



Article

# **Everyday Creativity Practiced through a Capsule Wardrobe**

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Abstract: This case study examines how practicing a capsule wardrobe can influence one's creativity and how this daily activity can contribute to sustainability at the level of the individual users. The focus is on little-c creativity, which highlights everyday creativity practiced through everyday activities, such as dressing. Various capsule wardrobe projects that focus on voluntary simplicity are emerging in the U.S. This study begins with the premise that capsule wardrobes can provide individuals with an opportunity to enhance their creativity by experiencing a limited wardrobe. In addition, such a limited wardrobe could help contribute to a circular fashion economy by reducing the overconsumption of clothing. Seven female volunteers participated in the eight-week capsule wardrobe project. The multiple data collection methods included an online survey, creativity tests, in-depth interviews, and daily journals. In eight weeks, the participants learned about wardrobe strategies and developed innovative dressing habits through creating and managing their capsule wardrobes. The findings show that intrinsic motives, including satisfaction and enjoyment, play important roles in enhancing creativity. Moreover, this project helped the participants to recognize what to purchase, how to wear and care, and how to discard clothes, which can result in a reduction in thoughtless overspending on clothing.

**Keywords:** capsule wardrobe; wardrobe management; creativity; sustainability; voluntary simplicity; circular economy



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# 1. Introduction

Scholars have considered whether one can be trained to be more creative. Lau, Ng, and Lee [1] argued that a person can be taught to think creatively, but creativity as an action cannot be taught. Kawamura [2], a fashion sociologist, argued, "creativity is a legitimation and a labeling process. One is not born creative, but one becomes, that is, one is identified as, creative".

Scholars and educators in the field of apparel have especially focused on how to enhance creativity in students. Tsai, Alexander, and Alexander [3] found that students who are asked to do an activity that stretches the imagination can temporarily increase their creativity performance. Lee [4] stated that problem-solving capabilities are the most important when it comes to creativity. His study showed that insightful problem-solving can increase the capabilities that can enhance creativity in art and design.

Previous research has focused on creativity in designing [5–8] and educating [9–13]. Fashion designers and students who create new, innovative, and original products are usually considered creative individuals. However, there are few studies on creativity and dressing with design as an essential daily activity as a goal. The everyday person who creates 'uses' for products and wears them in new, innovative, and original ways can be completing a creative act.

Recently, consumers began voluntarily simplifying their lives as a sustainable movement. Gregg [14] defined voluntary simplicity as having "singleness of purpose, sincerity

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and honesty within, as well as avoidance of exterior clutter, of many possessions irrelevant to the chief purpose of life" [14] (p. 6). It is important that individuals freely make the decision to limit expenditures on both consumer goods and services and to foster non-materialistic sources of satisfaction and meaning [15]. DeLong, Goncu-Berk, Bye, and Wu [16] argued that aesthetic desire is still critical in voluntary simplicity, especially with one's clothing. In previous research, consumers preferred to keep and use adaptable and versatile clothing items which can be worn in various ways for a longer time [17]. Designs for longevity and circular design have become critical topics in sustainability. In this aspect, sustainable fashion should be defined as a garment that is designed and can be maintained in use to last longer [18].

Fast production and mass production in the fashion industry have produced a myriad of same-looking garments that have extinguished both selection and distinctiveness in the marketplace [16,19]. As a result, consumers voluntarily began to challenge themselves to be more creative and sustainable by reducing the size of their wardrobes, and this has caused the emergence of various capsule wardrobe projects globally [19].

This case study examines how dressing habits and wardrobe strategies can influence one's creativity and how this daily activity can contribute to one's sustainability efforts. The premise is that a capsule wardrobe project can provide individuals with an opportunity to enhance their creativity by experimenting with a limited wardrobe. In this respect, their wardrobes provide resources and inspiration—the result being that the problem-solving in assembling outfits could enhance their creativity. In addition, such a limited wardrobe could help contribute to sustainability by reducing the overconsumption of clothing.

#### 2. Literature Review

#### 2.1. Little-c: Creativity as An Everyday Activity

Kaufman and Beghetto [20] conceptualized creativity as four different levels and developed the Four C Model—Big-C, Pro-c, little-c, and mini-c. Big-C creativity is eminent creativity. This is the study of creative geniuses who excel at high levels on creativity measures. Their works are considered within the theoretical structure as Big-C creativity. Many theories, including Csikszentmihalyi's [21] Systems Model of Creativity, have focused on this Big-C concept. Csikszentmihalyi [22] called the individual who exercises his or her influence on a field or domain or establishes a new domain a creative person. From the viewpoint of the Big-C theory, fashion designers such as Coco Chanel, Christian Dior, Yves Saint Laurent, Calvin Klein, Alexander McQueen, or Marc Jacobs, who created new styles, new trends, and new genres of fashion, can be considered as creative individuals at the highest level. Individuals who are professionally expert in any creative area but have not reached eminent status are considered as Pro-c. Mini-c is defined as "the novel and personally meaningful interpretation of experiences, actions, and events" [23] (p. 73). Mini-c is commonly used when evaluating the creative insights of elementary or high school students.

This study focuses on little-c creativity, highlighting the everyday creativity that results from participating in everyday activities [24]. From the viewpoint of little-c, creativity can be nurtured and improved because all humans have unfulfilled potential. The little-c creativity emphasizes the individual's characteristics, such as unconventionality, inquisitiveness, imagination, and freedom, rather than analytical abilities, which are the critical factors in evaluating one's Intelligence Quotient (IQ) [25]. This helps avoid the misconceptions about creativity that are usually produced when focusing on Big-C. When emphasizing Big-C, only a few individuals can be considered as creative [20,26].

There are several theories that are based on the concept of little-c. In the Component Model of Creativity, Amabile [27] associated creativity with three variables which she argued are required when creativity occurs: domain-relevant skills, creativity-relevant skills, and task motivation. Domain-relevant skills include knowledge, technical skills, and specialized talent. Creativity-relevant skills were described as "a cognitive style favorable to taking new perspectives on problems, an application of techniques (or "heuristics")

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for the exploration of new cognitive pathways, and a working style conducive to persistent, energetic pursuit of one's work" [28] (p. 5). Task motivation refers to the reasons for working on a task involving intrinsic and extrinsic motivations. These variables seem to be related to Big-C creativity; however, they are more deeply associated with little-c as they are needed and used in everyday activities.

Robert Epstein's Generativity Theory is another example that is grounded in little-c. This is "a formal, predictive, empirically based theory of ongoing behavior in novel environments" [29] (p. 759). Generativity Theory argues that creativity can be trained and enhanced through specific skills, conditions, and even daily life activities [30]. Epstein [29] argued that the generative mechanisms that underlie creativity are universal, but variability is the rule in one's behavior. Based on his theory, everyone has roughly equal creative potential for learning; through training in certain skills, it is possible to realize and strengthen one's potential.

Every day, people encounter and solve various large and small problems. Whether doing it consciously or unconsciously, problem-solving activities that happen in everyday life can enhance creativity. Epstein said, "This might sound ominous, but it's actually great news because it means that creativity can be engineered—and that all of us can realize the enormous creative potential lying within us" [31]. According to Amabile and Fisher [32], individuals with higher intrinsic motivation would be more likely to engage in a deeper level of involvement in the problem and portray flexible behavior. They argued that individuals can be most creative when they are motivated primarily by intrinsic factors including interest, enjoyment, satisfaction, and the challenge of the work rather than by any extrinsic factors. Kafman and Beghetto [20] also highlighted that intrinsic motivation is more critical than extrinsic motivation in shaping and positively affecting the little-c level, while at the Pro-c and Big-C levels both intrinsic and extrinsic motivation help to shape and prod creative activity.

As little-c approaches creativity with a more general and broader concept, diverse domains, phenomena, and individuals can be explored in these aspects. Therefore, the little-c level helps to underline the importance of the role that creativity plays in everyday life and the importance of developing creativity in everyday settings.

# 2.2. Creativity and Dressing Habits

Dressing is an essential daily activity that everyone experiences. In terms of little-c, dressing can be one of the influential daily activities of one's creativity. Several scholars who studied creativity found the connection between the act of dressing and creativity. Amabile [33] explored and classified children's creative behaviors by age. She revealed that dressing is a creative action among children who are 8–9 years old. Children at these ages usually express their creativity through dressing themselves in unusual ways by mixing and matching their clothes.

Lapolla and Sanders' study [34] showed how individuals can enhance their everyday creativity by reusing and repairing discarded clothing. They adopted Sanders' [35] four levels of creativity that people seek in everyday activities and gave examples based on reusing clothing. The first level is "doing", which requires minimal interest and no special skills. One example for this level of creativity includes organizing closets. The second level is "adapting", that is, personalizing by modifying a product with basic skills. This includes simple garment alterations, mending, or hemming for better fit. The third level is "making", which requires genuine interest and intermediate skills. Examples of this can be using instructions to turn a garment into another product or mixing and matching new outfits. The fourth and last level, "creating", most expresses one's creativity. An example in terms of reusing clothing or upcycling a garment in an original way is the use of advanced and experienced techniques, such as draping or patternmaking. In this aspect, how one uses a personal wardrobe should be an important concept to be explored when assessing everyday creativity.

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# 2.3. Origin and General Concept of Capsule Wardrobe

A capsule wardrobe is a minimal-sized personal wardrobe selected to be filled with essential, basic, classic, and timeless items of clothing which can be worn regardless of the season [19]. In 1980, the term 'capsule wardrobe' was first introduced by Susie Faux [36]. She was a founder of 'Wardrobe', a clothing boutique located in the West End of London. Wardrobe is a store that not only sells unique and high-quality fashion but also sells style and confidence [37]. From her parents and grandparents who were master ladies' tailors, she learned the importance of creative styling and quality. Moreover, she introduced new fashion designers, including Jil Sander, to British women and took the lead in promoting minimalist aesthetics. In 1998, she published her book, *Wardrobe: Develop Your Style & Confidence*, and provided strategies and helpful guidelines on building and managing a successful wardrobe, especially for career women. She said, "by building a capsule wardrobe you will buy fewer clothes of a higher quality that you will wear more often." [19] (p. 2).

In 1985, American fashion designer Donna Karen presented her first collection and introduced the concept of a capsule wardrobe to U.S. consumers. The title of the collection was 'Seven Easy Pieces'. All the looks of the collection had the same foundational pieces—black bodysuit and black tights. These pieces were matched with various items of clothing to make them look different and unique. For example, by simply adding a wrap skirt, a white shirt, loose-fit trousers, a tailored jacket, a camel coat, and so on, the foundational pieces became new, unique, and creative outfits [38,39]. After the show, Karen said in the interview, "So, many women find assembling the right clothes bewildering today. They've discovered fast ways to put food on the table, but they do not know how to get their wardrobes together easily" [39]. She also emphasized the importance of women's confidence based on the idea of a capsule wardrobe as Faux did: "And it had to accentuate the positive and delete the negative because that gives you confidence. And for the urban woman, confidence was power." [38] (p. 140).

Another fashion designer and brand that provides a capsule wardrobe collection is Eileen Fisher, based in New York. Eileen Fisher is known for a brand that is committed to minimizing textile waste and developing a sustainable, low-carbon, resource-efficient, and competitive product and business. Fisher believes and emphasizes that human rights are part of everyday decisions and are not limited to special projects or specific products [40]. Her Capsule Icon collection is made of organic linen that has natural shades with simple shapes that can be mixed and matched to create endless combinations [41]. Moreover, Fisher provides a collection called 'The System'. This collection is made of basic pieces of clothing items that have simple shapes in different lengths and proportions which can be worn across the line in various ways. "Having the right pieces means you can do more with less", said Fisher [42].

#### 2.4. Project 333

Recently, creativity has been identified as being linked to increasing the reuse of existing clothing and reducing the consumption of new apparel products [43]. Various projects engaged with the concept of the capsule wardrobe have been emerging in the U.S., with increasing participation in this sustainable activity. Project 333, one of the well-known capsule wardrobe projects in the U.S., was started in 2010 by Courtney Carver with the slogan of "be more with less" [44]. It is a minimalist fashion challenge to live and dress with 33 or fewer items of clothing for 3 months. Carver wrote two books—*Project 333* and *Soulful Simplicity*—to share her experiences and stories to help people find joy in their lives, especially with a limited wardrobe. The story of Carver and her Project 333 has been featured in various media, including the BBC, CNN, *O, The Oprah Magazine, Vogue, More Magazine, Real Simple Magazine*, and in *Minimalism*, a documentary about the important things. She has been traveling around the world and giving her lectures to people—called the 'Tiny Wardrobe Tour' [45].

Carver developed the basic rules of Project 333 as follows [46]:

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- When to create: every three months.
- What to include: 33 items, e.g., clothing, accessories, jewelry, outerwear, and shoes.
- What not to include: your wedding ring or other sentimental piece of jewelry that you
  never take off, underwear, sleep wear, in-home lounge wear, and workout clothing
  (but workout clothes have to be for workouts).
- How: choose your 33 items, box up the remainder of your wardrobe, seal it with tape and put it out of sight for 3 months.
- What else: consider that you are creating a wardrobe that you can live, work, and play
  in for three months. Remember that this is not a project of suffering. If your clothes do
  not fit or are in poor condition, replace them.

People might be concerned and worried about wearing the same outfits repeatedly in the same week. However, according to Carver, this process will allow people to look more put together and will have more to bring to the table in terms of creativity and mental clarity [46]. No one wears these 33 items in the same way every day. Participants of this project enjoy creating different combinations of ensembles using the limited items in their wardrobes every day, and they like to take selfies of their daily outfits and share them through their personal blogs or social media such as YouTube, Twitter, and Instagram. Participants sometimes transform their clothes to create new outfits or even mend and reform their items when they get boring. Verena Erin Polowy, one of the participants of Project 333, who is a fashion blogger, illustrator, and designer, shared four ways to get creative with a tiny wardrobe in her article: (1) Play around and try new things; (2) Find style inspiration that you can use with your wardrobe; (3) Follow other capsule wardrobe dressers on social media; and (4) Most importantly, feel good in your clothes [47]. Carver has emphasized how creativity is an important source of Project 333 as well as everyday activities. She argues that everyone has creative abilities, but they do not recognize how talented they are. She suggests that by simplifying the lifestyle, creativity can be closer to our lives in various forms, such as writing, fine art, teaching, cooking, working out, exploring, and more, which can be done in our daily lives [48].

## 2.5. Circular Economy and Capsule Wardrobe

The fashion industry relies on the linear economy system that pursues a fast cycle of "take, make, use and dispose" [49]. It has encouraged creating low-quality products, shortening the product life cycle, and increasing frequent consumption. Consumers have been encouraged to purchase more of low-priced garments, and they easily dispose of these garments after only several wears [50]. Unlike this traditional linear model, the circular economy (CE) aims to slow down the fast cycle of production and consumption and focuses more on quality than quantity. The CE has been defined in various ways in previous research. Kirchherr et al. [51] examined and analyzed 114 definitions of the CE and defined it as "an economic system that replaces the 'end-of-life' concept with reducing, alternatively reusing, recycling and recovering materials in production/distribution and consumption process" (p. 229). By closing the resource loops, end-of-life circularity can divert large amounts of clothing that might be thrown away and buried in landfills and can capture the value of materials in multiple forms at various levels [52].

Critical to the CE model is a longer lifespan of clothing and textiles, and therefore, the role of individual consumers is crucial and highlighted. For increasing design and product longevity, the consumers' consumption habits and wardrobe strategies are important factors. The longevity of a product can be determined by the quality, but also key is the willingness of consumers to participate in keeping and using garments longer [49]. A capsule wardrobe requires consumers to commit to voluntarily simplifying their lives by owning and utilizing a limited number of clothing items for a certain period. It also helps them to be conscious about the acquisition and consumption of new products [53].

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#### 2.6. Previous Research on Capsule Wardrobe and Research Gap

Few researchers have studied the nuances of the capsule wardrobe, especially with respect to exploring a participant's lived experiences. Heger [36] studied the capsule wardrobe phenomenon with five women in Sweden. The participants in this study spent a month experiencing the capsule wardrobe and specific rules were given to them when creating their capsule wardrobes. Five semi-structured, in-depth interviews were conducted to collect the reflections of the participants. The participants were asked to write a weekly journal to share their thoughts. This study found seven themes: (1) feeling excited, enthusiastic, and determined; (2) feeling relived and satisfied; (3) experiencing struggles and challenges; (4) feelings of guilt and regret; (5) feeling limited, bored, and less creative; (6) feelings of accomplishment and proudness; and (7) the experience of learning. The interesting finding was that the participants felt less creative in the period during the project due to limited choices in their capsule wardrobes. Another study conducted by Bardey et al. [54] also investigated lived experiences with a capsule wardrobe and how these experiences impacted on materialism and fashion consumption. Ten female participants were recruited and asked to participate in a 3-week capsule wardrobe project. Two in-depth interviews were conducted before and after the project. The results of this study showed that the participants felt less stressed, found joy in their fashion styles that were detached from fashion trends, and felt an enhanced awareness of conscious consumption.

Although previous studies explored a capsule wardrobe phenomenon with lived experiences, they only focused on the emotional and psychological reflections of the participants. None of the previous research examined how the capsule wardrobe can have an impact on one's creativity. Moreover, previous papers have not specifically focused on how this capsule wardrobe can help consumers to be sustainable at different levels of apparel consumption. To address this gap, this study investigates the effect of creating and managing a capsule wardrobe on the improvement of individual creativity and its contribution to sustainability, especially in terms of the circular economy.

# 3. Research Methods

#### 3.1. Research Sample

This is a case study that explored how dressing habits and wardrobe strategy can influence one's creativity and how this daily activity can contribute to one's sustainability efforts. Such a case study approach should be used when "how" questions are being proposed in qualitative research [55]. This qualitative research used both purposive and volunteer sampling methods. Students in undergraduate courses in the College of Design were introduced to the capsule wardrobe project both in person and via email. Students who voluntarily wanted to participate in the study gave their names and contact information to the researchers.

Based on the research questions and project design, seven volunteer participants were recruited for this study. Young and Casey [56] asserted that it is possible to attain solid and significant results with small-sized samples if the study is heavily utilizing qualitative approaches. Such a small sample allows a reduction in the burden of the participants and the maximizing of limited resources. As this study relied on qualitative approaches and required intensive and demanding work, seven was considered to be an ample number of participants for this case study.

The participants were selected based upon the following criteria:

- 1. The participants were juniors and seniors majoring in either Apparel Design or Retail Merchandising.
- 2. The participants were recruited from the same country and region and were all female to minimize any cultural and regional and gender-related variables.
- 3. All the participants had no previous experiences of creating or managing a capsule wardrobe. This criterion allowed them to have unbiased views on their experience of the capsule wardrobe.

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4. Because spontaneity was important, the participants were individuals who fully volunteered to participate in the research.

Of the seven female college students in this study, two participants were juniors and five were seniors. Two of the participants were majoring in Apparel Design while five of the participants were majoring in Retail Merchandising. They were all Millennials who were born between 1990 and 1996. Six of the seven were Caucasians and one was Asian. They all had lived in the U.S. from birth.

# 3.2. The Procedure of the Capsule Wardrobe Project

When creating a capsule wardrobe, fewer than 50 items need to be selected: an ideal number is around 30 [57]. Selection is usually completed and updated seasonally (three months) [36]. This study borrowed the basic concept of Project 333 which let participants live with 33 items for 3 months. However, the participation duration was reduced from three months to two months as the project was to be completed by the college students within a semester. The project started in October 2017 and ended in December 2017. In the first week of the project, the participants were asked to reduce the size of their personal wardrobe and select 33 or fewer items to create their own capsule wardrobe. The items selected could include all kinds of clothing, shoes, and bags but not counted were accessories and jewelry, i.e., hats, scarves, belts, earrings, necklaces. Unlike the previous capsule wardrobe research [36,54], the participants in this study were not provided with specific rules and guidelines for creating an ideal capsule wardrobe because it was important to give them every possibility to use their creativity and problem-solving skills. The participants were asked to live with their capsule wardrobes for seven weeks and keep a record of their daily outfits.

In the 5th week of the project, the participants were allowed to reorganize their capsule wardrobes, if needed. They could add (if the participant's initial capsule wardrobe was fewer than 33), remove, or replace items. However, the number of reorganized items could not be more than five. The participants were asked to document any reorganization of their capsule wardrobe, that is, which items were updated and why. The item lists were also updated accordingly.

As this 8-week capsule wardrobe required placing time-consuming demands on the participants, different amounts of compensation were given to the participants at various points during the project. All totaled, the participants received e-gift cards worth USD 200 as an incentive.

# 3.3. Data Collection

To attain an in-depth understanding of the phenomenon behind the study, multiple data collection methods and triangulation were required [58], including an online survey, two creativity tests, in-depth interviews, and daily journals.

#### 3.3.1. Online Survey

Before engaging in the project, the volunteers were asked to complete an online survey. The survey was created in Qualtrics and distributed to the participants via email. The survey consisted of both close-ended and open-ended questions and took approximately 15 min. The purpose of this survey was to collect demographic data and to understand the participants' shopping habits, personal wardrobe strategies, and the degree of interest in and understanding of sustainability and a capsule wardrobe.

# 3.3.2. Creativity Tests

To assess the level of creativity and explore the impact of a capsule wardrobe activity on their creativity development, the participants were asked to take a creativity test before the project started and after the project ended. The Epstein Creativity Competencies Inventory for Individuals (or ECCI-i) was used to measure the creativity of the participants. The ECCI-i, developed by Robert Epstein, approaches daily-life activities to measure one's

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creativity [59]. Twenty-eight questions are evenly divided to measure each of the four areas that help people express their creativity: (1) Preserves New Ideas, (2) Seeks Challenges, (3) Broadens Skills and Knowledge, and (4) Changes Physical and Social Environment. The participants gave their answers on a 5-point Likert-type scale with agree (5) and disagree (1) at the extremes. The participants were informed that there were no right or wrong answers. The scores of their creativity tests were not to be shared.

## 3.3.3. In-Depth Interviews

Two in-depth interviews were conducted for this study. The first interview occurred between 26 October 2017 and 2 November 2017, right after the participants had selected their capsule wardrobes. The interview consisted of nine open-ended questions, including a self-assessment of their creativity, their motivations for participating in the project, and their expectations for the challenge. The interview lasted approximately half an hour. The second in-depth interview was conducted between 12 December 2017 and 14 December 2017, after the capsule wardrobe project had ended. The interview consisted of 13 open-ended questions and lasted approximately half an hour. The purpose of this interview was to understand the overall impression and personal experiences of managing a capsule wardrobe. The questions included what wardrobe strategies the participants had learned, the perceived benefits of the project, a self-evaluation of creativity, and the change in the degree of interest in and understanding of sustainability. The interviews were audio-recorded, and field notes were taken by the researcher during the interview. The participants had the right to refuse to respond to any questions that they were not comfortable answering. All of the interviews were transcribed, anonymized, and coded.

## 3.3.4. Daily Journals

A journal is a diary as well as a log in that it blends personal reflections, accounts of events, and descriptions of experiences [60]. Journaling can be a primary source of data collection [61] and is a useful tool for documenting specific experiences and one's own associated feelings [62]. In this study, the participants were asked to record the whole process of their capsule wardrobe projects by writing reflective journals. They received a template from the researcher and were asked to fill out the assigned number of items worn in the outfit of the day, explain whether they had created a new ensemble of clothing, whether they liked the outfit, and any other thoughts or feelings that they would like to share. They were also asked to take and attach a selfie photograph of the outfit. They were allowed intermittently to skip their journaling if there was a valid reason, such as traveling, staying at home all day, etc., but the reason should be described in the journal. Researchers monitored the activities by staying in touch with the participants. The participants sent their daily journals to the researchers every two weeks.

#### 3.4. Analysis of Data

The purpose of the case study is to respond to the research questions by describing more than one case in depth. The case study approach considers the individual as the unit of analysis and is used to develop rich and comprehensive understandings about people and circumstances [63]. The data collected for this study were analyzed based on the inductive qualitative approach. The scores of the two creativity tests were compared and used to support the findings from the daily journals and in-depth interviews. The data obtained from the daily journals and in-depth interviews were analyzed with the use of conventional content analysis [64]. The daily journals that the participants documented for eight weeks were collected and coded. To protect the participants confidentiality, an identification code and number were assigned to each participant—i.e., P-1, P-2, etc. When referring to participants in this paper, the assigned codes will be used.

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#### 4. Results

# 4.1. Shopping Habits and Wardrobe Management of Participants

According to the online survey, the participants usually purchase new clothing every other month on average. The average amount of money they spent on clothing per month was USD 50–100. They answered that they shop for their clothing at various types of apparel stores, including department stores, discount stores, vintage or second-hand stores, fast-fashion brand stores, local boutiques, and online stores. When shopping, they consider price over quality as they cannot afford high-end brands. Therefore, they found second-hand or thrift stores as a compromise where they could find good quality items with affordable prices. When purchasing new clothing, the participants put a priority on versatility, price, and quality of fabric.

When asked how often they dispose of the clothes no longer in use, four participants answered that they dispose once every three months, P-5 does it once every six months, and P-2 rarely throws them away—every several years. However, all the participants agreed that they prefer not to discard their clothes; they prefer, rather, to keep them in their wardrobes. They usually donate them, hand them down to their family, or give them to their friends, or they sometimes sell them through mobile resale stores such as Poshmark, if they can no longer find ways of using those items.

## 4.2. Self-Assessment of Creativity

# 4.2.1. Before the Project

During the first in-depth interview, all seven participants considered themselves as creative individuals. Five of them noted that their majors and learning environments motivated them to be creative. The participants also mentioned that they usually solve problems in creative ways and that is why they consider themselves as creative. They also shared how they express their creativity in their daily lives. Six of them said that they express their creativity through their clothing even though the question did not directly ask whether they express their creativity through what they wear:

- P-3: "I would probably say I normally take outfits that I have worn before and try something different with them. Like wearing a shirt rolled up instead of having it down. So, I guess ... my day-to-day thing is finding something different to do with my outfit."
- P-7: "Definitely through my wardrobe."

#### 4.2.2. After the Project

During the second in-depth interview, the participants were asked if their capsule wardrobe project had affected their creativity in any way. The researchers did not share their creativity scores, so the participants did not know of any changes in their scores. The participants responded that they were not sure whether there was any significant impact on their general creativity level. However, they all confirmed that they became more creative in terms of assembling outfits and managing their wardrobes:

- P-2: "So I feel like I have been thinking more in terms of creativity. I think it is related to my clothing and thinking more about what I can do with the clothes I have. I am trying to make those differences. I have not changed anything yet, but I want to. I think my creativity has been stimulating."
- P-3: "I think I am more open to a lot of things now. My creativity within clothing has gone up but I do not know if it would translate outside my wardrobe."

# 4.3. Creativity Test Scores

The scores that the participants received from taking the first and the second ECCI-i creativity test were analyzed. Compared to the first creativity test, four participants—P-1, -4, -5, and -7—received higher total scores (7 points higher on average); one participant—P-2—stayed the same; and two participants—P-3 and P-6—received lower scores (10.5 points

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lower on average) in their second creativity tests, as shown in Table 1. The range of score differences was between -13 to +12.

**Table 1.** Results from the ECCI-I creativity tests.

|     | Item                                    | Test 1 | Test 2 | Difference |
|-----|---|--------|--------|------------|
|     | Total Score                             | 67     | 79     | +12        |
| P-1 | Preserves New Ideas                     | 79     | 83     | +4         |
|     | Seeks Challenges                        | 54     | 58     | +4         |
|     | Broadens Skills and Knowledge           | 79     | 79     | 0          |
|     | Changes Physical and Social Environment | 54     | 67     | +13        |
|     | Total Score                             | 70     | 70     | 0          |
|     | Preserves New Ideas                     | 63     | 75     | +12        |
| P-2 | Seeks Challenges                        | 58     | 50     | -8         |
|     | Broadens Skills and Knowledge           | 71     | 79     | +8         |
|     | Changes Physical and Social Environment | 88     | 75     | -13        |
|     | Total Score                             | 65     | 52     | -13        |
|     | Preserves New Ideas                     | 67     | 58     | <b>-9</b>  |
| P-3 | Seeks Challenges                        | 29     | 29     | 0          |
|     | Broadens Skills and Knowledge           | 88     | 63     | -25        |
|     | Changes Physical and Social Environment | 75     | 58     | -17        |
|     | Total Score                             | 63     | 67     | +4         |
|     | Preserves New Ideas                     | 54     | 54     | 0          |
| P-4 | Seeks Challenges                        | 50     | 58     | +8         |
|     | Broadens Skills and Knowledge           | 67     | 83     | +16        |
|     | Changes Physical and Social Environment | 79     | 71     | -8         |
|     | Total Score                             | 59     | 70     | +11        |
|     | Preserves New Ideas                     | 54     | 58     | +4         |
| P-5 | Seeks Challenges                        | 50     | 42     | -8         |
|     | Broadens Skills and Knowledge           | 67     | 92     | +25        |
|     | Changes Physical and Social Environment | 67     | 88     | +21        |
|     | Total Score                             | 66     | 58     | -8         |
|     | Preserves New Ideas                     | 67     | 67     | 0          |
| P-6 | Seeks Challenges                        | 46     | 46     | 0          |
|     | Broadens Skills and Knowledge           | 83     | 63     | -20        |
|     | Changes Physical and Social Environment | 67     | 58     | <b>-9</b>  |
|     | Total Score                             | 71     | 72     | 1          |
|     | Preserves New Ideas                     | 75     | 63     | -12        |
| P-7 | Seeks Challenges                        | 58     | 67     | +9         |
|     | Broadens Skills and Knowledge           | 75     | 79     | +4         |
|     | Changes Physical and Social Environment | 75     | 79     | +4         |

Depending on the participant, some areas of creativity noticeably increased or decreased in scores. For example, in the case of P-5 who got 11 points higher in the second test, she received higher scores on "Broadens Skills and Knowledge ( $\pm$ 25)", "Changes Physical and Social Environment ( $\pm$ 21)", and "Preserves New Ideas ( $\pm$ 4)" but earned a lower score for "Seeks Challenges ( $\pm$ 8)". As Table 2 shows, however, "Broadens Skills and Knowledge" either stayed the same or increased if the participants received higher scores or stayed the same in their second tests. In contrast, it decreased among the participants whose total scores were lowered in the second tests—P-3:  $\pm$ 25; P-6:  $\pm$ 20.

Table 2. Total score differences and differences in "Broaden Skills and Knowledge".

|    | Total Score Difference | Difference in "Broadens Skills and Knowledge" |
|----|------------------------|---|
| P1 | +12                    | 0   |
| P2 | 0                      | +8  |

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| <b>TOT</b> 1 | 1 1 |     | Cont. |
|--------------|-----|-----|-------|
| 13           | n   | Δ'' | 1 Out |
|              |     |     |       |

|    | Total Score Difference | Difference in "Broadens Skills and Knowledge" |
|----|------------------------|---|
| P4 | +4                     | +16   |
| P5 | +11                    | +25   |
| P7 | 1                      | +4  |
| Р3 | -13                    | -25   |
| P6 | -8                     | -20   |

#### 4.4. Wardrobe Creation and Satisfaction

After the participants created their initial capsule wardrobes, they were asked to respond on whether they were satisfied with their selected wardrobes. Five participants—P-1, P-2, P-4, P-5, and P-7—agreed that they were satisfied with their capsule wardrobes and their item selection. However, P-3 and P-6 were not satisfied with their capsule wardrobes, saying they wished they had more variety in their wardrobes. They were the participants who received the lower scores in the second creativity tests:

- P-3: "Yes and No. I am satisfied with a majority of my items, but I am not sure if I will wear all of them because I do not love them. I like my dark jeans but would prefer a plain black with no holes, I just did not have time to buy them."
- P-6: "Mostly, but I wish I had more variety."

When the participants had a chance to update their capsule wardrobes in the 5th week of the project, six participants rearranged theirs. P-1 was the exception, and she was the one who showed the most significant increase (+12) in the total score in the second creativity test.

When asked if they were satisfied with their updated wardrobes, all, except P-3, agreed that they were satisfied with their revised wardrobes. P-3 had the biggest drop in the second creativity test. Her total score for the second test was 13 points lower than the first test. When she had a chance to rearrange her capsule wardrobe, she switched five items in her initial capsule wardrobe. However, she was not fully satisfied with her updated wardrobe either. She wished she could switch more than five items:

• P-3: "I am not fully satisfied because I wish I could swap out more items. It is difficult that jackets are included in the 33 items because I consider them a necessity, like underwear or pajamas."

In the second in-depth interview after the project ended, the participants were asked 'Do you think that the number of items you selected for your capsule wardrobe was enough? Why or why not?' As shown in Table 3, five participants acknowledged that the number was enough while two responded that it was not. Those who said it was enough were P-1, -2, -4, -5, and -7. Again, this group got the higher scores or stayed the same in their second creativity tests. They confirmed that they did not feel limited, and there were some items they never wore during the project. P-1 even thought that she could have gone smaller. P-4 and P-5 pointed out that the number was enough, but they wished they had selected better. On the other hand, P-3 and P-6 said they felt limited by the number of items in their capsule wardrobes. The most challenging part of the project mentioned by the participants was unexpected events, such as a professional event, travel, a funeral, and a birthday party. In the second interview, P-6 mentioned the difficulty of dressing up with the limited items in her capsule wardrobe:

P-6: "I think all my stuff that I had in my wardrobe cannot make me to be dressed up, so I
would either pair with a nicer shoe or do my hair nicer and makeup nicer to make it look more
formal or put-together."

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Table 3. Perspectives on the number of items for the capsule wardrobe and the change in creativity level.

|     | Reflection   | Perspective | Result of<br>Creativity Test |
|-----|--|-------------|------------------------------|
| P-1 | "I could have gone smaller. I did not wear a few of the things—I noticed. I did not really wear my lighter jacket. The weather got so cold, and I only wore my puffy coat. I also did not wear my heels. I think I only wore two of my shoes out of four. So, I think I could have gone down."   | Enough      | Increased                    |
| P-2 | "Yes, I think it was enough. I never really felt more limited than before I did the project. There were a couple times, like my birthday, when I wanted to wear something else that was not in my capsule wardrobe but that was only one time out of the entire 8 weeks. I think I had enough choices to get dressed. I wore the same outfit (only) once or twice."                                | Enough      | Stayed the same              |
| P-3 | "I would probably say 'No'. I think it could be 33, but it should be categorized more of "by item". For example, you are allowed 6 pairs of jeans or pants, 11 tops I think it would have been better if I had more items in my wardrobe. I only had one bag in my capsule wardrobe, and it was limited. It would be nice to have at least two options per category."                              | Not Enough  | Decreased                    |
| P-4 | "It was enough, but if I could start completely over and completely redo it, I would pick a lot of basic things."  | Enough      | Increased                    |
| P-5 | "I think the number was enough. There were some items that I wore a total 3 or 4 times over the 8 weeks. Well, I think I could have done a better job in selecting items. But I think 33 was enough, which is surprising."   | Enough      | Increased                    |
| P-6 | "I thought it was going to be enough in the beginning and it seemed like it was going to be enough, but I would say 'NO'. Looking back now, I wish it would be 40 items rather than 33. I think a few more (items) would have been helpful because my strategy was to have as few shoes and handbags as possible so that I can have more shirts and pants. But it still did not seem like enough." | Not Enough  | Decreased                    |
| P-7 | "I do think it was enough because I was wearing something different every day for 8 weeks. If I had had more, I almost would have been overwhelmed in choosing it. I think 33 is a good number."   | Enough      | Increased                    |

# 4.5. Attitudes toward the Project

The participants were asked to share their thoughts and feelings about the project after updating their capsule wardrobes (which was in the middle of the project). Five of the seven participants had a positive attitude and expressed their excitement toward the project. However, P-3 and P-6 shared how they were struggling with the challenge. Again, the scores of these two participants in the creativity test decreased from the first to the second (see Table 4).

Table 4. Attitudes of the participants in the 5th week of the project and the change in the creativity level.

|     | Reflection  | Wardrobe<br>Rearrangement | Attitude | Result of<br>Creativity Test |
|-----|---|---------------------------|----------|------------------------------|
| P-1 | "I wish I had more of a chance to mix and match my items in a more exciting way." | No                        | Positive | Increased                    |

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Table 4. Cont.

|     | Reflection  | Wardrobe<br>Rearrangement | Attitude | Result of<br>Creativity Test |
|-----|---|---------------------------|----------|------------------------------|
| P-2 | "I am still feeling motivated. I am enjoying the process so far. It is fun to get dressed, it obviously takes less time to pick out clothes. But some mornings I feel like I have nothing to wear and some mornings I feel like I have endless possibilities which is funny because I feel the same way when I have more clothes in my closet. I also notice it is much easier to keep my closet clean with fewer items and that makes me happy." | Yes                       | Positive | Stayed the same              |
| P-3 | "This project is difficult in some ways and easier in others. I find myself wearing some items almost every other day, versus others I barely have worn once. I wish there was more swapping so that I could continuously refine my wardrobe and have it be near perfect by the end of the study."  | Yes                       | Negative | Decreased                    |
| P-4 | "I'm excited to start the second half of the project. I have been enjoying putting together my outfits every day and telling people about the project."   | Yes                       | Positive | Increased                    |
| P-5 | "I am feeling good about the project so far and am enjoying creating these journals. I definitely have been looking back into my previous week's journals to reference outfits that I liked and to help influence the current outfits I am putting together to wear."   | Yes                       | Positive | Increased                    |
| P-6 | "It is getting more difficult to put together outfits that I have not worn before. I also am slightly getting tired of taking pictures of my wardrobe and documenting them."  | Yes                       | Negative | Decreased                    |
| P-7 | "I can't believe I have been able to easily wear clothes from my capsule every day."  | Yes                       | Positive | Increased                    |

# 4.6. Daily Outfits

The daily outfits that were created by the participants were analyzed through the daily journals. Table 5 shows the total number of outfits created during the project and the average number of items used in the ensembles of clothing:

**Table 5.** Number of combinations of outfits and the average number of items used.

|         | The Number of Outfits Created during the Project | The Average Number of Items Used in the Outfits |
|---------|--|---|
| P-1     | 33   | 5 (4.9)   |
| P-2     | 44   | 6 (5.7)   |
| P-3     | 38   | 3 (3.4)   |
| P-4     | 55   | 5 (5.4)   |
| P-5     | 37   | 4 (3.8)   |
| P-6     | 30   | 4 (3.8)   |
| P-7     | 40   | 4 (4.3)   |
| Average | 40 (rounded off)                                 | 5 (4.5)   |

The average number of combinations that the participants created for seven weeks was 40. The one who created the highest number of outfits was P-4, and she created 55 combinations in total. P-6 created the least number, which was 30. The participants were not forced or asked to create different outfit combinations every day. It was completely up to them whether they would like to create a new combination. In the case of P-4, who got 4 points higher in her second creativity test and created 55 ensembles in total, she tried to change her outfits up to three times a day according to her mood, the weather, and the event of that day. On November 18, 2017, she created two different ensembles of clothing

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according to different activities that she needed to attend (see Figure 1). In her journal, she described the reason as follows:

"I picked the first outfit to be really comfortable for going to a coffee shop and studying all day. My day outfit was very casual and a pretty typical outfit for me to wear on a laid-back day. My second outfit I styled was for a work Christmas party. The dress code was pretty casual for a work Christmas party, but I still wanted to look chic and put together."



Figure 1. Different styles of outfits that Participant-4 created on 18 November 2017.

The total number of combinations that the participants created is important, but it is also critical and meaningful to see how many items they used or matched in their assembly. The average number of items used was 4.5. The level of creativity of the participants who used an average of 4–6 different items (4.8 on average) at once to create an outfit increased or stayed the same while the level of creativity of the participants who used only 3–4 items (3.5 on average) in their assembly decreased. P-2, who used the most items at once, received the second highest score in the first creativity test and the same score in the second test. P-2 used six items on average when creating her daily outfits. Some days, she arranged seven items into her ensemble by layering them. Figure 2 shows one of the examples of her outfits for which seven items were used. She wore it on 31 October 2017 as shown in Appendix A.

It was possible for P-2 to create more diverse outfits because her capsule wardrobe included more diverse colors, patterns, and styles than the other participants, who had more monotonous wardrobes. The other participants preferred to have black, grey, and white because, as they responded, they could be matched more easily.

#### 4.7. Perceived Benefits Related to Sustainability

The results from the online survey indicate that participants were highly interested in sustainability (mean: 6.6/7.0). As Appendix B shows, all the participants strongly agreed that they understand the concept of sustainability clearly (mean: 6.7/7.0), and they consider themselves as environmentally conscious (mean: 6.0/7.0). They somewhat agreed that keeping the items in their wardrobes is the best way of practicing sustainability (mean: 5.3/7.0) and to reduce textile waste they try not to purchase new clothing (5.3/7.0).

After the project ended, all seven participants agreed that they got a better understanding of sustainability through engaging in this capsule wardrobe practice. They became more aware of how much clothing they have in their closets that they did not actually wear.

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It also made them think about selecting wisely and what they could do with the items that are useless or unwanted:

- P-3: "It definitely opened my eyes to the amount of clothing that we consistently buy and give away or throw away."
- P-5: "I think this whole project definitely made me realize the amount of clothes that I did not wear over this two-month period. It got me thinking about donating clothes, buying already used clothes, and looking at the quality of clothes that you are buying. I guess my need shifted. While I was doing this project, I was more focused upon what actual outfits I am wearing every day."
- P-6: "I think I have a better understanding of sustainability. It made me think about how much waste we go through and how much clothes we buy but we never wear them. Even in my capsule wardrobe, there was stuff that I had never worn. I realized that I am definitely not sustainable in how many clothes I actually have, and learned that I could live off of only 33 items even though it is challenging."

Five out of the seven participants perceived the changes needed in their clothing consumption and wardrobes. They began to consider how much waste that they create with their reckless consumption and how quality over quantity is important:

- P-2: "I definitely want to buy fewer things now. I was wondering if I want to go and buy tons of stuff in a thrift store after this project ends but I do not feel like I will. I want to work with what I have to change."
- P-7: "I realized how easy it is to be sustainable even with consuming less. Quality over quantity. Thinking about consuming in terms of how often you are going to wear it and how long it is going to last is a lot more sustainable than consuming fast fashion."





**Figure 2.** Outfit of participant-2 created with 7 items.

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Although the researchers did not directly ask the question, "Did you purchase any new clothing during this project?", the participants shared how this project had an impact on their consumption habits. None of the participants purchased a new piece of clothing during this project, although they were not restricted because of the project. The only regulation that the participants had was to have and manage their capsule wardrobes with 33 or fewer items of clothing for 7 weeks. The researchers did not control their clothing consumption, but the participants did control their purchasing.

#### 5. Discussion

5.1. The Impact of a Capsule Wardrobe on One's Creativity

#### 5.1.1. Satisfaction and Enjoyment

The satisfaction on capsule wardrobe creation and the attitudes toward the project played significant roles in the changes in the participants' creativity. Satisfaction, feelings of interest, involvement, enjoyment, curiosity, and the positive challenge of the problem can help individuals to produce higher creativity [65]. The participants who were satisfied with their capsule wardrobes did not feel limited with their reduced capsule wardrobes. They confirmed that 33 items were sufficient for seven weeks. They enjoyed the process of creating new ensembles of clothes every day and tried to express their creativity and identity through their daily outfits. The scores of their second creativity tests reflected that their satisfaction and positive attitudes had a beneficial effect on the enhancement of their creativity. Their creativity levels were either improved or maintained by the project. In contrast, the participants who were dissatisfied with their wardrobes felt challenged and struggled with creating outfits. Their creativity levels decreased. This supports the concept of little-c creativity that everyday people can enhance their creativity through participating in a particular daily activity focused on a problem-solving process. Csikszentmihalyi [66] also argued that creative individuals differ from one another in a variety of ways, but in one respect they are unanimous—they all love and enjoy what they do. The findings from this study confirm that enjoyment and satisfaction are influential motives for everyday creativity.

#### 5.1.2. Intrinsic and Extrinsic Motivation

All seven participants were given the same challenge—to create a capsule wardrobe with the number of 33 or fewer items of clothing—but they showed different approaches to the problem in terms of dressing. Ruscio, Whitney, and Amabile [67] argued that when judges evaluate one's creativity, they usually look at the products (solutions to the problems), but the intrinsic motivation and task behaviors of the problem solvers also must be evaluated. When individuals are intrinsically motivated, their behaviors are focused on rewarding themselves, whereas the behaviors of individuals who are extrinsically motivated are driven by their outcomes—money, evaluation, or deadline [32,68]. Amabile and Fisher [69] explained the creative process with a maze metaphor. If the maze is the problem to be solved, some people might directly try to find the exit as quickly as possible. They are extrinsically motivated individuals who prefer to go with a familiar, safe, and straightforward path. The participants whose motivations included the deadline of the project, the compensation, or anything else outside the project were hardly able to explore different or new ways of dressing. On the other hand, there are people who would like to discover totally new pathways for themselves. They are willing to step away from the old, familiar, and obvious pathway and are not afraid of taking any risks to find new solutions. Rather, they enjoy the process of exploring, set-breaking, and suggesting creative solutions under the circumstances. Divergent thinking, including ideation fluency, flexibility, and original thinking, is strongly associated with real-life creative activities; so, it is an important factor to enhance creativity [69–71]. The participants who developed their own ways of creating ensembles by using limited items in different methods of wearing should be primarily intrinsically motivated individuals. They proved that those processes had a positive impact on their creativity. This result confirms that intrinsic motivation

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has a strong and positive connection with the little-c creativity which is supported by the previous research [20,72].

# 5.2. The Contribution of a Capsule Wardrobe to Sustainability

In the second in-depth interview, the participants shared the perceived benefits of the capsule wardrobe project. What they shared was mainly related to sustainability. Previous research [54] also showed that this minimalist capsule wardrobe experience changed the participants' perception of sustainability. The participants in this study, college students who were majoring in Apparel Design and Retail Merchandising, understood the importance of sustainability, but they had few ideas of 'how to' practice sustainability in more creative ways as students, consumers, and individuals in everyday life. All seven participants agreed that the experience of participating in this capsule gave them an answer to this question. They described how the capsule wardrobe project assisted them in understanding their actual wardrobe usage and needs and in having different perspectives on clothing consumption. They said that the experience of the project allowed them to realize what a small part of their wardrobes were being used and worn. The average number of clothing items in their wardrobes, the participants estimated, was 160. The wardrobe size was reduced to 1/5, but they were surprised to find that this was enough.

Moreover, it made them more aware of their impact as consumers on the environment and society. The participants reported that previously they purchased new clothes every other month on average without considering their actual needs. None of them purchased any new clothing items and two of them mentioned that this project let them save money. They explained that this project not only made them avoid any impulse buying but also made them more careful and responsible about what they buy. They began to put quality and value over quantity.

Besides consumption, the care and maintenance of clothes were considered. As the participants were college students, they were not able to afford high-end brands, although they expressed the desire to get higher quality products. Their wardrobes were mainly composed of clothes purchased from fast-fashion brands or discount stores which often provide lower quality clothes at affordable prices. However, Millennials such as the participants of this study are becoming more conscious of the products they purchase as well of as the resulting social and environmental issues [73]. This generation willingly want to pay more for sustainable products that has higher value, but it is difficult to follow their values due to low income [73]. That is why the participants of this study preferred to shop at second-hand stores to purchase products that match their personal values. The key lesson the participants learned is that caring for and valuing items can extend the products' lifespan. By increasing the number of times that clothing is worn, it is possible to capture the value of a product and spend less on new goods, which will ultimately reduce textile waste and pollution [52].

In addition, they thought about different ways of handling the clothes they no longer wanted. Rather than piling them in the wardrobe or throwing them away in the trash, they decided to donate, gift, or upcycle. The recycling or donating of used clothing which consumers are engaged with is a part of the clothing consumption process [74]. Long-lasting design, maintenance, repair, reuse, remanufacturing, refurbishment, and recycling can help achieve a circular economy [75].

# 6. Conclusions

This study suggests how this everyday activity can affect the creativity of individuals and contribute to sustainable practices through creating and managing a capsule wardrobe. In eight weeks, the participants learned wardrobe strategies and developed creative dressing habits through experiencing their own capsule wardrobes. The findings from the creativity tests, daily journals, and in-depth interviews show that there was a significant impact of the capsule wardrobe practice on the participants' creativity. As researchers such as Amabile, Csikszentmihalyi, and Epstein have argued, this study confirms that the act

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of dressing can be an appropriate daily activity that helps everyday people express and develop their creativity.

This study proposes the possibility of enhancing one's creativity by challenging oneself to create different ensembles with a more limited closet. While freedom can encourage individuals to think more broadly and infinitely, some restrictions can help individuals to manage by limiting the number of variables and to be more focused on core elements [22,76]. Because the focus of this study was experiencing, not training in, specific rules, the guidelines for building a successful capsule wardrobe, for example, or the requirements, such as the specific number of items that are needed for an ensemble, were not provided to the participants. The only restriction was the number of reduced items in their capsule wardrobes, which could help them to boost their creativity. Moreover, the study showed that intrinsic motives, including satisfaction and enjoyment, play an important role in enhancing creativity. To increase the intrinsic motives, flexibility in the number of items should be considered. However, the capsule wardrobe project that provides complementary intrinsic and extrinsic motives to participants can maximize creative output.

The goal of a capsule wardrobe project is not only to give participants an opportunity to become more creative and confident by developing an individual style and finding new and innovative ways of using and wearing limited items, but also to help them recognize how much they own and how much they wear, which can promote the reduction in thoughtless overspending on clothing. As the participants learned, the capsule wardrobe can be a feasible way of practicing sustainability at the individual and consumer levels. The results of this study highlight the importance of the role of individual consumers in promoting sustainable practices in different stages of apparel consumption.

On the user side, what to purchase, how to wear and care, and how to discard clothes should be seriously considered. When developing sustainable retail strategies, designers and retailers need to thoroughly understand the actual needs of consumers. Consumers, including the participants of this study, are striving to purchase value rather than just more of a product. They are discovering ways to extend the wearing of existing clothing items by reusing, restyling, and redesigning their everyday ensembles. As users dress themselves creativity and manage their wardrobes more sustainably, fashion designers and retailers should also use their creativity to inspire their consumers by offering them original, novel, and unique experiences.

This study can contribute to the field of apparel studies by providing significant insights: managing a capsule wardrobe provides an accessible tool for developing one's creativity as well as for empowering individuals to reduce their impact on the environment and society.

# 7. Limitations and Future Research

This study had seven volunteer samples and convenience sampling was used. Even though this was an in-depth case study that aimed to understand the complex socio-psychological aspects of using a capsule wardrobe, the small sample size with a limited population can lead to cases of bias.

The seven-week time frame for the project might not be long enough to measure a definite change in the level of the participants' creativity. The capsule wardrobe project of this research was designed as an eight-week project due to the time constraints as the participants were all upper-level college students and the project had to be completed within the semester. Although the result of this study shows that there were changes in creativity by experiencing a capsule wardrobe and how it relates to their dressing and shopping habits, we cannot exclude the possibility that this was a temporary shift.

In addition, seasonal and regional impacts should be considered. This study began in October (fall) and ended in December (winter), and all the participants lived in the north-central United States. Due to these factors, the participants' capsule wardrobes mainly included darker colors, and they had to layer their items together to keep them warm during the changes in seasons. When the participants were allowed to update their

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capsule wardrobes in the middle of the project, most of them added outerwear due to the transition in the weather. Therefore, it is necessary to explore a capsule wardrobe in a different season or a different region.

In future research, different demographic groups need exploration because gender, age, occupation, and culture could make critical differences. A longitudinal study is needed of these participants to determine how this project may influence their long-term creativity, future clothing consumption habits, and wardrobe strategies. Expanding the participation to other populations, such as males, older generations, professionals, or people of other cultures, would be the next step in learning how people may creatively manage a capsule wardrobe.

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**Institutional Review Board Statement:** The study was conducted according to the guidelines of the Declaration of Helsinki and approved by the Institutional Review Board (or Ethics Committee) of UNIVERSITY OF MINNESOTA (ID: STUDY00001308/date of approval: 9 October 2017).

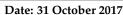
Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

**Data Availability Statement:** The data are not publicly available as the respondents were guaranteed confidentiality and anonymity in this study.

**Conflicts of Interest:** The authors declare no conflict of interest.

#### Appendix A

**Table A1.** Daily Journal of Participant 2 Written on 31 October 2017.





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Table A1. Cont.

| Date: 31 October 2017   |   |  |  |
|---|---|--|--|
| Item Numbers  | 5, 16, 18, 20, 27, 30, 33   |  |  |
| Do you like your outfit for today?  | Yes   |  |  |
| Why or why not?   | I felt creative in this outfit, and I felt different than the other people I saw in my classes, which I liked.  |  |  |
| Did you wear the same outfit that you have worn before? Or did you create a new outfit that you have never tried? | I have not worn this outfit before. I have only worn this dress once before, but I can't remember how I wore it. This was a new outfit. I like mixing patterns and felt like the stripes and the green and the leopard went fine together.  |  |  |
| Which factor(s) did you consider when you put the items together?   | I wanted to layer my clothes because it was so cold this morning. I also was immediately drawn to these pants- they were the first thing I put on. Then I put on the striped shirt. The striped shirt is a little big for me and I wanted to look a little nicer than what the baggy striped shirt would do. I thought about a shirt (item 11 or 12) over the striped shirt but that felt too masculine and too easy. I wanted to feel feminine today so I wore the dress. The jackets that I have right now are not very warm so I chose the leopard sweater to stay warm. I chose the jacket because I really like the color of it with what I was wearing. And I love the green boots and I thought they looked cool with the cut of my jeans. |  |  |
| Any thoughts or feelings you want to share?   | I knew that I was going to be gone from my house for at least 12 h so I also made sure to wear something that I would feel comfortable in all day. That is also why I layered so many different items- so that I could take layers off if I got too hot or didn't want to wear something anymore- like the cardigan, or even the dress. Also, my blue scarf that I am wearing is the only scarf I have in my closet right now. All my other winter accessories are in storage- I moved out of my parents this summer and put my belongings into storage and have not been able to access them!  |  |  |

# Appendix B

Table A2. Results from the Survey Section Related to Sustainability.

|  | Min. | Max. | Mean | Std Deviation | Variance |
|--|------|------|------|---------------|----------|
| I am interested in sustainability.   | 6.00 | 7.00 | 6.57 | 0.49          | 0.24     |
| I understand the concept of sustainability clearly.  | 6.00 | 7.00 | 6.71 | 0.45          | 0.20     |
| When I purchase new clothing, I consider sustainability.   | 4.00 | 7.00 | 5.71 | 1.03          | 1.06     |
| I consider myself to be environmentally conscious.   | 5.00 | 7.00 | 6.00 | 0.76          | 0.57     |
| I prefer to purchase an item of clothing that is described as 'sustainable', 'organic', 'eco-friendly' or 'ethical'. | 4.00 | 7.00 | 5.57 | 1.18          | 1.39     |
| I believe that keeping the items in my wardrobe is the best way of doing sustainable practice.                       | 3.00 | 7.00 | 5.29 | 1.75          | 3.06     |
| I try not to purchase new clothing for reducing textile waste.   | 2.00 | 7.00 | 5.29 | 1.67          | 2.78     |

Note: 7 = Strongly Agree/1 = Strongly Disagree.

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