked. The tight gathers were left in while the fabric was dyed, creating a resist to the full penetration of the dyes. To further accent the texture of the smocking, the back side of each smocked area was discharge dyed using bleach. Between the resist and the discharge, the back of the smocking has a variegated appearance which highlights the texture and the dark eggplant color of the smocking ridges. By blending texture, color, form, and movement, this dress reflects a harmonious balance of tradition and innovation, underlining the timeless relevance of smocking in fashion.

### References

- Gong, L., & Shin, J. (2013). The innovative application of surface texture in fashion and textile design. *Fashion & Textile Research Journal*, 15(3), 336–346.  
<https://doi.org/10.5805/sfti.2013.15.3.336>
- Gupta, M. (2021, August 18). *Smocking " marasim - sustainable textile, craftsmanship, luxury*. SAAR. <https://blog.marasim.co/story-of-smocking-an-embroidery-technique-to-gather-fabric-to-create-stretch/>
- Ren, J., Segall, A., & Olga Sorkine-HornungETH Zurich, S. [org/0000-0002-8089-3974](https://doi.org/10.1145/3631945)View P. (2024, January 3). *Digital three-dimensional smocking design*. ACM Transactions on Graphics. <https://dl.acm.org/doi/full/10.1145/3631945>



**American Association of Family and Consumer Sciences  
Apparel, Textiles & Design Community (ATD)  
2025 Juried Design Showcase Submission**

**Design Title:** Shifting Plates

**Level:** Professional Entry

**Category:** Apparel

**Author or Authors:**

Laura McAndrews,  
Kent State University

**Abstract**

*Introduction to the Design Concept:*

Genderless clothing has emerged as a trend and even new standard in fashion (Segalov, 2020). The term “genderless” can also refer to “agender,” “gender fluidity,” or “gender neutral,” which refers to the state of being without a clear gender identity (Robinson, 2019) and allows the wearer to use products to create styles according to individual personality and taste from a neutral perspective (Kim, Cho, & Park, 2022). As detailed by Huun and Kaiser (2001), from 1896-1962, the decline of the infant and toddler white dresses gave way to gender coded clothing, specifically a flight of femininity for more masculine clothing for boys, which is still highly emphasized in mass marketed children’s clothing brands today. However, Millennial and Gen Z value individuality and practicality rather than gender (Kim et al, 2022), opening a market and demand for genderless clothing in children’s wear. Therefore, the design objective was to create a children’s garment with gender ambiguity.

*Method/Design Development Process:*

The Denver Art Museum in November 2022 had an exhibit featuring the work of Italian interior designer Gio Ponti, specifically the decorative plates collection for Ceramica Franco Pozzi 1960-1969. The plates’ decorative shapes and vibrant colors inspired this design project. The recreation of Ponti’s plates was first done in Procreate and then edited for design repeat and colorways in Kaledo Print software. The print was sublimated on a 100% polyester satin fabric. After several sketches, final patterns were created in Browzwear VStitcher, printed, and prototyped. After a fitting on a live model assessing fit and gaining feedback from the child about fabric hand feel and colors, the final garment was constructed. Fabrics were selected based on the child’s feedback from the fit session – the pants were made from brushed flannel and polar fleece for pockets and side panel stripe; the top was made from knit French terry. I wanted to juxtapose handwork with the digital surface design, leading to the hand embroidery knee patches and back applique. At the forefront of this design project was to play with multiple colors and textures that could circumvent traditional gender norms.

*Conclusion:*

Children’s clothing needs and wants are still an under researched area and children’s brands develop based on perceived needs and preferences (Brun & Petersen, 2021). Moreover, there is movement to create products and apparel void of hyper gendered societal constructs (Kim, Cho, & Park, 2022). Therefore, *Shifting Plates* adds to the existing design research of both children’s wear and genderless clothing along with utilizing digital software throughout the creative design process.

This design is original and innovative at (a) identifying the need for genderless clothing, (b) utilizing digital software for the development of the surface design (Procreate, Lectra's Kaledo Print) garment patterns (Browzwear's VStitcher) along with sublimation printing, and (c) integrating consumer feedback from potential end users. *Shifting Plates* is a call for more exploration into underserved target markets in the fashion industry.

## References

- Brun Petersen, T. (2021). Fashioning children: From angels to equals a case study of a Danish fashion company and their boutiques for children's clothing. *Fashion Theory*, 25(6), 837-853.
- Huun, K. & Kaiser, S. (2001). The emergence of modern infantwear, 1896-1962: Traditional white dresses succumb to fashion's gender obsession. *Clothing and Textiles Research Journal*, 19(3), 103-119.
- Kim, H., Cho, I., & Park, M. (2022). Analyzing genderless fashion trends of consumers' perceptions on social media: Using unstructured big data analysis through Latent Dirichlet Allocation-based topic modeling, *Fashion and Textiles*, 9(6).  
<https://doi.org/10.1186/s40691-021-00281-6>
- Robinson, M. (2019). Two-Spirit identity in a time of gender fluidity. *Journal of Homosexuality*, 67(12), 1675–1690. <https://doi.org/10.1080/00918369.2019.1613853>
- Segalov, M. (2020, October 10). Hussein Chalayan: 'Gender-free clothing is the future'. The Guardian. <https://www.theguardian.com/lifeandstyle/2020/oct/10/hussein-chalayan-gender-free-clothing-is-the-future>





11



**American Association of Family and Consumer Sciences  
Apparel, Textiles & Design Community (ATD)  
2025 Juried Design Showcase Submission**

**Design Title: A Touch of Orange - Adaptive Drawstring-waist Chambray Dress**

**Level: Professional**

**Category: Apparel**

**Author or Authors:**

Melanie Carrico,  
University of North  
Carolina Greensboro

**Abstract (500 words maximum)**

*Introduction to the Design Concept:* The U.S. population of female adults over 65 years of age is more than 30 million (U.S. Census Bureau, 2022) and projected to increase 47% by 2050 (Mather & Scommegna, 2024). Fashion brands should cater to aging female consumers by addressing their needs and desires. Nam et al. (2007) identified four elements of comfort needed in older women's apparel: "(1) good fit with adequate ease; (2) soft, non-abrasive materials; (3) adequate insulation or ventilation (depending upon the season); and (4) garment lengths and fullness that facilitate free, uninhibited movements" (Nam et al., 2007, p. 107). Chung et al. (2024) also found that thermoregulation can be a problem in older adults. Ease of dressing must also be addressed as some female consumers find getting dressed to be troubling as they age due to conditions like arthritis (Singh, 2019). The adaptive apparel market can increase market share in the U.S. by addressing the clothing needs of older adults. The **purpose** of this design was to create a sustainable dress for a mature, independent woman undergoing chemotherapy treatments. The resulting garment is easy to don and doff with several adaptive features.

*Method/Design Development Process:* For sustainability, deadstock chambray lyocell fabric was selected in part due to its thermoregulatory properties. Lyocell is known to feel cool on the body and have good moisture-wicking properties (Ozdemir, 2017). The classic look of the dark blue chambray also met the needs of the target consumer. The pattern was developed using VStitcher, a 3D visualization program.

The waist is shaped by a drawstring and the partial kimono-style sleeve and underarm gusset facilitate movement. The front opening uses adaptive magnetic snap tape in lieu of buttons or traditional snaps. The magnets are easier to use for individuals who struggle with dexterity and hand weakness. The chest pockets close with invisible zippers. Inside, the back of each pocket bag splits allowing discreet access to chest ports.

*Conclusion:* This dress offers consumers needing chest port access a different styling option from the casual t-shirt style tops that dominate this category of apparel with port access points. The orange topstitching throughout the shirt-dress coordinates with the orange magnetic tape and orange pocket zippers. The orange trim and stitching details add just enough contrast to make the dress feel elevated beyond a basic garment.

The chambray dress is a classic style that will serve the mature female consumer well. Nam et al. (2007) found that the older woman may still be interested in fashion but does not follow the trends. The longevity that a timeless shirtdress provides contributes to its sustainability.

Adaptive, discreet features within the dress can be appreciated by women with or without disabilities. The thermoregulatory lyocell and magnetic snaps have broad appeal while the chest port access can be useful for a smaller market segment.

## References

- Chung, J., Tang, W., Yoon, J.E., Ha, S., Kang, J.Y., & Koo, S.H. (2024). Design guidelines for movement-assistive clothing based on a comprehensive understanding of older adults' needs and preferences. *PLoS ONE*, 19(3): e0299434. <https://doi.org/10.1371/journal.pone.0299434>
- Mather, M. & Scommegna, P. (January 9, 2024). Fact sheet: aging in the United States. *Population Reference Bureau pbr.org*. <https://www.prb.org/resources/fact-sheet-aging-in-the-united-states/>
- Nam, J., Hamlin, R., Gam, H. J., Kang, J. H., Kim, J., Kumphai, P., Starr, C., & Richards, L. (2007). The fashion-conscious behaviours of mature female consumers. *International Journal of Consumer Studies*, 31(1), 102–108.
- Ozdemir, H. (2017). Permeability and wicking properties of Modal and Lyocell woven fabrics used for clothing. *Journal of Engineered Fibers and Fabrics*. 12(1). doi:10.1177/155892501701200102
- Singh, S. (2019). A study on adaptive clothing for females with arthritis. *International Journal of Advanced Scientific Research and Management*. 4(4), 93-97.
- U.S. Census Bureau. (2022). Population by age and sex. *2022 ACS 5-Year Estimates Subject Tables*. Retrieved from [https://data.census.gov/profile/United\\_States?g=010XX00US#populations-and-people](https://data.census.gov/profile/United_States?g=010XX00US#populations-and-people)





**American Association of Family and Consumer Sciences  
Apparel, Textiles & Design Community (ATD)  
2025 Juried Design Showcase Submission**

**Design Title:** The Future of Fashion Lies in the Past: Weaving Rainbow

**Level:** Professional

**Category:** Apparel

**Author or Authors:**  
Erin Irick, University  
of Wyoming

**Abstract** (500 words maximum)

***Introduction to the Design Concept:***

This design is part of a six-piece collaborative collection contributing to existing research on apparel sustainability, incorporating the concept of slow fashion into an existing apparel repurposing model and providing visual examples of these concepts via traditional textile techniques. Six categories of techniques were identified resulting in three phases of research; 1) researching the six traditional textile crafts to understand their historical usage and associated meanings, 2) identifying and individually interviewing collaborators with expertise in each of the techniques regarding their experiences with the technique, 3) collaborating with the participants to design and construct six garments paying homage to each of the techniques while also incorporating repurposing, in this case, weaving.

The apparel and textile industry ranks as the fourth highest in environmental impact behind the energy, agriculture and transportation industries (Omondi, 2022). The underlying issue that makes the production of fashion products particularly problematic is the frenetic pace of change that it undergoes and encourages. This phenomenon is called fast fashion; characterized by large volume, low cost, low quality, rapidly produced clothing often utilizing exploitative labor practices (Fletcher, 2015). Fast fashion satisfies the consumers need for instant gratification, enticing them to constantly want more while simultaneously encouraging disposal of still functional, yet “out of style” clothing.

In opposition to fast fashion, is the concept of slow fashion. Paralleling the slow food movement, the term slow fashion was first coined by Fletcher (2007). Slow fashion incorporates sustainable production including repurposing, and ideas about quality materials, local markets, taking pleasure in the act of making, cultural diversity and traditional textile crafts. The latter was selected as proof of concept for this project. Understanding the historical importance of such techniques and how they inform the construct of slow fashion will allow us to connect with generations past and promote a more sustainable future. Irick (2013) developed a model for repurposed apparel, identifying three levels of repurposing and was amended by Irick et al (2020) to include a fourth level. The purpose of these studies was to understand the design process for repurposing apparel and textiles to efficiently use the copious amounts of second-hand clothing available, preventing it from becoming waste. Lapolla and Sanders (2015) suggested that combining co-creation and repurposing may be one way to add longevity to fashion products.

Therefore, the purpose of this project was to understand how the concepts of slow fashion inform and overlap with apparel and textile repurposing. Secondly, this project provided visual examples that tell the stories of the participants.



***Method/Design Development Process:***

After the interview with the collaborator, the main designer created a series of sketches inspired by the interests and preferences of the collaborator and the history of the weaving technique. The sketches were discussed and edited to arrive at the final design. Both garments were draped on a dress form to create the patterns. The collaborator was inspired by the colors of nature and created the rainbow woven yardage that was then cut into the top and bottom sections of the chevron for the vest. The center portion of the vest was repurposed from a women's skirt and the jumpsuit underneath from a bedsheet. The top band of the jumpsuit was pieced together from scrap material from another design in the collection.

***Conclusion:***

Rooted in research and collaborative design, this design is innovative in how it successfully combines slow fashion and repurposing. This design also successfully tells the story of the collaborator while delivering a visually impactful design through the use of color, balance and movement.

## References

- Fletcher, K. (2015). *Sustainable Fashion and Textiles: Design Journeys*. New York, NY: Earthscan Publications Ltd.
- Fletcher, K. (June 1, 2007). Slow Fashion. *The Ecologist*. Retrieved from <https://theecologist.org/2007/jun/01/slow-fashion>
- Irick, E. (2013). *Examination of the design process of repurposed apparel and accessories: An application of diffusion of innovations theory*. Oklahoma State University. Retrieved from <https://search.proquest.com/docview/1520789665?accountid=10906>
- Irick, E., Eike, R. J., Cho, S., & Kim, M. (2020). Repurposing apparel: A guided process for sustainable design education. *International Journal of Fashion Design, Technology and Education*, 13(3), 280–291.
- Lapolla, K. & Sanders, E. (2015). Using Cocreation to Engage Everyday Creativity in Reusing and Repairing Apparel. *Clothing and Textile Research Journal*, 33 (3), 1-16. <https://doi.org/10.1177/0887302X15572877>
- Omondi, B. (2022). The Most Polluting industries 2022. Retrieved from <https://ecojungle.net/post/the-most-polluting-industries-in-2021/>



**American Association of Family and Consumer Sciences  
Apparel, Textiles & Design Community (ATD)  
2025 Juried Design Showcase Submission**

**Design Title: Comfortable Reality**

**Level: Student**

**Category: Textile-Based Designs or Accessories**

**Author or Authors:**

Kathrine Blythe  
Fjellman, Iowa State  
University

**Abstract (500 words maximum)**

*Introduction to the Design Concept:*

‘Comfortable Reality’ is a woven textile collection for A/W 25/26, designed for Anthropologie, that connects textiles with consumers emotionally. Inspired by WGSN’s “Kintentional” trend, it blends dramatic colors, soft textures, and ornate metallics, evoking nostalgia and fantasy while ensuring tactile comfort (Samba, 2024). Inspired by Hunziker’s (2020) design scholarship on alpaca wool and twill weaving, ‘Comfortable Reality’ balances luxury and durability. The collection merges historical opulence with lived-in ease, enhancing sensory appeal. Rooted in WGSN’s foresight, it aligns with Anthropologie’s aesthetic and commitment to quality, responding to evolving consumer desires for meaningful, comforting textiles enriched with storytelling (Anthropologie).

*Method/Design Development Process:*

The textile collection, ‘Comfortable Reality’, consists of three textile large-swath samples, titled *Opulent Embrace*, *Baroque Dreamscape*, and *Royal Reverie*. The collection design process started by searching for inspirational and trend-focused fabrication designs online and then building digital weave files using Adobe Photoshop. For the first sample, *Opulent Embrace*, the pencil tool within Photoshop was used to create the woven design, which established a pixel-based digital file to inform the loom headers when to raise and lower in order to have longer float sections in targeted areas of the textile. *Opulent Embrace* was woven on a TC2 Loom using two shuttles with different yarns, consisting of 50% Wool/50% Acrylic and 100% Rayon from Bamboo to create the bubble-like texture. For the second sample, *Baroque Dreamscape*, a 4x4 box weave pattern was applied to the entire surface of the textile design. While weaving *Baroque Dreamscape* on the TC2 Loom, a random assignment of yarn usage in the weft/filling direction was employed to achieve the desired finished textured textile output. A more standardized approach could be taken to improve cost effectiveness in future production, and still achieve the randomized appearance. Multi-colored yarns (one including a metallic finish) made up of 50% Wool/50% Acrylic, 100% Rayon from Bamboo, 100% Mercerized Cotton, 100% Cotton, Polyester (?) Ribbon, and Wool Roving were used to fabricate *Baroque Dreamscape*. For the third sample, *Royal Reverie*, the design process started with using a Generative Artificial Intelligence (GAI) feature in Adobe to initially create a floral design. The GAI process was modified multiple times to produce the end petal-like shape, then colors were simplified, and

weaves were assigned to the design. *Royal Reverie* was produced in three different weave configurations: nine-yarn satin, diamond twill, and 6-yarn twill weave combinations using a single-shuttle weaving process with a dark taupe 100% Rayon from bamboo yarn.

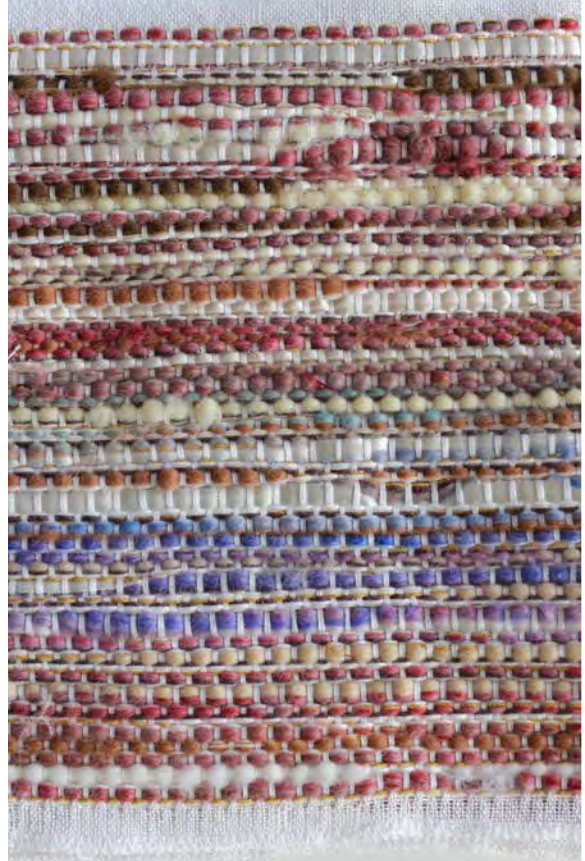
*Conclusion:*

‘Comfortable Reality’ successfully integrates historical opulence with contemporary comfort, creating a cohesive collection that resonates with Anthropologie’s clientele. Innovation is at the core of this design, as applications in digital weaving are explored to create a similar effect to Hunziker’s (2020) hand-woven designs. Future textile design scholarship has the ability to use this application in digital textile design to create new methods for manufacturing authentic and tactile fabrics and simulating that hand-crafted, luxurious feel.



## References

- Hunziker, S. (2020). *Sustainable processing of alpaca wool*. 2020 Design Catalog. [https://www.ifhe.org/fileadmin/user\\_upload/Publications/IFHE\\_Position\\_Paper\\_HE\\_21st\\_Century.pdf](https://www.ifhe.org/fileadmin/user_upload/Publications/IFHE_Position_Paper_HE_21st_Century.pdf)
- Our story / anthropologie*. Anthropologie. (n.d.). <https://www.anthropologie.com/help/our-story>
- Samba, U., & WGSN Forecast Team. (2024, November 15). *Design & Colour Directions A/W 26/27*. WGSN. <https://www.wgsn.com/fashion/article/6710d5bfb181bbecab3ba2ee#page9>



**American Association of Family and Consumer Sciences  
Apparel, Textiles & Design Community (ATD)  
2025 Juried Design Showcase Submission**

**Design Title:** *Dual-Y Nexus*: Enhancing Upper-Limb Prosthetic Wearability

**Level:** Professional

**Category:** Textile-Based Designs or Accessories

**Author or Authors:**  
Rachel Eike,  
Iowa State University

**Abstract**

*Introduction to the Design Concept:*

2.1 million people in the USA live with limb loss, a number expected to double by 2050 (Ziegler-Graham et al., 2018). Upper limb loss impacts daily activities, as hands and arms are crucial for mobility and functionality (Østlie et al., 2012). Body-powered prostheses, requiring harness anchoring to activate the terminal device, are the most used prostheses for upper-limb amputation (Gudfinnsdottir, 2013). Despite innovations in harness design since the 1990s (LaTour, 2012; Altobelli et al., 2014), professionals still recommend traditional harnesses, which users have reported discomfort, pain, and dissatisfaction (Huinink et al., 2016). This design aimed to develop a new anchoring system that enhances comfort and usability, informed by users.

*Method/Design Development Process:*

By employing user-centered research, semi-structured interviews with three figure-of-9 harness users identified key issues: friction-induced discomfort, non-replaceable components, and aesthetic concerns. Participants reported pressure points, restricted movement, and skin irritation caused by prolonged wear. They also expressed frustration with the lack of (fit) customization, as standard harnesses often fail to accommodate individual body shapes, resulting in improper fit and reduced efficiency. Users emphasized the need for a body-balanced, adjustable alternative.

To address these concerns, a 3D-printed PETG bracket was designed to eliminate metal components, reducing friction and enhancing comfort. PETG offers durability, flexibility, and resistance to wear (Fernandes, 2014), making it suitable for daily prosthetic use. The bracket is washable and integrates with fabric-based attachments, providing a tailored and user-friendly experience, secured at the center back of the harness with rivets. Inspired by the Monar Jonban (see figure 1), a historical Iranian monument symbolizing interconnected motion, the design ensures coordinated movement, reducing strain. The renewed harness, *Dual-Y Nexus*, accommodates left and right amputations and is fabricated from a layer of lightweight cotton shirting (against the body), a layer of synthetic knitted spacer-mesh fabric to increase breathability and wicking, and a top-layer of cotton canvas for strength and durability from clothing and prosthetic device components (e.g. cable), enhancing fit and function to increase user confidence.



Figure 1. Monar Jonban, Esfahan, Iran



*Dual-Y Nexus* was tested against the figure-of-9 harness using the Box and Blocks Test (BBT) and the Nine-Hole Peg Test (NHPT). Results showed 95% of participants performed better in the BBT, with an 85% improvement in NHPT total time. Participants reported increased comfort, better range of motion, and improved control over the prosthetic device. They also noted reduced pressure on the residual limb and enhanced ease of movement during tasks requiring shoulder engagement. The adjustable tension and fit were well-received, allowing for better personalization and reducing fatigue.

#### *Conclusion:*

*Dual-Y Nexus* represents a significant advancement in prosthetic harness design, addressing key limitations of outdated systems. By replacing rigid metal components with 3D-printed PETG brackets, the design reduces discomfort, pressure points, and skin irritation while improving functionality. User testing demonstrated enhanced performance, comfort, and adaptability, with participants reporting greater ease of movement and control. This innovation offers a promising solution to improve the daily lives of upper-limb prosthesis users, making prosthetic use more comfortable, efficient, and user-centered.

#### **References**

- Altobelli, D. E., Perry, N. C., Evans, C. O., Van Der Merwe, D. A., Langenfeld, C. C., Kerwin, J. M., Coulter, S. M., Smith, S. B., III, Violette, K. D., Nickson, S. W., Schnellinger, T. S., Muller, A. H., & Guay, G. M. (2014). *Arm prosthetic device system* (U.S. Patent No. WO2010120404A9). U.S. Patent and Trademark Office.
- Østlie, K., Lesjø, I. M., Franklin, R. J., Garfelt, B., Skjeldal, O. H., & Magnus, P. (2012). Prosthesis rejection in acquired major upper-limb amputees: a population-based survey. *Disability and Rehabilitation: Assistive Technology*, 7(4), 294-303.
- Fernandes, A. B., Ruellas, A. C., Araújo, M. V., Sant'Anna, E. F., & Elias, C. N. (2014). Assessment of exogenous pigmentation in colourless elastic ligatures. *Journal of Orthodontics*, 41(2), 147–151. <https://doi.org/10.1179/1465313313y.00000000083>
- Gudfinnsdottir, T. (2013). *Design and evaluation of a new harnessing system for body-powered prostheses*. (Master's thesis). Delft University of Technology. Delft, Netherlands.
- Huinink, L. H., Bouwsema, H., Plettenburg, D. H., van der Sluis, C. K., & Bongers, R. M. (2016). Learning to use a body-powered prosthesis: Changes in functionality and Kinematics. *Journal of NeuroEngineering and Rehabilitation*, 13(1). <https://doi.org/10.1186/s12984-016-0197-7>
- Latour, D. A. (2012). *Anchoring system for prosthetic and orthotic devices* (U.S. Patent No. US8323355B2). U.S. Patent and Trademark Office.
- Ziegler-Graham, K., MacKenzie, E. J., Ephraim, P. L., Travison, T. G., & Brookmeyer, R. (2008). Estimating the prevalence of limb loss in the United States: 2005 to 2050. *Archives of Physical Medicine and Rehabilitation*, 89(3), 422–429. <https://doi.org/10.1016/j.apmr.2007.11.005>





**American Association of Family and Consumer Sciences**  
**Apparel, Textiles & Design Community (ATD)**  
**2025 Juried Design Showcase Submission**

Design Title: *Threaded Fusion: Cross-Stitching Technology and Tradition*

Level: Professional

Category: Interiors

Author or Authors:

Anna Gatlin, Auburn  
University

### **Introduction**

Handcraft traditions, like cross-stitching, have long been associated with intricate artistry and cultural storytelling (Pye, 1968). Historically, stitched works have long been a part of the legacy of interior decoration (Pile & Gura, 2014). In today's design landscape, emerging technologies offer opportunities to reimagine these crafts without eroding their authenticity (Buechley & Perner-Wilson, 2012; Dormer, 1997). *Threaded Fusion* is a creative exploration that integrates 3D printing, laser cutting, and cross-stitching to produce an innovative wall panel. This project bridges the temporal gap between past and future, celebrating craftsmanship while embracing technological advancement. By leveraging additive manufacturing to create a stitchable substrate, this work seeks to preserve the tactile quality of cross-stitching while advancing its application within interior design.

### **Method/Design Development Process**

The design process involved extensive prototyping to achieve the appropriate substrate. A 3D-printed panel made from recyclable Polylactic Acid (PLA) was carefully iterated and designed with evenly spaced perforations, similar to traditional Aida cloth. Initial iterations were either too fragile for stitching or too rigid to accommodate the craft. Multiple adjustments were made to hole size, spacing, and panel thickness, resulting in a substrate with dimensions of 2" x 4" sized rectangle made of 4 layers of PLA, with a 1/16" hole size, spaced 1/16" apart. Once finalized, six substrates were 3D printed and were individually cross-stitched with designs inspired by hand-painted and hand-stamped leather wallcoverings found in a Bernini-designed palace in central Italy. Each cross-stitched piece represents a wallcovering in one room; the colors of the wallcovering are represented proportionally in the cross-stitching, and the pattern is abstracted and representational, not a literal reproduction of the inspiration. Each of the six panels are inset into a piece of wood that has been laser-cut to fit each of the six stitched pieces precisely. A silhouette of the small Italian town where Bernini's palace is located is laser cut into the lower portion of wood. This work blends the structured precision of technology with the organic texture of handcraft and natural materials, juxtaposing this cutting-edge final product with the antique nature of the inspiration.

Challenges included ensuring the material balance for pliability and durability, refining the design for ease of stitching, and maintaining visual harmony between traditional patterns and the contemporary 3D-printed base. The final product is a modular panel that can be scaled and replicated to serve various applications, from decorative accents to functional design elements.

## Conclusion

*Threaded Fusion* demonstrates how traditional craftsmanship can coexist with and benefit from modern technology, which may be vital to ensuring that handicraft traditions are not lost completely (Shah & Patel, 2017). This work enhances the relevance of cross-stitching in contemporary design while offering new possibilities for material innovation. By marrying tradition with innovation, this project not only preserves the craft's integrity but also pushes its boundaries into uncharted territories, providing inspiration for future explorations in hybrid design practices.

## References

- Pile, J., & Gura, J. (2014). *A History of Interior Design*. John Wiley & Sons.
- Shah, A., & Patel, R. (2017). Problems and challenges faced by handicraft artisans. *Voice of Research*, 3(14), 270–282.
- Dormer, P. (1997). *The Culture of Craft: Status and Future*. Manchester University Press.
- Buechley, L., & Perner-Wilson, H. (2012). Crafting technology: Reimagining the processes, materials, and cultures of electronics. *ACM Transactions on Computer-Human Interaction (TOCHI)*, 19(3), 21.
- Pye, D. (1968). *The Nature and Art of Workmanship*. Cambridge University Press.



# Award and Grant Recipients





# Award and Grant Recipients 2025 AAFCS Annual Conference



## **National Teacher of the Year Mia Battistone, CFCS, MN**

Mia Battistone has been a dedicated Family and Consumer Science educator since 1995, starting at Dakota Hills Middle School and moving to Eastview High School in 1997. She founded the Eastview FCCLA Chapter in 2006, with a long and successful tenure. Mia has received numerous honors, including MN FCCLA Teacher of the Year, FCCLA Master and Mentor Adviser, and National Adviser of the Year Finalist. Her leadership extends beyond the classroom, as evidenced by her roles within AAFCS, holding numerous MAFCS Officer positions and being President in 2024-25. Her leadership as a Career and Technical Teacher Induction Program Mentor further exemplifies her commitment to supporting other educators. Mia's student-nominated recognition as a National Adviser of the Year finalist highlights her lasting impact on students and the deep connection she has with them in their lives. Her influence transcends beyond teaching, shaping generations of students into leaders who will continue to carry her impact forward.



## **TOY Merit Finalist, Ashley Beth Phipps, KY**

A leader in her career and volunteer activities, Ashley Phipps possesses qualities allowing her to usher in a new era for Family and Consumer Sciences education at Wolfe County High School. After 15 years in the field, she maintains her passion for improving the lives of students through various methods and partnership types. Her strong education, along with practical experience in the field, equipped her to have a significant impact on FCS. After graduating from the University of Kentucky with a degree in Merchandising, Apparel, and Textiles, she worked as a U.K. Cooperative Extension Agent for F.C.S./4-H; then as a development officer, before feeling called to F.C.S. education. Past President, Vice-President, Financial Growth Chair, and Awards Chair for the Kentucky Association of Teachers of Family and Consumer Sciences and region president/treasurer, she led state-wide training sessions, maintained records, and developed new partnerships.



## **TOY Merit Finalist, Bethany Pepe, CFCS, PA**

Bethany has taught Family and Consumer Sciences (FCS) for 20 years in Pennsylvania across middle school, high school, and early childhood education. She has advised various student organizations, including the Child Development Club, FCCLA, and Sewing Club. Bethany has served on the PA Academic Standards for FCS Revision Committee, is the current Secretary of PAFCS, and has held PAFCS leadership roles such as Standards of Excellence Chair, Mid-East District Chair, serving on the Advisory Board and Board of Directors. Bethany presented at national and state conferences and workshops, including the AAFCS Fall Leadership Conference and Temple/PDE FCS Educator Summer Workshops. As a consultant, Bethany contributed to developing and revising the FCS Teacher Licensure Exam and serves on the AAFCS Council for Certification. An active mentor in the IUP Mentoring Program, Bethany also writes curriculum, studies financial literacy, and shares resources. She enjoys traveling, gardening, and volunteering in her community.



## Award and Grant Recipients 2025 AAFCS Annual Conference



### **Affiliate TOY, Cassidy Parsons, MT**

Cassidy Parsons has been a dedicated Family and Consumer Sciences (FCS) teacher at Jefferson High School in Boulder, Montana, since 2017. She is passionate about equipping students with essential life skills and fostering leadership opportunities through her role as the Family, Career, and Community Leaders of America (FCCLA) advisor. Cassidy's excellence in teaching and advising has been widely recognized. She was named Montana's FCCLA New Advisor of the Year 2020-21, FCCLA Advisor of the Year 2023-24, and the Montana Association of Family and Consumer Science (MAFCS) Teacher of the Year 2024-25. In addition to her teaching role, she serves as the JHS Union Secretary and is a valued board member of the MAFCS. She earned her undergraduate degree in K-8 Elementary Education from the University of Montana Western, obtained her FCS endorsement from Montana State University, and completed a Master's degree in Curriculum and Instruction from the University of Montana.



### **Affiliate TOY, Cassy Dalbom, KS**

Cassy Dalbom holds a Bachelor's degree in Family and Consumer Sciences Education and a Master's degree in Career and Technical Education from Pittsburg State University. With 13 years of experience as a dynamic and hands-on educator, Cassy has built a thriving early childhood program and leads an active FCCLA chapter, taking students to nationals for the past two years. In 2023, she was honored as Teacher of the Year by the Kansas Association of Career and Technical Education, and in 2019, she received the New Achiever Award from AAFCS. Cassy is deeply passionate about helping her students succeed, fostering their personal growth, and preparing them to be the best they can be in the future.



### **Affiliate TOY, Sarah Chooljian, NH**

Sarah received her BS in Culinary Management from Southern New Hampshire University. She utilized her background to pursue an alternative certification route in Family and Consumer Sciences. During the certification process, Sarah received her MS in Child, Youth and Family Studies with a concentration in FCS through the Great Plains IDEA program. During her eight years of teaching at Timberlane Regional Middle School, she runs a weekly after-school cooking club, organizes a teacher's cooking club that makes freezer meals for colleagues in need, and has started organizing the first ever Middle School Iron Chef competition that will be hosted at her school in March 2025. Outside of school, Sarah teaches teen and adult cooking classes at the local library. She served as a Member at Large for the New Hampshire Family and Consumer Sciences Association from 2020 to 2023, and is now the Membership Director on the Executive Board.

## Award and Grant Recipients 2025 AAFCS Annual Conference



### **Affiliate TOY, Kimberley Myers, SC**

After high school, Kimberley Myers enrolled in South Carolina State University and majored in Speech Pathology and Audiology. After four years in the program she knew that this was not the career path she wanted to pursue and changed her major to Family Consumer Sciences. After the first semester, she knew that Family Consumer Science would be her life's work! Changing her major was a move that would prove to change the trajectory of her life and her destiny. This is her passion. Kimberley's work ethic and dedication to the students, faculty, school and community

holds as a standard for all educators. She is an avid lifelong learning and teacher leader in her school, district, community and within her state.



### **DSA - Lizabeth (Liz) Self-Mullens, Ph.D., CFCS-Retired, TN**

Liz Self-Mullens holds degrees in Home Economics Education, Textiles & Apparel, and Human Ecology. Her career includes service as a faculty member, extension educator, program director, unit director, assistant dean, dean, assistant vice president for academic affairs, and provost. Liz retired in 2018 as Dean, College of Agriculture & Human Ecology at Tennessee Technological University. She served as the 2020-2021 AAFCS Board President, Counselor on the 2021-2022 AAFCS Board of Directors, and Chairperson of the AFCS Past Presidents' Unit for two years. She

participated on the AAFCS Council for Certification and Task Force for Program Advancement. She currently serves on the Leadership Council, Past Presidents' Unit, A TD Showcase Committee, several communities, and as a mentor in the AAFCS Leadership Academy. Locally, Liz teaches quilting classes to adults and children, participates with the Friends of White Plains to restore an 1840s historic home, and chairs the Upper Cumberland Quilt Festival Board.



### **Leader, Catherine Lader, WI**

Catherine Lader leads by example and has been an FCS advocate throughout her career. While teaching, she increased FCS enrollments and advised a nationally recognized FCCLA chapter. As the Wisconsin FCS State Supervisor she published resources, supported teachers, and initiated FCCLA Leadership Labs. As a National FCCLA Consultant member, Cathy presented programming across the country. She managed the Wisconsin FCCLA competitions during retirement. Cathy was President

of the Wisconsin FCS Educators organization where she established the annual summit and earned the Distinguished Service Award. She financially supports the FCS program at the University of Wisconsin Stevens Point through scholarships and sponsoring FCS Legacy Lab instructional space. Cathy has hosted sixteen fundraisers for non-profit organizations. Governor Tommy Thompson awarded her the Wisconsin Annual Leadership Award. Supporting the pork industry, she developed FCS resources, earning her the WI Agri-Communicator Award. Currently she is President-Elect of the Wisconsin Association of Family and Consumer Sciences.

## Award and Grant Recipients 2025 AAFCS Annual Conference



### **Leader, Karleah Harris, AR**

Dr. Karleah Harris is associate professor of human development and family studies at the University of Arkansas at Pine Bluff (UAPB). With degrees in educational psychology, curriculum and instruction, and agricultural education, she has worked in several college settings as well as with PreK-12 students, teachers, principals, stakeholders, and grandparents raising grandchildren in the community. While at UAPB, she has worked with colleagues to secure over two million dollars in grants.

Her research interests include using inquiry-based science learning to study kindergarten students' explanations, the types of discourse strategies teachers use during classroom science discourse, early childhood development, culturally responsive teaching, horticulture therapy, grandparenting, food deserts, food insecurity, and gardening. Dr. Harris received the Chancellor's 2023 University Outreach and Engagement Award for her work, and her outreach projects with the PreK-12 school community were featured on the THV Channel 11 and ABC Channel 7 KATV Little Rock television news.



### **Leader, Mia Russell, MD**

Mia Russell, Ph.D. has 25+ years of experience in the public and private sectors.

Currently, she teaches undergraduate and graduate courses designed to help students succeed and lead in a wide range of professional settings. She also leads the Clark Scholars program designed to holistically support underrepresented

engineering students. Prior to joining Johns Hopkins University, Russell was the Program Lead and Vice President for Financial Education and Youth Financial Health Philanthropy at the Wells Fargo Foundation. She also served as an Extension Educator at the University of Maryland, leading financial education programming and community outreach in Central Maryland. Russell prioritizes service and currently serves on the WSSC Federal Credit Union Foundation Board and formerly on the AAFCS Board of Directors. Russell contributes to the field of financial well-being and work-related well-being and has developed programs for diverse audiences, published numerous articles, and conducted countless domestic and international presentations.



### **Undergraduate, Marissa Cheslock, IN**

Marissa Cheslock is a fourth-year student at the University of Cincinnati's College of Design, Architecture, Art, and Planning (DAAP), majoring in Fashion Design with a minor in Marketing. She is actively involved both on and off campus, serving as President of TEDxUCincinnati and participating in the University Honors Program, Cincinnati Scholar Program, National Co-op Ambassadors, DAAP Ambassadors, and the Sustainable Fashion Initiative. Her academic program alternates semesters

of classroom study with hands-on work in the design industry, providing her with experience from Wisconsin to Texas with brands such as Lands' End, Abercrombie & Fitch, Champion, and more. In March 2024, she embarked on a fashion-based study abroad program to northern India, further expanding her global perspective on design. Marissa is passionate about utility and longevity in design solutions, and her career goal is to make a meaningful impact through human-centered design.

## Award and Grant Recipients 2025 AAFCS Annual Conference



### **Graduate, Kimberly Mitchell, AL**

Kimberly Mitchell is a small-town girl whose parents were foundry worker and a stay-at-home mom. Honest hardworking people who raised four children who were given a strong work ethic and a heart for others. The first in her family to attend college, Kim worked hard to complete her bachelor's degree at Jacksonville State University and master's at the University of Alabama. She returned to JSU to gain her certification in Education Administration. Kim has 28 years of experience in Education. After many years as a FCS teacher on the secondary level she made the jump into higher education. She is currently the CTE Specialist and Program Chair for Family & Consumer Sciences and Business Marketing Education (undergraduate and graduate levels) at Jacksonville State University. She also serves as the FCS Student Unit Sponsor, coordinates FCS Days on campus, Co-Leader of STEAM Camp, and developed the first Post-Secondary FCCLA Chapter in Alabama.



### **Betsy Norum, Rylee Bezoni, IA**

Rylee Bezoni's passion for Family and Consumer Sciences began with a love for teaching and an appreciation for the essential life skills FCS offers. She has always aspired to be a teacher from a young age but struggled to decide between math and FCS. It was not until her work-based learning experience in high school that she gained confidence in her decision. Assisting her school's Family Consumer Sciences teacher with the Culinary 1 class allowed her to see firsthand how much students genuinely enjoy learning in the FCS classroom. Unlike math, which involves repeating the same lessons, FCS offers a dynamic teaching environment where she could engage with various content areas and skills. This experience solidified her passion for FCS and reaffirmed her decision to pursue this career.



# Award and Grant Recipients 2025 AAFCS Annual Conference

## AAFCS 50 YEAR Honorees



### **Carla Robinson, NE Affiliate**

Carla Robinson's professional career includes teaching Family and Consumer Sciences at the high school level for 31 years, working for a non-profit for 6 years, serving as adjunct university faculty for 7 years and operating a small business for 20 years. Her education includes a B.A. in Home Economics with minors in Science and Vocational Education, an M.S.Ed. with emphasis in Vocational Education and an Administration Certificate.

She has received Certification in F.C.S. from AAFCS, has been recognized as the Nebraska Vocational Home Economics Teacher of the Year, Nebraska Vocational Association Achievement Award recipient, Nebraska AAFCS affiliate Teacher of the Year and AAFCS Faces to Watch award recipient.

Carla has been published in Illinois Teacher and the Journal of Nutrition Education and has presented both locally and nationally. She has served the FCS profession, holding many offices in NVHETA/ACTEN

and the Nebraska Affiliate of AAFCS, serving as Executive Secretary for 10 years. As a volunteer, Carla served the Omaha Ronald McDonald House for over ten years.



### **Kim Kamin, Ph.D., CFCS-Ret. TX Affiliate**

I was fortunate to attend college at the University of North Texas, where there was an active student group, and I became a member during my sophomore year. I continued in school at UNT and Texas Woman's University, getting a master's and a Ph.D. degree. I worked in the Hurst Euless Bedford school district in Texas for 28 years, first in Family and Consumer Sciences, then became the International Baccalaureate Coordinator in 2006 until I retired in 2018. Through my activities with AAFCS, I have met various outstanding professionals. Currently, my time is filled with being a community volunteer. I am an excellent example of taking the girl out of FCS but not taking FCS out of the girl. No matter what my job was, I always had an FCS perspective. This perspective was a benefit to students.



# Award and Grant Recipients 2025 AAFCS Annual Conference

## Chalkley-Fenn Public Policy Scholar Grant

**Project:** “Empowering Students in Legislative Advocacy for Family and Consumer Sciences”

**Project Director:** Glenda Lindsey, Morgan State University



Dr. Lindsey’s proposed project is designed to engage students and alumni in the public policy process to: develop and implement a curriculum covering how bills are written and progress through the legislative process at local, state and national levels; address key Family and Consumer Sciences (FCS) issues through policy advocacy; engage in direct legislative interactions and community outreach; and foster leadership and ambassadorship for Morgan State University.

## Ruth O’Brien Project Grant

**Project:** “Utilizing AI-Generated Recipes in a College Food Pantry in Central Arkansas”

**Project Director:** Kathryn Carroll, CFCS, CPFPE, & Rebekah Luong, CFCS, University of Central Arkansas



The proposed project is designed to investigate the potential benefits of AI-generated healthy recipes in client-choice food pantries, specifically focusing on helping clients better utilize available items. Using a framed field experiment, the proposed study will examine whether providing health-oriented AI-generated recipes for in-stock items results in a larger volume of food being selected; increased client satisfaction; and differences in the types of food selected.

# Educational Sessions



# **Exploring the Evolution of Family and Consumer Sciences through Collaborative Student Research**

**Melanie DeAnn Schmitt, CFCS, Texas Tech University  
Karen Alexander, CFCS, Texas Tech University  
Anzlee Hale, Texas Tech University**

## **ABSTRACT**

This session will showcase an innovative undergraduate project where students collaboratively researched, analyzed, and documented the history of Family and Consumer Sciences (FCS). By exploring significant figures, landmark events, curriculum transformations, and teaching methods from the late 1800s to the present, students gained a deep understanding of FCS's evolving role and impact on society. The resulting manuscript offers a comprehensive view of FCS's journey from its early roots in Home Economics to its modern, interdisciplinary framework, highlighting critical milestones and adaptations in response to societal shifts.

# **A Trauma Informed Approach with Children: Implementing Trauma Sensitive Strategies in Family and Consumer Sciences Programming.**

**Marie Economos, CFLE, Ohio State University  
Heather Reister, Ohio State University**

## **ABSTRACT**

Educating from a trauma informed approach is an effective tool in balancing the scales for adverse childhood experience. Let's explore current research, moving the fulcrum toward increased childhood trauma awareness.

# **Hazard-Proofing Finances: Tools for Teaching Weather-Resilient Financial Education**

**Laura Hendrix, Ph.D, AFC, University of Arkansas System Division of Agriculture  
Cooperative Extension Service**

**Jenny Abel, University of Wisconsin-Madison Division of Extension**

**Lorna Saboe-Wounded Head, CFCS, CPFPE, South Dakota State University  
Extension**

## **ABSTRACT**

Financial stability can be impacted by extreme weather events, natural disasters, and excessive temperatures. To address weather-related financial vulnerability, FCS professionals collaborated to create the toolkit, 52 Ways to Hazard-Proof Your Finances. This workshop delivers training on a curriculum that educators can use in their communities. Strategies include actions for personal finance, insurance, clothing, food, housing, taxes, transportation, preparedness, and becoming a professional.



# **A.I. as an Educational Ally**

**Heather Carter, Pittsburg State University**

## **ABSTRACT**

This session focuses on how AI can be used as a valuable partner in learning. The session will include a demonstration of how to generate prompts with AI, offer a variety of assignment ideas (such as practicing communication skills, engaging in moral dilemmas and what-if scenarios, preparing for presentations simulating mock Q/A's, self-quizzing, and several more), integrating AI partnered assignments into the classroom, and creating grading rubrics to assess assignments.

# **Bridging Perspectives: Engaging Learners in Social Problem-Solving Through Discourse**

**Nicole Wanago, Montana State University**

## **ABSTRACT**

In Family and Consumer Sciences (FCS) environments, developing reasoning skills is key to addressing complex social issues. This workshop explores how to foster a caring and challenging environment where learners engage in discourse, confronting “what is” and imagining “what ought to be.” Using the principles of courage, understanding, empathy, and belonging, participants will receive a toolkit of scaffolded strategies to support educators and learners when navigating the tensions and complexities of exploring social challenges.

# **Bridging the Specialization Gap to Address Life's Complex Problems: FCS a Preventive Force**

**Virginia (Ginny) B. Vincenti, PhD, CFCS, University of Wyoming, Department of  
Family & Consumer Sciences**

## **ABSTRACT**

This workshop will build upon critical science by adding components of the Harvard University Kennedy School Problem Driven Iterative Adaptive process used in 87 countries to help teams solve complex problems. It brings together diverse people who deconstruct a problem by analyzing its many components and causes, identify where to generate small wins, learn, iterate and adapt potential solutions, until the problem is solved.

# **Building a Blended Learning Sewing Techniques Course: A Guide for Emerging Educators**

**Amber S. Williams, Brigham Young University**

## **ABSTRACT**

Discover strategies and resources for building a blended learning sewing techniques course tailored for emerging educators. This session provides a framework for scaffolding sewing skills, integrating digital tools, and fostering engagement in both online and lab environments. Gain practical insights on adaptable course design, sustainable practices, and resources to support flexible, inclusive learning for future textile professionals.

# **Building Brighter Futures: A Partnership for FCS Education**

**Holly Hanan, Oklahoma Department of Career and Technology Education**

**Paula Tripp, PhD, Oklahoma State University**

**Cheryl Lively, CFCS, Oklahoma State University**

**Brenda Miller, CFCS, Oklahoma State University**

**Kathy Enyart, CFCS, Oklahoma State University**

## **ABSTRACT**

A core team of Oklahoma FCS professionals shares their proven strategy for effective recruitment, retention, and promotion initiatives.



# **Cybersecurity: Protecting Information with Strong and Reliable Passwords**

---

## **Ciberseguridad: Protegiendo Información con Contraseñas Fuertes y Confiables**

**María de los Ángeles Robles Sellés, M.Ed, Puerto Rico Agricultural Extension  
Service, University of Puerto Rico – Mayagüez Campus  
María de los Ángeles Robles Sellés, M.Ed, Servicio de Extensión Agrícola,  
Universidad de Puerto Rico - Recinto de Mayagüez**

### **ABSTRACT**

This presentation focuses on essential strategies to enhance cybersecurity through the creation and use of strong, reliable passwords. Participants will have the opportunity to practice creating secure passwords to protect their accounts and online data. Additionally, best practices in cybersecurity will be presented to strengthen personal information and family protection, with a emphasis on consumer education.

# **American Clothing Classics: Where did that come from? Who wore it first?**

**LynDee Lombardo, University of Nebraska - Lincoln**

## **ABSTRACT**

By examining the clothing and textiles of a distinct region or country, we can develop theories about what that society valued and what symbolism was meaningful to its members.

Through the analysis of various pieces of clothing from a defined country or culture - in this case, the United States - we may be able to infer the social status or aspirational status, power or wealth of the wearer as conveyed by their garments. And while garments can represent how an individual thinks about their future and what ambitions they want to show to the world, we can also deduce what the wearer thinks are important aspects of the society's origins or the country's origin stories.

The terms inertia or stagnation are seldom applied to the fashions we wear, so what could motivate people living in the United States to wear variations of a few select iconic garments or accessories year after year, decade after decade? And what are these items? While these two questions can have as many answers as the number of people answering them, a goal of this presentation is to provide participants with a few selected historical facts and information to create some new answers to these questions for themselves, as they view images of eight iconic garments or accessories of twenty-first century North American dress.

# Creating AI Magic with Canva in FCS

**Tisha Louise Richmond, Medford School District, Oregon**

## **ABSTRACT**

Join me for an interactive session to explore Canva's magic tools that accelerate your creation process and unlock creativity in the Family & Consumer Science classroom. Gain practical skills in leveraging AI as a collaborative partner in building learning experiences for your students. Come away inspired and empowered!

# **Cultivating Critical Thinking: Integrating Practical Reasoning in Family & Consumer Sciences**

**Cynthia Miller, PhD, CFCS, CPFFE, Texas Tech University  
Nicole Wanago, Montana State University**

## **ABSTRACT**

Join us as we explore a new and groundbreaking open resource textbook that brings the concept of practical reasoning to the forefront of Family & Consumer Sciences (FCS) education. Authored by passionate FCS teacher-educators and the practical reasoning approach, this resource emphasizes critical thinking, ethical decision-making, and problem-solving. Designed to foster active student engagement, it provides real-world scenarios, case studies, and instructional strategies to help learners tackle complex societal challenges. This book is essential for educators looking to inspire the next generation of FCS professionals.

# **Emerging Leaders in Family & Consumer Sciences: Cultivating Professional Growth Among Students**

**Jane Hoegh, Iowa State University**

## **ABSTRACT**

This session will showcase the transformative impact of early professional engagement and highlight students' real-world experiences in the field. Family & Consumer Sciences students at Iowa State participate in a FCS Student Led organization to build leadership and gain skills to lead in their future field.



# **Engaging Youth in Health Equity Work**

**Sarah Hubel  
Michelle Krehbiel, PhD, Colorado State University**

## **ABSTRACT**

In the 2023-2024 school year, 200 Nebraska youth and 24 caring adults investigated health issues in their communities. The Youth Health Equity Project was created and implemented by NE Extension and NE FCCLA with funding from the NE Office of Health Disparities. Through youth-adult partnerships, youth researched mental health, food insecurity, traffic safety and vaping. This session will highlight program successes, and techniques for how the project can be implemented in local communities.

# **Environmental Stewardship Activities for an Inclusive FCS Classroom**

**Carole J. Makela, PhD, Colorado State University**

## **ABSTRACT**

Engage in hands-on activities to broaden students' understanding of the environmental and equity considerations of our everyday use of natural resources. Discover collaborative simulations and games to explore water and land use and the extraction of metals and minerals used in our homes and in consumer goods. Presented activities encourage problem-solving, collaboration, critical thinking and employing STEM skills to address real-world issues that affect our diverse communities.

# **Family and Consumer Sciences is The Future of Career Clusters**

**Alyson L. McIntyre-Reiger, CFCS, Lead FCS Education**  
**Janine Duncan, PhD, Purdue University**  
**Sandy Spavone, FCCLA**

## **ABSTRACT**

Learn how Family and Consumer Sciences (FCS) is the solution for the modernized career cluster framework. FCS allows schools to offer multiple programs of study within one discipline. The modernized framework highlights the ability for FCS to be a beneficial tool for schools wanting to meet the diverse needs and interests of students and the future workforce. Explore marketing and branding tools highlighting FCS as the solution for schools.

# **Family and Consumer Sciences Research Journal Best Papers 2024**

**Mia Russell, Johns Hopkins University  
Nicole Wanago, Montana State University  
Sukyung Seo, University of Maryland Eastern Shore  
Mehri Azizi, Florida International University  
Mari Borr, PhD, North Dakota State University**

## **ABSTRACT**

Winners of the 2024 FCSRJ Best Paper Awards in apparel, textiles, and merchandising; family studies and human development; FCS education; foods and nutrition; hospitality and tourism management; housing and interior design; personal finance and consumer economics; and professional issues will present brief summaries of their research. Also, the Emerging Scholar and Outstanding Paper award winners will be acknowledged.

# Family Story Walk

Margaret Viebrock, CFCS, CNWE, Washington State University Extension

## ABSTRACT

National initiatives focusing on nutrition, exercise and literacy can be successful, but few efforts have been made to combine them together to have a more lasting effect starting at younger ages. Family Story Walk promotes family learning, activities and reading in a non-traditional environment. This project increased access to nutritious food for low income families, promoted families being active together and improved family communications related to healthy eating and exercise. Local partnerships have increased community awareness, visibility and provided sites for the Family Story Walk.



# **Financial Literacy: An Essential Life Skill for All Students**

**Traquel Dayley**

## **ABSTRACT**

Financial literacy is a vital life skill, empowering students to make informed decisions about money, from budgeting and saving to understanding debt and investing. This session will explore why financial literacy is essential for all students, regardless of background, as a foundation for equity and lifelong success. Attendees will participate in activities which connect personal finance to real-world goals and decisions, preparing students to confidently navigate their financial futures.

# **Using Extended Reality to Support Student Learning in Fashion and Other FCS Content Areas.**

**Melissa Abner, PhD, University of Central Missouri  
Erica Spurgeon, PhD, University of Central Missouri  
Krystle Gremaud, PhD, University of Central Missouri**

## **ABSTRACT**

If you have ever virtually “tried on” eyeglasses using your phone or computer camera or viewed furniture in your room on Amazon, you have experienced extended reality (XR). XR is a growing trend for personal use, industry, and education that can be applied in numerous FCS content areas. The presenters will explain XR and how it is changing the educational landscape. They will share examples of how XR is implemented into their fashion, interiors, and teacher preparation classrooms; then participants will have a chance to experience the technology hands on to gain ideas and insight into uses in their lives.

# **Not Your Average Housewives: From Home Economist to Human Ecologists**

**Kathryn A. Carroll, PhD, CFCS, CPFFE, University of Central Arkansas**  
**Rebekah Luong, CFCS, University of Central Arkansas**

## **ABSTRACT**

Discover how we utilized a university-wide book club as both a recruitment and educational tool to introduce students to the Family and Consumer Sciences (FCS) field. Focusing on the popular book *The Secret History of Home Economics*, alongside scholarly articles, we brought together a diverse group of students for weekly meetings. Learn how this initiative fostered interdisciplinary dialogue, engaged students in the history & significance of FCS, and sparked interest in pursuing careers in FCS.

# **Gamified Strategies to Engage Students and Elevate Learning**

**Tisha Louise Richmond, Medford School District, Oregon**

## **ABSTRACT**

Dice, spinners, cards, and game closet favorites can transform a lesson from mundane to mind-blowing. In this session, I will share practical digital and analog gamified strategies that anyone can implement into classroom learning to engage and empower all students.

# **HIPs (High-Impact Practices) Don't Lie: Practices That Lead to #FCSsuccess**

**Susan Turgeson, PhD, CFCS, University of Wisconsin-Stevens Point**  
**Becky Konietzki, University of Wisconsin-Stevens Point**

## **ABSTRACT**

Through interactive and engaging discussion, learn how one Mid-Western University has created a culture of student success by implementing research-based High Impact Practices (HIPs). To achieve goals of increased student engagement, improved retention, and academic success, quality experiences throughout college make a difference. Discover ways to integrate strategies that will help your students achieve their goals for college and beyond.

# **Kids Feeding Kids: Expanding Classroom to Community Impact through Creative Funding Strategies**

**Deb Andres, CFCS-HDFS, Kansas State University Research & Extension  
Diane Mora, CCC, Kids Feeding Kids**

## **ABSTRACT**

This 45-minute workshop introduced participants to the Kids Feeding Kids program ([www.kidsfeedingkids.org](http://www.kidsfeedingkids.org)), an educational initiative of Pete's Garden that empowers high school students to address food insecurity by preparing and distributing nutritious meals to families in need. Designed for Family and Consumer Sciences educators, nonprofit organizers, and school administrators, the session combined a program overview with a discussion of how we piloted a Train the Trainer model with Kansas State Extension as a means of building capacity in the state of Kansas. Participants explored the program's Real World Learning framework, engaged in collaborative small-group discussions to develop implementation strategies tailored to their unique community contexts, and left with contact information for launching or supporting this impactful initiative in their region. Grounded in service-learning, KFKids RWL projects demonstrate how community-centered experiences enhance students' skills, empathy, and civic responsibility, this workshop aligns with the AAFCS mission by providing training to FCS educators along with practical tools to guide students in meaningful community service while developing real-world competencies and fostering lifelong commitment to addressing food insecurity.



# **Make it Work: Bringing a Project Runway Star to a University Campus through the Humanities and FCS Fields**

**Rebekah Luong, CFCS, University of Central Arkansas  
Crystal Harris, PhD**

## **ABSTRACT**

“Make it work” applies to many things, but some of you may be familiar with this statement from the hit show, Project Runway. In this session, learn how the Humanities and FCS fields merged to bring a well-known designer to their university campus for a two-week residency. We’ll discuss the process from start to finish and lead you in a mini-project similar to what the students experienced. We’ll challenge you to consider how you can do something similar in your own practice setting.

# **MT FCS Network: A Google Site for FCS Educators**

**Gayla Randel, CFCS, State of Montana Office of Public Instruction**

## **ABSTRACT**

Have you ever wished to make your class planning easier? Have you questioned how the National FCS Standards align to FCS classes? Do you wish someone would identify resources that were vetted for value and aligned to the FCS pathways so you didn't have to? Regardless if a veteran teacher, or brand new professional, learn about a resource that will help you answer these questions through accessing the MT FCS Network Google Site.

# **Navigating Student Engagement in AAFCS**

**Emily Pike, Western Kentucky University  
Paige Nolan, Wayne State College  
Jordyn Thompson, Messiah University  
Leslie Rodriguez, Kellyville Public Schools, Oklahoma**

## **ABSTRACT**

Join us for "Navigating Student Engagement in AAFCS," featuring National Student Unit Officers sharing insights on active participation in the American Association of Family and Consumer Sciences. We'll explore diverse engagement pathways, the vital role of advisor support, and how students can connect at local, state, and national levels. With interactive discussions and audience Q&A, this session will provide practical takeaways to inspire your involvement in AAFCS and enhance your educational journey.

# **One is the Loneliest Number— Collaborative Research is More Fun!**

**Mari Borr, PhD, North Dakota State University  
Susan Turgeson, PhD, CFCS, University of Wisconsin-Stevens Point**

## **ABSTRACT**

Research and writing up your research are daunting tasks, but they can be even more overwhelming if you are embarking on research and writing on your own. However, collaborating with others can bring insight to your research and writing, as well as lighten the load. And collaborators aren't always human. Artificial Intelligence (AI) can also be a helpful collaborator and can ease your load. Members of the Family and Consumer Sciences Research Journal Editorial Board will offer ways you can utilize collaborators and AI to become a more productive researcher and writer.

# **Our Leaders, Who Were They? Celebrating Hidden Figures in Home Economics**

**Sue Byrd**

**Meilana Charles, CFCS-HDFS**

**Carole J. Makela, PhD, Colorado State University**

**Lorna Saboe-Wounded Head, CFCS, CPFFE, South Dakota State University  
Extension**

**Jacqueline Holland, PhD, CFCS, HDFS, Morgan State University**

**LynDee Lombardo, Washington St**

## **ABSTRACT**

Many of us are aware of Ellen Swallow Richards' contribution to the beginnings of Home Economics (Family and Consumer Sciences), but may not know others who led the way, especially those from underrepresented populations. This panel discussion focuses on the contributions of leaders such as Fabiola Cabeza de Baca Gilbert, Margaret Murray Washington, and Lenora Morangae. Develop a new appreciation of the importance of a broadened perspective when exploring foundational leaders of our profession.

# **Pathways to Success: The Professional Journey of Immigrant FCS Professionals in the US**

**Kim Ann Kamin, PhD**  
**Jane Opiri, PhD, CFCS, University of Arkansas at Pine Bluff**

## **ABSTRACT**

The immigrants' journey to become FCS professionals will be explored. Using a theoretical base, the participants will share stories about their journey. Attention will be paid to obstacles and how these obstacles can be overcome.



# **Sensory Science: Awareness for Eating Experiences**

**Carol Erwin, PhD, CFCS, Wayne State College**

## **ABSTRACT**

Do you have picky students? Encourage your students to use ALL of their senses as they evaluate the quality and appeal factors of the foods they prepare. Help them use descriptive words to expand on their food experiences, and hopefully, their palate. Then identify your expectations for their willingness to try a variety of foods created in your classes.

# **The AgriFCS Academy: Preparing Students for Careers in Agriculture and Family and Consumer Sciences**

**LaToya Johnson, PhD, South Carolina State University**  
**Ethel Jones, PhD, CFCS, Alabama A&M University**

## **ABSTRACT**

The Agriculture and Family and Consumer Sciences Academy (AgriFCS) is a joint initiative by South Carolina State University (SCSU) and Alabama A&M University (AAMU) that will benefit up to 100 middle and high school participants and their parents while preparing 120 undergraduate students for the workforce and potential employment with the United States Department of Agriculture. Learn how this project, funded by the United States Department of Agriculture (USDA) and the National Institute of Food and Agriculture (NIFA), focuses on Student Scholarship, Experiential Learning, and Outreach and Engagement. Developed by Dr. LaToya Johnson from SCSU and Dr. Ethel Jones from AAMU, the institutions are currently sharing grant funding to implement a five-pronged strategy aimed at the three primary objectives. The speakers will share how the AgriFCS Academy is preparing and supporting students entering the Food, Agriculture, Natural Science, and Human Sciences (FANH) workforce, which will increase the number of professionals joining the USDA workforce. Take a journey with us as we share how we received funding, lessons learned from year one, and how year two is currently progressing.

# **The Impact of Family Economics Multi-State Research Group over the Past 60 Years**

**Lorna Saboe-Wounded Head, PhD, CFCS, CPFPE, South Dakota State University  
Extension**

## **ABSTRACT**

This session will review the legacy and lasting impact of the Family Economics Multi-State research group NCCC052. Multi-State Research groups are a part of the Ag Experiment Stations at Land Grant Universities. Highlights from work groups that emerged from NCCC052 will be discussed. The contribution of NCCC052 to the publication of the History of Family Economics Research: 1862 – 1962 (aka The Liston Manuscript) will also be discussed.

# **The Impact of Play on Brain Development**

**Sue Strutz, CFCS, School District of Wisconsin Dells**

## **ABSTRACT**

The connection between play and cognitive growth is a fundamental aspect of human development. When children engage in play, they are actively building their brains. Different types of play activate various regions of the brain—like the limbic system, prefrontal cortex, parietal and frontal lobes. Throughout this session, attendees will learn about the value of play, participate in various types of play, and be challenged to find how play can be used in professional settings.

# **The National Partnership: Strategies for Recruiting, Preparing, and Supporting FCS Educators**

**Karen Bergh, PhD, FCSEA  
Jan Bowers, CFCS, FCSEA  
Lori Myers, PhD, AAFCS**

## **ABSTRACT**

This session provides an update on best practices for states and local districts to address the supply and demand of FCS educators. The National Partnership has been a successful vehicle for providing a wealth of online resources and tools to market and promote the value of FCS programs. Key takeaways will include strategies for promoting FCS workforce opportunities to diverse audiences; free tools and resources to recruit, prepare, and support FCS Educators; and best practices for developing regional networks. Attendees will collaborate to develop a plan for using tools, strategies, and resources to develop a plan for their professional setting.

# **Wanted: FCS Teacher Educators— Tips for Career Ladder Climbers and Coaches**

**Janine Duncan, PhD, Purdue University**

**Nicole Graves, PhD, CFCS-HDFS, South Dakota State University**

**Susan Turgeson, PhD, CFCS, University of Wisconsin-Stevens Point**

## **ABSTRACT**

Do you have it in you to climb the FCS Career Ladder? Are you ready to inspire others to become a teacher educator? In this session, participants will learn about the FCS teacher education shortage and how they can shape their career path to help fill the pipeline. Colleagues and mentors ready to coach others to make a career move to FCS Teacher Education will find inspiration too! Learn about the requirements, responsibilities, and tips for transitioning your career to FCS teacher education.



# **Webs of Worry: Women and Financial Anxiety**

**Goldie M Prelogar-Hernandez, CPFFE, Pittsburg State University**

## **ABSTRACT**

New financial therapy research has differentiated between financial stress and financial anxiety, but little has been focused solely on women's experiences. Financial anxiety disproportionately affects women, stemming from a range of factors including societal expectations, wage inequality, and life events such as caregiving responsibilities, divorce, and longer life expectancy. This session will explore the root causes of women's financial anxiety, discuss the psychological and social impacts, and present actionable strategies to empower women to take control of their financial futures. Interventions for financial educators and practitioners are explored to help female clients overcome the unique concerns of financial anxiety.

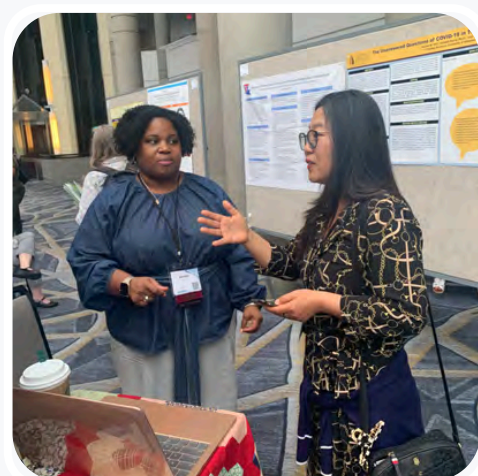
# **Why Your Students Need a Roth IRA and Why You Do Too!**

**Patrick William Kubeny, My Money Camp**

## **ABSTRACT**

Opening a Roth IRA as soon as possible offers several benefits, particularly for those who want to maximize their retirement savings.

# Research Posters



**2025 AAFCS Annual Conference – Kansas City, MO**  
**Assembly of Higher Education & Community of Colleges, Universities and Research**  
**Oral Research Presentations**

Title	Authors
Adapting Residential Spaces for Remote Study: A Reflection on Student Experiences Four Years Post-Pandemic	<ul style="list-style-type: none"><li>• *Anna Ruth Gatlin, Auburn University</li><li>• Sally Ann Swearingen, Stephen F. Austin State University</li></ul>
Cross-Course Collaborative Digital Pattern Recreation Challenge	<ul style="list-style-type: none"><li>• *Leigh Southward, University of Arkansas</li><li>• Sarah Hixson, University of Arkansas</li></ul>
Family Perspectives on Professionals' Role in Elder Family Financial Exploitation	<ul style="list-style-type: none"><li>• Katelyn A. Golladay, University of Wyoming</li><li>• Jennifer Crittenden, University of Maine</li><li>• Julie Bobitt, University of Illinois Chicago</li><li>• Stephanie Simms, University of Wyoming</li><li>• *Virginia Vincenti, University of Wyoming</li></ul>

## **Adapting Residential Spaces for Remote Study: A Reflection on Student Experiences Four Years Post-Pandemic**

*Anna Ruth Gatlin\*, Ph.D., Auburn University*

*Sally Ann Swearingen, Ph.D., Stephen F. Austin State University*

The COVID-19 pandemic significantly reshaped how students lived, studied, and adapted their environments to support remote learning. As we reflect four years after the height of the pandemic, this study explores how students modified their living spaces during the pandemic to support academic engagement during an unprecedented shift to online education. The aim of this research was (1) to understand where students were studying and how they adapted their surroundings, (2) the implications of these changes on academic outcomes such as satisfaction, engagement, and perceived success in a remote learning context during the pandemic, and (3) explore how this data can impact educators and designers in the post-pandemic world. The conversation about supportive learning environments in higher education has expanded beyond formal classrooms to include a wider range of formal and informal spaces that influence student learning outcomes. Research has increasingly recognized that learning can happen in diverse environments, including digital, natural, and mobile settings, with a growing emphasis on student-centered spaces that are adaptable to individual learning needs. This shift became important during the COVID-19 pandemic, which forced a rapid transition to remote learning, and remains important as many institutions still offer hybrid options. Even in fully face-to-face institutions, students study in a variety of spaces, including spaces where they have agency to make changes, such as their own room. This study highlighted the importance of non-traditional learning environments, exploring how and where students engage with their education.

### **Method**

This study employed an online survey distributed to 542 college students across 93 majors at two universities, using a combination of convenience and snowball sampling methods. Data collection focused on identifying the spaces where students studied, how they adjusted these spaces, and the relationship between space adaptation and academic success. The survey included both open-ended and closed-ended questions, with a primary emphasis on the latter for quantitative analysis. The methodology was designed to allow for remote participation during a time of restricted physical interaction, making it possible to gather insights from a diverse range of students.

### **Data Analysis**

Data for the study were collected through two separate instances of Qualtrics surveys, one for each partner institution, and then combined into a single dataset for analysis. A frequency analysis was conducted on close-ended questions, with results reported as counts and percentages. Trend analysis identified consensus through higher aggregate numbers and the proportional spread of responses across survey options. The reliability of the data was supported by similar findings across both universities, such as the ranking of the bedroom as the most common study space. Limitations of the method included potential biases in self-reporting, reliance on respondents' ability to complete the survey in English, and the scope, which only addressed student perceptions of their built environment without direct observation. The sample primarily consisted of female undergraduates, with 22% male respondents and representation from 93 majors, reflecting diverse perspectives across different disciplines.

Adapting Residential Spaces for Remote Study: A Reflection on Student Experiences Four Years Post-Pandemic

## **Conclusions**

Results indicated that the bedroom was the most frequently used space for studying, followed by common areas such as living rooms and dining rooms. Beyond the home, the campus library emerged as a significant study location when accessible. This preference for residential spaces underscores a shift in the learning environment, driven by the need for safety and convenience during the pandemic. The data revealed that students commonly adapted their study spaces to enhance comfort, reduce noise, and adjust lighting conditions. These changes were strongly associated with improved satisfaction, productivity, and engagement with online coursework. For example, many students studying in their bedrooms reported modifying their seating arrangements and optimizing lighting to create a more conducive study environment. Analysis of body positions showed a preference for studying in chairs, beds, or on the floor, particularly among students residing in dormitories. This flexibility in adapting body posture suggests that students were willing to modify their physical environment to fit their needs, despite limitations in space.

## **Implications and Relevance for Future Research and Practice**

The findings highlight the importance of the physical environment in supporting academic performance, especially in the context of remote or hybrid learning. As higher education institutions continue to incorporate online learning components, understanding how students leverage their residential spaces for academic purposes is crucial. Insights from this study suggest that students who actively shape their learning environments report higher levels of academic satisfaction and success. For practitioners, the implications are clear: educators, designers, and policymakers must consider how to better support students in creating effective study spaces at home. This may include providing resources, guidelines, or even subsidies for ergonomic furniture, lighting solutions, and noise-canceling tools. Colleges and universities could also explore offering workshops or digital resources to help students optimize their personal study environments.

## **Future Directions**

As we move further into the post-pandemic era, additional research is needed to explore the long-term impacts of residential study spaces on academic performance. Future studies should investigate whether the trends identified during the pandemic persist in a more stable educational landscape. Additionally, qualitative research involving interviews or focus groups could provide deeper insights into the reasons behind students' choices and adaptations. This line of inquiry could extend beyond academic settings to examine how remote work and hybrid professional environments influence the design of residential spaces. In conclusion, this study underscores the adaptability of students in optimizing their living spaces to meet academic needs during the COVID-19 pandemic. By continuing to investigate how these adaptations influence learning outcomes, we can better support students in cultivating environments that promote well-being, engagement, and success, both within and beyond the context of higher education. The lessons learned during this period of rapid change offer valuable guidance for designing learning environments that are flexible, student-centered, and resilient in the face of future disruptions.

## **Cross-Course Collaborative Digital Pattern Recreation Challenge**

Leigh Southward\* and Sarah Hixson (University of Arkansas)

Digitizing historical costumes using modern 3D scanning techniques provides a modern and lasting approach to preserve fragile historic and cultural garments (Montusiewicz et al. 2021). Providing students with opportunities to use innovative technologies that allow this process increases their engagement and interest in historical costume as well as their digital skill competencies (Din 2024). This project provided an approach to integrating digital technology with historical fashion studies and with apparel production software. Students in a historic and contemporary apparel course and students in a digital apparel production course collaborated to digitize, recreate, and interpret historical garments.

Researchers, each an instructor for one of the two collaborating courses, implemented the project in the Fall 2024 semester. Students in the digital apparel production course 3D scanned the historical garments with the Vitronic Vitus scanner to catalogue the garments and to have a reference for pattern drafting. Patterns were drafted and rendered in Browzwear VStitcher. The recreation was uploaded to a shared presentation platform hosted by Browzwear: StyleZone. Students in the historic and contemporary apparel course double-blind reviewed the recreation visually and the information provided by the digital apparel production students. This created a bridge between first year and sophomore courses where fibers, fabrics, and construction are briefly discussed and the senior historic and contemporary apparel course that solidifies contextual and temporal understanding related to textiles and apparel production. For example, a dress dated from the 1920s was described as using polyester fabric by the digital apparel production student; this error was relevant to the historic costume course and provided students an opportunity to interpret and engage with historical garments.

Students in the historic and contemporary apparel course reviewed digital patterns of garments in the historic costume collection that were created by students in the digital apparel production course. The students in the historic apparel course assumed the role of museum curator. They were tasked with identifying key design features (e.g., silhouette, fabric choice, construction techniques) of the historic garment, and providing detailed feedback to the digital apparel production students regarding how these features could be accurately recreated in a digital environment. Students were asked to suggest adjustments to draping and fit and propose two additional colorways that align with a historically accurate representation. Digital production students used this feedback to iterate their designs to improve accuracy and quality.

Forty-eight students in the historic and contemporary course double-blind reviewed 20 digital recreations of garments from the historic costume collection, and 98% identified the correct period of the historic garment and proposed appropriate colorways. Forty-one students (85%) provided feedback on fabric choice and construction details to improve the historical accuracy of the digital pattern.

This project underscored the potential of digital technology in fashion studies, offering new methodologies for preserving and interpreting historical garments and bridging gaps in the apparel merchandising and apparel product development curriculum. Digital archivists, production instructors, and historical dress instructors alike can employ this approach to contribute to a more comprehensive understanding of fashion history, pattern drafting, and its contemporary applications.



## References

Browzwear VStitcher

- Din, Nor Nazeranah Haji Omar. 2024. "Revolutionizing Higher Education: The Role of Technology in Enhancing Student Engagement and Learning Outcomes." *Higher Education Digest* (blog). April 24, 2024. <https://www.highereducationdigest.com/revolutionizing-higher-education-the-role-of-technology-in-enhancing-student-engagement-and-learning-outcomes/>.
- Montusiewicz, Jerzy, Marek Miłosz, Jacek Kęsik, and Kamil Żyła. 2021. "Structured-Light 3D Scanning of Exhibited Historical Clothing—a First-Ever Methodical Trial and Its Results." *Heritage Science* 9 (1): 74. <https://doi.org/10.1186/s40494-021-00544-x>.



## **Family Perspectives on Professionals' Role in Elder Family Financial Exploitation**

Katelyn A. Golladay (University of Wyoming), Jennifer Crittenden (University of Maine),  
Julie Bobitt (University of Illinois Chicago), Stephanie Simms (University of Wyoming),  
Virginia Vincenti\* (University of Wyoming)

### **Purpose**

This study focuses on a family perspective of power of attorney as a vehicle for family-perpetrated elder financial exploitation (EFFE) risk and how professionals facilitate or address EFFE risk. Specifically, its objectives were to examine participants' experiences related to professionals contributed to or reduced EFFE risk.

### **Rationale**

Although estimates vary about the extent of EFFE, most studies agree that family members are the largest group of perpetrators and that many forms of abuse, commonly physical, sexual, emotional/psychological, and neglect, co-occur to gain control over older relatives to facilitate financial exploitation. Particularly when perpetrated by family members, EFFE poses a unique challenge due to complex family dynamics. Through the first-hand accounts of family members whose older relative(s) experienced EFFE, it is clear that the public needs to understand how professionals working with middle-aged and older adults could facilitate or reduce the risk of the increasing prevalence of elder abuse and EFFE.

### **Methodology**

This research is based on a larger national study of 59 non-abusing family members English-speaking, U.S. residents, 18 years old or older who had at least one relative age 60 or older who had appointed another relative to be their power of attorney. This presentation will focus on a 24-family subsample, wherein a POA agent financially exploited one or two older relatives (principals). These cases also included one or more professionals who contributed to the principals' exploitation. In these cases, professionals were complicit in facilitating the EFFE. In one case the principal's attorney was her financial POA agent and acted as a co-perpetrator with the medical POA agent. In other cases, attorneys, not POA agents, were complicit in the POAs' perpetration.

Because of privacy laws prohibiting referrals, we used convenience sampling. Recruitment of participants included flyers in senior centers and other well-traveled community locations, Extension; and email listservs to the National Center for Elder Abuse, other governmental agencies, non-profit and professional organizations; community presentations, and public television. A website was also used for recruitment and to obtain a signed consent form from participants.

To increase efficiency in obtaining demographic information, a survey was used, followed by an in-depth interview to increase understanding of survey responses, and to provide participants an opportunity to share their experiences. The semi-structured interview protocol, based on an adaptation of Bronfenbrenner's Bioecological Model, evolved to explore participants' perceptions of influences on the risk of EFFE. Each refinement was approved by the University of Wyoming Institutional Review Board. Interviews conducted in person or by phone lasted approximately 60-90 minutes. They were audiotaped and transcribed verbatim, de-identified using pseudonyms for names of persons and specific locations except for states so the research team could check state laws to better understand cases' details. The cases involved the principals, perpetrators, and interviewees living in twenty different states. Participants, most were not POA agents, were asked about the selection of the POA agent(s), past and

current interactions with the principal and other family members, professionals, and how these social and professionals relationships influenced EFFE. Participants were also asked about societal influences, such as ageism and the economy at the time EFFE was occurring and at earlier times that could have influenced the principals and/or the perpetrators.

This study used constructivist grounded theory (CGT), a qualitative research methodology that strives to understand a social process that does not yet have an adequate theoretical foundation. The excerpt data coding and analyses were conducted in three steps: initial/open, focused, and theoretical coding. During the initial coding, at least two researchers independently read each transcript multiple times, then met to discuss proposed initial codes and reach consensus. Initial open coding was inductive (i.e., data driven) and focused largely on coding details about personal attributes, descriptions of what happened, values, emotions, actions taken, and impacts. Both intra-participant and inter-participants initial codes were compared, and sometimes combined because of similarity. Finally, focused codes were compared to explore the relationship among them. Interviewer memos, genograms, and multiple participants per family (when obtainable), were used to triangulate information during analyses.

### **Findings**

Themes for this presentation were selected from codes organized into the following broad categories: Risk Factors from End-of-Life Planning, Risk Factors from Professionals' Actions and Attitudes, and Protective Factors from End-of-Life Planning, and Protective Factors from Professionals' Actions and Attitudes. Excerpts within these themes were examined from the mesosystem/family perspective with regard to interactions with exosystem professionals. We examined excerpts from across these broader themes to identify instances where professionals and those external to the family were discussed in relation to professionals' actions related to EFFE. This cross-cutting analysis resulted in the following subthemes: conflict of interest, competence, and transparency predominantly originating in the exosystem with professionals, that influenced principals (Bronfenbrenner's microsystem) and the family, specifically perpetrators (mesosystem).

### **Conclusions**

It is important to note that the families interviewed discussed touchpoints with legal professionals within Bronfenbrenner's exosystem. Just as notable as what participants' discussed in these stories was what was missing from their accounts. The complexities within EFFE cases require an interdisciplinary team-based approach, largely absent from family narratives.

### **Implications for Research and/or Practice**

Family stories and their implications underscore that EFFE is a phenomenon that crosses multiple systems from macro, where policies impact POA arrangements and reporting, exosystem professionals interact with families, and within the mesosystem where deep family conflict and conditions can incubate risk. While the research literature currently focuses on how elder financial exploitation can be mitigated by individual professions, more research is needed to examine how individuals and organizations external to the family interact and contribute to or prevent risk for families. Meanwhile, to reduce the likelihood of EFFE and other forms of elder abuse, the public and professionals could benefit from education about what is known to date.

**Assembly of Higher Education and Community of Colleges, Universities and Research  
(CUR) Posters**

<b>Title</b>	<b>Authors</b>
Graduate Research: Psychological Needs and Motivations for Purchase Intention of Sustainable Clothing	*Amy G. Manley and Yoo-Kyoung Seock (University of Georgia)
3D Printing as a Pedagogical Tool in Design Education: Evaluating Student Skill Development	Georges Fares and *Anna Ruth Gatlin (Auburn University)
Evaluating the Impact of Accreditation on Family and Consumer Sciences Programs: Insights, Challenges, and Opportunities	*Anna Ruth Gatlin (Auburn University) and Virginia Rolling (University of Alabama)
Are Students Equipped? Exploring Competency Gaps Due to Changing Retail and Fashion Industry	Caroline Kobia, Juyoung Lee*, and Wynn Howell (Mississippi State University)
Resilience and Competitiveness of the Cotton Industry Cluster	*Juyoung Lee, Farhana Momotaz and Caroline Kobia (Mississippi State University)
Community Quilting and its Impact on Mental, Social, Emotional and Social Wellness among Women in Rural US	Jane Opiri (University of Arkansas at Pine Bluff) and Joseph Otundo (University of Arkansas at Little Rock)
Perceptions of Pregnant Women on Physiological and Psychological changes and their Influence on Maternity Wear Selection	Leigh Southward (University of Arkansas)
Developing caring citizens: Building students cultural understanding and empathy through study-abroad experiences	Paulina Velez-Gomez, Sara Dodd, Irina Mikheeva (Texas Tech University)
Discernment in a Disruptive Digital World: Generative AI as an Educational Ally	Lynn Brandon (University of North Texas)
The Evolving Landscape of AI: Impacts on People-Centered Sciences in FCS	Lynn Brandon (University of North Texas)
Experiences of Community Educators Facilitating a Fatherhood Program	*Caleb Price, Jordan Shuler, Ryan Snyder, Matt Brosi (Oklahoma State University)
Navigating Roles: Fathers' Experiences with Attending a Cooperative Extension Fatherhood Program	*Caleb Price, Jordan Shuler, Matt Brosi (Oklahoma State University)

**Assembly of Higher Education and Community of Colleges, Universities and Research  
(CUR) Posters**

From Concept to Classroom: Creating an Animation-Based Flat Pattern Teaching Tool	Geetika Jaiswal (Morgan State University), *Elizabeth Newcomb Hopfer (North Carolina Agricultural and Technical State University), Devona L. Dixon (North Carolina Agricultural and Technical State University), Devang Mehta, (North Carolina Agricultural and Technical State University)
Integrating Ethical Education in Fashion Curricula: Preparing Students for Generative AI Challenges and Opportunities	*Leslie Browning-Samoni (Texas Christian University) and Rachel J. Eike, (Iowa State University)
Linking History to the Classroom: FACS Fashion Journey Boxes for Middle School Education	*Laura McAndrews (Kent State University), Beth Weigle, Katherine Stein, Mazie Bowen, and Jan Hebbard (University of Georgia)
My Child Won't Stop Eating Candy and Drinking Sodas – Who Buys Them?: Mitigating Childhood Obesity Risks through Parent Lifestyle and Home Environment	*M. Williams-Wheeler; E.F.Acquah; P. B. Adjibade; C.C. Okoye (North Carolina A & T State University)
Saying YES to FCS: The FCS Student Leadership Curriculum – Insights from Cohort 1	*M. Williams-Wheeler; P. Faulkner, G. Alston; and E. Acquah (North Carolina A & T State University); E. Cross (Lexington Senior High School); L.Bruff and S. Carter (Davidson-Davie Community College); J.Telesford (T.A. Marryshow Community College)
Redefining Mentorship for the 21st Century: A Focus on Retail and Hospitality Students	*Lisa Kennon, Lynn Brandon, Christy Crutsinger, & Kim Williams (University of North Texas)
The importance of FCS post-secondary education for teacher preparation: A review of the literature (2006-2023)	*Rachel Jumper (Stephen F. Austin State University; Billie Collier (Florida State University); Jane Opiri and Karleah Harris (University of Arkansas at Pine Bluff)
The Relationship between Weight Status and Use of Complementary and Alternative Medicine Special Diets	Glenda Lindsey (Morgan State University)
Use of Pre- and Post-Test Analyses to Determine Knowledge Gained by Food Science Students	Jacquelyn R. Warnock (Southridge High School)

## Psychological Needs and Motivations for Purchase Intention of Sustainable Clothing

Amy G. Manley\*; Yoo-Kyoung Seock, University of Georgia

**Purpose:** Studies suggest that consumers may not feel a strong personal or intrinsic attachment to their clothing, yet they still look to align with or feel connected to fashion brands that prioritize sustainability (Rausch & Kopplin, 2021). Despite an increase in conversation around and demand for sustainable products from companies, sustainable clothing purchases remain uncommon among most consumers (Park et al., 2017). Certain consumer segments have been identified and labeled as explicitly sustainable purchasers in previous research (Kang et al., 2013). For ecological and economic progress, sustainable products should not be confined to a single population segment, as consumers who buy sustainable clothing vary in their levels of commitment (Park et al., 2017). Importantly, consumers' non-sustainable clothing purchases do not necessarily reflect a lack of environmental value or ethical consciousness (Shen, Richards, & Liu, 2013). Research shows that consumers have perceived barriers, hesitations, and resistance preventing them from making sustainable purchases (Shen, Richards, & Liu, 2013; Rausch & Kopplin, 2021). Previous research also suggests that consumer intentions toward products can be examined through the Self-Determination Theory (SDT) (Widyarini & Gunawan, 2017). The purpose of this research was to explore consumers' intentions for purchasing sustainable clothing through the lens of Self-Determination Theory and its subtheories.

**Rationale:** Consumers' awareness of their consumption choices influences demand for apparel products resulting in cultural shifts that have long-lasting impact on consumers' sustainable behavior. Consumers' purchase decisions are complex combinations of various factors with different degrees of influence (Park et al., 2017). According to SDT, individuals become more self-determined, and thus increasingly motivated, as their basic psychological needs (BPN) for autonomy, competence, and relatedness are satisfied (Ryan & Deci, 2017). Ryan & Deci (2017) suggest that motivation is a continuum, where individuals shift between feeling more controlled or autonomous, depending on their perception of a situation. In this study, we investigated (1) the relationship between the three basic psychological needs (BPN) and sustainable clothing purchase intentions, (2) the association between the four levels of extrinsic motivation regulation (EMRL) and sustainable clothing purchase intentions, and (3) the correlation between BPN and extrinsic motivations in shaping these intentions.

**Methodology:** A structured questionnaire was used to collect data, which consisted of 49 Likert scale questions measuring purchase intentions for sustainable clothing, extrinsic motivation regulation levels, and basic psychological needs. The survey was created through *Qualtrics*. After approval from the Institutional Review Board, the data was collected online through *Amazon Mechanical Turk* to sample a population over a wide geographic area. Sample participants consisted of adult consumers aged 18 and over, all residents of the United States.

**Findings:** Of the 383 respondents, 51.2% were male and 48.8% were female. Most participants were married (72.1%), with bachelor's degrees (67.1%), full-time careers (89.3%) and income between \$51,000 to \$75,000 (42%). While all age cohorts and U.S. regions were represented, most were Millennial, born between 1981 and 1996 (73.4%), and from the south (40.6%). Testing of reliability confirmed the internal consistency of each multi-item scale, and each

scored above the Cronbach's alpha threshold of 0.7: purchase intention for sustainable clothing (0.94), extrinsic motivation regulation levels (0.92), and basic psychological needs (0.93).

**Relationships between BPN constructs and SCPI.** Pearson's correlation analysis showed that all three constructs of BPN have significant positive relationships with sustainable clothing purchase intention at the  $p < .01$ , 2-tailed threshold. Relatedness has the strongest relationship (.577), followed by autonomy (.532) and competency (.522). This proves that the satisfaction of individual BPN constructs can influence consumers' purchase intention for sustainable clothing.

**Relationships between EMRL and SCPI.** All four extrinsic motivation regulation levels have significant positive relationships with purchase intention at the  $p < .01$ , 2-tailed threshold. The level of strength follows the same progression pattern to being more self-determined. Consumers with integrated regulation, the most autonomous and thus closest level to intrinsic motivation, have the strongest relationship to purchase intention (.745). Subsequent levels have reduced strength. Identified regulation (.674) has significant strength, but then there is a notable drop to the more controlled levels of introjected regulation (.376) followed by external regulation (.352). This correlation proves that while all extrinsic motivation regulation levels influence purchase intention for sustainable clothing, there is a noticeable difference in the impacts from the more autonomous motivation levels as opposed to the weaker and more controlled motivation levels. From this finding, the researcher is currently investigating the possibility of a directional motivation continuum and the subsequent relationships to purchase intention for sustainable clothing.

**Relationships between BPN and EMRL.** The three basic psychological needs have significant positive relationships with the more autonomous extrinsic motivation regulation levels, integrated and identified. Results show, however, that each BPN has no statistical significance with the more controlled extrinsic motivation levels, introjected or external. An interesting finding is that each of the three BPN have slightly stronger correlations with identified regulation as opposed to the more autonomous or self-determined level of integrated regulation. The BPN correlations for identified motivation by strength are relatedness (.562), autonomy (.493), and competency (.455). Additionally, the strength of correlations for integrated motivation are relatedness (.552), autonomy (.469), and competency (.436). The findings show the pattern of BPN relatedness having the strongest relationships followed by autonomy, and then competency. This implies that satisfaction of the BPN relatedness should be the most important consideration for retailers when wanting to increase consumers motivation for sustainable clothing, however, the other BPN autonomy and competency are still strong positive indicators which should not be overlooked.

**Conclusions and Implications:** The results from this analysis show that the constructs from SDT and subtheories are significant and relevant in evaluating consumer intentions toward sustainable clothing. Results show that consumers can be motivated at all extrinsic levels, but that BPN satisfaction is not significant at all levels. This suggests that there are other variables outside of the SDT subtheory that are significant antecedents for controlled levels of motivation. Further research is currently being conducted on the directional impact of these theoretical constructs with subsequent model development, as well as defining consumer segments based on continuous and categorical data.



## 3D Printing as a Pedagogical Tool in Design Education: Evaluating Student Skill Development

Georges Fares; Anna Ruth Gatlin\*, Auburn University

**Purpose:** This study examines the impact of 3D modeling and printing on the development of spatial visualization and design communication skills among beginning-level design students. By assessing Student Learning Outcomes (SLOs) over multiple academic cohorts, this research seeks to determine whether integrating 3D printing technology into studio courses enhances students' ability to conceptualize, iterate, and articulate three-dimensional designs effectively.

**Rationale:** Design education emphasizes experiential learning and hands-on projects to cultivate spatial awareness and visual thinking skills. However, many first-year students encounter challenges in creating mental visualizations of complex spatial forms, often leading to difficulty in clearly communicating design intentions. Research suggests that 3D printing technology can support these cognitive processes by providing tangible representations of designs, fostering a deeper comprehension of spatial relationships, and improving design precision and detail (Arslan & Tazkir, 2017; Al Ruheili & Al Hajri, 2021). This study builds on these findings to explore how access to digital modeling tools influences student learning and engagement in design studios.

**Methodology:** A longitudinal study was conducted comparing three consecutive studio cohorts—Spring 2020, Spring 2021, and Spring 2022. Each cohort completed a project involving components that required spatial detailing, with variations in instructional methods due to the pandemic. In 2020, students worked fully remotely without access to campus facilities, relying solely on digital communication. The 2021 cohort had limited campus access under hybrid conditions, enabling a few students to experiment with 3D printing for their models. By Spring 2022, the entire cohort had in-person access to the studio, with 3D printing integrated as a core component of design development and iteration. Rubric scores for key project elements, such as spatial organization, detailing, and communication of design intent, were collected and analyzed to evaluate progress and identify trends.

**Findings:** The analysis of rubric scores showed an improvement in design outcomes over time, with the Spring 2022 cohort achieving the highest average score of 87% compared to 83% and 82% for the 2020 and 2021 cohorts, respectively. Furthermore, qualitative feedback indicated that 3D-printed models helped students visualize and refine their designs, leading to greater accuracy in spatial dimensions and clarity in presentations. Reflections from the 2022 cohort highlighted the benefits of 3D modeling in testing design ideas, adjusting proportions, and enhancing their confidence in communicating concepts. Notably, the 3D models allowed students to better anticipate user needs, adjust for functional requirements, and make informed decisions with a tangible understanding of scale and volume.

**Conclusions:** The findings suggest that integrating 3D printing into design studios provides students with valuable tools to enhance their spatial reasoning and design iteration processes. The technology not only aids in the physical representation of complex forms but also fosters a deeper engagement with the design process, allowing students to move from abstract concepts to concrete solutions with greater ease. This enhanced ability to translate design ideas into clear, detailed models results in more cohesive and precise project outcomes. Findings from this study may inform curriculum design and advocate for the adoption of digital fabrication resources across design programs.

**Implications:** Incorporating 3D modeling technology into design education holds promise for advancing pedagogical approaches, particularly in foundational courses where spatial visualization skills are critical. By bridging digital and manual design tools, educators can create more dynamic and interactive learning experiences that resonate with students' practical and theoretical needs. This approach not only improves design accuracy and communication but also increases student enthusiasm and involvement, providing a pathway to more effective and satisfying design education.

## References:

Arslan, A.R. and Dazkir, S.S (July 2017). Technical drafting and mental visualization in interior architecture education. *International Journal for the Scholarship of Teaching and Learning* 11(2). Available from: <https://files.eric.ed.gov/fulltext/EJ1150554.pdf>

Assante, D., Cennamo, G. M. and Placidi, L. (2020). "3D printing in education: An European perspective," 2020 IEEE Global Engineering Education Conference (EDUCON), pp. 1133-1138, doi: 10.1109/EDUCON45650.2020.9125311. Available from: <https://ieeexplore.ieee.org/document/9125311>

Boumaraf, H. and Inceoglu, M., (2020). Integrating 3D printing technologies into architectural education as design tools. *Emerging Science Journal* 4 (2). Available from: <https://ijournalse.org/index.php/ESJ/article/view/236>

Boumaraf, H. and Inceoglu, M., (2019). Students' spatial perception for 3D printing in architectural education. *Proceedings for ULEAD 2019 Annual Congress: ICRE, Alanya, Turkey. pp. 134-140*). Available from: [https://www.researchgate.net/publication/340438429\\_Students%27\\_Spatial\\_Perception\\_for\\_3d\\_Printing\\_In\\_Architectural\\_Education](https://www.researchgate.net/publication/340438429_Students%27_Spatial_Perception_for_3d_Printing_In_Architectural_Education)

Al Ruheili, A. and Al Hajri, S., (2021). The role of 3D printing technology in landscape architecture and learning practices. *Educational Sciences: Theory & Practice*. Available from: <https://www.jestp.com/index.php/estp/article/view/1426/790>

## **Evaluating the Impact of Accreditation on Family and Consumer Sciences Programs: Insights, Challenges, and Opportunities**

Anna Ruth Gatlin\*, Ph.D., Auburn University; Virginia Rolling, Ph.D., University of Alabama

This study explores how accreditation by the American Association of Family and Consumer Sciences (AAFCS) influences the perceptions and outcomes of Family and Consumer Sciences (FCS) programs. Using a mixed-methods approach, the research focuses on three populations: currently accredited programs, formerly accredited programs, and programs that have never sought AAFCS accreditation. By integrating quantitative and qualitative data, the study provides comprehensive insights into the impact of accreditation on FCS programs, with implications for researchers, educational practice, and accreditation bodies.

**Purpose and Rationale:** The purpose of this research is to understand the diverse perspectives of FCS programs regarding AAFCS accreditation. Accreditation has historically been associated with enhancing program quality, credibility, and alignment with national standards, however, participation in accreditation processes varies significantly across institutions. This study seeks to investigate the factors driving these variations, including perceived benefits, challenges, and barriers, with the goal of identifying strategies to increase engagement and support for FCS programs considering accreditation.

**Research Design and Methodology:** To address the study's objectives, a mixed-methods design was employed, combining quantitative survey data with qualitative feedback from open-ended responses. The target population included department heads and program administrators across the U.S. representing three categories: currently accredited, formerly accredited, and never accredited FCS programs. A purposive sampling technique ensured diversity in geographic representation and institutional size. Data collection was carried out through emailed surveys tailored to the specific accreditation status of respondents. Three versions of the survey were developed to gather information on demographics, institutional characteristics, and detailed perceptions related to the AAFCS accreditation process. Close-ended questions using Likert-type scales captured quantitative data, while open-ended questions allowed participants to express nuanced views on their experiences and decision-making processes.

**Sampling and Response Rates:** The study achieved substantial response rates from each category. Out of 32 currently accredited institutions, 19 responses were received (59% response rate). Among 43 formerly accredited programs, 18 responded (42%), while 15 out of 45 programs that have never sought accreditation participated (33%). These response rates provided a dataset for analysis, allowing for reliable comparisons across the different groups.

**Data Analysis:** Quantitative data were analyzed using descriptive statistics and inferential tests to identify significant patterns and correlations. Qualitative responses were examined using the constant comparative method to identify emergent themes related to accreditation experiences. A SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis framework was employed to synthesize findings, enabling a deeper understanding of how accreditation status influences programmatic outcomes and institutional perspectives.

**Key Findings:**

- Programs with AAFCS accreditation are predominantly concentrated in areas like textiles, apparel, and retailing, as well as human/child development. Respondents cited benefits such as enhanced program credibility, alignment with national standards, and external validation. However, significant barriers include the high financial and administrative burden associated with the accreditation process. The need for increased faculty support and institutional resources was highlighted as a critical factor for sustaining accreditation.
- Previously accredited programs, particularly in food science and nutrition, often transitioned to other accrediting bodies like ACEND (Accreditation Council for Education in Nutrition and Dietetics). Although these programs acknowledged the benefits of accreditation, they emphasized the challenges of maintaining AAFCS accreditation, such as resource constraints and perceived limited returns on investment. The decision to discontinue AAFCS accreditation was frequently linked to shifting institutional priorities and budget limitations.
- Programs that have never sought AAFCS accreditation, notably those focused on human/child development, often align with other specialized accrediting bodies like NCFR (National Council on Family Relations) and NAEYC (National Association for the Education of Young Children). While these programs recognize the general value of accreditation, barriers such as faculty engagement, perceived relevance, and concerns about eligibility for 2-year institutions were prominent factors deterring pursuit of AAFCS accreditation.

**Implications for Practice:** The findings carry significant implications for research and practice, including FCS programs and accrediting bodies like AAFCS. For researchers, the study highlights the need for further exploration into how accreditation influences program sustainability and quality. Future research could examine innovative approaches to streamline accreditation processes, explore joint accreditation models with other professional bodies, and investigate long-term outcomes for programs that either pursue or forgo accreditation, thereby enhancing strategic decision-making in FCS programs. For practitioners, understanding the specific challenges associated with AAFCS accreditation—such as resource constraints, administrative burdens, and faculty engagement—can guide more effective institutional planning and support strategies. For FCS Programs, insights from currently and formerly accredited programs can guide strategic planning. Institutions considering accreditation can leverage identified benefits—such as increased program visibility and standardization—to secure internal support and resources. For AAFCS, the study highlights the importance of addressing the specific challenges faced by different types of FCS programs. Streamlining accreditation processes, reducing administrative burdens, and providing targeted support mechanisms could enhance program engagement. Additionally, collaborative accreditation pathways with other bodies may offer a more flexible approach to meet the diverse needs of FCS programs.

**Conclusion:** By employing a mixed-methods approach, this research sheds light on the varied experiences of pursuing AAFCS accreditation. The nuanced insights from currently, formerly, and never accredited institutions emphasize the need for AAFCS to perhaps rethink its accreditation model to better align with the evolving priorities of FCS education. Ultimately, rethinking the model could lead to increased participation and a stronger alignment of programs with national standards, thereby enhancing the overall quality and impact of FCS education.

## **Are Students Equipped? Exploring Competency Gaps Due to Changing Retail and Fashion Industry**

Caroline Kobia, Juyoung Lee\*, and Wynn Howell, Mississippi State University

This study investigates the competencies required for fashion design and merchandising (FDM) graduates to succeed in a retail and fashion industry reshaped by rapid digitalization, globalization, shifting consumer behavior, and heightened awareness of sustainability and social responsibility (Jin & Shin, 2020; McKinsey & Co., 2023). While the COVID-19 pandemic intensified reliance on e-commerce, data analytics, and ethically informed production (Kim, 2021), industry shifts were already underway, demanding new skill sets from incoming professionals (Dwivedi, 2020; Keiser & Garner, 2018). In this context, many believe that undergraduate FDM programs have struggled to keep pace, leading to competency gaps that undermine the readiness of new graduates (Adams, 2021).

This research centers on identifying key hard and soft skills—ranging from digital marketing and data analysis to empathy, creative design thinking, and sustainable business practices—necessary for graduates to thrive in increasingly omnichannel, value-driven retail environments (Aversa et al., 2020; Notten, 2020). Employing a Human-Centered Design (HCD) framework (Brown & Wyatt, 2010; Landry, 2020), this study gathered input from 119 participants across three stakeholder groups—students, industry professionals, and academic faculty—using validated scales (Chowdhury & Anon, 2021; Merryman & Lu, 2021) to measure perceptions of required competencies, current industry changes, and recent graduate preparedness.

Analysis revealed discrepancies between how students assessed their preparedness and how faculty and professionals viewed these same competencies. While students felt confident in communication, organizational skills, and trend forecasting, industry professionals rated these proficiencies lower, highlighting a gap between academic preparation and real-world expectations. Similarly, faculty and professionals identified empathy, creative problem-solving, and technical competencies (e.g., Adobe design tools, data science) as areas needing improvement. Despite students' belief in their merchandising and design foundations, the industry emphasized a need for stronger branding, promotional display capabilities, and seamless sustainability integration.

Although students and faculty recognized emerging technologies like AI and digital fashion, professionals were more cautious, suggesting that meaningful industry integration remains a work in progress. This gap underscores the importance of continually updating curricula and providing more experiential learning opportunities, such as simulations and internships, that bridge theoretical knowledge and practical application (Hudson, 2022; Joseph et al., 2021; Shirley & Kohler, 2023).

The findings further highlight the necessity of integrating sustainability, ethical labor practices, and social responsibility into educational programs (Murzyn-Kupisz & Holuj, 2021). As consumer values increasingly prioritize fairness and environmental stewardship, students must graduate not only with technical and creative expertise but also with the ability to implement and communicate sustainable strategies effectively (Shaffer et al., 2019).

Implications of this research include a call for curriculum developers, educators, and policymakers to refine educational models to better meet evolving industry demands. Incorporating iterative HCD methodologies ensures that technological, social, environmental, and economic shifts are reflected in learning outcomes, assignments, and industry partnerships, supporting the transition toward a “knowledge society” where digital literacy and meaningful information use are paramount (Zhao et al., 2021).

While this study provides valuable insights, limitations such as a small sample size and uneven representation of U.S.-based programs suggest the need for broader, more diverse research. Additionally, future longitudinal and qualitative studies could offer deeper insights into evolving competency landscapes, guiding more responsive and future-oriented FDM curricula. In sum, this research underscores the need to recalibrate FDM education, bridging the gap between academic preparation and professional success in a dynamic, tech-driven, and ethically conscious retail and fashion industry.

- Adams, J. (2021). Competency alignment in fashion education. *Journal of Fashion Education*, 10(2), 45–60.
- Aversa, P., Haeffliger, S., Rossi, A., & Baden-Fuller, C. (2020). From business model to business modelling: Modularity and manipulation. *Advances in Strategic Management*, 43, 151–173.
- Brown, T., & Wyatt, J. (2010). Design thinking for social innovation. *Stanford Social Innovation Review*, 8(1), 30–35.
- Chowdhury, S., & Anon, M. (2021). Bridging the skill gap: A study of hard and soft skill requirements in the fashion industry. *International Journal of Fashion Studies*, 5(3), 200–215.
- Dwivedi, Y. (2020). Realigning fashion curriculum with Industry 4.0 demands. *International Textile and Apparel Association Proceedings*, 6(1), 55–67.
- Hudson, M. (2022). Inclusivity and decolonization in fashion education: A California case study. *Clothing and Textiles Research Journal*, 40(4), 321–335.
- Jin, B., & Shin, D. (2020). Changing the game: A critical review of the literature on the impact of digitalization on the fashion retail supply chain. *International Journal of Retail & Distribution Management*, 48(4), 417–430.
- Joseph, J., Patrick, O., Howard, E. K., & Emmanuel, A. (2021). Linkages between the curriculum of institutions offering clothing and textiles and their allied industry. *Journal of Education and Practice*, 12(3), 140–149.
- Keiser, S. J., & Garner, M. B. (2018). *Beyond design: The synergy of apparel product development* (4th ed.). Bloomsbury.
- Kim, S. (2021). Sustainability in fashion retail: Consumer demand and business practice. *Journal of Fashion Marketing and Management*, 25(2), 140–156.
- Landry, L. (2020). Human-centered design: Principles, methods, and practice. *Design Issues*, 36(4), 5–16.
- McKinsey & Co. (2023). *The state of fashion 2024: Finding pockets of growth as uncertainty reigns*. McKinsey & Company. Retrieved November 1, 2024, from <https://www.mckinsey.com/industries/retail/our-insights/state-of-fashion-2024>
- Merryman, R., & Lu, S. (2021). Data analytics in the fashion industry. *Journal of Fashion Marketing and Management*, 25(4), 560–578.
- Murzyn-Kupisz, M., & Holuj, D. (2021). Ethical fashion education in Poland. *International Journal of Fashion Studies*, 8(2), 175–192.
- Notten, P. (n.d.). *Sustainability and circularity in the textile value chain: Global stocktaking*. United Nations Environment Programme. Retrieved November 1, 2024, from <https://wedocs.unep.org/20.500.11822/34184>
- Shaffer, L., Cao, H., Cobb, K., Dickson, M. A., & Jelenewicz, S. (2019). Integrating sustainability in fashion curricula. *Clothing and Textiles Research Journal*, 37(4), 273–288.
- Shirley, L., & Kohler, J. (2023). Integrating STEM in clothing and textile education. *Family and Consumer Sciences Research Journal*, 51(2), 110–125.
- Zhao, Y., Llorente, A. M., & Gomez, M. C. S. (2021). From information society to knowledge society: Implications for education. *Educational Philosophy and Theory*, 53(6), 583–593.

## Resilience and Competitiveness of the Cotton Industry Cluster

Juyoung Lee\*, Farhana Momotaz and Caroline Kobia (Mississippi State University)

This study investigates the relationship between resilience and competitiveness within U.S. cotton industry clusters, focusing on supply chains that include fiber production, yarn and textile manufacturing, apparel and textile product manufacturing, and retailing. Over the decades, the U.S. cotton industry has faced significant challenges, including technological advancements, offshoring, and global competition, resulting in declines in manufacturing and employment (Karpova, Kunz & Garner, 2021). Despite these challenges, recent developments, such as reshoring manufacturing facilities and a shift toward niche markets, indicate promising signs of resilience (Lee et al., 2020; Borneman, 2022). Scholars have highlighted that resilience refers to an organization's capacity to withstand disruptions by developing new strategies and mobilizing resources, while competitiveness relates to a firm's ability to innovate and achieve performance goals, such as cost-efficiency and differentiation (Porter, 1985; Kantur & Iseri-Say, 2015).

The study adopted a qualitative approach, collecting data through convenience and random sampling from stakeholders across the cotton supply chain. Participants were recruited via trade organization memberships and Amazon Mechanical Turk, resulting in 34 valid responses representing fiber producers, textile manufacturers, and home furnishings retailers, with diverse demographic backgrounds and years of industry experience. To explore resilience, the study modified Kantur and Iseri-Say's (2015) Organizational Resilience Scale into open-ended questions, addressing robustness (e.g., "What is your company's strategic vision and outcome expectancy?"), agility (e.g., "How rapidly does your company take action or develop a plan B?"), and integrity (e.g., "How successful is your company in acting as a whole with all of its employees?"). Constant comparative analysis, including open and axial coding, was used to identify recurring themes and relationships within the data (Glaser & Strauss, 1967).

The results revealed the critical role of both internal and external resources in fostering resilience. Internally, participants emphasized strategic planning, teamwork, and forward-thinking business management strategies as essential for navigating industry challenges. Missy (Furnishings and Clothing) noted the importance of "making an effort" and being prepared to adapt swiftly to change, while Dave (Textile Manufacturing) emphasized the necessity of having "a team" to ensure smooth operations. Effective leadership, characterized by respect for individual roles and delegation, was identified as a significant factor in resilience, with Erica (Fiber Producer) highlighting that "respect for the roles each person plays is important." Financial efficiency, including long-term investment and leveraging past capital, also emerged as a critical component of sustainability, as Zach (Furnishings and Clothing) noted the importance of "building on past success to weather future disruptions."

Participants also highlighted the significance of external resources, particularly robust supply chain networks and relational dynamics with suppliers, vendors, and customers. These networks were described as essential for maintaining flexibility and adapting to disruptions. Communication was frequently cited as a vital component of resilience, with Elizabeth (Furnishings and Clothing) emphasizing that "communication within the team must be pristine" to ensure alignment and efficiency. Regular updates, clear leadership, and effective monitoring mechanisms were seen as necessary for managing both routine operations and unexpected challenges.



The study concludes that resilience and competitiveness are closely intertwined, with resilient businesses demonstrating robust leadership, strategic agility, and cohesive internal operations. Geographic clustering enhances resilience through knowledge spillovers, cost-sharing, and innovation, enabling businesses to adapt to global market pressures (Porter, 2014). The findings suggest that policymakers should prioritize the development of industry clusters to foster regional economic resilience, while businesses should focus on leadership development, employee engagement, and strategic partnerships. Future research should further explore resilience mechanisms within supply chain dynamics and the role of digitalization in enhancing competitiveness.

Borneman, J. (2022). U.S. textile reshoring: It's complicated. *Textile World*. Retrieved from <https://www.textileworld.com/textile-world/features/2022/06/u-s-textile-reshoring-its-complicated/>

Bryman, A., & Bell, E. (2011). *Business research methods* (3rd ed.). Oxford University Press.

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Aldine Publishing Company.

Kantur, D., & Iseri-Say, A. (2015). Measuring organizational resilience: A scale development. *Pressacademia*, 4(3), 456–465. <https://doi.org/10.17261/pressacademia.2015313066>

Karpova, E., Kunz, G. I., & Garner, M. B. (2021). *Going global: The textile and apparel industry* (3rd ed.). Bloomsbury Publishing USA.

Lee, J., Kim, A., & Chi, T. (2020). Resiliency and structural change of apparel and textile industry clusters in the United States. Retrieved April 7, 2022.

Porter, M. E. (1985). *Competitive advantage: Creating and sustaining superior performance*. Free Press.

Porter, M. E. (2014). Clusters and the new economics of competition. *Harvard Business Review*. Retrieved from <https://hbr.org/1998/11/clusters-and-the-new-economics-of-competition>

## **Community Quilting and its Impact on Mental, Social, Emotional and Social Wellness among Women in Rural US**

Jane Opiri, University of Arkansas at Pine Bluff;  
Joseph Otundo, University of Arkansas at Little Rock

Rural communities worldwide face significant challenges in accessing mental health services, leading to heightened health disparities and social isolation among mature women. Traditional crafts, particularly quilting, have historically served as vehicles for community building and emotional expression in these communities. The objective of this research was to investigate the impact of quilting in a community group setting on promoting mental well-being among mature women in rural settings. Through a six-month ethnographic study, the researcher examined quilting's impact on mental health, social connections, and cognitive function involving eight participants aged 60-79 in rural US. The qualitative data was collected using focus group interviews and participant observations during regular quilting sessions. The data was transcribed and analyzed to reveal the themes. The thematic analysis of the data revealed four primary benefits of community quilting, such as (1) stress reduction and improved emotional well-being (2) enhanced cognitive engagement through complex pattern work and problem-solving (3) strengthened social connections and community building and (4) increased sense of accomplishment and self-worth through creative expression. In addition, these findings suggest that community-based quilting programs could serve as cost-effective interventions for promoting mental health in rural areas, particularly among mature women. This study supports four UN Sustainable Development Goals: SDG-3 Good Health and Well-being observed by the improved mental health of the participants. SDG-5 Gender Equality was achieved by empowering women through creative innovations and expression and SDG-11 Sustainable Communities achieved through community-building initiatives. Additionally, this research contributes to understanding how creative activities can lead to individual wellbeing and wellness as well as community vitality aligning with the FCS Body of knowledge. This study has implications for mental health practitioners, families and caregivers with mature women.

# Perceptions of Pregnant Women on Physiological and Psychological Changes and their Influence on Maternity Wear Selection

Zipporah Barasa, Laurie Apple, Leigh Southward (University of Arkansas)

**Introduction and Literature Review:** Pregnancy is an experience full of growth, change, enrichment, and challenge (Devi, 2019). Women deal with fears and uncertainties about the changes that will take place in their bodies during pregnancy (Borrelli, 2018). Wegle and McAndrews (2022) stated that changes in a woman's physical body elicit different feelings and thoughts that impact their choices of maternity clothing. Many women are psychologically disturbed because of the change in their physical body image (Sohn and Bye, 2015). According to Krisjanous et al (2022), it is essential to acknowledge and accept the physiological changes caused by pregnancy. Research indicates that a woman's body shape, weight, and size change significantly during pregnancy, requiring clothes that can accommodate these changes (Noopur, 2012; Sohn & Bye, 2015; Wegle & McAndrew, 2022). Pregnant women's bodies undergo a shift in their body image and appearance because of these changes. Studies also show how these changes influence the fit and size of maternity apparel (Barasa, 2020; Balasubramanian & Robinette, 2020; Jaiswal, 2022). With the increasing demands of pregnant women to maintain their pre-pregnant body and look fashionable, many perceptions may arise regarding body changes during pregnancy. Consequently, these perceptions may impact the selection of maternity apparel either negatively or positively (Krisjanous et al, 2022). Studies addressing pregnant women's views on physiological and psychological changes and their impact on maternity clothing selection are limited. To bridge the gap in literature, this study aimed at identifying the physiological and psychological changes of Kenyan pregnant women aged 16 to 35 years and how they impact maternity apparel selection. This study addressed the following research questions using the proposed research model shown in figure 1: What are the perceptions of young expectant women between 16-35 years on the physical body changes during pregnancy? What are the perceptions of young expectant women on psychological changes during pregnancy? What is the influence of the perceptions of young expectant women on physiological and psychological changes on maternity wear selection?

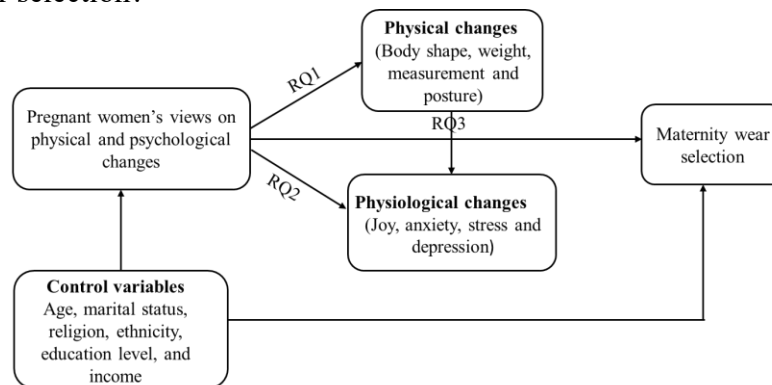


Figure 1: A Proposed Research Model for this Study

**Methodology:** A descriptive research design was used to collect, analyze, and present data. Several demographic variables were employed as control variables, including gender, age, marital status, religion, ethnicity, educational level, and income level. Convenience sampling was used to select 96 expectant women aged between 16 and 35 years as they attended antenatal clinics at KNH for a

period of four weeks. Interviews and questionnaires with open and closed-ended items were used to collect data. There were 90 usable responses gathered to analyze data. Frequencies and percentages (Orodho, 2005) were used to summarize variables relating to demographic characteristics, perceptions of pregnant women on physical and psychological changes and maternity clothing selection. Quantitative aspects were analyzed using Microsoft Office Excel 2007.

**Findings and Discussions:** Based on the results from the interviews and questionnaires, the three research questions were addressed. Sixty-three percent of respondents in trimester one noticed a slight change in their body silhouette. Conversely, all respondents in trimesters two and three experienced dramatic physical changes in their body silhouette, measurements, weight, and posture. Based on the physiological changes, findings revealed that 39% of the pregnant women viewed the changes positively while 61% viewed the changes negatively (RQ1). The respondents explained that they regarded the pregnancy period as an exciting and joyful experience and worked to cope with the changes. It was also revealed that pregnant women experience anxiety, joy, stress, fear, and depression during pregnancy (RQ2). The respondents viewed the changes adversely since they were anxious and unhappy with the changes in their physical bodies. Most of the young expectant women described the changes as undesirable, stating that they felt heavy, awkward, and unattractive. Additionally, the findings regarding the influence of pregnant women's perceptions on physiological and psychological changes on maternity apparel selection (RQ3) showed that respondents who perceived the changes negatively chose unsuitable (62%) maternity clothes that were ill-fitting to conceal their pregnancy or maintain their pre-pregnancy shape. Furthermore, those who viewed the changes positively chose suitable (38%) maternity clothing that could accommodate their changing bodies with the aim of looking stylish.

It was therefore concluded that women who are expecting experience different physiological and psychological changes that they perceive either positively or negatively. Therefore, women who viewed the changes positively made suitable choices of maternity wear while those who viewed the changes negatively made unsuitable choices of maternity clothing. Disparity in the way young expectant women perceive these changes creates a need for retailers and manufacturers of maternity clothing to understand these changes and enable production and selection of maternity apparel that is appropriate in terms of sizing, fit, comfort, and style.

## References

- Balasubramanian, M., & Robinette, K. (2020). "Longitudinal anthropometric changes of pregnant women: dynamics and prediction". *International Journal of Fashion Design, Technology and Education*, Vol. 13, No. 3, pp 231–237. <https://doi.org/10.1080/17543266.2020.1775898>
- Barasa, N. (2020). 'Dress features suitable for the provision of Smart Maternity Wear' *International Journal of Innovative Research and Development*, Vol. 9, No. 7. <https://doi.org/10.24940/ijird/2020/v9/i7/jul20078>
- Borrelli, S. E., Walsh, D., & Spiby, H. (2018). First-time mothers' expectations of the unknown territory of childbirth: uncertainties, coping strategies and 'going with the flow'. *Midwifery*, 63, 39-45.
- Devi, A. M. (2019). Psychiatry During Pregnancy. *Journal of Nursing Science & Practice*, 5(1), 53-57.
- Jaiswal, A. (2022). "Smart motherhood wear: a solution to the problem of maternity wear". *International Journal of Home Science*, pp 278–281. [www.homesciencejournal.com](http://www.homesciencejournal.com)
- Krisjanous, J., Allayarova, N., & Kadirov, D. (2022). Clothing of righteousness: exploring tensions of halal maternity wear on online apparel websites. *Journal of Islamic Marketing*, 13(5), 1125-1142.
- Sohn, M., & Bye, E. (2015). Pregnancy and body image: analysis of clothing functions of maternity wear. *Clothing and Textiles Research Journal*, 33(1), 64-78.
- Weigle, E. A., & McAndrews, L. (2022). The future of maternity wear: Generation Z's expectations of dressing for pregnancy. *Journal of Fashion Marketing and Management: An International Journal*, 26(3), 534-549.

## **Developing caring citizens: Building students cultural understanding and empathy through study-abroad experiences.**

Paulina Velez-Gomez, Ph.D., Sara Dodd, Ph.D., Irina Mikheeva, M.S.  
Texas Tech University.

**Purpose:** This study analyzes the experiences of seven American-born students from a university in west Texas who completed a study-abroad program in Spain in the summer of 2024. The four-week program included two courses (six credit hours): one focused on cross-cultural healthcare policies and the second on cross-cultural contexts for promoting health and well-being. In addition to lectures, students were exposed to different experiential learning activities in the local community, developed briefs contrasting health policies and programs in the U.S. vs. Spain, and completed in-depth reflections on the overall study-abroad experience.

**Rationale:** According to the Open Doors Report on International Educational Exchange (2024), over 280,000 U.S. students studied abroad for academic credit during the 2022-23 academic year. Research shows that study abroad experiences extend learning far beyond academic outcomes, such as growth in personal autonomy, cultural awareness, world-mindedness, and emerging civic concern (Haas, 2018; Berg et al., 2012). As patient populations and care contexts become more diverse, students in health professions need to acquire skills for effectively engaging with individuals from various cultures. In addition to promoting intercultural competence, the goal of some study-abroad experiences is to promote cultural humility, which leads students to become more attuned to and accepting of people of different cultures (Kako & Klingbeil, 2019). Discussion-based learning, experiential activities, and reflection opportunities during a study-abroad program can provide students with opportunities to learn and share about the process of cultural humility (Kako & Klingbeil, 2019).

**Methodology:** The participants were seven undergraduate students (six females and one male) majoring in pre-health professions. For this study, we analyzed students' end-of-course reflections (n=7). Students were asked to reflect on the changes they had experienced in their knowledge, attitudes, behaviors, and conditions as a result of the study-abroad experience. Students were also asked to discuss how this experience affected their personal and professional growth and goals. Permission to analyze the participants' data was received from the researchers' IRB. Data were first content-analyzed for patterns and regularities. The researchers made written notes and comments when patterns and regularities (thematic categories) occurred. Categorization is a crucial step in qualitative research as it helps organize and make sense of the data by grouping related codes into broader themes or categories (Richards & Morse, 2007). Four guidelines suggested by Guba and Lincoln (1981) guided the process of creating thematic categories: 1) frequency, 2) credibility, 3) uniqueness, and 4) inquiry.

**Findings:** Regarding learning outcomes, students discussed gains in intercultural competence and critical thinking skills, which were mostly facilitated by the experiential learning experiences and reflective nature of the courses. Most students referred to the hospital observations (i.e., shadowing doctors in different clinical care areas at a local teaching hospital) as the most significant experience among the experiential learning activities. This experience allowed students to challenge their previous assumptions regarding healthcare systems and expanded

their worldviews regarding access to health and the provider-patient relationship. As expressed by Participant 5, *“My attitude towards health has altered in two ways. Firstly, I am now much more resolute in my belief that cost barriers to healthcare should not exist. Realistically, I know how difficult it would be to implement policy in the U.S. to reduce these barriers, especially seeing how even the Spanish system has its faults, but I am more intrinsically motivated to advocate for change in the future now instead of being a passive participant in the system”*. Beyond the somewhat expected learning outcomes (e.g., increased cultural competence), two main themes emerged from students' reflections: “risk-taking and personal growth” and “rethinking their future selves.” Getting out of their comfort zone by exploring a new cultural context and challenging themselves to do things outside of that zone led students to learn about aspects of themselves that previously were unknown to them. As stated by Participant 3, *“I don’t know if it is directly applicable to the course, but I have made the decision to be more spontaneous going forward...people tend to stick with what activities they become proficient in. This means that being a creature of habit keeps people from seeking out novel experiences. But novel experiences are the only way for individuals to grow and develop over time.”*

Regarding the theme of “rethinking their future selves,” students' narratives fell into three categories: changes at a personal level, changes to their professional selves, and self-care. For example, at a professional level, these future selves include a more empathetic approach to their future patients/clients and advocating for them: *“I think this course will be foundational to how I approach caring for patients in my future. My empathy has increased for those who need to seek care but worry about how to afford it.”* (Participant 5). *“My overall attitude towards health has changed to be more inclusive, as I plan to assist in making health more inclusive for all someday”* (Participant 4).

**Conclusions:** Participating in a study-abroad program can be a transformative learning experience for students. It invites them to reflect on prior assumptions and form new meanings that guide their actions, behaviors, and considerations for their future personal and professional selves. In addition to gains in intercultural competence, students can benefit from increased cultural humility. Finally, we argue that a study-abroad experience can contribute to educating “caring citizens” by developing students’ skills for interacting with diverse people and building their cultural understanding and empathy.

**Implications for research and practice:** The results of this study contribute to the literature on the benefits of intercultural exchanges by providing insights regarding the broader impact of study-abroad programs on students. This study also speaks to the importance of designing study-abroad experiences that not only align with students’ academic interests and professional goals but also incorporate engagement with the community hosting the study-abroad program. Thus, our findings can inform educators interested in developing innovative contextual curricula for future study-abroad programs.

## Discernment in a Disruptive Digital World: Generative AI as an Educational Ally

Lynn Brandon, University of North Texas

**Purpose.** Much like the printing press, the Industrial Revolution, electricity, and the Internet, Generative Artificial Intelligence (GenAI) is poised to disrupt many areas of our society, especially education. Each of the previous disruptors, when harnessed effectively, contributed significantly to the world in which we live. The purpose of this presentation is to explore how GenAI can be effectively employed in educational settings by drawing on one researcher's experiences over the past two years. Additionally, a pedagogical model developed by the researcher for incorporating GenAI into the learning process will be introduced.

**Rationale.** While GenAI offers immense potential for enhancing learning, it also presents significant challenges. Many educators restrict or prohibit the use of GenAI in courses, often with good reason depending on specific student learning outcomes. As the lead professor in Furnishings & Décor (F&D) merchandising—an extension of a core FCS discipline—the researcher is committed to preparing students for industries increasingly shaped by GenAI applications. The rapid evolution and pervasive nature of AI necessitates a balanced approach that leverages technology while preserving the core values of education and learning.

**Methodology.** Most often, the integration of new technologies into education presents unique pedagogical challenges. A series of video recordings focused on GenAI in education, from elementary through higher education, was analyzed to seek to comprehend the evolving academic landscape. This review provided a starting point and foundation for exploring the “Pandora’s Box” of expansive possibilities of GenAI in education and revealed several challenges including: (1) identifying and selecting appropriate GenAI applications from the vast array available, (2) determining if and how students could benefit from GenAI in assessments, and (3) incorporating “traditional” instructional methods to ensure that students continue to develop and apply their own human intelligence in learning activities in the wake of GenAI.

**Findings.** During the exploration of GenAI's potential in educational assessments, a chance conversation with a colleague provided a *pivotal* insight. The *barrier* to effective GenAI use depends on the individual's acquisition of institutional knowledge and their capacity to evaluate AI-generated outcomes critically, rather than accepting them without question. This is the *key* element and is crucial in preparing graduates for the new work frontier in the evolving professional landscape. Bloom's Taxonomy is the primary pedagogical framework for the Furnishings & Décor program. However, through the process of conceptualizing approaches for integrating GenAI into courses a new model emerged, from necessity, to better align with GenAI-enhanced pedagogy. The researcher developed the “Inspect What You Expect” (IWYE) Model. It emphasizes the importance of 1) Knowledge Acquisition: Developing a strong foundation in the subject matter, 2) Prompt Engineering: Crafting effective prompts to guide AI-generated content, and 3) Critical Evaluation: Assessing the quality, relevance, and potential biases of AI-generated outputs.

**Conclusions.** University-age individuals are uniquely situated at the tipping point of this tectonic technological shift. While they have ready access to GenAI, they often lack the institutional knowledge and discernment needed to critically evaluate its outputs.

**Implications.** As educators and industry professionals who *do* possess institutional knowledge, it is our responsibility foster the next generation empowering them with lifelong learning capabilities and discernment development and encouraging the continual growth of their human intelligence, regardless of the technological advancements.

### References.

- Commonwealth Club World Affairs. (2024, May 24). *Sal Khan | How AI Will Revolutionize Education* [Video]. YouTube <https://www.youtube.com/watch?v=pHvEQ2quhY>
- Fraleigh, A. (2023). *The Artificial Intelligence and Generative AI Bible: [5 in 1] The Most Updated and Complete Guide: From Understanding the Basics to Delving into GANs, NLP, Prompts, Deep Learning, Ethics of AI*. Motoro LTD



# The Evolving Landscape of AI: Impacts on People-Centered Sciences in FCS

Lynn Brandon, University of North Texas

**Purpose.** Is Artificial Intelligence (AI) taking over the world? It may seem so. However, AI is not new - it has been evolving for decades, often in ways not consciously realized. Leonardo da Vinci created a famous “automaton” in the 1490s and in 1921, a Czech playwright first used the term “robot,” meaning “worker”. Pivotal contributions made mid-20<sup>th</sup> century include Turing’s Test determining a machine’s “intelligence” and Weizenbaum’s ELIZA, simulating human to machine conversation. John McCarthy, an American computer scientist, coined the term “artificial intelligence” in 1955. In 2006, Google Translate launched, marking a significant milestone in everyday AI applications. These few examples highlight gradual development, but the rapid advancement of *Generative AI* (GenAI) has captured widespread attention within recent months. Its ability to “generate” content raises questions and poses challenges, particularly related to education, individual creativity, problem-solving, data security and more. However, time and technology march on and FCS professionals should determine best practices for AI in their respective areas, sooner rather than later.

**Rationale.** The researcher’s interest in AI, particularly its implications for higher education, began in early 2023 with minimal prior knowledge of its potential and perils. This ongoing exploration aims to understand more of AI’s transformative potential, including Generative AI applications. The primary goal was to examine AI’s broad impact on people-centered sciences, including apparel and interior design, retail and hospitality, health and nutrition, education, and personal and family finance. While this presentation cannot provide definitive answers, it seeks to foster meaningful discussions about the opportunities and challenges posed by Generative AI within FCS disciplines, both professionally and personally.

**Methodology.** Given the dynamic nature of AI, this research focused on its current relevance during the years of 2023–2024. This exploratory and introductory study analyzed 10 video recordings from selected AI conferences (e.g., MIT, Berkeley, and ASU) and 10 peer-reviewed academic journal articles. These sources were systematically reviewed to identify key themes. Content analysis tools, NVivo and ChatGPT-4o, extracted insights and themes revealing diverse perspectives on the benefits and challenges of AI and Generative AI in education and beyond.

**Findings.** Not surprisingly, the analysis identified broad themes both advocating for and against AI adoption and implementation. Positive themes included enhanced personalization in education, efficiency and automation in routine tasks and analytics, expanded accessibility for language translation and support, innovative teaching and learning via immersive simulations, facilitating lifelong learning, skill development for future workforces and more. Categories of concern included challenges to academic integrity, exacerbating digital divides, potential to dehumanize education, reliability and trust issues, undermining traditional pedagogies, threats to educator roles, privacy and data security risks and more.

**Conclusions.** Where do we go from here? While AI offers tremendous potential, its adoption brings consequential challenges that demand careful attention, evaluation, and application.

**Implications.** A balanced approach is necessary to determine the ethical, practical, and sustainable uses of AI. The future of AI in FCS disciplines will depend on our ability to navigate these complexities thoughtfully and collaboratively.

## References.

- MIT. (2023, December 18). *Generative AI + Education: Will Generative AI Transform Learning and Education* [Video]. YouTube <https://www.youtube.com/watch?v=yUlt7nLNNKE&t=3s>
- Crompton, H., & Burke, D. (2023). Artificial intelligence in higher education: the state of the field. *International Journal of Educational Technology in Higher Education*, 20(22), 2-23. <https://doi.org/10.1186/s41239-023-00392-8>

## Experiences of Community Educators Facilitating a Fatherhood Program

Caleb Price\*, Jordan Shuler, Ryan Snyder, Matt Brosi (Oklahoma State University)

**Purpose:** This work aims to explore the experiences of community educators who facilitate a fatherhood education program through cooperative extension. This includes an exploration into the educators' motivations for taking on their role, strategies for recruitment and retention, approaches to managing class dynamics, and the program's impact on participants.

**Rationale:** Historically, fathers were overlooked in parenting education programs and related research (Panter-Brick et al., 2014). However, broader recognition of the importance of father involvement has led to an increase in funding for father-focused programming (Perry, 2011). An expanding body of literature suggests that these interventions can promote positive outcomes, including enhanced psychological wellbeing, improved communication skills, and stronger father-child relationships (Henry et al., 2020; Holmes et al., 2020). Facilitators are vital to the success of these programs. While some research has considered facilitator characteristics, particularly the role of gender (Frank et al., 2015; James et al., 2020; Siccouri et al., 2018), there is a paucity of research which considers the experiences of the educators themselves (Cederbaum et al., 2024). Leveraging the expertise of community educators provides an additional and unique perspective on fatherhood programming processes and outcomes, including insights into their own experiences.

**Methodology:** Strong Dads is a free program which utilizes the nationally recognized and evidenced-based curriculum, *24:7 Dad*, and is offered in nine counties, in both English and Spanish, through Oklahoma State University Extension. Educators are tasked with recruiting participants (i.e., fathers), leading weekly two-hour workshops for 12 weeks, and acting as coaches/case managers to help participants access resources, achieve their goals, and enhance their fathering skills. Qualitative interviews, each lasting approximately 30 to 60 minutes, were conducted with nine Strong Dads facilitators (four English-only, five bilingual). To recruit interviewees, information about the study was presented to Strong Dads facilitators by members of the research team, and any who were interested were invited to participate. Three trained researchers conducted semi-structured interviews via Zoom. Interview topics included their motivations for working in this role, recruiting and retention, facilitating classes, educators' challenges and successes, and the impact of the program on participants.

Using thematic analysis (Braun & Clarke, 2012) as a guiding framework, members of the research team conducted an initial investigation by reflecting on key themes which arose in the interview data. Next, researchers collaborated to discuss these key themes and sub-themes as a foundation for an expanded coding scheme.

**Findings:** Several key themes emerged. Facilitators reported applying for the job because of a relevant personal interest or passion. Specifically, almost all facilitators mentioned a desire to improve children's wellbeing, and believed that engaging fathers would be an efficacious means to obtain that objective. One Latina educator described her interest stemming from her wish to promote a cultural shift in her community toward more father-child interaction. Educators also emphasized the importance of building relationships with community partners for successful

participant recruitment. These partnerships were described as especially important because of men's hesitancy to join the program without a referral from a trusted source. Indeed, encouragement from others (romantic partners, employers, friends, etc.) was a commonly explained impetus for fathers deciding to enroll. Meanwhile, frequently identified barriers to enrollment were the time commitments, which were perceived as lengthy, and conflicting work schedules. Facilitators repeatedly highlighted that a successful cohort was characterized by fathers building camaraderie and connection through "opening up" to one another. Educators described the vital role they played in this process by promoting dialogue and being vulnerable themselves through sharing personal stories. Despite the available incentives for participants (free meals, gas cards, gift cards for completing surveys), facilitators reported that they believe nearly all the fathers are intrinsically motivated to better themselves, particularly for the sake of their children. Facilitators shared that they believe the program has a positive impact on every participant to some extent, recounting that they hear from both fathers and their significant others how they have improved their communication, have increased empathy, and are more involved with their children. Facilitators reported that the job was rewarding, and they enjoyed witnessing fathers make changes in their lives to reach their goals. However, a final theme that emerged was the pragmatic struggles associated with the position such as paperwork, budgets, and trying to meet quotas required by the program's funding contract — elements of the job that sometimes feel disconnected from their loftier goals of strengthening fathers and families.

**Conclusions:** Facilitators of fatherhood programs are often an underutilized resource for program development. Thematic analysis of interviews conducted with Strong Dads facilitators revealed important insights related to participant recruitment and retention, class dynamics, the impact of the program, and insights into educators' experiences, including their practical, everyday struggles.

**Implications for research and/or practice:** Additional research should continue to explore both facilitator insights and the characteristics of facilitators that contribute to positive processes and outcomes. Such work could guide successful program implementation by informing the development of effective job descriptions, hiring candidates likely to excel, identifying areas for administrative improvement, and illuminating ways to better support and train educators.

## Navigating Roles: Fathers' Experiences with Attending a Cooperative Extension Fatherhood Program

\*Caleb Price, M.S.; Jordan Shuler, M.S.; Matt Brosi, Ph.D.; Oklahoma State University

**Purpose:** The purpose of this study was to explore the experiences of fathers participating in a community fatherhood education program and how they view their roles as fathers.

**Rationale:** Decades of research have highlighted the impact that fathers can have in their children's lives. Father involvement promotes a host of positive outcomes such as psychological wellbeing, healthy peer relationships, and academic achievement (Ford et al., 2023; Rohner & Veneziano, 2001; Wilcox, 2014), while also protecting against deleterious outcomes such as substance abuse, teen pregnancy, poverty, and delinquent behaviors (Chetty et al., 2020; Kofler-Westergren et al., 2010; McLanahan et al., 2013). In addition to benefits for their children, involved fathers tend to have greater economic stability, better mental and physical health, and a greater sense of purpose (Kotila & Dush, 2013). Despite the evidence indicating the importance of father involvement, many fathers lack confidence or do not see themselves as valuable (National Fatherhood Initiative, 2006), and approximately one-quarter of children in the United States live without a father in the home (U.S. Census Bureau, 2023). Mounting evidence suggests that fatherhood-focused intervention/education programs can help to ameliorate these issues. Such programs have been shown to contribute to increases in father involvement, cooperation with co-parents, and enhanced father-child relationships (Henry et al., 2020; Holmes et al., 2020). Although an expanding literature points to positive outcomes related to fatherhood programming, comparatively few studies have qualitatively explored the individual perceptions of program participants (Henry et al., 2020). Qualitative interviews allow for a more in-depth analysis of how participants experience their role as a father and interface with community programming.

**Methodology:** Qualitative interviews, each lasting approximately 30-60 minutes, were conducted with graduates of a fatherhood education program, Strong Dads. Strong Dads is a free program which utilizes the nationally recognized and evidenced-based curriculum, *24:7 Dad*, and is offered in nine counties through Oklahoma State University Extension. Participants attend weekly two-hour workshops for 12 weeks which include discussion on topics such as parenting styles, employment, communication, and conflict management. In addition to facilitating workshops, community educators act as case managers by helping participants access resources, achieve their goals, and enhance their fathering skills. To recruit interviewees, information about the study opportunity was shared with current and former Strong Dads participants by community educators and the research team through personal contact and electronic means. Four trained researchers conducted semi-structured interviews via Zoom. Interview topics included their experiences and beliefs concerning fatherhood, how they were introduced to the Strong Dads program, why they decided to join, their experiences interfacing with the program and other participants, the impact of the program on their lives, and their evaluation of the program. To analyze interview data, researchers employed thematic analysis procedures adapted from Braun and Clarke (2012) to generate, refine, and elaborate on themes that arose from participant responses. In an initial analysis, two researchers independently reviewed a subset of transcripts and generated their own schemes for coding themes. Next, these researchers collaborated to discuss the themes they observed arising from the data to identify key themes, sub-themes, and create a unified narrative.

**Findings:** Several key themes were identified in the initial analysis process. First, participants described navigating uncertain and evolving fatherhood roles in contemporary society. Many expressed a desire to parent differently than previous generations, particularly those who referenced strained relationships with their own fathers. While reiterating the importance of traditional roles such as financial provider, they emphasized the need to be more emotionally and physically present for their children than their fathers had been. This balancing act was touted by fathers as an important challenge to the societal status quo. This theme was also manifest in fathers noting that they benefitted from content about discipline, particularly discussions on how to maintain firm rules with children without being too harsh. Another key theme was group dynamics and camaraderie. Fathers enjoyed the process of sharing and connecting with other fathers. Other fathers often served as a reference point, including to validate and reassure them that they were "on the right path," and they weren't alone in what they were thinking, doing, and experiencing. Many participants enjoyed engaging with fathers from diverse backgrounds, taking on mentoring roles or being mentored by more experienced fathers in the group. For several participants, these friendships continued after their cohort completed the program. Overall, fathers had positive evaluations of the program and highlighted the importance of making similar programs available in communities.

**Conclusions:** The importance of father involvement has been made clear in the research literature. However, many fathers lack confidence in navigating their roles in an evolving society. Fatherhood programs can provide fathers with a supportive community, reassurance, and enhanced confidence in managing these roles.

**Implications for research and/or practice:** As many fathers experience uncertainty in navigating their roles, these findings underscore the value of making fatherhood programs available in diverse communities. While many programs focus on specific populations such as non-resident and/or low-income fathers, these results also shed light on the potential benefits of including experienced, well-established fathers who can serve as mentors. Themes demonstrating the significance of group dynamics highlight the need for program facilitators to foster interactions, create a comfortable space for vulnerability, and leverage opportunities to strengthen connections between fathers (e.g., alumni groups).

## From Concept to Classroom: Creating an Animation-Based Flat Pattern Teaching Tool

Geetika Jaiswal, PhD, Morgan State University;

\*Elizabeth Newcomb Hopfer, PhD, Devona L. Dixon, PhD, Devang Mehta, DIT, North Carolina Agricultural and Technical State University

**Purpose and Rationale:** Student engagement in technical apparel design courses has shifted significantly in the 21st century due to technological and societal changes. Traditional methods, such as textbooks, studio instruction, and lectures, once effective for past generations, often fail to meet the needs of today's Gen Z learners, who are tech-savvy, visual, and prefer immediate results (Ashdown, 2013; Prensky, 2010; Weidmer, 2015). While educators have incorporated materials like demonstrations, graphics, and videos to enhance instruction, issues such as poor visibility, sound, and lighting frequently disrupt learning (Boorady & Hawley, 2008; Brandewei & Kim, 2019). Wianna et al. (2018) suggested these challenges could be addressed through engaging multimedia tools that integrate text, audio, video, and images. Animation-based teaching tools, widely used in fields like nursing, engineering, and architecture, have proven beneficial by offering user-paced learning, enhanced task visualization, and increased engagement (Hall, 1996; Wiana, 2017). Similarly, it is anticipated that patternmaking steps can be accurately mimicked through simulated dart movements and 3D visualization of patterns on dress forms, effectively addressing the limitations of traditional methods. This project aims to develop animation-based flat pattern making teaching tools that will be used to support instructional delivery while accommodating the evolving needs of Gen Z students.

**Methodology:** Flat pattern animation modules were developed in following stages:

*Exploration of user-defined requirements for development of flat patternmaking animation modules:* Student and faculty interviews were conducted at four HBCU's to thematically analyze current teaching and learning practices used in flat pattern design. .

*Identify flat patternmaking techniques for developing animation teaching modules:* A total of five animation modules demonstrating three principles of patternmaking: (1) dart manipulation, (2) added fullness, and (3) contouring, were developed. Both the pivotal transfer and the slash-spread methods were demonstrated under each principle. Specific pattern manipulations were sourced from Joseph-Armstrong (2010).

*Development of animation module prototypes for selected patternmaking techniques:* Animations were created using Autodesk's 3ds Max software. PowerPoint decks were prepared to demonstrate patternmaking steps for each module. Audio scripts were written to describe the steps for each principle. Scripts were professionally recorded in an on-campus recording studio. In total, five slide decks, audio scripts, and corresponding voice recordings were developed for each principle. All materials were provided to the graphic designer, who compiled them to produce the final animations.

*Pilot testing of developed animation modules:* Pilot testing was conducted to evaluate the animation modules across parameters including visual appeal, quality of voice recording, animation organization, pacing, and the extent to which the animations were beneficial, technically accurate, an asset to the learning process, and an aid in the enjoyment of learning flat

pattern design. A survey questionnaire, including both structured and open-ended questions, was used to gather feedback from animation experts, fashion industry professionals, educators, and students. A total of 10 responses were collected and analyzed.

*Module modification and development:* This was an iterative process where the pilot user testing results guided initial module development, fashion and animation experts feedback were used to refine and finalize modules.

**Findings:** Students and professionals who participated in the pilot testing provided largely positive feedback on the parameters evaluated. One professional shared the following comment about visual appeal, which was on theme with other pilot reviewers: *“Clean lines and basic shapes, as featured in the animation graphics are key elements that enhance the visual appeal. By keeping the animation graphics simple, you have allowed the focus to remain entirely on the pattern making process, minimizing distractions.”* Reviewers also praised audio quality, indicating that *“...voice was very clear and easy to understand...”* Organization of the content received further feedback such as *“Overall, I would rate the organization of the video content 10/10. From start to finish the instructions were clearly presented both verbally and visually...”* and *“Great! It was logical and easy to follow.”* Reviewers expressed excitement and interest in subscribing to a full series of animation modules. Constructive feedback centered on adding high contrast colors and labels during animations to aid in viewing clarity, improving zoom-in/out options, and facilitating rewind and fast-forward options. In addition, reviewers requested more imagery in the module introductions, to reduce the time for title slide viewing and to demonstrate flat pattern design in the industry context. Comments reflective of this feedback include: *“I would add more imagery during the first two minutes of the video,”* and *“...only to update the pen color to something noticeably different...”* All comments were reviewed by the research team and summarized to the animator. Recommendations included more imagery, more color contrast in lines, labels, and chapter breaks for easy navigation through the animation. The following animation modules were successfully developed via the project’s methodology: (1) Mid-Neck/Waist Darts, Slash-Spread, (2) Mid-Armhole Dart, Pivot, (3&4) Converting Darts to Shoulder Gathers, Slash-Spread and Pivot, and (5) Princess Seaming, Slash-Spread. Animation videos were uploaded to YouTube to aid in sharing and distribution. The development process demonstrated success in rendering and animating full dart manipulation, fullness, and contouring steps, in full color, using both slash & spread and pivot methods.

**Conclusions and Implications for Research and/or Practice:** The developed animations have significant implications for improving the teaching and learning of flat pattern design. Animations are currently being tested at partner HBCU institutions to collect more expansive student and faculty feedback, which will be shared during this conference presentation if accepted. Based on the feedback within course implementations, the research team will move forward to edit existing modules and to pursue the development of new modules, possibly in partnership with textbook and resource publishers.



## References

- Ashdown, S. P. (2013). Not craft, not couture, not 'home sewing': Teaching creative patternmaking to the iPod generation. *International Journal of Fashion Design, Technology and Education*, 6(2), 112-120.
- Brandewie, B., & Kim, I. (2019, December). Re-designing Fashion Design Curricula for a New Generation of Learners. In *International Textile and Apparel Association Annual Conference Proceedings*, 76 (1). Iowa State University Digital Press.
- Boorady, L. M., & Hawley, J. M. (2008). The wonders of technology: Teaching becomes virtual. *Clothing and Textiles Research Journal*, 26(2), 131-142.
- Hall, D. W. (1996). Computer-based animations in large-enrollment lectures: Visual reinforcement of biological concepts. *Journal of College Science Teaching*, 25(6), 421-25.
- Joseph-Armstrong, H. (2010). *Pattern making for fashion design* (5th edition). Upper Saddle River, NJ: Prentice Hall
- Prensky, M. R. (2010). *Teaching digital natives: Partnering for real learning*. Corwin press.
- Wiana, W., Barliana, M. S., & Riyanto, A. A. (2018). The Effectiveness of Using Interactive Multimedia Based on Motion Graphic in Concept Mastering Enhancement and Fashion Designing Skill in Digital Format. *International Journal of Emerging Technologies in Learning*, 13(2).
- Wiana, W. (2017). Application Design of Interactive Multimedia Development Based Motion Graphic on Making Fashion Design Learning in Digital Format. *International Journal of Scientific & Technology Research*, 6(5), 102-108.
- Wiedmer, T. (2015). Generations do differ: Best practices in leading traditionalists, boomers, and generations X, Y, and Z. *Delta Kappa Gamma Bulletin*, 82(1), 51-58.

# Integrating Ethical Education in Fashion Curricula: Preparing Students for Generative AI Challenges and Opportunities

Leslie Browning-Samoni\*, (Texas Christian University) and Rachel J. Eike, (Iowa State University)

**Purpose:** This study examines the integration of Generative Artificial Intelligence (GAI) into fashion education, with a focus on how ethical considerations shape students' perceptions of GAI's role in their future careers. GAI technologies, such as text-based and image-based generative tools, are revolutionizing the fashion industry, creating both opportunities and ethical challenges. This research evaluates the effectiveness of an ethics-focused educational intervention in influencing students' views and identifying key ethical concerns related to GAI.

**Rationale:** The fashion industry has a history of adopting technological innovations, from automation in garment production to computer-aided design software. GAI, which autonomously generates creative outputs, represents a new frontier, bringing ethical challenges such as authorship, originality, labor displacement, and algorithm bias. For educators, this introduces the dual challenge of preparing students for an AI-driven industry while equipping them with critical thinking skills to address associated ethical dilemmas. Recent literature underscores the importance of integrating ethics into technology education. Studies by Floridi et al. (2018) and Mittelstadt et al. (2019) emphasize that ethical interventions can enhance critical engagement with emerging technologies. In related fields like media and design, incorporating ethical discourse has been shown to improve students' readiness to tackle real-world challenges (McNamara et al., 2021). This study extends these findings to the intersection of GAI and fashion education.

**Methodology:** This study employs a mixed-methods approach to examine the impact of an ethics-focused intervention on students' perceptions of GAI. By combining qualitative and quantitative methods, the research provides a comprehensive understanding of the phenomenon. Mixed-methods research is particularly useful for addressing complex social issues, as it enables triangulation of findings to improve validity (Creswell & Plano Clark, 2018).

The research was conducted in two phases:

1. **Pre-Intervention Data Collection:** Surveys assessed students' baseline familiarity with GAI, perceived benefits and risks, and ethical concerns.
2. **Intervention Implementation:** Students participated in a workshop on the ethical implications of GAI in fashion, featuring case studies, discussions, and hands-on activities with GAI tools.
3. **Post-Intervention Data Collection:** Follow-up surveys and student reflections measured changes in perceptions, with attention to shifts in ethical awareness and critical thinking.

Quantitative survey data were analyzed using descriptive and inferential statistics to identify trends and significant changes in perceptions. Qualitative focus group data were examined using thematic analysis (Braun & Clarke, 2006), with iterative coding to highlight themes such as algorithmic bias, copyright and ownership issues, and future ethical concerns.

**Findings:** The study highlights the importance of ethical education in preparing students for GAI integration in the fashion industry. Key findings include:

- **Increased Ethical Awareness:** Students exhibited greater awareness of ethical dilemmas, such as algorithmic bias, authorship disputes, and the societal implications of automating creative processes. These findings align with studies in technology ethics education (Brey, 2012; Stahl et al., 2017).

- **Nuanced Perceptions of GAI:** Post-intervention, students acknowledged both the benefits and challenges of GAI. While some saw its potential to democratize access to creative tools, others expressed concerns about biased outputs, copyright infringement, and devaluation of human creativity.
- **Role of Contextual Learning:** Hands-on activities with GAI tools, paired with case studies, effectively enabled students to contextualize ethical issues. This finding aligns with Kolb's (1984) experiential learning theory, emphasizing active experimentation and reflection.

Based on these findings, a framework is proposed to integrate ethical education into GAI-related curricula in fashion education. This framework includes:

1. **Hybrid Learning Modules:** Combine theoretical ethical frameworks with practical applications of GAI tools in fashion design. Ethics-in-action workshops and case studies (e.g., AI-authored design controversies) would help students explore real-world implications (Stahl et al., 2017).
2. **Iterative Ethical Reflection:** Embed reflection exercises before, during, and after interactions with GAI tools. Pre-use reflections allow students to articulate ethical concerns, while post-use sessions encourage critical evaluation of their experiences (Kolb, 1984).
3. **Interdisciplinary Collaboration:** Foster collaboration with experts in AI, ethics, and fashion design. Guest lectures, joint projects, and mentorship opportunities would bridge theoretical knowledge and practical expertise (Floridi et al., 2018; Mittelstadt et al., 2016).
4. **Ethical Decision-Making Frameworks:** Introduce established ethical decision-making models, such as Rest's Four-Component Model (1986) or the Responsible Innovation Framework (Maynard & Stilgoe, 2017), to guide students in analyzing and addressing ethical dilemmas.
5. **AI Ethics Lab:** Create a controlled environment where students experiment with GAI tools and address ethical challenges. Activities might include scenario-based learning and collaborative development of ethical guidelines for GAI use in fashion.

**Conclusion:** This study underscores the importance of ethical education in preparing fashion students for the challenges and opportunities posed by GAI. By integrating experiential learning, interdisciplinary collaboration, and ethical reflection, the proposed framework equips students with the skills needed to navigate an AI-driven industry responsibly. Future studies could investigate:

- **Long-Term Impact:** Examining how ethical education influences students' professional practices over time (McNamara et al., 2021); and
- **Interdisciplinary Comparisons:** Evaluating the framework's effectiveness in other creative industries, such as media or graphic design.

For educators and industry professionals, this framework provides actionable strategies for fostering ethical engagement with GAI in fashion education:

1. **Curriculum Development:** Design interdisciplinary courses that integrate technical skill development with ethical reasoning;
2. **Industry Collaboration:** Partner with AI developers and ethicists to expose students to the latest tools and debates; and
3. **Policy Formulation:** Use insights from this framework to shape policies on responsible GAI use in creative industries.

## References

- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Brey, P. A. (2012). Anticipatory ethics for emerging technologies. *NanoEthics*, 6(1), 1–13. <https://doi.org/10.1007/s11569-012-0141-7>
- Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and conducting mixed methods research* (3rd ed.). Sage Publications.
- Floridi, L., Cowls, J., Beltrametti, M., Chatila, R., Chazerand, P., Dignum, V., ... & Vayena, E. (2018). AI4People—an ethical framework for a good AI society: Opportunities, risks, principles, and recommendations. *Minds and Machines*, 28(4), 689–707. <https://doi.org/10.1007/s11023-018-9482-5>
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice Hall.
- Mittelstadt, B. D., Allo, P., Taddeo, M., Wachter, S., & Floridi, L. (2016). The ethics of algorithms: Mapping the debate. *Big Data & Society*, 3(2), 1–21. <https://doi.org/10.1177/2053951716679679>
- Rest, J. R. (1986). *Moral development: Advances in research and theory*. Praeger.
- Stahl, B. C., Timmermans, J., & Flick, C. (2017). Ethics of emerging information and communication technologies: On implementing responsible research and innovation. *Science and Public Policy*, 44(3), 369–381. <https://doi.org/10.1093/scipol/scw069>
- Stilgoe, J., Owen, R., & Macnaghten, P. (2013). Developing a framework for responsible innovation. *Research Policy*, 42(9), 1568–1580. <https://doi.org/10.1016/j.respol.2013.05.008>
- van den Hoven, J., Vermaas, P. E., & van de Poel, I. (2015). *Design for values: An introduction*. Springer. <https://doi.org/10.1007/978-94-017-9297-1>

## **Linking History to the Classroom: FACS Fashion Journey Boxes for Middle School Education**

Laura McAndrews\* (Kent State University), Beth Weigle, Katherine Stein, Mazie Bowen, and Jan Hebbard (University of Georgia)

Family and Consumer Sciences (FACS) is a diverse discipline that focuses on skills to serve both families' and communities' needs and wants. The history of FACS is rooted in a democratization of education, as with the passing of the Morrill Land Grant Act in 1863, it established educational pursuits for the working class. Specifically, home economics, now referred to as fashion education, was a pathway for women to enter the public sector and refinement of the private sector (Shore, 2012; Parker, 2015). In the state of Georgia for middle school education (6-8th grade), the FACS program concentration of Interior Design and Textile Science introduces students to textiles and the various commercial and industrial uses which include fashion apparel products (Georgia Standards, 2023). There are 11 learning requirements, called academic standards for the FACS fashion studies concentration. Educators are always searching for innovative strategies to teach this hyper-dynamic content (Ha-Brookshire & Dyer, 2008; McAndrews & Ha-Brookshire, 2013).

The opportunity to teach and learn with historic clothing and textile objects encourages students to think differently about fashion and textiles; allowing students to touch and handle cloth and clothing situates fashion as an embodied practice. (Entwistle, 2000; Palmer, 2008). From this experience, students are better able to understand the physical experience of wearing the garments shown in artwork and photography, which are the typical ways in which design inspiration is found and communicated (Banning & Gam, 2013). Though the benefits of object-based learning are well recognized, in the wake of COVID-19 pandemic, university collections have emphasized the need to move towards digitizing collections to improve educational value (Pokkulandgara, 2020). Fashion historian Valerie Steele (1998) believes that it is important not to ignore the role that working with physical historic objects can play in the creation of knowledge, providing "unique insights into the historic and aesthetic development of fashion" (p. 327). Though fashion educators push for hands-on experiences that entice the senses, the use of historic clothing and textile collections can be a challenge or even limiting.

The purpose of this project is to connect Georgia FACS fashion education with historic objects for in-class educational exploration in fashion studies. To accomplish this goal, we created FACS Fashion Journey Boxes. Educational journey boxes have been used to eliminate barriers in education where access, resources, and expertise may be limited (Roy, Petty, and Durgin, 1997). Well-designed traveling boxes can be an invaluable resource for teachers who wish to provide students with the in-depth exposure to fashion issues that are critical in FACS.

To ensure the FACS Fashion Journey Boxes aligned with Georgia academic standards and learning goals, qualitative interviews were employed. First, the research team met with the seven middle school FACS educators in the Spring 2024 semester. Through these in-depth interviews, the research team identified the following (a) strengths and challenges in the fashion studies area; (b) best two learning units to target for the journey box creation; (c) needs and wants of FACS

educators. From this initial data collection, the research team analyzed the data through coding schemes and categories (Atkinson, Coffey, & Delamont, 2003), then worked with a southeast land-grant university's Special Collection Libraries (SCL) in sourcing and purchasing historic objects and developing curricula and teaching aids for the creation of the journey boxes. The FACS Fashion Journey Boxes would be available as a borrowable, no-cost education resource within a surrounding counties' school district area.

The findings from the data revealed the topics of the two journey boxes (a) fashion design and (b) textiles. Each journey box included modules to further dive into each of the topics to satisfy the state learning standard. Each module follows a general case-student format allowing teachers to have flexibility, control and opportunities for varied learning formats which includes learning materials/tools, student activity utilizing the learning materials/tools, introductory presentation, and other materials as needed. The fashion design journey box includes four learning modules (1) historic clothing playing deck of cards, (2) fashion illustration kit, (3) sewing kit, and (4) recreated 1903 Montgomery Ward catalog. The textiles journey box included four learning modules (1) textile and print/pattern swatch kit, (2) textile care and laundering, (3) textile supply chain then and now, and (4) sustainability with second hand clothing market. Each module engages students with historic textile and fashion objects along with learning skills and knowledge to prepare and entice students to potentially seek a career in the fashion industry.

The findings of this project have several implications and applications to any discipline. First, the findings give FACS educators a curriculum to apply in their classrooms that were developed from middle school educators feedback in collaboration with fashion merchandising higher education professors and special collection librarians. Second, this project format can be followed and applied to any FACS subject utilizing historic objects to deliver impact educational resources to public education. Finally, the journey boxes utilized several gamification strategies to help make learning fun and memorable. Further quantitative testing of the journey boxes' impact will be employed in future research, which will help in making this project more generalizable.

## References:

- Banning, J., & Gam, H. J. (2013). Redesigning a fashion history course through team-based learning. *Clothing and Textiles Research Journal*, 31(3), 182–194.
- Entwistle, J. 2000. *The fashioned body: Fashion, dress and modern society*. Cambridge: Polity.
- Ha-Brookshire, J. & Dyer, B. (2009) The impact of firm capabilities and competitive advantages on import intermediary performance. *Journal of Global Marketing*, 22(1), 5-19.
- Palmer, A. (2008). Untouchable: Creating desire and knowledge in museum costume and textile exhibitions. *Fashion Theory*, 12(1), 31-63. DOI: 10.2752/175174108X268136
- Parker, P. (2015). The historical role of women in higher education. *Administrative Issues Journal*, 5(1), 3.
- Shore, D. (2012, August 26). From the Morrill Act research; from research, prosperity. *CALS News: North Carolina University*. <https://cals.ncsu.edu/news/from-the-morrill-act-research-from-research-prosperity/>. Accessed November 11, 2022
- Steele, V. (1998). A museum of fashion is more than a clothes-bag. *Fashion Theory* 2(4), 327-335.

# **MY CHILD WON'T STOP EATING CANDY AND DRINKING SODAS - WHO BUYS THEM? : MITIGATING CHILDHOOD OBESITY RISKS THROUGH PARENT LIFESTYLE AND HOME ENVIRONMENT**

M. Williams- Wheeler<sup>1\*</sup>; E.F.Acquah<sup>1</sup>; P. B. Adjibade<sup>2</sup>; C.C. Okoye<sup>1</sup>

1. Department of Family and Consumer Sciences, College of Agriculture and Environmental Sciences, North Carolina A&T State University

2. Department of Kinesiology, College of Health and Human Sciences, North Carolina A&T State University

**Purpose and Rationale:** Childhood obesity is a global public health challenge of the 21<sup>st</sup> century that is characterized by a body mass index (BMI) at or above the 95<sup>th</sup> percentile for the child's gender and age (Afrin et al., 2021; Miller et al., 2004). The United States Centers for Disease Control and Prevention states that 1 out of every 5 American children is obese. Roughly 24.8 % of children classified as obese in the United States (US) are children of color (Maalouf-Manasseh et al., 2011). A child's risk of becoming obese during childhood can be due to genetic or non-genetic factors. Family environment, food parenting styles, home environment, parental lifestyle and social environment can also influence a child's risk of becoming obese (Ningning & Wenguan, 2023). Children's dietary pattern and behavior is significantly influenced by their home environment, family food culture and food parenting styles (Haines et al., 2019). Children less than the age of 13 usually have meals provided primarily by the parents; hence parents largely influence what consumption of children. Children also learn from their environments, including the home food environment largely influenced by the formation of dietary behaviors and patterns (Mahmood et al., 2021). This study sought to modify parental lifestyle and the home environment as an approach to mitigating childhood obesity.

**Methodology:** This 12-week cross-sectional study employed a mixed method approach. Study participants were North Carolina parent-child dyads who were selected using a purposive sampling technique with snowball effect. Preliminary data was collected using open- and closed-end questionnaires to assess the home environment and food parenting styles of the selected families. Anthropometric measurements (weight, height, waist circumference and BMI) were taken at baseline. Baseline assessments and measurements were done to help assess the effectiveness of the intervention at the end of the study. Using the *Family Connections* workbook, participating families were taken through nutrition education session, engaged in physical activities and guided to make modifications as a family, over a 10-week period. A post-intervention assessment and anthropometric measurements was conducted to assess the effectiveness of the intervention. Qualitative data was transcribed and analyzed using content and thematic analysis. A descriptive analysis was conducted for qualitative data using SPSS Statistical software Version 28. A bivariate correlation analysis was conducted to ascertain whether or not there was any relationship between the anthropometric measurements of the parents and their infants.

**Findings:** Baseline home environment assessment revealed parents frequently purchased their groceries in bulk. Parents reported grocery shopping of both healthy and unhealthy foods with more than two-thirds of the families reported ultra-processed foods as the easiest to access in their homes. Parents were seldom engaged in physical activities and if they did, they did not involve their children. Seventy-one percentage of the parents and 28.6% of the children were found to be obese at baseline. By the end of the study, parents in this study had adopted some lifestyle and home environment changes such as spending family mealtimes together and using my plate. This



aided in portion control and ensuring the consumption of a healthy plate while also providing children with fresh fruits and vegetables and making them easily accessible within the home, and engaging in physical activities together as a family. These modifications created a shared environment for parents and their children and were evident in the post-intervention correlation analysis. A stronger positive correlation ( $r = 0.749$ ) between the endpoint weights of the parents and children was identified. The rates of obesity among the parents decreased to 57.1% while a plateau was noticed in the increase of obesity rates among the children.

**Conclusion and Implications:** Food parenting styles, dietary choices and behaviors of parents and physical activity are factors within the home environment that influence the health and wellness of the child. Unfortunately the majority of parents do not pay attention to how their dietary lifestyle and the home environment influence the dietary behavior and patterns of their children. The intervention was effective in creating an awareness on the influence of the home environment and parental lifestyle on the health and wellness of children. Parents were able to make informed decisions about modifying their lifestyle and home environment, which resulted in improving the obesity rates among these families.

## References

- Afrin, S., Mullens, A. B., Chakrabarty, S., Bhounik, L., & Biddle, S. J. H. (2021). Dietary habits, physical activity, and sedentary behaviour of children of employed mothers: A systematic review. *Preventive Medicine Reports*, 24, 101607. <https://doi.org/10.1016/j.pmedr.2021.101607>.
- Haines, J., Haycraft, E., Lytle, L., Nicklaus, S., Kok, F. J., Merdji, M., Fisberg, M., Moreno, L. A., Goulet, O., & Hughes, S. O. (2019). Nurturing Children's Healthy Eating: Position statement. *Appetite*, 137, 124–133. <https://doi.org/10.1016/j.appet.2019.02.007>.
- Maalouf-Manasseh, Z., Metallinos-Katsaras, E., & Dewey, K. G. (2011). Obesity in Preschool Children Is More Prevalent and Identified at a Younger Age When WHO Growth Charts Are Used Compared with CDC Charts. *The Journal of Nutrition*, 141(6), 1154–1158. <https://doi.org/10.3945/jn.111.138701>.
- Mahmood, L., Flores-Barrantes, P., Moreno, L. A., Manios, Y., & Gonzalez-Gil, E. M. (2021). The Influence of Parental Dietary Behaviors and Practices on Children's Eating Habits. *Nutrients*, 13(4), 1138. <https://doi.org/10.3390/nu13041138>
- Miller, J., Rosenbloom, A., & Silverstein, J. (2004). Childhood Obesity. *The Journal of Clinical Endocrinology & Metabolism*, 89(9), 4211–4218. <https://doi.org/10.1210/jc.2004-0284>
- Ningning, W., & Wenguang, C. (2023). Influence of family parenting style on the formation of eating behaviors and habits in preschool children: The mediating role of quality of life and nutritional knowledge. *PLOS ONE*, 18(7), e0288878. <https://doi.org/10.1371/journal.pone.0288878>

## ***SAYING YES TO FCS: THE FCS STUDENT LEADERSHIP CURRICULUM - INSIGHTS FROM COHORT 1***

M. Williams-Wheeler\*; P. Faulkner; G. Alston; E. Acquah (North Carolina A & T State University); E. Cross (Lexington Senior High School); L.Bruff; S. Carter (Davidson-Davie Community College); J.Telesford (T.A. Marryshow Community College)

### **Purpose and Rationale:**

Home Economics in the 20<sup>th</sup> Century, now known as Family and Consumer Science (FCS), is an interdisciplinary study focusing on the interactions between humans and their environment (Tyler-Mackey & DeBord, 2021; Werhan, 2013). The FCS discipline serves families, communities and individuals through career fields such as nutrition, child development, family studies, fashion, financial literacy, consumer sciences, etc. (Tyler-Mackey & DeBord, 2021). Student enrollment into FCS programs is experiencing a decline at national, state and local levels resulting in a major impact on the FCS workforce (Bowers & Myers, 2019). This alarming decline in student enrollment, retention and graduation from FCS programs calls for a collaborative initiative that will recruit, prepare and retain qualified professionals in the discipline (Bowers & Myers, 2019). With the aim of increasing student enrollment, retention and graduation in/from FCS programs and workforce, the FCS Student Leadership Pathway; an innovative and collaborative curriculum is designed to recruit, educate, mentor and retain students to pursue FCS careers by developing leadership skills. Utilizing a leadership capacity-building approach, through mentorship, education and training, the FCS Leadership Pathway attracts students to and retains them in FCS programs. This approach also provides an inter-institutional collaboration and partnership opportunity among minority serving institutions in limited resourced communities - North Carolina A&T State University (NCAT), Davidson-Davie Community College (DDCC) and T.A. Marryshow Community College (TAMCC) and Lexington Senior High School (LSHS).

### **Methodology:**

Twenty-two (22) students who met the study requirements were selected to participate as Leadership Scholars (LS) - NCAT-11/ DDCC-3; TAMCC-4; LSHS 4. The racial make-up of the cohort one was Black-17/White-4/Hispanic-1 and all were engaged in a comprehensive and interactive leadership training focusing on six key modules: *Communication Skills, Critical Thinking, Cultural Competence, Interpersonal Skills, Problem Solving Skills and Professionalism and Dress*. The curriculum was accessed via the Blackboard platform. LS were engaged in synchronous/ asynchronous leadership activities and team building activities and exercises in each module of the curriculum and weekly mentoring by project investigators. In addition, a weekly professional development series was held via Zoom, in which a panel of FCS leaders/professionals from various sectors shared their varied pathways and journeys in the field. NCAT LS were paired and served as mentors and program ambassadors to the other LS to support their academic journeys. All LS completed the Clifton Strengths Assessment to identify their strengths and maximize their potential leadership potential. At the end of the 10 weeks, all LS received digital badges/microcredentials to digitally display recognition and completion of the FCS Leadership Curriculum.

### **Findings and Conclusion:**

The leadership training and FCS career pathway mentorship provided through this initiative helped to prepare LS in becoming ambassadors of FCS. The initiative was effective providing leadership capacity to FCS students majoring in child development and family studies, food and nutritional sciences, fashion merchandising and design, and consumer sciences. Reflections from LS include:

*Being in the FCS leadership program can significantly contribute to my development as a future leader/professional in the field by providing mentorship and guidance, sharing their experiences and lessons learned from navigating the industry.*

*My three growth areas as an FCS Leader are public speaking, networking, and communicating. Before starting this program, I was not the best at communicating and networking unless I had to. Throughout the program, I learned to grow as a leader, including working on my communication and outreach.*

*I believe that with leadership I'm able to communicate better with people. This helps me because I'd be able to speak with people in an effective manner and ask for help very easily.*

Student reflections demonstrate personal growth including goal setting, adaptability and productivity. The program was also effective in retaining graduating LS into the FCS career workforce and or graduate studies. LS in the first cohort plan to serve as “train the trainers” for the next cohort of LS.

**Implications:** This project is designed to recruit and retain students into the FCS programming and to enhance the FCS career workforce with competent and well-diverse leaders. The scope of this multi-institutional project is designed to be replicated by other institutions, particularly 1890-land grant institutions to enhance the career pathways building leadership capacity among students within FCS-related disciplines.

### **References**

- Bowers, J., & Myers, L. A. (2019). A National Collaborative Approach to Recruit, Prepare, and Support Family and Consumer Sciences Educators. *Family and Consumer Sciences Research Journal*, 48(2), 131–137. <https://doi.org/10.1111/fcsr.12339>
- Tyler-Mackey, C., & DeBord, K. (2021). *Family and Consumer Sciences* (2nd ed.).
- Werhan, C. R. (2013). Family and Consumer Sciences Secondary School Programs: National Survey Shows Continued Demand for FCS Teachers. *Journal of Family & Consumer Sciences*, 105(4), 41–45. <https://doi.org/10.14307/JFCS105.4.10>

## Redefining Mentorship for the 21st Century: A Focus on Retail and Hospitality Students

Lisa Kennon,\* Lynn Brandon, Christy Crutsinger, & Kim Williams  
University of North Texas

**Purpose.** Nowhere is mentoring needed more than in the retail and hospitality industries as companies struggle with employee recruitment and retention. Approximately 20% of all US employees, or 31 million people, work in the retail and hospitality sector with over 49% indicating leaving retail in the next 3-6 months (Fuller et al., 2022). According to the McKinsey & Company report, lack of workplace flexibility and career development opportunities are the most common reasons US frontline retail employees are looking elsewhere for employment (Fuller et al., 2022). Specifically, retail employees cited concerns of inadequate career coaching, limited career growth opportunities, and little emphasis on knowledge development. Therefore, it is not surprising that many organizations are deploying mentoring initiatives in efforts to recruit and retain talented employees. Mentoring is a term that is often conceptualized differently depending upon the mentee, the mentor, and the specific context. This ‘definitional vagueness’ can impact research clarity, particularly regarding antecedents, outcomes, characteristics, and mediators of mentoring programs (Jacobi, 1991). Our exploratory study aims to develop an operational definition of mentoring that informs both institutions of higher education and retail and hospitality organizations as they develop relevant mentoring programs for the 21<sup>st</sup> century workforce.

**Rationale.** According to Kram (1983), mentoring relationships enhance both career and psychosocial development of the mentor and the mentee. Career mentoring functions, such as providing exposure and visibility, sponsoring, coaching, and protecting a mentee can provide direction for young employees. Conversely, psychosocial mentoring functions focus on relationships that foster acceptance, identity development, friendship and connection for the mentee. The question begs, are these functions relevant to today’s college students entering the workforce? What aspects of mentoring from Kram’s model are specific to retail and hospitality industries?

**Methodology.** The sample consisted of students enrolled in retail and hospitality programs at a large four-year public institution (n=744). Email invitations were sent to all students in the college asking them to participate in the study. Reminder emails were sent at one-week and two-week intervals. One hundred and seventy-nine surveys were completed yielding a 23.79% response rate. The sample was predominantly female (79.41%), employed either full or part time (78.38%), juniors or seniors (76.35%), and underrepresented (65%). Students responded to the prompt, “In a few phrases, words, or sentence, what does mentoring mean to you?” Data was analyzed using qualitative software, NVivo 15. Trained researchers checked for consistency using deductive coding based on Kram’s (1983) Mentoring Functions.

**Findings.** Student comments (n=157) were coded into two broad mentoring themes, Career and Psychosocial, and further categorized into seven secondary themes. Several comments provided rich and more detailed information allowing for split coding. Overwhelmingly, students defined mentoring within the context of *Career Functions*. There were 133 student comments coded

within this node. Comments related to *Coaching* were most frequently reported (n=80), followed by *Experience* (n=34), *Sponsorship* (n= 8), *Protection* (n=7), and *Exposure* (n= 4). The *Coaching* theme included comments such as “a mentor is someone to guide you and teach you,” and “helping me learn the best way to thrive in a given situation.” The *Experience* theme included comments such as “someone who has a knowledge of which would be valuable to you” and “someone who knows the ins and outs of a specific craft or subject.” *Sponsorship* included comments related to a direct benefit such as “advocating” and providing resources” to support career advancement. *Protection* included comments to help students navigate their careers by “taking them under their wing” and “preventing me from making the same mistakes.” *Exposure* included comments such as “connect you with the people you might need to know” and “someone who is able to show you things you don’t have access to in a regular network.” Surprisingly, only 40 student comments defined mentoring within the Psychosocial Function. Of most importance to students was identifying a mentor who was a *Role Model* (n=18), followed by *Connection* (n=22). The *Role Model* theme was supported by comments such as “someone that I want to resemble” and “someone who sets an example.” Comments related to *Connection* included comments such as “a designated person that has an interest in me and my career” and “someone I know that they will help me with my struggles.”

**Conclusions.** Based on the results of this exploratory study, retail and hospitality management students conceptualize mentoring with a career framework. This result is not surprising given that college students are intently preparing for their professional career through academic coursework, internships, and relevant work experiences. According to Kram (1983), the mentor/mentee relationship changes over time often beginning with developmental functions (e.g., coaching, teaching, sponsorship) and ending with psychosocial functions (e.g., friendships). Retail and hospitality companies would be well advised to develop mentoring programs that provide individual coaching and teaching to help young college students launch their professional careers. Conversely, academic programs must help students learn to set mentoring expectations, identify potential mentors, and foster meaningful relationships.

**Implications.** Our research highlights that a mentor is an experienced professional who serves as a role model, coach, teacher, sponsor, protector, connector, and counselor in support of another’s career growth. It’s no surprise that mentoring programs are difficult to operationalize when companies attempt to encapsulate the breath of responsibilities placed on mentors. To meet the growing demand, companies may be called upon to level up with innovative mentoring models which may include AI-assisted mentor/mentee matches, virtual off-site mentors, peer mentors, and special interest mentoring networks. Together, academic programs and industry leaders must commit to a culture of professional development to retain our best and brightest talent in the retail and hospitality sector.

- Fuller, D., Logan, B., Suarez, P., & Valkoa, A. (2022, August 17). How retailers can attract and retail frontline talent amid the Great Attrition. *McKinsey & Company*.
- Jacobi, M. (1991). Mentoring and undergraduate academic success: A literature review. *Review of Educational Research*, 61(4), 505-532.
- Kram, K., (1983). Phases of the mentor relationship. *Academy of Management Journal*, 26, 608-625.

## **The importance of FCS post-secondary education for teacher preparation: A review of the literature (2006-2023)**

\*Rachel Jumper, PhD, Stephen F. Austin State University; Billie Collier, PhD, Florida State University; Jane Opiri, PhD, CFCS and Karleah Harris, PhD, University of Arkansas Pine Bluff

**Purpose:** This review of literature examined articles on FCS educator preparation programs published in three family and consumer sciences (FCS) journals between the years of 2006-2023. The aim of the review was to better understand the types of research being conducted about FCS educator preparation programs. The researchers examined trends in the research, practice, and delivery of post-secondary programs for FCS teacher preparation. An analysis of the literature revealed two overarching themes that are explored in detail: the shortage of FCS teachers and the specialized curriculum of FCS educator programs. Focusing on these themes can help inform and concentrate efforts toward maintaining teacher education programs.

**Rationale:** Preparing Family and Consumer Sciences (FCS) secondary teachers has been a central element in the development of the FCS field. As FCS secondary education programs and courses have progressed over the years, emphasis has changed and the place of home economics and then family and consumer sciences in public schools has evolved (Duncan et al., 2017). Family and Consumer Sciences developed as a “women’s” field (Werhan, 2010), focused on the home and homemaking and then broadened to include many aspects of daily living and is now part of Career and Technical Education (CTE), narrowing to training for specific careers (Duncan et al., 2017). As the field has evolved and the names of programs at the secondary and post-secondary levels have changed, professionals have recognized the importance of branding it. However, despite recognizing its importance and the efforts at branding, the field has struggled with a teacher shortage and recruitment (e.g., Bowers & Myers, 2019; Duncan et al., 2017).

**Methodology:** To better understand the effectiveness of post-secondary FCS programs in recruiting and training teacher candidates, a systematic review of the literature published from the years 2006-2023 – the past 17 years of data - was conducted. The present review focused on articles from three journals: *Journal of Family and Consumer Sciences*, *Family and Consumer Sciences Research Journal*, and *Journal of Family and Consumer Sciences Education*. These three journals are each seminal to the overarching field of FCS, which was the focus of the present review. Researchers fully reviewed the journals identifying any articles related to post-secondary FCS teaching programs. Researchers worked in teams of two to review the journal articles. Each research pair was assigned to review articles in a specific journal, and then the journals were divided by years within the pair, with one researcher reviewing articles from 2006-2015 and another reviewing articles from 2016-2023. After reviewing their assigned years, the researchers met with their partner to discuss the articles. The pairs of researchers then reported back to the full group what themes they found in their research. As a full team, all the themes were reported by the journal and then were further analyzed by the research team for overarching themes among the three journals. Only themes that were seen in at least two of the three journals are reported in this study.

**Findings:** Two main overarching themes regarding post-secondary education programs emerged across the journals, which will be discussed in detail below. These themes were: the FCS teacher shortage and the importance of FCS specific curriculum which had several sub-themes (diversity and social responsibility specific to families, FCCLA, holistic knowledge of the field, up-to-date FCS information, and the importance of service learning/hands-on experiences). Overall, the results indicate that FCS educator preparation programs have creative approaches to recruiting and are developing and preparing FCS teachers to be well versed in the field of FCS through curriculum that is up to date on issues like diversity of family forms and ethics specific to FCS. Each of the themes will be discussed in detail in the presentation.

**Conclusions:** The present review of literature compiled evidence that FCS post-secondary programs are important because they use the FCS National Standards as a foundation and they teach future FCS professionals about the holistic nature of the field, allow students service-learning opportunities, keep students connected to professional organizations like AAFCS and FCCLA, and ensure they understand and value diversity and sustainability.

**Implications:** We recommend a variety of future research including studies to examine the numbers of FCS secondary teachers who became teachers via post-secondary educator preparation programs and those using alternative certification programs and the outcomes and knowledge of these educators. We especially think that examining educator knowledge of the BOK, AAFCS, and FCCLA is essential for continuing the FCS field. In addition, research is needed focusing on how AAFCS and state affiliates can help support post-secondary education programs with recruitment, accreditation standards, and other needs to validate the importance of these post-secondary education programs. Finally, it is important that researchers in the field continue to examine the causes of FCS teacher shortages and how to promote policy. Throughout the reviews, researchers found many articles that look at the teaching of FCS specializations rather than FCS educator preparation as a whole. While the researchers for this project found research being done on FCS teaching and educator preparation, much of the research being produced is content-specific (nutrition, interior design, etc.) rather than relevant to teacher preparation. It is important for the continuation of the field to encourage research that specifically looks at the inclusion of FCS teaching programs that bring together all the disciplines in our field. Research on FCS teacher preparation programs specifically could provide help for struggling programs and give credibility to the field as a whole.

## References

- Bowers, J., & Myers, L. A. (2019). A National Collaborative Approach to Recruit, Prepare, and Support Family and Consumer Sciences Educators. *Family and Consumer Sciences Research Journal*, 48(2), 131-137.
- Duncan, J., Werhan, C. R., & Bergh, K. (2017). All hands on deck: Research needed to examine the educator shortage in family and consumer sciences. *Family and Consumer Sciences Research Journal*, 46(2), 99-109.
- Werhan, C. R. (2010). Men as FCS teachers: An exploration of a gendered profession. *Journal of Family and Consumer Sciences*, 102(1), 27-33.



## **The Relationship between Weight Status and Use of Complementary and Alternative Medicine Special Diets**

Glenda Lindsey (Morgan State University)

Complementary and Alternative Medicine (CAM) is a collection of diverse medical and health care systems, practices, and products that are not currently regarded as part of conventional medicine (allopathic). CAM Special Diets is one modality found under the domain of biologically based therapies and is distinguished from conventional diets by being those used by the general public without input from medical professionals. This study examined the relationship between weight status and chronic disease (diabetes and hypertension) and the use of CAM Special Diets among adults 18 – 74 years of age. The purpose of the study is to examine the relationship between weight status and CAM special diets use. In addition, this study will explore how the relationship between weight status and CAM special diet change in the presence of chronic disease. Currently, research has not revealed these factors to any extent in a free living population. The three independent variables are weight status defined as 1) healthy weight (combination of underweight and healthy weight), 2) overweight, and 3) obese (combination of obese and extreme obese). The moderating variables are chronic diseases - hypertension and diabetes. The dependent variable is CAM special diets such as Atkins, Zone, South Beach, Vegetarian, Macrobiotic, Pritikin, and Ornish. The demographic variables are gender, age, race / ethnic group, education, and region of the country. Data from the National Health Interview Survey (NHIS) 2007, including the CAM supplement, will be used to conduct this investigation. There has been a tremendous increase in the number of people using CAM. This increase in CAM usage paralleled the increase in Body Mass Index (BMI) among Americans. However, little is known about the demographics of people who use CAM Special diets or their weight and chronic disease status. The National Health Interview Survey (NHIS) CAM supplement 2007 was employed in conducting this investigation. Univariate, bivariate, and multivariate statistical techniques was used to examine the study questions. The study hypotheses were:

- H1: Overweight and obese individuals are more likely to use CAM Special diets than individuals of healthy weight.
- H2: Overweight and obese individuals with a chronic disease are more likely to use CAM special diets than healthy weight individuals with a chronic disease.

The demographic profile of CAM users set forth in the literature was as follows: greater use by women; Non- Hispanic ethnic groups, people with higher income and education, as well as greater use in the western region of the United States (Barnes, Bloom, & Nahin, 2007; Eisenberg, Davis, Ettner, Appel, Wilkey, Rompay, & Kessler, 1998; Foster, Phillips, Hamel, & Eisenberg, 2000; Griner & McFann, 2007). Findings from this study document a similar demographic profile for CAM Special diet users except divorced individuals used CAM special diets more than married individuals. In addition general CAM use was more prevalent in the southern region of the United States. This study found that CAM Special Diet use increased as weight status increased. This study also found that there was no significant change in the relationship between weight status and CAM Special diet use in the presence of chronic disease. Since this was a cross sectional design, it is not feasible to draw useful programmatic inferences from these findings; however, they do provide additional evidence for future studies.

## Use of Pre- and Post-Test Analyses to Determine Knowledge Gained by Food Science Students

Jacquelyn R. Warnock, Southridge High School, Kennewick, WA

**Purpose:** A pre- and post-test system of assessment was used in four secondary education food science classes, grade levels 10-12, to determine knowledge gained for the 2022-2024 academic years. Purpose of the pre- and post-tests was to assess students' acquisition or mastery of information/knowledge related to the subject-matter areas of basic chemistry, organic chemistry, food preservation and packaging plus the scientific method as linked to the study of food science.

**Rationale:** To provide students with participation in hands-on food science experiments, a constructivist learning-type classroom was designed. Plenty of opportunities for students to share their experiences with each other, as well as having an open dialogue for asking questions, existed. By asking questions, students analyzed the information; thus, becoming good problem solvers. In this type of constructivist classroom, independent thinking was encouraged and everyone was respected for his/her ideas. The constructivist approach also incorporates critical thinking skills among students that can be learned from their peers as well as the teacher. Pre- and post-tests are a good fit within the pedagogy of the constructivist food science classes to validate (1) if learning occurs and (2) if knowledge is gained and retained from unit to unit as new information is presented.

**Methodology:** Knowledge gained was determined by the experimental design of pre-test, treatment, and post-test. Pre- and post-tests were used with each of the 13 textbook chapters that were covered in all four food science classes (N=120). Guidelines for utilizing pre- and post-tests were applied based on the I-TECH Technical Implementation Guide: Guidelines for Pre- and Post-testing. The pre- and post-tests for this study were generated by Goodheart-Wilcox publishing company. Students completed the pre-test for each chapter during the first ten minutes of class. When the pre-test task was completed, students were exposed to and learned subject-matter information by participating in hands-on activities; lab experiments; lectures; worksheets; and videos. Upon completion and submission of all required assignments for each chapter, a post-test was administered. Students took the post-tests during the first ten minutes of class, but before the next chapter was discussed. Pre- and post-test scores were recorded in an Excel spreadsheet. Students received both pre- and post-test scores to see improvements or what topic area would need to be studied for an upcoming exam. From this data the teacher was able to see improvements in knowledge gained; the existence of learning gaps; and assistance needed by students to review information before exams.

**Findings/Results:** By incorporating blended learning strategies between the administering of pre- and post-tests, the hypothesis was that students in all classes (periods 1, 3, 4, 5) would experience an increase in knowledge gained from one unit to another. Data did not support this hypothesis.

Only the first period class demonstrated that all students improved and gained knowledge throughout the academic years. These students exhibited excellent reading, comprehension, and study skills with no classroom behavioral issues. There were those chapters in which more

knowledge was gained than in others; however, there was improvement. One contributing factor as to why the pre- and post-tests generated increases in knowledge gained for some book chapters and not others may be due to students previously taking health, food and nutrition, sports medicine and/or chemistry classes. Because food science does not have pre-requisites, students can take other classes having similar content. First period students studied and improved grades in conjunction with understanding the food science subject matter.

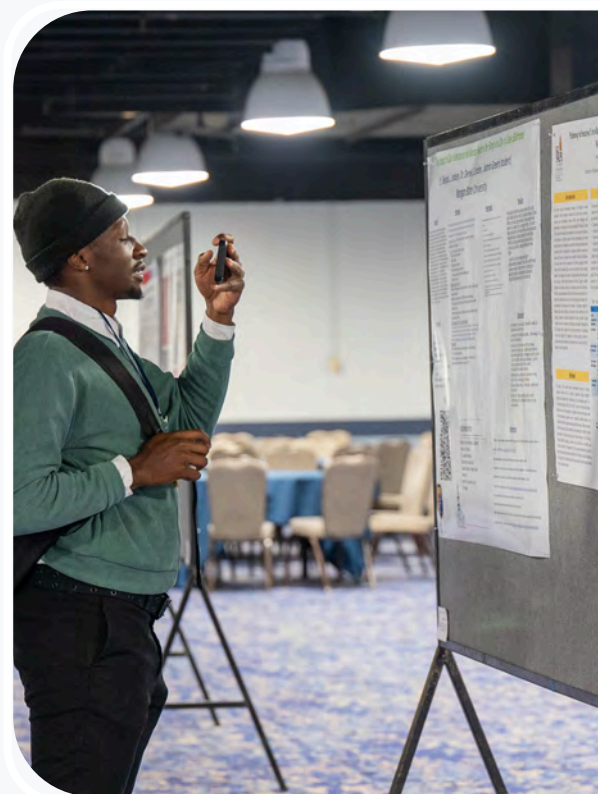
Third, fourth, and fifth period pre- and post-test results showed erratic movement between high levels of knowledge gained for some chapters and negative results for others. These results may be attributed to classroom behavior issues; low attendance; and/or lack of motivation to learn. Results for the higher scores, like those for first period, may be attributed to students having taken other science-related classes. Due to high student absenteeism, students did not take some of the pre- and/or post-tests. Other students refused to take the tests.

By utilizing pre- and post-test assessments to gather knowledge gained data, the teacher was able to identify one (1) limitation, knowing that others could exist. This limitation refers to this type of assessment as not being able to identify if students are retaining subject-matter information for later use. In this situation, re-testing would need to be conducted. By incorporating hands-on learning activities, creating thought provoking and rigorous food science experiments, and initiating meaningful classroom discussions, this limitation might be resolved.

**Conclusions:** Some knowledge gaps were closed; combinations of teaching methods were created; and pre- and post-test assessments were beneficial to students' learning processes and to teacher's preparation of food science content/experiments to fill knowledge gaps. Between the pre- and post-tests, students engaged in a combination of teaching methods to create schemas for knowledge gained. According to the constructivist theory, students learn by doing. They learn from their experiences and from reflecting upon those experiences. By constructing meaning from life's experiences, students are able to grow as learners. By scaffolding on previous experiences and merging what already has been learned with new learning experiences, students are able to create more knowledge. Students are encouraged to be actively engaged in learning through experiments and other problem-solving techniques that require interaction; thus, creating stimulation for student achievement with knowledge being gained.

**Implications for research and/or practice:** Knowledge gained through use of pre- and post-tests relies on instructional decision making or direct instruction so that the student can complete assignments/tasks and other types of activities in a timely manner. It is essential for the teacher to know that students are learning. Assessment must be done. Assessment becomes part of the student-learning process and can guide them toward greater engagement in learning; therefore, becoming more self-confident and successful within the classroom. With knowledge gained being determined, the next step would be to determine mastery of skills within food science classes. Comparing both sets of data would reveal strengths and weaknesses within the food science curricula.

# **Assembly of Higher Education Undergraduate Research**



## Assembly of Higher Education: Undergraduate Student Research/Project Posters

Poster Number	Title	Institution	Student & Advisor
AHE-1	The Effects of Playing Video Games on a Child's Brain	Louisiana Tech University	Genene Carter Advisor: Tonya Vandenbrink
AHE-2	Raising Adolescents: The Concept of "Winners and Losers" Verses the Concept of "Everyone is a Winner"	Louisiana Tech University	Malia Hubbard Advisor: Tonya Vandenbrink
AHE-3	Functional Communication	Louisiana Tech University	Alyssa Pace Advisor: Tonya Vandenbrink
AHE-4	Your Child Won't Say, Make Them Play. The Power of Play Therapy.	Louisiana Tech University	Camdyn Slade Advisor: Tonya Vandenbrink
AHE-5	Market Potentials and Supply Chains of the Cellulosic Handicraft Industry in Kenya	Mississippi State University	Katie Garcia Advisors: Juyoung Lee and Caroline Kobia
AHE-6	The Role of Artificial Intelligence in Weed Detection and Management: A Food Safety Perspective	University of Arkansas at Pine Bluff	Oluwademilade Ogunbade Advisor: Karleah Harris
AHE-7	Convenience or Nutrition: The Role of Affordable Processed Foods in Student Dietary Choices	University of Arkansas at Pine Bluff	David Opiri Advisor: Jane Opiri
AHE-8	Understanding College Students' Barriers and Motivations in Accessing Food Security Resources	University of Arkansas at Pine Bluff	David Opiri Advisor: Suzzette Goldmon

# THE EFFECTS OF PLAYING VIDEO GAMES ON A CHILD'S BRAIN

Author: Genene Carter

Advsior: Dr. Tonya Vandenbrink, Assistant Professor

## Abstract

With their rising availability and increased marketing toward young children, video games have become a part of many children's daily lives. However, whether or not video games are good for children's brains and overall development remains up for debate. The purpose of this paper is to answer the question: What are the effects of playing video games on a child's brain, and how does the game content and time spent playing influence these effects? One hypothesis was that playing violent video games makes children more aggressive and antisocial and causes attention problems. Another hypothesis was that video games may positively affect children's reaction time and spatial skills. In order to investigate these hypotheses, a review of relevant literature was performed using EBSCO Discovery Service and PubMed. Combinations of the key terms "video games," "children," "cognitive development," "social skills," and "aggression" were used. Fifteen studies from academic journals including the *Journal of the American Medical Association* and the *Proceedings of the National Academy of Sciences* were chosen. From there, the review was narrowed down to ten studies, specifically those that focused on children in middle childhood and those that researched video game usage as opposed to other types of digital media. Each of the authors and their institutions were reviewed to ensure their credibility. The majority of the studies used longitudinal observations to investigate the association between video game play and individual factors such as physical aggression, cognitive performance, and antisocial behavior. Three of the articles focused on aggression, four looked into cognitive performance, one focused on social skills, and two researched a combination of these factors.

After compiling the results of these ten studies, it was found that video games with violent content, such as those rated E10+ (Everyone 10+), T (Teen), or M (Mature), are positively correlated with higher levels of aggression and antisocial behavior in individuals in middle childhood. Additionally, it was found that playing games for more than one to two hours per day exacerbated the negative effects. These findings are consistent with the original hypothesis. On the contrary, some of the studies did find that playing video games increases the speed of children's cognitive functioning as well as attention capacity, which contradicts the hypothesis that gaming would decrease attention span. Some limitations of the studies analyzed include confounding variables that could influence children's aggression, antisocial behaviors, or cognitive performance. Future researchers could conduct studies that take prior behaviors into account or look into mediators and moderators of the behaviors in more depth. Overall, the conclusion reached is that video games are not inherently "bad" for children's brains nor their development, but their impact is largely dependent on the content and time spent playing the game. It is therefore imperative that caregivers and parents set appropriate limits so children are not spending too much of their time gaming and are not playing overly violent games. If families establish consistent routines and set expectations for video game usage, their children will grow up to become a more well-adjusted and successful generation.

This literature review aligns with the Body of Knowledge in several key ways. Firstly, it pertains to *Wellness* by offering insights into the positive and negative effects of video games on aggression, psychological health, and overall well-being. This includes how excessive screen time could affect children physically in areas like vision, posture, and sleep schedule. Secondly, it connects to the *Appropriate Use of Technology* by assessing the suitability of engaging in video games during middle childhood. It looks into how children's social development might be stunted if they are spending more time behind screens than interacting with their peers. Lastly, it ties into *Life Course Development* by exploring how video gaming, as a relatively new social construct, will influence developmental well-being across the lifespan.

## References

- Aydemir, F. (2022). Digital Games and Their Effects on Children. *Journal of Social Sciences*.  
<https://research-ebsco-com.latech.idm.oclc.org/c/12rswk/viewer/pdf/ghqrnquixr>
- Binti, F.Y. et al. (2023). The Effect of Video Games Towards Children's Communication. *Journal of Information and Knowledge Management*, Volume 2(Special Issue).  
<https://research-ebsco-com.latech.idm.oclc.org/c/12rswk/viewer/pdf/lnwqjkr7mf>
- Boot, W.R., Kramer, A.F., Simons, D.J., Fabiani, M., Gratton, G. (2008). The effects of video game playing on attention, memory, and executive control. *Acta Psychologica*, Volume 129(Issue 3), pp. 387-398. <https://doi.org/10.1016/j.actpsy.2008.09.005>
- Chaarani, B. et al. (2022). Association of video gaming with cognitive performance among children. *JAMA Open Network*. DOI: 10.1001/jamanetworkopen.2022.35721
- Flecha, R. et al. (2020). Effects of the use of digital technology on children's empathy and attention capacity. *NESET Report*. European Commission. DOI:10.2766/947826
- Gentile, D.A., Li, D., Khoo, A., Prot, S., & Anderson, C.A. (2014). Mediators and Moderators of Long-term Effects of Violent Video Games on Aggressive Behavior: Practice, Thinking, and Action. *JAMA Pediatrics*. 2014;168(5):450–457.  
 DOI:10.1001/jamapediatrics.2014.63
- Huesmann, L. R. (2011). Nailing the coffin shut on doubts that violent video games stimulate aggression: Comment on Anderson et al. (2010). *Psychological Bulletin*.  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2848956/>
- Nivins, S., Sauce, B., Liebherr, M., Judd, N., & Klingberg, T. (2024). Long-term impact of digital media on brain development in children. *Scientific Reports*.  
<https://doi.org/10.1038/s41598-024-63566-y>
- Prescott, A. T., Sargent, J. D., & Hull, J. G. (2018). Metaanalysis of the relationship between violent video game play and physical aggression over time. *The Proceedings of the National Academy of Sciences*. <https://www.pnas.org/doi/full/10.1073/pnas.1611617114>
- Soares, P., de Oliveira, P.D., Wehrmeister, F.C., Menezes, A., Gonçalves, H. (2021). Screen time and working memory in adolescents: A longitudinal study. *Journal of Psychiatric Research*, Volume 137, pp. 266-274. <https://doi.org/10.1016/j.jpsychires.2021.02.066>



## Raising Adolescents: The Concept of “Winners and Losers” Verses the Concept of “Everyone is a Winner”

Malia Hubbard and Dr. Tonya Vandenbrink, Louisiana Tech University

The concept that there are winners and losers in life isn't new, but the idea that everyone is a winner is. The purpose of this literature review is to determine and compare the positives and negatives of raising adolescents, or children aged thirteen through seventeen, with the concept that everyone is a winner or the concept that there are winners and losers. I hypothesize that the concept of being raised by the idea that there are winners and losers will show a more well-adjusted adolescent than one who was raised with the other idea. To answer this question, I have conducted a literature review where I've read thirteen peer-reviewed journal articles and compared their findings. These articles were found by searching through a research database linked with the key word 'adolescents' and other words such as 'will to win', 'participation', 'parenting', or 'childrearing' to name a few. Adolescents and the ways in which to raise them have been compared and studied endlessly, but as new generations become parents, new parenting methods emerge. For several generations, adolescents have been reared to believe that no one is born a winner, and that this particular title must be earned through either work or talent. Therefore, adolescents raised with this more traditional concept that there are winners and losers in life tend to lean more towards competitive and ambitious personality traits that grant the adolescents a grander desire to achieve higher marks in school and in other social situations such as athletics. A drawback though is that these same adolescents are at a higher risk of negative social standing amongst their peers and are in danger of damaging their self-identity and concept when faced with a loss. Slowly but not unnoticeably, newer generations such as Generation Y or even Generation Z have switched parenting approaches. These new ages have begun raising their adolescents with the concept that everyone is a winner regardless of effort. Research has shown these adolescents may enter society, and even school to a lesser extent than society as a whole, with less of a will to succeed or even no drive to do more than the bare minimum but have a more cooperative and idealistic outlook on life, others, and themselves. While both methods have positives and negatives, there is no clear distinction about whether one way in which to raise a child is significantly better than the other. This lack of a clear answer is due to the fact that there are too many variables that go into raising a child such as the family's socio-economic status or education level just to name a couple. Further research comparing these two parenting approaches could greatly benefit future generations. For example, if researchers identify the specific factors contributing to the positive and negative outcomes discussed in this literature review, whether from the "everyone is a winner" approach or the "winners and losers" approach, parents could adopt these beneficial aspects while avoiding those linked to negative effects.

This literature review connects to the Body of Knowledge in several meaningful ways. First, it aligns with *Life Course Development* by highlighting the importance of different parenting types on psychological well-being and social development. This then feeds into *Individual Well-Being* by specifically addressing how this parenting approach influences motivation and social interactions of the adolescent. The concept of everyone is a winner, which is the newest approach to parenting, was contrasted with the previous way of parenting, winner and losers, demonstrating how social development differs across historical times.

## Functional Communication

Alyssa Pace and Tonya Vandenbrink, PhD, Louisiana Tech University

Functional communication training (“FCT”) is an approach implemented in Applied Behavior Analysis (“ABA”) therapy to assist autistic individuals in dealing with severe maladaptive behaviors by replacing them with contextually appropriate, alternative behaviors. Maladaptive behaviors are any behaviors that hinder a person’s ability to adapt to life’s daily challenges and oftentimes lead to negative outcomes. FCT focuses on the use of functional communication in order for an individual to express their wants and needs without the presence of maladaptive behaviors. Each time the individual is able to access their want or need through functionally communicating, this response is being reinforced, causing the individual to want to continue using this functional communication rather than the maladaptive behavior that is not being reinforced. The purpose of this literature review is to analyze the effect FCT has on the success rates of ABA therapy. The objective of this literature review is to examine the generalizability and lasting effects this approach has on autistic children in a clinical setting ranging from ages two to six through examining various credible resources. The articles in this literature review come from peer reviewed journals such as *Journal of Applied Behavior Analysis* and *Journal of Behavioral Education*. This literature review was conducted through researching FCT in ABA clinics with autistic children ranging from ages two to six and analyzing the literature found on this topic.

FCT was first introduced to ABA settings in 1985. After this initial introduction, FCT continued to evolve into the popular practice that it is today. In order for FCT to be implemented correctly, specific steps for success need to be addressed. First, therapists need to determine the cause, or function, of the maladaptive behavior through a functional behavior assessment. A functional behavior assessment consists of the therapist observing what occurs before a maladaptive behavior, during the behavior, and after. Through this observation, the therapist is able to determine what is causing this behavior. After this, the therapist must identify an appropriate response that satisfies the cause of the maladaptive behavior. The therapists must then develop a treatment plan which includes reinforcement of functional communication and maladaptive behaviors to not reinforce in order to implement the FCT approach. Therapist’s also need to be sure to include the caregivers of autistic children in their plan to implement FCT in their natural environment. Various research studies agree that if all of these initial steps are met and the treatment plan is implemented correctly, FCT can be highly generalizable and have long lasting effects throughout the life of the child.

Although FCT can be highly generalizable and effective, not everyone uses it or has success with it. There are various reasons for this. For instance, when correctly following the steps of FCT, if a child functionally communicates a want or need, it must be provided immediately in order to reinforce the functional communication. If reinforcement is not provided immediately, maladaptive behaviors will occur. This immediate reinforcement is one of the reasons many turn away from the use of FCT. Reinforcing every need or want a child expresses can be very difficult for the therapist because not all of the child’s wants will be able to be met. Oftentimes this leads to maladaptive behavior from the child which can be difficult for the therapist. Also, the first step of the FCT process is to determine the function of the maladaptive behavior in order to create a functional communicative response. If the function of this

challenging behavior changes then the functional communicative response will also have to change. This constant change of a behavior's function can make it hard for the therapist to keep up with finding different ways for the child to communicate functionally. Additionally, the therapist will have to have a good relationship with the family in order to be able to teach, follow up with, and correct their implementation of FCT. Many times, having a good relationship with the caregivers of clients can be difficult for the therapist. If a good relationship is not created, the FCT plan the therapist creates will not be implemented in the same way by the therapist and the caregiver. This is detrimental to the success of FCT.

Based on the research conducted from peer reviewed articles, the use of FCT for autistic children has positively affected the success rates of ABA therapy. Although there are certain aspects of this intervention that need to be improved, ultimately FCT is beneficial to the success rates of individuals in ABA therapy. However, there is a need for more research. The literature surrounding FCT focuses solely on autistic children that have either benefited greatly or not at all from this intervention. Because the literature focuses on these two vastly different outcomes, there is a need for more research that falls in between. Research with children ages two to six in a clinical setting where the children have benefitted, but still may struggle with functional communication sometimes would be highly beneficial to ABA therapist's understanding and implementation of FCT because it would allow these therapists to look at what implementation strategies work well, which ones don't, and which ones seem to have no real impact.

This literature review connects to the Body of Knowledge in several meaningful ways. First, it aligns with *Basic Human Needs* by highlighting the importance of FCT therapy in improving psychological and physical well-being, promoting overall health and wellness. This then feeds into *Individual Well-Being* by specifically addressing how this therapy can help individuals with autism achieve better mental health outcomes. Additionally, FCT therapy's potential to positively impact individuals across their lifespan ties it to *Life Course Development*. It relates to *Wellness*, as this therapeutic approach is a type of healthcare that emphasizes both psychological health and overall well-being. Lastly, it relates to *Family Strengths* as the family plays a major role in the child's engagement and success in therapy.

## **Your Child Won't Say, Make Them Play. The Power of Play Therapy**

Camdyn Slade, Louisiana Tech University

The purpose of this literature review is to explore the different approaches in play therapy and determine which type of play therapy is most effective. Play therapy is a therapeutic approach that allows children to express themselves through play. Children engage in activities that promote emotional, thought, and experience processing. There are three types of play therapy: the Psychoanalytic approach, the Cognitive-Behavioral approach, and the Child-Centered approach. Each therapeutic approach has its own strengths and limitations in addressing children's emotional and psychological needs. My hypothesis is that child-centered therapy is the most effective approach.

To determine which type of play therapy is the most effective, a review of five pieces of relevant literature was performed. The literature I reviewed included book chapters and peer reviewed research articles over the three types of play therapy. I looked for examples and statistics of the types of play therapy being used in the real world. Validating the titles of those who authored the articles was important as well. When doing my research, it was important to focus on health centers and other articles that included experiment and study results.

In Psychoanalytic Play Therapy (PPT), the goal is for the therapist to help the patient or child to overcome their fears, traumas, anxiety and/or depression by revealing the child to who they truly are and can be. PPT goes past surface layer issues as it delves into unconscious conflicts and past experiences to find the roots of issues and clear the pathways so that the child's healthy development can shine through. PPT focuses on specific difficulties that the therapist aims to get the child to work on; however, these issues are often unconscious for the child (Bromfield, 2003). The goal of PPT is for the child to be resilient and adapt to their surroundings and environment; though, it is proven to be a challenging process for each patient. PPT is a very lengthy process and requires long term engagement, and which can become very costly. This approach to play therapy is rooted in Freud's scientific findings in the psychology field (Bromfield, 2003); however, most of Freud's contributions were far from being scientific. This has led to the thought of Psychoanalytic Play Therapy to be conned. PPT cannot be tested empirically, and it is quite impossible to validate for a few reasons (Broomfield, 2003). First, PPT can be studied but testing its effectiveness poses challenges due to its subjective and long-term nature. Secondly, as PPT is based on the unconscious process and symbolic play which makes it difficult to quantify results using standardized assessments. When using therapy, the goal is to focus on the unconscious and help the patient overcome their struggles, so PPT is an ideal approach to use if the problem of subjectivity and validity was overlooked.

The Child-Centered Play Therapy (CCPT) approach is quite similar to Psychoanalytic Play Therapy in the fact that CCPT aims to understand how the child thinks and feels. However, CCPT prioritizes the child's autonomy and emotional expression, fostering a positive environment. CCPT requires the therapist to build rapport, connect with and provide unconditional positive regard to the child. With Child-Centered Play Therapy's three core elements being congruence, unconditional positive regard, and empathy (Hamlet & Moss, 2020), it reiterates the importance of the child being the main focus. CCPT results in children having less anxiety and depression, improved social skills and self-esteem. The National Institute of

Health released a research study article on the effectiveness of CCPT. The results are as follows, children participating in CCPT had improvements in problem solving with multiple areas: PTSD, self-concept, internalizing, and externalizing. However, most studies showed very little difference in the outcomes (Humble et. al., 2018). In CCPT there are many specific principles aiming for the therapist to accept the child, allow the child to express themselves freely and guide the therapy session at the pace that works best for the child (Axline, 1969). Focus on the therapist, because CCPT is a very intricate and demanding approach to therapy, the therapist needs to have a high skill level to be able to properly interpret play accurately. If a therapist is not properly trained or certified, this can lead to mixed research findings and confusion for the patient and their family. Some cons to this approach include its costly nature, and is an emotional experience for the child as it may bring up traumatic experiences to overcome them. CCPT has many success stories when being used to treat trauma. Children have left this approach to therapy with psychological improvements more often than not (Humble et. al., 2018).

Cognitive-Behavioral Play Therapy (CBPT) is structured and goal oriented, effectively addressing specific behavioral issues. This type of therapy explains how the world works to the child while showing them how to solve and deal with problems. Promoting cognitive development is essential for learning advanced coping skills and using them to express their emotions. This approach focuses mainly on the child's strengths to then identify and change negative behaviors by using their language skills (Knell, 1993). Once these skills are mastered, patients use them to communicate how they feel. Children leave with a sense of mastery and control when they speak in specific situations; although, having patients verbalize their painful emotions can be stressful and cause temporary anxiety at first. CBPT has been proven highly effective in treating anxiety and other mental disorders (Hofmann et. al., 2012). CBPT is a more technical, logical, and short-term view of ideas, which also might not work well because of the fact that each child learns in different ways. Although CBPT calls for regular sessions, this approach can require a time commitment because of the extra work that is recommended outside of the sessions. Because CBPT requires critical thinking, it is crucial that the patient and therapist are both patient and cooperative. When using CBPT, not only does it help the mental state of the child, it also shows them how to deal with real world problems. After dealing with these problems, the child is then able to communicate about it with a sense of control. This approach adds on to the initial idea to what therapy should be.

After completing the research on each of the three approaches, I came to the conclusion that child-centered play therapy is the most effective. CCPT utilizes play, the natural language of children, and it allows for a consistent, safe environment for children to freely express themselves. When comparing CCPT to CBPT, they are both highly effective, but research shows that CCPT is more effective with helping with mental disorders and other emotional struggles. No comparison is needed for PPT as it cannot be tested, therefore impossible to validate. For CCPT, once one finds that certified, skilled, and eager therapist, the only next step is to attend therapy sessions. CCPT trained professionals aim to be patient with the child, monitor their play while allowing them to express themselves in a safe, consistent environment. This results in an emotionally-sound, socially skilled, problem-solving child.

This literature review aligns with the Body of Knowledge in several ways. Firstly, it pertains to *Wellness* by offering insights into the different types of play therapy and their effects on psychological health, and overall well-being. Secondly, it ties into *Life Course Development* by exploring how therapy can influence a child's well-being both developmentally as an individual but also within their family. This topic is also related to *Basic Human* needs such as psychological needs, safety needs, and self-esteem which can all be positively influenced by the assistant of play therapy. This then leads into *Individual Well-being* by emphasizing the importance of a mentally healthy child.

## References

- Bromfield, R. N. (2003). Psychoanalytic Play Therapy. Retrieved from <https://www.psychceu.com/Schaefer/0471264725.pdf>
- Moss, L., & Hamlet, H. (2020b). An introduction to child-centered play therapy. Retrieved from <https://adpca.org/article/pcj25/pcj25-an-introduction-to-child-centered-play-therapy/>
- Humble, J. J., Summers, N. L., Villarreal, V., Styck, K. M., Sullivan, J. R., Hechler, J. M., & Warren, B. S. (2018a). Child-centered play therapy for youths who have experienced trauma: A systematic literature review. Retrieved from <https://pmc.ncbi.nlm.nih.gov/articles/PMC7163898/>
- Knell, S. (1993). Retrieved from <https://cbpt.org/en/cognitive-behavioral-play-therapy/>
- Hofmann, S., Asnaani, A., Vonk, I., Sawyer, A., & Fang, A. (2012). The efficacy of cognitive behavioral therapy: A review of meta-analyses. Retrieved from <https://pubmed.ncbi.nlm.nih.gov/23459093/>

## Market Potentials and Supply Chains of the Cellulosic Handicraft Industry in Kenya

Katie Garcia; Dr. JuYoung Lee; and Dr. Caroline Kobia, Mississippi State University

**Research Background:** This research proposal concerns the market potentials and supply chains of the cellulosic handicraft industry in Kenya. A trade that started as a means of being resourceful out of necessity has evolved into a popular industry that generates substantial revenue for handicraft producers in many African countries (Thondhlana et al., 2020). For example, Kenya's handicraft revenue totaled approximately \$40 million in 2021, and South Africa generated nearly \$447 million in handicraft revenue in 2018 (Bonner, 2024). Average craft monthly income ranged between \$48 and \$75 in Zimbabwe, Eswatini, and Malawi, which is significant supplemental income for those living in developing countries (Thondhlana et al., 2020). Notably, the cellulosic craft industry accounts for 4% of the global handicrafts industry's revenue, underlining its economic relevance (*Middle East & Africa handicrafts market size & outlook*). Cellulosic fibers, sourced sustainably as crop byproducts or as primary crops like cotton, generate both economic and environmental benefits, enhancing livelihoods for African farmers and adding value to local economics (Allen et al., 2019; Nakiwala, 2022). Other cellulosic fibers include flax, ramie, banana fiber, and bamboo. Tourism serves as a primary catalyst for the expansion and commercialization of the Africa's handicraft industry (Wright, 2008). In South Africa, where tourism is one of the main sources of revenue, handicraft producers have become aware of this growing industry and have begun to increasingly capitalize on tourist demand (Makhitha, 2015). Between 2005 and 2009, the number of South African craft producers grew by nearly 40 %, a trend closely correlated with the tourism sector's expansion (Makhitha, 2015). This growth is attributed to a newfound cultural appreciation for historically African styles as well as a strengthened national identity, while emerging middle class in South Africa further enhances consumer spending on culturally significant and novelty items such as handicrafts (Makhitha, 2015).

**Purpose of the Study:** Despite this growth trajectory, scholars found that there is a substantial gap between craft producers and craft consumers because of a supply chain disconnect which exacerbates a separation between producers and consumers where handicraft producers have limited understanding of consumer demand. Supply chain disconnect is a problem because it prevents the producer from performing to their maximum potential. By lacking information about the market, handicraft producers are selling themselves short. While resource availability and traditional techniques often shape the use of cellulosic fibers for the production of handicraft products in many African countries, the influence of consumers in tourism sectors increasingly directs design choices toward market demands (Pullanikkatil et al., 2021). Due to the availability of information in Kenya, this study's research will be focused on that country. The purpose of this study is to identify supply chain constraints and realize market opportunities that will be presented upon mitigation of these constraints in order to stimulate the economy in otherwise rural and impoverished communities in Kenya. Research up until this point consists of a case study of the Kenyan cellulosic handicraft industry as a methodological framework. As a part of the case study framework, the mixed method theory will be used for content analysis of interviews with stakeholders of the Kenyan cellulosic craft industry and descriptive analysis of the relevant government data. After the analysis, the plan is to create a conceptual model to explore the market potentials and supply chains of the cellulosic handicraft industry to illustrate



the relationship between variables affecting the market potentials and supply chains constraints of the cellulosic handicraft industry. The theory of constraints will be used to evaluate the function and efficiency of the cellulosic handicraft industry in Kenya. The theory of constraints is a philosophical theory used to maximize efficiency in the business model (Mabin & Balderstone, 2020). Its core principle is that an organization may encounter specific constraints or limitations that hinder it from reaching its full potential. By identifying and isolating these constraints, businesses can learn to eliminate them (Şimsit et al., 2014). Once the constraint is effectively managed, the entire system can function at full efficiency. The theory of constraints can be applied to any part of a business model such as production, supply chain, distribution, research and development, and marketing allowing businesses to systematically address bottlenecks and improve overall efficiency (Şimsit et al., 2014; Gupta et al., 2008). Based on the previous literature, this research aims to explore obstacles in the African cellulosic craft industry's supply chains, primarily focused in Kenya, as well as investigate what opportunities there are to mitigate these supply chain problems. Some constraints that have been identified in the supply chain through this research include cellulosic resource depletion, unreliable supplier intermediaries and lack of transparency during the transportation stage, lack of government regulation and insufficient quality standards, and an untrained labor force (Jokia et al., 2021; Kamuiru, 2015; Makhitha, 2015; Redzuan & Aref, 2011). It is expected that mitigating these constraints would allow for greater industrialization of rural communities, greater economic success for handicraft producers, and unique opportunities to earn greater local, regional, and global prestige for the handicraft industry.

**Methodology:** Qualitative data will be collected to gain a better understanding of the research questions at hand. With qualitative data, researchers can accumulate more detailed responses and identify underlying research themes. By generating qualitative responses, a broader scope will be analyzed. Research will be conducted through virtual interviews. Interview participants are individuals chosen for their professional knowledge on the African handicraft industry. Their expertise will be the key deciding factor of their participation. The interviews will be administered through WebEx, a video call platform, and transcribed. A minimum of twelve interviews will be conducted to ensure validity. Upon transcription, the interviews will undergo the coding techniques related to the grounded theory. Participants will be selected through a snowball sampling method that begins with a trusted contact who has connections with the Kenyan cellulosic handicraft industry. A contact has provided researchers with references, and those references will become the first sample. More participants will be found through a snowball sampling method where previous participants recommend people they believe would fit the desired sample characteristics. Selection criteria of the participants consists of professional knowledge of the Kenyan cellulosic handicraft industry. Researchers are looking for professionals with direct experience in Kenya as well as those with expertise in their field. A minimum of 5 years' experience is strongly recommended for selection in this study. Interview participants will also be found through professional platforms like LinkedIn. Connections will be made based on someone's relevance to the industry and professional experience. Some examples of interview questions include, "Are there areas where the African cellulosic handicraft industry's supply chains may be underperforming? If so, what are they?" and "What preventative actions could be taken now to ensure stability in the African cellulosic handicraft industry?" These interview questions have been developed based on the theory of constraints framework (Mabin & Balderstone, 2020). The goal was to formulate questions that coincide with the steps

in the theory of constraints analysis in order to identify valid, repeated issues within the Kenyan cellulosic handicraft industry. Upon data collection, the interview transcriptions will undergo thematic analysis to identify overarching themes between the many interviews (Braun & Clark, 2006). Descriptive analysis will then be performed as a secondary data analysis to identify trends and patterns within the collected data. The mixed method theory will be used to decipher and analyze data collected for the interviews. The grounded theory consists of various levels of qualitative coding procedures that aid to make sense of and identify patterns between large amounts of qualitative data (Deterding & Waters, 2021). This method of data analysis works well when trying to draw conclusions from large qualitative sources such as interviews or focus groups. Using the grounded theory, researchers can theorize underlying answers presented through primary data (Chun et al., 2019). Researchers can draw conclusions from qualitative data by identifying common themes among respondents' answers. Once many respondents' answers have been compared and categorized, their main concerns will be revealed (McCallin, 2003). The mixed method theory is used to systematically combine qualitative and quantitative data (Chen, 2006). Some advantages of using the mixed method theory include a more well-rounded understanding on data, a strong foundation upon which an argument is built, and an increase in validity of research since it passes through multiple channels. Additionally, the mixed method theory can be used in conjunction with other theories to explain qualitative phenomena. For example, qualitative data may form a conclusion that is supported by quantitative circumstances, or vice versa. Quantitative and qualitative data often have a complex relationship that can be explored through the mixed method theory. A well-conducted interview is crucial to the success and validity of qualitative research (Bolderston, 2012). For this study, the grounded theory will be applied to interview analysis. Once all interview data is collected, key terms can be identified per each respondent's answer. After these key terms are highlighted, they can be set aside, and the process repeats by identifying common themes related to a few of the terms. This step allows the researcher to find underlying themes hidden in large quantities of qualitative data where respondents' answers may not always be clear. Upon recognizing general themes of the data, researchers can draw conclusions and use evidence from the interviews to support them. Triangulation will also be used to verify and validate interview themes. Triangulation is used to describe the process in which multiple qualitative research methods are used to develop an overall understanding of research (Carter, 2014). There are four types of triangulations: method, investigator, theory, and data source (Carter, 2014). Method triangulation concerns the sampling methods, and it involves the use of multiple different methods to cross-reference. For example, researchers may use data from interviews, surveys, and focus groups to arrive at a singular conclusion (Carter, 2014). Investigator triangulation is when two or more researchers participate in the same study. This method allows them to make their own observations and reach their own conclusions, which verifies the data. The addition of different perspectives makes the data more robust. The next method is theory triangulation. This is when the researcher uses different theories when analyzing data, which creates a more well-rounded understanding for the study since they will interpret the research through different angles (Carter, 2014). The final method is data source triangulation, which is where data is collected from many different people to gain different perspectives on a single topic. Researchers may simultaneously sample different individuals, groups, families, and communities to broaden their information and validate their research. Using the theory of constraints as a theoretical framework, this study plans to investigate limitations of the Kenyan cellulosic handicraft industry and determine solutions to mitigate them. It is an industry with much potential due to the abundance of natural cellulosic

resources, and the maturation of this industry could prove to be profitable for Kenya and could lead to the industrialization of its rural, impoverished areas. The purpose of this study is to gain valuable insight from the industry's professionals to explore the profitability and viability of an industry such as the cellulosic handicraft one in Kenya.

### References

- Allen, C., Bhorat, H., Hill, R., Rooney, C., & Steenkamp, F. (2019). Building economic complexity in the South African fibrous plant economy. *Development*.
- Bolderston, Amanda (2012). Conducting a research interview. *Journal of Medical Imaging and Radiation Sciences*, 43(1), 66-76.
- Bonner, C. (2024). Craft supply chains in Africa: Consolidating our findings. *Women in Informal Employment: Globalizing and Organizing*, 41(1), 1-20.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77—101. <https://doi.org/10.1191/1478088706qp063oa>
- Carter, N. (2014). The use of triangulation in qualitative research. *Number 5/September 2014*, 41(5), 545-547.
- Chen, H. T. (2006). A theory-driven evaluation perspective on mixed methods research. *Research in the Schools*, 13(1), 75-83.
- Chun Tie, Y., Birks, M., & Francis, K. (2019). Grounded theory research: A design framework for novice researchers. *SAGE open medicine*, 7, 2050312118822927. <https://doi.org/10.1177/2050312118822927>
- Deterding, N. M., & Waters, M. C. (2021). Flexible Coding of In-depth Interviews: A Twenty-first-century Approach. *Sociological Methods & Research*, 50(2), 708-739. <https://doi.org/10.1177/0049124118799377>
- Grand View Research. (n.d.). *Middle East & Africa handicrafts market size and outlook*. Retrieved September 17, 2024, from <https://www.grandviewresearch.com/horizon/outlook/handicrafts-market/mea>
- Gupta, M. C., Boyd, L., & Lynn, H. (2008). Theory of constraints: a theory for operations management. *International journal of operations & production management*, 28(10), 991 – 1012.
- Jokia, L. D., Swanepoel, E., & Venter, M. (2021). Economic empowerment of women in the informal African craft industry: the case of Tembisa. *Journal of Economic and Financial Sciences*, 14(1), 578.
- Kamuiuru, J. C. (2015). *Proposing criteria for quality production of handicrafts in Kenya; A case study of leather and sisal bags* (Doctoral dissertation, University of Nairobi).
- Mabin, V. J., & Balderstone, S. J. (2020). *The world of the theory of constraints: a review of the international literature*. CRC Press.
- Makhitha, K. (2015). Supply chain practices and challenges in the craft industry in Gauteng, South Africa. *Journal of Applied Business Research*, 31(6), 2197.
- Nakiwala, W. (2022). *The use of date-palm tree fiber in the production of handicrafts* (Doctoral dissertation, Kyambogo University [unpublished work]).
- Pullanikkatil, D., Thondhlana, G., & Shackleton, C. (2021). The cultural significance of plant-fiber crafts in Southern Africa: a comparative study of Eswatini, Malawi, and Zimbabwe. *Forests, Trees and Livelihoods*, 30(4), 287-303.
- Redzuan, M., & Aref, F. (2011). Constraints and potentials of handicraft industry in underdeveloped region of Malaysia. *African Journal of Business Management*, 5(2), 256.
- Şimşit, Z. T., Günay, N. S., & Vayvay, Ö. (2014). Theory of constraints: A literature review. *Procedia-Social and Behavioral Sciences*, 150, 930-936.
- Thondhlana, G., Pullanikkatil, D., & Shackleton, C. M. (2020). Plant fibre crafts production, trade and income in Eswatini, Malawi and Zimbabwe. *Forests*, 11(8), 832.
- Wright, K. D. (2008). Cleverest of the clever: coconut craftsmen in Lamu, Kenya. *The Journal of Modern Craft*, 1(3), 323-343.

## **The Role of Artificial Intelligence in Weed Detection and Management: A Food Safety Perspective**

Oluwademilade Ogunbade; Brooklynn Tanner; Dr. Karleah Harris,  
University of Arkansas at Pine Bluff

Managing weeds effectively is a significant challenge in modern agriculture and presents serious risks to food safety (Vasileiou et al., 2024). Weeds reduce agricultural productivity and contribute to food contamination by hosting pests and pathogens, leading to increased reliance on chemical interventions that may leave harmful residues in food products (Partel et al., 2019). Thus, the incorporation of artificial intelligence (AI) into agricultural weed management has transformed traditional methods, allowing for accurate weed detection and control (Monteiro et al., 2021; Wang et al., 2019). AI-based solutions, particularly machine learning, and robotic systems offer innovative ways to address these challenges. Therefore, food safety is crucial for human health and aligns with the principles of Family and Consumer Sciences (FCS) by strengthening food security, promoting public health, and advancing environmental sustainability.

**Purpose:** This study investigates the use of AI technologies to enhance the efficiency, precision, and sustainability of weed detection and management, with a focus on ensuring food safety. It aims to identify the shortcomings of traditional methods and propose AI-driven approaches to improve agricultural practices.

**Objectives or Hypotheses:** 1) To analyze the accuracy and reliability of AI models, including artificial neural networks (ANNs), in predicting optimal weed control periods to support sustainable food safety. 2) To evaluate the efficiency of robotic systems for real-time weed detection and targeted herbicide application, contributing to improved agricultural productivity and food safety. 3) To investigate the environmental, economic, and food safety impacts of adopting AI-driven weed management systems.

**Methods:** The study conducts a systematic review of existing literature on AI-driven weed management systems and their impact on food safety. The databases searched were EBSCO, ProQuest, ScienceDirect, Web of Science, ERIC, and Google Scholar. The selection criteria included studies that focused on AI applications in weed detection, precision agriculture, and food safety. The methodology adheres to Snyder's (2019) guidelines for identifying, analyzing, and evaluating studies related to this research phenomenon.

**Results and Discussion:** The reviewed literature demonstrates that AI-powered weed management technologies offer a revolutionary approach to modern agriculture and food safety. The results from the existing literature showed that ANNs achieved over 95% accuracy in predicting optimal weed control timings. Robotic sprayers effectively reduced herbicide usage by selectively targeting weed patches, achieving 99.5% accuracy in site-specific applications. Ground-based imaging techniques successfully distinguished weeds from crops even under varying light conditions and overlapping growth patterns. These technologies enhance operational efficiency and significantly reduce environmental pollution and costs associated with herbicide usage. Partel et al. (2019) highlighted that AI-driven precision weed management

directly impacts food safety by minimizing chemical residues in food products, reducing contamination risks and improving overall crop quality. Precision application of herbicides through AI-integrated autonomous systems ensures that only targeted weeds receive treatment, lowering the amount of chemicals that enter the food chain (Gonzalez-de-Soto et al., 2016). Future research should prioritize the development of affordable, accessible solutions to facilitate the widespread adoption of these innovations. Our research has the potential to strengthen food safety policy and add valuable insights to the existing literature on AI, weed management, and food safety. This study contributes to the field of FCS by addressing key concerns related to food safety, environmental sustainability, and agricultural efficiency. It also aligned with the FCS body of knowledge's core concepts- well-being and the use of technology.

## Convenience or Nutrition: The Role of Affordable Processed Foods in Student Dietary Choices

David Opiri, University of Arkansas Pine Bluff

**Purpose:** The affordability of processed foods has become a significant factor influencing the dietary habits of college students, who often prioritize convenience and cost over nutritional value. This trend raises concerns about the long-term health implications and the need for accessible, healthier food options on campuses. This study explored how the affordability of processed foods influences the eating habits of college students, particularly those from lower socioeconomic backgrounds. It examined the relationship between food costs, accessibility, and students' dietary choices, emphasizing the implications for health outcomes and academic performance. The objectives of the study were to investigate the extent to which food affordability affects college students' reliance on processed foods and to analyze the differences in eating habits among students from varying socioeconomic backgrounds. Additionally, the study assessed the impact of food insecurity on students' nutritional choices and well-being and evaluated the university initiatives aimed at promoting healthier eating habits among students.

**Methods:** A quantitative survey was conducted with 32 college students using a QR-code-based questionnaire. The survey collected demographic information, including indicators of financial aid and financial independence, to assess socioeconomic background. Key questions focused on processed food consumption, perceptions of food affordability, and attitudes toward healthier eating options. The data was analyzed using descriptive statistics to identify trends and correlations between financial constraints and dietary habits.

**Results and Discussion:** The results revealed the following: *Prevalence of Processed Food Consumption:* 66% of students reported consuming processed foods daily or 3–5 times per week. *Financial Influence on Food Choices:* A significant portion of students cited affordability as a major factor in their dietary decisions. Lower-income students consumed more processed foods due to financial constraints and convenience. *Health Implications:* Frequent consumption of processed foods was linked to increased risks of obesity, chronic diseases, and poor academic performance. *University Initiatives:* While some universities offer programs like food pantries and nutritional education, engagement is lower among low-income students due to stigma and logistical challenges. *Nutritional Awareness Gap:* 36% of students lacked awareness of the connection between nutrition and mental health, highlighting the need for better education on healthy eating.

**Summary and Conclusions:** The study emphasized the significant impact of food affordability on students' eating habits, with financial limitations driving higher consumption of processed foods. Addressing food insecurity through policy changes, increasing access to affordable healthy options, and enhancing nutritional education can contribute to better student health outcomes. Proposed solutions include expanding healthy food choices on campus, introducing grab-and-go nutritious meals, and collaborating with local farms to improve fresh food availability. Raising awareness through educational campaigns can further encourage healthier eating behaviors. By tackling these challenges, universities can foster a healthier student population, improving both academic performance and long-term well-being.

## **UNDERSTANDING COLLEGE STUDENTS' BARRIERS AND MOTIVATIONS IN ACCESSING FOOD SECURITY RESOURCES**

David Opiri, University of Arkansas Pine Bluff

Food insecurity affects nearly 30% of college students, posing risks to their health and academic success. Despite the fact that many institutions provide resources on food security, student engagement is still limited because of a number of challenges. This study looks at students' reasons for participating and the obstacles they encounter while trying to access food security programs. Improving access, lowering stigma, and guaranteeing that students obtain enough nutrition all depend on an understanding of barriers to food security program participation. Resolving these problems can improve academic performance and general well-being.

A quantitative research design was employed using a questionnaire distributed to 62 college students. Data collection focused on student experiences, barriers, and motivations related to food security programs. Descriptive statistics were used to analyze the data. Additionally, real-world experiences teaching children in a mosque and church about nutrition literacy and cooking skills informed this study. The findings revealed that the primary barriers to participation contained lack of time (75%) and lack of awareness (22%) about available programs. Despite these obstacles, students' main motivations were to have a positive influence (63%) and help others (78%).

The study indicates universities should increase awareness, reduce stigma, and promote student-led initiatives that promote engagement in food security programs. Universities should use social media, student organizations, and academic advisors to begin specialized awareness campaigns that will increase student involvement. Additionally, integrating peer-driven outreach programs, leadership roles, and practical nutrition education could inspire students to make healthier choices and encourage a food security culture on campus. Addressing logistical and social barriers while using students' motivations can foster an engaged student body that promotes food security, improving well-being and academic success.



# Council for Accreditation Student/Facility Projects





**Collegiate Assembly and Council for Accreditation (CFA)**  
**Faculty-Student Project Posters**

<b>Poster Number</b>	<b>Title</b>	<b>Accredited Institution</b>	<b>Student/Faculty</b>
CFA-1	Diversity Grows Here	Louisiana Tech University	Emma Ammons Hutchings, Avery Johnson, Cameryn Thompson, Katheryn Walker  Faculty: Amy Yates
CFA-2	Enhancing Financial Literacy through Service Learning: A Collaborative Effort with United Way	Louisiana Tech University	Megan Grider and Haylee Shoemaker  Faculty: Amy Yates
CFA-3	Integrating Fashion from Concept to Consumer In a Fashion Merchandising Curriculum Through a Student Directed Business	Louisiana Tech University	Surayya Jones and Kinzley Allen  Faculty: Kathleen Heiden
CFA-4	Little Steps, Big Discoveries: Infant and Toddler Development through the Denver	Louisiana Tech University	Audrey Montgomery  Faculty: Tonya Vandenbrink
CFA-5	Pair-A-Planet: Creating and Administering an Educational Activity	Louisiana Tech University	Camdyn Slade  Faculty: Tonya Vandenbrink
CFA-6	Positively Reinforcing People	Louisiana Tech University	Alyssa Pace  Faculty: Tonya Vandenbrink
CFA-7	Innovative Approaches to Teaching Child Development: The Role of My Virtual Child with Theory and Practice	University of Arkansas at Pine Bluff	Brooklynn Tanner  Faculty: Karleah Harris and Charline Harris
CFA-8	Special Olympics Missouri Fashion Show	University of Central Missouri	Dally Bruns, Rachel Gardner, Campbell Mayer, Kaci Wright, Malia Gutierrez, and Avery Barr  Faculty: Erica Spurgeon
CFA-9	Facilitating Real-World Experiences: Internships in Retailing and Consumer Science	University of Houston	Anisa Limon  Faculty: Blake Mudd and Barbara Stewart

**Collegiate Assembly and Council for Accreditation (CFA)**  
**Faculty-Student Project Posters**

CFA-10	Global Experiences: Study Abroad at the University of Houston	University of Houston	Elizabeth Flores, Dyanna Gonzalez, Gloria Varela, Koryn Barker  Faculty: Barbara Stewart, Olivia Johnson, Daiane Polesello, Melika Shirmohammadi
CFA-11	AI Based Student Success Project: Strategies to Reinforce Content Attainment and Tool Application	University of Houston	Nicole Figueroa, Victoria Navarro, Cara Prim  Faculty: Barbara Stewart
CFA-12	Exploring Greenwashing, Wokewashing, and Techwashing: Definitions and Real-Life Examples through Case Studies	University of Houston	Claire Petershagen and Betsy Chiu  Faculty: Barbara Stewart and Daeun Chloe Shin



**Council for Accreditation Faculty/Student Poster Abstract**

Title of the Project	Diversity Grows Here
Name of Accredited Institution	Louisiana Tech University
Name and Email of Individual Submitting Abstract	Amy Yates <a href="mailto:yates@latech.edu">yates@latech.edu</a>
Name and Email of Faculty Member(s)	Amy Yates <a href="mailto:yates@latech.edu">yates@latech.edu</a>
Name and Email of Student(s)	Emma Ammons Hutchings: <a href="mailto:lhutchings.emma@gmail.com">lhutchings.emma@gmail.com</a> Avery Johnson: <a href="mailto:akj015@latech.edu">akj015@latech.edu</a> Cameryn Thompson: <a href="mailto:clt051@latech.edu">clt051@latech.edu</a> Katheryn Walker: <a href="mailto:key045@latech.edu">key045@latech.edu</a>

**Identification of Real-World Experience(s) – Put an “x” for ALL that Apply**

	Client-Based or Industry-Sponsored Projects		Study Abroad or Global Programs
X	Fieldwork and Service Learning		Volunteer Work and Nonprofit Engagement
	Simulations and Case Studies		Internships or Co-op Placements
	Entrepreneurial Ventures	X	Capstone Projects

## **ABSTRACT** (Maximum of 2 pages)

The purpose of this project was to highlight and promote respect for diversity across the university campus by providing a week's worth of events to foster inclusion, awareness of diversity, and mutual respect within our campus community. By conducting five engaging and educational events, we strove to highlight the importance of the unique differences between students from various backgrounds and to showcase the diversity that ranges across our campus. This project sought to inspire meaningful connections and to reaffirm The School of Human Ecology's commitment to embracing diversity in all its forms.

This project encouraged a growth of appreciation for the diversity existing on campus. Student facilitators learned more about the diversity of their student body, and through their education, shared this knowledge with students, faculty, and staff around them. Those who participated in the events celebrating diversity were encouraged to lean into their differences; reflecting on the events, traits, and cultures that make them unique. Each of these characteristics are worthy of celebration. As a result of these events, students were given a platform to share and celebrate their individuality with other members of the campus community. Each student, faculty, and staff member that participated were eager to share the things that made them singular.

This capstone, service-learning activity was complemented by student assignments to connect the week's activities to the Family and Consumer Sciences Body of Knowledge, the Mission of the School of Human Ecology, and the development of each student's understanding of professional service.

In the future, it is encouraged that students continue to collaborate and honor the diversity growing on their campus. Every student is distinctive in their own way and deserves to be recognized and appreciated without judgement.



**Council for Accreditation Faculty/Student Poster Abstract**

Title of the Project	Enhancing Financial Literacy through Service Learning: A Collaborative Effort with United Way
Name of Accredited Institution	Louisiana Tech University
Name and Email of Individual Submitting Abstract	Amy Yates <a href="mailto:yates@latech.edu">yates@latech.edu</a>
Name and Email of Faculty Member(s)	Amy Yates <a href="mailto:yates@latech.edu">yates@latech.edu</a>
Name and Email of Student(s)	Megan Grider <a href="mailto:mcg049@latech.edu">mcg049@latech.edu</a> Haylee Shoemaker <a href="mailto:hbs011@latech.edu">hbs011@latech.edu</a>

**Identification of Real-World Experience(s) – Put an “x” for ALL that Apply**

	Client-Based or Industry-Sponsored Projects		Study Abroad or Global Programs
x	Fieldwork and Service Learning	x	Volunteer Work and Nonprofit Engagement
	Simulations and Case Studies		Internships or Co-op Placements
	Entrepreneurial Ventures		Capstone Projects

## ABSTRACT (Maximum of 2 pages)

This service-learning class project for Family Resource Management was conducted in partnership with United Way. The primary objective was to enhance financial literacy among high school students through a community event, while simultaneously providing undergraduate students with practical community education experiences and professional development opportunities.

The community event sponsored by the United Way, titled "Dollars & Sen\$e," was a financial literacy simulation designed for high school students. A total of 22 undergraduate students from the Family Resource Management course participated the event. The simulation was conducted at the town's civic center, engaging over 100 high school students in a financial literacy simulation focusing on budgeting and managing expenses

The desired results\* of the project were for undergraduate students to successfully applied their knowledge of financial literacy to educate high school students in order to

- Improve understanding of financial concepts among high school students
- Enhance teaching skills and confidence among undergraduate students
- Increase engagement in community service
- Provide a professional development model for undergraduate students

This service-learning project demonstrated the effectiveness of collaborative efforts between educational institutions and community organizations in promoting financial literacy. The undergraduate students not only contributed to the financial education of high school students but also gained valuable experience in teaching and community service. The project highlighted the importance of practical, hands-on learning experiences in higher education.

Connection to Family and Consumer Sciences Body of Knowledge: This project aligns with several components of the Family and Consumer Sciences Body of Knowledge:

1. Capacity Building: Undergraduate students developed their teaching skills and confidence, which are essential for building individual and community capacity.
2. Resource Development and Sustainability: The project emphasized the wise management of financial resources, promoting sustainable financial practices among high school students.
3. Wellness: By improving financial literacy, the project contributed to the overall well-being of both the high school and undergraduate students, addressing aspects of economic wellness and security.

\*Service-learning activity scheduled for February 19-20, 2025; Results and conclusion are likely to be adjusted.



**Council for Accreditation Faculty/Student Poster Abstract**

Title of the Project	Integrating Fashion from Concept to Consumer In a Fashion Merchandising Curriculum Through a Student Directed Business
Name of Accredited Institution	Louisiana Tech University
Name and Email of Individual Submitting Abstract	Dr. Kathleen Heiden heidenk@latech.edu
Name and Email of Faculty Member(s)	Dr. Kathleen Heiden
Name and Email of Student(s)	Surayya Jones and Kinzley Allen

**Identification of Real-World Experience(s) – Put an “x” for ALL that Apply**

	Client-Based or Industry-Sponsored Projects		Study Abroad or Global Programs
	Fieldwork and Service Learning		Volunteer Work and Nonprofit Engagement
	Simulations and Case Studies		Internships or Co-op Placements
X	Entrepreneurial Ventures		Capstone Projects

## ABSTRACT (Maximum of 2 pages)

**Purpose:**

The purpose of this project is to enhance the Fashion Merchandising and Retail Studies (FMRS) program by expanding the learning environment beyond the classroom through creating manufacturing and retail operations and providing service-learning opportunities for students. The project creates an environment where students, guided by faculty, are responsible for the success of a business.

**Rationale:**

The FMRS program prepares students for careers in a dynamic, technologically advanced, and globally focused industries. FMRS focuses on the areas of product creation, development, evaluation, production, distribution, and promotion of textile and apparel products. Coursework is supplemented by experiential learning through laboratory experiences and through internships. Since students are familiar with the manufacturing and retail environments from a theoretical basis, the addition of a manufacturing department and a retail store that is solely the responsibility of the FMRS program the program enhances teaching, research, and service as students integrate their classroom knowledge with practical experience. Participation in this program with increasing responsibilities throughout the program enables students to apply classroom knowledge and develop skills related to product development, production, sales, merchandising, management, and marketing. Expanding the learning environment provides the technology and resources to achieve the specific proposed project goals of (1) creating a bridge between classroom learning and industry experience for workforce preparedness and (2) providing service to university students and the community through providing merchandise.

**Implementation:**

The project established a manufacturing department and retail store for students to design, manufacture and sell Tech Tartan merchandise, a brand developed by the FMRS program. The program is staffed solely by students. The staff includes both unpaid students who are completing service hours and internships as well as paid students for product manufacturing and production management.

The students, under the guidance of faculty, are responsible for the success of the Tech Tartan. Junior and senior students majoring in FMRS, Art or Business hold positions that require a basic level of knowledge in the field. These students will have successfully completed courses that address and discuss aspects of the development, manufacturing and/or retail environment and possess the basic knowledge needed to perform the requirements of the position. Positions include fashion photographers, fashion stylists, product designers, product buyers, supply chain managers, assistant production managers, visual merchandisers, marketing managers, and web designers. Lower level FMRS students complete service hours and internships while working as sales associates in the retail store.



**Integration of Body of Knowledge:**

The Body of Knowledge is the foundation for our work as Family and Consumer Sciences professionals. It provides the guiding framework for how we approach problem solving to develop alternative courses of action for real world issues. As students participate in the project to develop, manufacture, and sell Tech Tartan merchandise, they have the opportunity to apply the Body of Knowledge as they are developing discipline specific skills. This project expands students' knowledge and understanding of core concepts (basic human needs, community vitality) and cross cutting themes (global interdependence, appropriate use of technology, resource development and sustainability, capacity building).

**Assessment of Progress**

Outcomes focus on students' knowledge, skills, and comfort level in practical experience. Process and implementation are evaluated by students and faculty throughout the project. Performance measures help the program define progress toward the project goal. The following performance measures are used to assess/evaluate the project's success to achieve the program goal.

Outcome	Evaluation Data/Indicators	Evaluation Data Source
Increased discipline specific knowledge and skills of students participating in program	Number and percent of students indicating an increase in knowledge and skill base	Faculty- designed course evaluation
Students' understanding of and application of Body of Knowledge to project	Students' ability to discuss how Body of Knowledge was applied/integrated into different aspects of the project (design, production, selling)	Student Body of Knowledge Reflection
Provide needed service to the community	Number of customers that purchase from the store Type of merchandise purchased Number of community members that attend special events	Store sales records Store sales records Event records
Resources integrated in classroom teaching activities and assignments (Objectives 3 & 5)	Number of faculty using proposed resources for classroom teaching Number of classroom assignments and projects completed using proposed resources	Faculty maintained records Course Syllabi
Participation in service-learning activities by students	Number of service-learning activities that utilize project resources Number of students participating in service-learning activities	Faculty maintained records Faculty maintained records



**Council for Accreditation Faculty/Student Poster Abstract**

Title of the Project	Little Steps, Big Discoveries: Infant and Toddler Development through the Denver
Name of Accredited Institution	Louisiana Tech University
Name and Email of Individual Submitting Abstract	Tonya Vandenbrink vandenb@latech.edu
Name and Email of Faculty Member(s)	Tonya Vandenbrink vandenb@latech.edu
Name and Email of Student(s)	Audrey Montgomery abm049@latech.edu

**Identification of Real-World Experience(s)** – Put an “x” for ALL that Apply

	Client-Based or Industry-Sponsored Projects		Study Abroad or Global Programs
X	Fieldwork and Service Learning		Volunteer Work and Nonprofit Engagement
	Simulations and Case Studies		Internships or Co-op Placements
	Entrepreneurial Ventures		Capstone Projects

## **ABSTRACT** (Maximum of 2 pages)

The Infant and Toddler Development course focused on the physical, cognitive, and socioemotional development of children from birth to three years of age. It helped us students and caregivers understand the growth and development that goes on during this crucial period in infants and toddler's lifetime. It helped us become aware of the behaviors and milestones that will occur during this stage. The Denver Developmental Screening test is an assessment that was practiced inside the classroom first. Then it was performed outside of this class at a local child care center to analyze young children between infancy and toddlerhood for developmental difficulties or strengths in all areas of development. The benefit of this assessment is being able to inform the parents of the results and to identify early developmental issues that might need further examination by a professional. This real world experience tremendously helped enhance my knowledge on infant and toddlers development by connecting the knowledge presented in the classroom to practice. This assessment is normally given between the ages of birth to six years of age and is widely used in the education system as well as other areas of child development. After performing this assessment, I was able to categorize the child's type of development as normal, suspect, or untestable. These types of development were to determine whether the child was on track, had potential delays, or refusing to participate in certain activities. The Denver Developmental Screening test improved my knowledge on children's development and focused on textbook specific concepts. Through this process, I was able to grasp a better understanding of child growth and how they accomplish tasks such as walking, drawing, or speaking. While performing this assessment, I was able to comprehend how children's words and symbol recognition grew with age as well as their ability to name objects and participate in physical activities. By seeing how the child interacted with this screening, it showed the importance of early intervention but also how the skills would predict their future physical, cognitive, and social skills. The Denver Developmental Screening test also correlated with the body of knowledge

particularly focusing on human development and the importance of family systems. Majoring in Human Development and Family Science will require future professionals to work with children and families. By having an insight on the specific developmental milestones, it will guide future caregivers and professionals on the best way to support a child's development through continued support assisted with age-appropriate activities. This experience helped to significantly impact my experience with infant and child development by applying real world applications to the classroom material. Having the opportunity to learn the material and then analyze in a real world setting made it easier and more beneficial to comprehend the information. It combined my awareness of the body of knowledge along with Human Development and Family Science in gaining a better understanding of ways to guide and support infant and toddler's development.



**Council for Accreditation Faculty/Student Poster Abstract**

Title of the Project	Pair-A-Planet: Creating and Administering an Educational Activity
Name of Accredited Institution	Louisiana Tech University
Name and Email of Individual Submitting Abstract	Camdyn Slade cslade14@yahoo.com
Name and Email of Faculty Member(s)	Dr. Tonya Vandenbrink vandenb@latech.edu
Name and Email of Student(s)	Camdyn Slade, cslade14@yahoo.com

**Identification of Real-World Experience(s) – Put an “x” for ALL that Apply**

	Client-Based or Industry-Sponsored Projects		Study Abroad or Global Programs
x	Fieldwork and Service Learning		Volunteer Work and Nonprofit Engagement
	Simulations and Case Studies		Internships or Co-op Placements
	Entrepreneurial Ventures		Capstone Projects

## ABSTRACT (Maximum of 2 pages)

In an Early Childhood Development course, I had the opportunity to engage in creating and administering an educational activity for preschoolers age 3-to-4-years-old. In the course students learned about physical, cognitive, and socio-emotional development of preschoolers. For instance, in the cognitive domain students have learned about how children problem-solve, grow in their attention span, their ability to engage in matching, comparing, organizing, and simple reasoning to name a few. Development in the physical domain consists of muscle control, balance, coordination, body awareness and self-help skills that are developing throughout the preschool years. Within the socioemotional domain, children during this age are learning to regulate their behavior and emotions, develop relationships, work together and create a positive personal identity.

Within the course students were able to engage in an experiential learning project that provided field experience related to topics within the course. The goal of the project was for students to utilize knowledge learned in the classroom and apply that knowledge directly to a real-life situation. In this case, a preschool classroom. In addition, the project had to aid in the development of preschooler's skills within each domain; physical, cognitive, and socio emotional. Specifically, the project was to create an educational activity appropriate for three and four year-olds that also corresponded with the center's theme of the week. The week our group administered our activity, the theme was Space. The group created Pair-A-Planet with the goal of assisting children in learning to identify and name the planets. To make the activity fun and age appropriate, we created a planet matching game. To do this, pictures of the planets were cut into multiple pieces and laminated. Children were first introduced to the activity by watching a quick educational video on the planets, then pictures of the planets were held up to educate them on the name, shape, and qualities that make up each planet. After this, children were divided into small groups and engaged in the matching game. To finish, children were once again shown the pictures of the planets and asked to name them. This educational activity assisted in every domain of development. Specifically it worked with the children's cognitive domain by matching, organizing, and increasing their attention span. The physical domain was focused on as children used their fine motor skills to engage in a pincer grasp to grab the cards and put them together. The socioemotional domain by requiring them to take turns, wait patiently, and work together with classmates.

We found that most children really enjoyed the activity and were actively learning about the planets. In the 3-year-old room we found that children had a difficult time waiting their turn when matching and they didn't always know which planet was which. However, in the 4-year-old room we noticed children were more patient and attentive as they each took turns and worked together in the matching game.

By the end of the class, I was able to understand the small differences between ages three and four. At age three, children are more egocentric and participate in parallel play with their classmates. It's not that children aren't cooperative, they just don't understand how to play together or focus on a specific task at hand. Then when taking a look at the age of four, the children have begun to learn how to work together to achieve the same goal. Being able to teach and provide a learning environment for children has further educated me in my career, and I am looking forward to taking this information with me in the future.



**Council for Accreditation Faculty/Student Poster Abstract**

Title of the Project	Positively Reinforcing People
Name of Accredited Institution	Louisiana Tech University
Name and Email of Individual Submitting Abstract	Alyssa Pace alyssalpace@gmail.com
Name and Email of Faculty Member(s)	Tonya Vandenbrink vandenb@latech.edu
Name and Email of Student(s)	Alyssa Pace alyssalpace@gmail.com

**Identification of Real-World Experience(s) – Put an “x” for ALL that Apply**

	Client-Based or Industry-Sponsored Projects		Study Abroad or Global Programs
x	Fieldwork and Service Learning		Volunteer Work and Nonprofit Engagement
	Simulations and Case Studies		Internships or Co-op Placements
	Entrepreneurial Ventures		Capstone Projects

## ABSTRACT (Maximum of 2 pages)

As a college student majoring in Human Development and Family Sciences with a concentration in child development, I have taken various classes pertaining to the emotional, cognitive, and physical development of children. Specifically, in my early childhood development class, we learned a great deal about the emotional development of children aged two to six years old. One thing we learned that I was highly interested in is the idea that children have the ability to feel emotions to their fullest extent, but do not have the resources to manage these emotions. I found this interesting because it explains why many children exhibit such extreme behaviors over things that, as adults, we would consider small.

In order to expand our understanding of children's inability to regulate their fully formed emotions, my class read a book titled *The Whole Brainchild*. This book provides various strategies teaching adults working with children how to emotionally connect with children in order to assist them in processing their emotions. One way the book discussed on how to assist children in processing their emotions was strategy idea of increasing the number of positive experiences had with children. These positive experiences could include playing games, watching movies, or various other activities the child would regard as fun. The book says that each time an adult and child have a positive experience, the child's brain releases dopamine which is a chemical in the brain that provides a sense of reward. Dopamine released after a fun experience with the adult positively reinforces the child the idea that relationships are rewarding and will encourage the child to want to continue to create them.

I've been able to use knowledge gained from both my courses and this book in my field experience. I had the opportunity to engage in field experience at an Applied Behavior Analyst (ABA) clinic. In ABA therapy, creating a positive bond between a client and therapist is important. If a client is not motivated to work or does not trust the therapist, they will not learn skills as effectively as they could if this positive relationship did exist. In the field of ABA Therapy, establishing a positive relationship between the client and therapist is called pairing. In many ABA Therapy settings, the first couple of sessions and the beginning of each session are spent pairing with the client. Through having a well-established pair, the client is more motivated to participate in tasks targeting skills for the client to learn for their day-to-day lives. Many of these skills include regulating emotions in order to decrease the number of dangerous behaviors the child is engaged in. If the client has had enough positive experiences with the therapist, they are more likely to have more success in ABA therapy than if the client has not had these positive experiences with the therapist.

During my field experience at the ABA clinic I drew a lot from my early childhood development class where I learned about children not being able to properly regulate emotions and this information being supplemented by *The Whole Brainchild*, I have been able to make connections from this information into my fieldwork. For example, Jane Doe is a six-year-old, nonverbal client. Before making the connection through my course work supplemented by *The Whole Brainchild* that positive experiences can double as positive reinforcement, during our sessions together, this client would come to me to work and then go off and play during her breaks between work. Being as the child was nonverbal and showed no interest in actually being around me, I allowed the client to play with her toys alone and did not engage. When the client's break would end and work would start, she would engage in behaviors such as screaming, crying, hitting, and kicking. This delayed the client from actually being able to learn helpful skills.



After reading this book and making the connection between positive experiences and positive reinforcement, I have now begun sitting with the client and actively watching as the client plays with her toys. After a few sessions of simply being engaged and associating myself with the client's tangible reinforcing items, I am now able to actually play with the client. Because I am now able to play with the client, I am engaging in positive experiences, meaning that I am positively reinforcing the client to continue to want to engage with me and others. Now that I have established myself as a reinforcer, the client transitions from play time to work time without anywhere as near as severe behaviors; and when these behaviors are present, the client is now able to come to me as a resource for emotional regulation, meaning that the behaviors are far less severe and dangerous than they once were.

Through what I learned in my early childhood development class about children not being able to fully process their emotions and then having that information supplemented by the book *The Whole Brainchild*, I have been able to apply this knowledge into my fieldwork of ABA therapy. While doing my fieldwork in an ABA therapy setting, I have been able to directly observe the information I learned in my class and through *The Whole Brainchild*. This observation has helped to increase my knowledge and understanding of my study of using pairing as positive reinforcement because I have been able to see it happen first-hand.

This experience in the field in relation to knowledge gained in the classroom and through supplemental readings, connects in many ways to the body of knowledge. First it connects to capacity building as it increases students' expertise of child development and assists in their ability to acquire knowledge learned in the classroom. Learning in the field is related to life course development as it provides students with a closer look into the ecological framework that makes up an individual life such as social interactions and biological development. Basic human needs and Individual well-being are incorporated as this specific field experience focused on well-being of children and assisting in regulation of emotions to achieve an overall healthy life.



**Council for Accreditation Faculty/Student Poster Abstract**

Title of the Project	Innovative Approaches to Teaching Child Development: The Role of My Virtual Child with Theory and Practice
Name of Accredited Institution	University of Arkansas at Pine Bluff
Name and Email of Individual Submitting Abstract	Dr. Karleah Harris, <a href="mailto:harriska@uapb.edu">harriska@uapb.edu</a>
Name and Email of Faculty Member(s)	Dr. Karleah Harris, <a href="mailto:harriska@uapb.edu">harriska@uapb.edu</a> Dr. Charline Harris, <a href="mailto:charris3@umes.edu">charris3@umes.edu</a>
Name and Email of Student(s)	Brooklynn Tanner, <a href="mailto:tannerb5545@uapb.edu">tannerb5545@uapb.edu</a>

**Identification of Real-World Experience(s) – Put an “x” for ALL that Apply**

	Client-Based or Industry-Sponsored Projects		Study Abroad or Global Programs
	Fieldwork and Service Learning		Volunteer Work and Nonprofit Engagement
X	Simulations and Case Studies		Internships or Co-op Placements
	Entrepreneurial Ventures		Capstone Projects

## **ABSTRACT** (Maximum of 2 pages)

Integrating technology into educational practices is crucial in enhancing student learning outcomes and overall academic success by providing innovative tools and resources that cater to diverse learning styles. Technology can foster greater engagement through multimedia content, interactive software, and virtual simulations, making complex concepts more accessible. Hence, there is evidence that supports the use of computer-generated software in teaching developmental courses (Graves, 2013; Harris & Symons, 2018). This study explores using an internet-based instructional tool, My Virtual Child (MVC), with a group of undergraduate students ( $N = 40$ ). My MVC was developed by Frank Manis and is offered by Pearson Lab as a web-based simulation of actual child behavior and implemented with students in a lecture course. For 16-weeks, students raised their child from birth through late adolescence and recorded their interactions biweekly through the use of e-journals. At the end of the course, we examined student journal entries for major themes related to the learning experiences. We conducted a qualitative thematic analysis to identify the key concepts and themes related to students' experience. An exploration of student themes showed students overwhelmingly strong knowledge of parenting and child-rearing concepts. Students also were able to draw connections between parental behaviors and the child's actual developmental outcomes. More importantly, students learned through active learning experiences the real-life implications of parental decisions on children's behavior. From a developmental perspective, learning more about parent-child interactions and their active role in development is key to understanding child development in the social environment. Our assessment of the software suggests that the interactive nature of the experience aided in students' retention of core course content and overall mastery. The use of the My Virtual Child computer-generated software in a higher education course on child development can be a valuable tool for Family and Consumer Sciences (FCS) educators who teach developmental courses.



**Council for Accreditation Faculty/Student Poster Abstract**

Title of the Project	Special Olympics Missouri Fashion Show
Name of Accredited Institution	University of Central Missouri
Name and Email of Individual Submitting Abstract	Melissa Abner, Ph.D. mabner@ucmo.edu
Name and Email of Faculty Member(s)	Erica Spurgeon, Ph.D. Spurgeon@ucmo.edu
Name and Email of Student(s)	Dally Bruns Rachel Gardner Campbell Mayer Kaci Wright Malia Gutierrez Avery Barr

**Identification of Real-World Experience(s) – Put an “x” for ALL that Apply**

X	Client-Based or Industry-Sponsored Projects		Study Abroad or Global Programs
X	Fieldwork and Service Learning	X	Volunteer Work and Nonprofit Engagement
	Simulations and Case Studies		Internships or Co-op Placements
	Entrepreneurial Ventures		Capstone Projects

### **Introduction and Background**

In the fall of 2024, Dr. Melissa Abner of the University of Central Missouri (UCM) fashion program was contacted by the Kansas City area Special Olympics director of development to assist with planning a fashion show for a fundraiser event. This was the first time Special Olympics Missouri (SOMO) had done a fashion show event and the planning committee had limited knowledge about fashion shows; however, they are very efficient event planners. Abner became a member of the event planning committee and took student volunteers from the fashion program on the night of the event to produce the fashion show.

When Abner joined the committee, the venue and boutiques who would provide clothing had been secured. SOMO volunteers also helped secure athletes who were in Special Olympics within the Kansas City area to be models and arranged fittings for clothing. Abner gave insight to the planning committee on runway placement and layout, backstage arrangement, music, show order, and presentation of boutique information.

UCM Fashion students' role before the event was to arrange the lineup with the models assigned to boutiques. There were 24 models and 9 boutiques featured in the fashion show and outfits had already been secured at this time. Models had multiple outfits, so the boutiques had to be arranged strategically in the lineup to allow models time to change. On the day of the event, students organized clothing and accessories backstage, ran a model rehearsal, assisted models to get ready and in place, and worked backstage to help the models get onto stage at the correct time to help the flow of the show.

### **Student Experience**

Students and Abner arrived at the venue, a hotel ballroom, at 3:30pm on the day of the event with a model rehearsal planned at 4:00pm. The runway was set up, but the backstage area was not completed and space backstage was not big enough for models and assistants to move freely in and out; this was communicated to the director and fixed. A student showed the models where to enter and exit the runway, how to walk and pose; each model practiced two times to get more comfortable. At this time students realized that some of the models had limited mobility and two were in wheelchairs. They were quick to assist them and find solutions to help them up and down the runway ramps and steps. Students mentioned knowledge of Americans with Disability Act standards learned in store planning class and applied them to accommodate the models.

After the rehearsal, our team worked with staff and the models to make sure each model knew what they were wearing and tried to get it organized for quick changes. Boutiques had sent or dropped off clothing with no labels or instructions, so there was a lot to sort out. This was difficult because we did not have enough clothing racks and some models had multiple outfits that we could not space far enough apart in the lineup. This resulted in students using a lot of problem solving, organization, and communication skills. A student commented "I learned how to time the different vendors and models in a fashion show and how long apart to space them out to give models time to change. The corrections we made regarding this helped reduce stressful quick changes and gave everyone more of a pause to change and figure out what is happening next". During this process we also learned that the cognitive levels of the athlete models made it important to give very simple and clear instructions.

To be honest, backstage was chaos trying to get all of the models changed and into the correct outfits on time without causing large gaps in the show. Our team thought most models would have a person

assisting them to get changed and to the runway on time, but our team took on more of this role than we expected. The students jumped in and helped as needed and did a great job adapting to the situation.

### **Assessment/ Results**

Overall the show went very well with a few small glitches. When Abner met with the committee for a follow up and to plan for next year, the committee was very complimentary of the UCM students and even expressed that the fashion show would not have been possible without their help and expertise. The event is in the planning stages for next year; Abner and the students will have more input earlier in the process to help backstage run more smoothly.

This experience was not required for a specific class, so students participated on a voluntary basis. The fashion program requires 3 hours of community involvement for our fall seminar class, so some students counted this experience for that requirement. Students who participated were emailed and asked to provide feedback on 1) what they learned, 2) how this could help them in their future, and 3) the benefits of this experience.

Students reported that they learned a lot about fashion shows. One student said, “I learned a lot about the behind the scenes of a fashion show and it takes a lot more work than you would think”. Another student stated “even though I have volunteered at Kansas City Fashion Week before most details were figured out before the event had taken place. I learned how to time the different vendors and models in a fashion show and how to space them out to give models time to change.” A third student related the experience to her future career and how “it is important to know how a fashion show runs...especially all the little details the audience doesn’t see” for her future as an aspiring designer showing her own collection.

Problem solving was another thing mentioned by students. A student stated “I am very interested in learning about logistics of companies and figuring out how things work and this event gave me many opportunities to problem solve and figure out solutions. This experience helped me learn how to problem solve...” The student who helped figure out the first lineup also mentioned that problem solving and organization was needed for this event.

Students also enjoyed working with the special olympics athletes. Phrases like “the smile on their face”, “seeing their confidence grow”, “shine on stage, “rock the runway” and “helping them model” were mentioned by multiple students. From the teacher's perspective, seeing students jump in to help push a wheelchair, work to communicate with models, and show so much kindness and care made the whole experience worthwhile. Similarly, a student stated “Working with the Special Olympics athletes was very rewarding and I enjoyed talking to them and spending time with them. All of them put a smile on my face and I was very proud of everything we were able to do for them and this event.”

This event was a wonderful collaboration between SOMO and the UCM Fashion program. It provided real-world experience that infused the AAFCS Body of Knowledge. It allowed students to volunteer their time with a non-profit and help Special Olympics athletes fulfill a dream of modeling on a runway, while also supporting local accessory and apparel businesses (*Community Vitality*). The event also provided service learning for event planning and fashion show production in real time. Students practiced problem solving and communication skills (*Capacity Building*) and also worked with people of varying physical and mental ability (*Life Course Development*). It was a beneficial opportunity that we will be honored to repeat in the future.



**Council for Accreditation Faculty/Student Poster Abstract**

Title of the Project	Facilitating Real-World Experiences: Internships in Retailing and Consumer Science
Name of Accredited Institution	University of Houston
Name and Email of Individual Submitting Abstract	Blake Mudd -- <a href="mailto:bsmudd@central.uh.edu">bsmudd@central.uh.edu</a>
Name and Email of Faculty Member(s)	Blake Mudd – <a href="mailto:bsmudd@central.uh.edu">bsmudd@central.uh.edu</a> Barbara Stewart – <a href="mailto:bstewart@central.uh.edu">bstewart@central.uh.edu</a>
Name and Email of Student(s)	Anisa Limon -- <a href="mailto:avlimon@cougarnet.uh.edu">avlimon@cougarnet.uh.edu</a>

**Identification of Real-World Experience(s) – Put an “x” for ALL that Apply**

	Client-Based or Industry-Sponsored Projects		Study Abroad or Global Programs
	Fieldwork and Service Learning		Volunteer Work and Nonprofit Engagement
	Simulations and Case Studies	x	Internships or Co-op Placements
	Entrepreneurial Ventures		Capstone Projects

## ABSTRACT (Maximum of 2 pages)

**Background:** Initiated in 1980, the Internship in Retailing and Consumer Science (RCS) course has been highly effective in reinforcing community retailers to meet retail workforce demand and launching professional careers for Retailing and Consumer Science graduates. This engagement with the community typically serves about 60 students annually. HDCS 4393 and HDCS 4394 serve as the courses through which RCS majors are required to enroll and obtain internship experience to fulfill the graduation requirement for their degree. To meet the requirements of this course, students must be employed in an internship (preferred), part-time job, or full-time job throughout the duration of the semester. Through this course, students are expected to combine RCS theory with practical application in their professional setting, develop professional work competencies for a specific RCS-related occupation, and explore future RCS-related career options. This *real-world* experience is vital to the holistic RCS student experience and prepares graduates to take on the dynamic retail industry head-on upon graduation.

### *Capacity Building: Family and Consumer Sciences Body of Knowledge*

In addition to being a highlight of the RCS student experience, this program presents the students with an all-encompassing view of Capacity Building. Capacity Building means individuals, families, and communities acquire knowledge, and skills, build on assets and strengths, respect diversity, and respond effectively to change. These relevant and structured tenants of Capacity Building were important to the faculty members involved in building the program's design and overall structure. Throughout this abstract, you will see how these tenants of capacity building were implemented in one such student's (Anisa's) experience as she interned with a sustainable fashion startup.

**Acquiring Knowledge and Skills:** HDCS 4393 is designed to be taken in the last year of a student's academic journey after completing most of their assigned RCS coursework, leading it to being designated as a student's capstone requirement. While capstone requirements tend to be considered a siloed component for a student pursuing their degree, the RCS Internship program is intertwined with the overall RCS experience. Students engage in multiple courses related to both foundational, as well as niche, topics in the retailing industry that pique their interest. These courses include Consumer Science, Visual Merchandising, Entrepreneurship, and more, where they acquire the appropriate knowledge and skills to be successful in their upcoming careers. Combining their previous coursework, their current employment position, and the professional development activities associated with HDCS 4393, students begin bridging their coursework to the *real-world* in this holistic experience.

**Building on Assets and Strengths:** One student who recently participated in the RCS Internship experience, Anisa Limon, highlighted in a testimonial that this experience provided her with an opportunity to continue building on the assets and strengths she gained from her previous RCS coursework and how she brought this into her internship at a sustainable fashion startup. She stated: "My internship through the HDCS 4393 capstone was a transformative journey in capacity building, shifting me from simply surviving coursework and managing time constraints to thriving in real-world applications. What once felt daunting (immersing myself in a fast-paced, ever-evolving environment) became the exact challenge I needed to grow personally and professionally."



**Respecting Diversity:** The University of Houston, a Carnegie-designated tier-one research institution, has embedded the principle of respecting diversity in its overall strategic plan and everyday values. UH's designation as a Hispanic-Serving Institution (HSI) by the Department of Education allows students to participate in classroom and/or extracurricular activities with peers from different ethnic and cultural backgrounds. For this particular initiative, allowing students from all backgrounds to participate in employment opportunities that align with their interests, and share their experiences with others, means that students are respecting fellow students from diverse backgrounds while supporting one another.

**Responding Effectively to Change:** Because retailing is inherently a fast-paced, ever-evolving field, students are familiar with change; not just understanding that change happens but how to respond to change effectively. Anisa furthers this idea in her testimony when she discusses adjusting to her internship role, stating: "This adaptability, combined with guidance from my professors, empowered me to approach challenges with future-forward thinking solutions, ensuring my work was both innovative and socially responsible. More importantly, I recognized that capacity building extended beyond technical knowledge—it became about broadening my perspective and expanding my capacity bandwidth to transition from theory into impactful practice."

**Evaluations:** In addition to general student pre- and post-experience surveys, to ensure a positive experience for both the student and the employer, a Student Self-Evaluation and Supervisor Evaluation must be completed by the close of the semester. In both evaluations, the student and supervisor are asked to evaluate the student's performance on multiple metrics, with "Use of critical thinking skills for diverse approaches in determining alternative solutions for retail and general business issues.", and "Understanding of standards for ethical professional practice", just to name a few. In addition to the metrics prescribed to all students participating in this program, each student also designs their own measurable goals at the beginning of the semester that their supervisor evaluates at the conclusion of the course. This ensured a cohesive experience was being met both in and out of the classroom in this co-curricular learning experience, and that students could apply an understanding of the different tenants of capacity building, no matter where they were employed.

**Summation:** Capacity Building means individuals, families, and communities acquire knowledge, and skills, build on assets and strengths, respect diversity, and respond effectively to change. Through this *real-world* application, students like Anisa transition from theory to practice, gaining invaluable professional competencies while fostering diversity, innovation, and ethical leadership. By integrating academic coursework with hands-on experience, this program ensures that graduates are not only prepared for the workforce but are also empowered to shape the future of retailing and consumer sciences.



**Council for Accreditation Faculty/Student Poster Abstract**

Title of the Project	Global Experiences: Study Abroad at the University of Houston
Name of Accredited Institution	University of Houston
Name and Email of Individual Submitting Abstract	Barbara L. Stewart, <a href="mailto:bstewart@uh.edu">bstewart@uh.edu</a>
Name and Email of Faculty Member(s)	Barbara Stewart, <a href="mailto:bstewart@uh.edu">bstewart@uh.edu</a> Olivia Johnson, <a href="mailto:ojohnson@Central.uh.edu">ojohnson@Central.uh.edu</a> Daiane Polesello, <a href="mailto:dpolesel@Central.uh.edu">dpolesel@Central.uh.edu</a> Melika Shirmohammadi, <a href="mailto:mshirmoh@Central.uh.edu">mshirmoh@Central.uh.edu</a>
Name and Email of Student(s)	Elizabeth Flores < <a href="mailto:eflore44@CougarNet.UH.EDU">eflore44@CougarNet.UH.EDU</a> >, Dyanna Gonzalez, < <a href="mailto:dgonza59@CougarNet.UH.EDU">dgonza59@CougarNet.UH.EDU</a> > Gloria Varela, < <a href="mailto:gsvarela@CougarNet.UH.EDU">gsvarela@CougarNet.UH.EDU</a> > Koryn Barker, < <a href="mailto:knbarke3@CougarNet.UH.EDU">knbarke3@CougarNet.UH.EDU</a> >

**Identification of Real-World Experience(s) – Put an “x” for ALL that Apply**

Client-Based or Industry-Sponsored Projects	x	Study Abroad or Global Programs
Fieldwork and Service Learning		Volunteer Work and Nonprofit Engagement
Simulations and Case Studies		Internships or Co-op Placements
Entrepreneurial Ventures		Capstone Projects

## ABSTRACT (Maximum of 2 pages)

### **Purpose & Program Description:**

The University of Houston Department of Human Development and Consumer Sciences initiated a global study abroad program in 2023 with a highly successful study tour for 24 students and 3 faculty members to Paris, France and Milan, Italy. In 2025 the program was extended by study tour experiences for 13 students and 3 faculty members to Madrid and Barcelona, Spain.

Each 10-day study tour engaged Retailing and Human Resource Development (HRD) undergraduate and graduate students in immersive in-country and in-class experiences that explored the global nature of the workforce including global mobility and the need to understand cultural diversity, as well as the global nature of the retail and human resource development fields. Hands-on experiences, corporate visits, and cultural immersion undergirded the learning process.

**Targeted Student Outcomes** included those related to the following:

- Cultural competencies
- Global awareness
- Effective communication
- Personal and professional growth

### **Rationale:**

Students benefit from global in-country experiences focused on their major field of study, including both professional and personal growth aspects. Content related to the AAFCS Body of Knowledge integrative elements (life course development & human ecosystem), core concepts (basic human needs, individual well-being, family strengths, & community vitality), and cross-cutting themes are enhanced via global travel experiences.

### **Process:**

Students enrolled in HDCS 4393 (undergraduate) or HRD 6358 (graduate) courses during the spring semester. These courses were used to prepare students for the experience including, cultural orientation, travel protocols, expectations, teambuilding, safety protocols, and country-specific industry preparation and exposure. Travel took place during the intersession between spring and summer terms.

Retailing and HRD content and students were included based on the related natures of the disciplines and pragmatic needs. Motivations to collaborate included:

- Synergy – complementing each other's strengths.
- Professors from different programs to give students a sense of familiarity.
- Graduate programs are smaller, there is a need to collaborate.
- Value experiential learning
- Communicating with admin, contracts, contacts

### **Assessments / Outcomes (2023):**

#### **Quantitative Data**

- Participation rate: 100% of students (N=24) participated in 95% of the possible activities. The outcome was achieved.
- Grades for Intercultural Research Project: 100 students (N=24) earned at least 85% of the possible points for the project. The outcome was achieved.
- Student grade distribution: A= 15, A-=7 B=1, C=1, D=0, F=0

## Qualitative Data

- Final Reflection Paper (selected)
  - “My study abroad experience in Paris was **truly unforgettable**. From the moment I arrived, I knew that I was in for a trip of a lifetime. Throughout my stay, I was fully **immersed in the local culture**, language, cuisine, and more. The program offered me the chance to learn about a wide range of topics, including business abroad and HRD, through interactions with people from diverse backgrounds.” Elizabeth Flores
  - “**What a trip! What an experience!** Never in my wildest dreams did I ever thought I’d get to participate in a study abroad trip. The study abroad trip to Paris, France & Milan, Italy was the **experience of a lifetime**.” Dyanna Gonzalez
  - “Getting a mini tour of Paris had me smiling of happiness. **Not being able to believe I was in Paris. ME?** Most people don’t even get the chance to travel this far in their lifetime! I was enjoying it. I was so grateful. It was beautiful. **Learning the difference in the districts**, seeing the Eiffel Tower ♡♡♡.” Gloria Varela
  - “Today we visited the opera house museum. The Italians are very much like the Opera as we studied during class before our trip. **There’s a sense of dual personality within the country**. People would go to the opera house to gossip and meet up to discuss or show their class of elegance. Something I didn’t know before today was that before there were floor seats they would use their horses as seats in the opera house. I couldn’t imagine that. **Italian culture is steeped in the arts, family, architecture, music and food**. Within the opera house and a lot of other parts of the city you find various examples to understand this.” - Koryn Barker
- Unquantifiable Outcomes
  - Growth
  - Lasting relationships
  - Readiness for global employment
  - Learning how to deal with adversity

## Conclusions/Implications:

Students experienced life-changing learning that will impact their professional and personal lives!



**Thank you!**  
**To our Board,**  
**Members,**  
**Friends, and**  
**Partners**