The purpose of this research study was to test a psychological theory of motivation called the Flow Theory by Csikszentmihalyi as it relates to non-industrial textile production activities. In using the Flow Theory, researchers attempt to explain why individuals continue participation with a specific activity; namely that the activity induces a highly focused state (called the flow state) characterized by an individual sense of control, heightened challenges, the presence of creativity, a lack of interest in the product after completion, and a perceived distortion of time among others which in turn provides enjoyment for the individual. Both quantitative and qualitative data were collected to test four hypotheses and the proposition of Repeated episodes of flow leads to mastery as well as to satisfy three objectives. One hundred and fifty individuals participated in a mailed survey selected via snowball sampling. Sixteen participants were then selected from the original 150 to participate in a telephone interview.

Hypotheses were tested using the Pearson Correlation and Chi-Square tests. Scatter plot diagrams were also used to determine variability of data from the ideal.
Qualitative data from the surveys and interviews were coded and analyzed for themes. They were also used to further test the hypotheses, satisfy objectives, and test the proposition.

It was concluded that Csikszentmihalyi’s Flow Theory is very applicable to clothing and textiles subject matter in that participants experienced greater occurrences of the flow state as they continued with activity participation. However, unlike Csikszentmihalyi’s assertion that individuals would be motivated to start an activity for extrinsic reasons, many of this study’s participants began to participate in their non-industrial textile production activity for intrinsic reasons as well. Csikszentmihalyi also posited that an individual would lose interest in extrinsic rewards as they progressed in skill. However, it was found that both extrinsic and intrinsic motivating factors were present at all skill levels. Nevertheless, because of its applicability, the Flow Theory can now be used to derive a new theory specific to the clothing and textiles field besides being used to explain other clothing and textiles phenomena.
Non-Industrial Textile Production as Optimal Experience: Applicability of the Flow Theory to Clothing and Textiles Subject Matter

by
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A DISSERTATION
submitted to
Oregon State University

in partial fulfillment of
the requirements for the degree of
Doctor of Philosophy

Presented June 16, 2006
Commencement June 2007

APPROVED:

Major Professor, representing Design and Human Environment

Chair of the Department of Design and Human Environment

Dean of the Graduate School

I understand that my dissertation will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my dissertation to any reader upon request.

Janet Andrea Blood, Author
ACKNOWLEDGEMENTS

I would like to express sincere appreciation to my major professor, Elaine L. Pedersen, as well as the members of my doctoral committee for their patience and steadfastness during this long journey. Thank you to my family and friends for their words of encouragement and acts of support. Also, it is important for me to acknowledge the generous participation and enthusiasm of the participants featured in this study. Their excitement and love for their activities is inspiring, and they made data collection for this study a joy. Most importantly, this study is dedicated to my husband Jason who deserves the biggest thank you of all. Without his daily patience, encouragement, support, perspective, and humor, my life would be very unfulfilling.
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CHAPTER 1—INTRODUCTION

Theory development in the field of clothing and textiles has been slow and inconsistent. Although scholars recognized the importance and need for the development of theory specific to the clothing and textiles field as early as the mid-1980s (Hutton, 1984), theory still generally remains misunderstood and unnamed (Pedersen, in press). Seen as “essential to the future of clothing and textiles as a discipline of study” (Nagasawa, Kaiser, & Hutton, 1989, p. 23), theory serves as the foundation of knowledge within a profession. Not only does theory provide a more complete picture than the mere gathering of facts, theories that are well developed can be used to organize existing knowledge and aid in discovering new ideas that may help advance practice and scholarship within a field (Walker & Avant, 1995).

Essentially, a theory seeks to answer why questions in order to explain the relationships between two or more variables (Chafetz, 1978; Lett, 1987). However, as Lennon and Burns (2000) have observed “[b]ecause much of our research [in clothing, textiles, and human behavior] has used quantitative treatment[s] of data, we know relatively less about why [italics added] things are related and what they mean then about the existence of relationships, their nature, and their strength” (p. 220). Furthermore, development of named theories unique to the clothing and textiles field has been overshadowed by researcher loyalty to theoretical orientations primarily from other fields of study (Lennon & Burns, 2000). According to Tseelon (2001),
research in fashion appears to be, for the most part, data-driven and theory-free. Having failed to form an integrated body of knowledge, it rarely uses theory as a springboard to formulate research questions. Rather, theory seems to be an add-on, not an integral part of the research question generation. (p. 436)

Nevertheless most clothing and textiles researchers seem content, however, to ignore disparaging remarks and disregard the recommendations of their well-intentioned fellows. For example, as a result of a state-of-the-art survey examining clothing-related research reports, Hutton (1984) recommended that in order to make up for the deficiencies in the theoretical base of the literature reviewed, “authors must address more attention to testing existing theory and developing new explanations for phenomena” (p. 352). Seven years later Nagasawa (1991) suggested that fashion research “suffers from a lack of ‘critical mass,’ i.e., the facts, concepts, and theories that make up the body of its knowledge system” (p. 267). Although he recognized the efforts put forth by some fellow scholars, he believed the trouble lies in the lack of linkages that would connect the various specializations that compose clothing and textiles subject matter. To remedy the situation, Nagasawa proposed that the theory construction process be clarified for better understanding. In this way, scholars can develop theories that will order, integrate, and explain current empirical findings and guide future research inquiries. Nevertheless, with the exception of a few scholars’ works the conscious and intentional development of theory has been scarce.

The Research and Theory Development committee of the International Textiles and Apparel Association (ITAA) continues the interest and concern for the state of research and theory development among its members and within the discipline.
According to the results of the *ITAA Year 2000 Survey: Needs Assessment for Research and Theory Development* (Kim, Cloud, & Pedersen, 2000), members expressed conflicting views regarding the need for theory development. Some supported the continuing efforts to develop theories in order to link the diverse subfields of clothing and textiles subject matter and suggested the development of a handbook listing “major applicable theories” (p. 5) to aid scholars and educators. Others indicated, however, the learning of theory development techniques was not highly needed. Written comments such as “Does the real world really care about all of this?” and “Theory means nothing—people and teaching mean everything—we are in an applied discipline, not in ivory towers!” (p. 5) illustrate the views of some theory-resistant clothing and textiles scholars. Another respondent of the survey shared the following written comment: “There is currently too much emphasis on theory and too little emphasis on empirical research” (p. 5). Given the above comments, the current state of theory within the field of clothing and textiles may not necessarily hinge upon the lack of knowledge of theory construction as Nagasawa implied in 1991 but rather the willingness of the field’s constituents to participate in the process.

Nevertheless, according to the ITAA 2002 Intellectual and Philosophical Missions committee’s report (Nelson, et al., 2002) the issue of continued efforts towards theory development has been deemed important to the foundation of a collective research base and for advancement as an academic field. The committee, designed to address fundamental questions in order to “proactively shape our future within the broader context of academic theory and research” (p. 1), put forth the
following recommendation:

Theory development in clothing and textiles research must...reflect the changing nature of the subject. Therefore, theories of fashion change that existed prior to the turn of the 21st century need retooling and rethinking in order to address issues important in the field today. Theory development that has as its purpose the practical application of knowledge can be used to put the mission of the clothing and textiles field into action. (Nelson, et al., 2002, p. 2)

Evolution of the Idea

Personal experiences, experiences reported to me by others, and existing theory were the genesis of the research idea that has resulted in testing the Flow Theory for applicability to clothing and textiles subject matter. As a lifelong learner and instructor of young adults and adults in the field of clothing and textiles, I initially became aware of the emancipative and transformative power of education early on in my doctoral studies through an examination of critical social science (Fay, 1987; Mezirow & Associates, 2000). Although this school of thought is generally applied to large-scale populations of the downtrodden, I was immediately able to draw connections to myself and the students I was instructing. Learning about and participating in activities related to fashion and the creation of textile products such as knitting, sewing, quilting, and the like have always been enjoyable and indescribably freeing for me. My contemporaries as well as my students agreed and shared the same sentiments.¹ This therefore led me to believe that although not necessarily oppressed,

¹ These statements are based on informal conversations prior to data collection.
we may have been seeking education to break away from the doldrums of everyday life, improve ourselves, and satisfy unsatisfied needs. In turn we achieved a certain level of happiness.

Curiosity peaked, I continued to inquire why the individuals who enrolled in the clothing and textiles courses I taught were interested in learning how to sew, quilt, and so on. Their responses were typically the same although emancipation and transformation were not usually among their responses. Familiar reasons included coveting the final product (i.e., the quilt top, the well-fitting and unique prom dress, knowledge of how to use their sewing machine, or satisfying a degree requirement). Some enjoyed the social aspect of coming to class, sharing their time with people of like interest, and leaving their household for a while. Some had previously purchased so much fabric or clothes that they now needed to do something with their collections. Others stated that their grandmothers or mothers used to sew, quilt, cross stitch, knit, or whatever, and now they wished to learn. And then there were those who could not verbalize why exactly they had an interest in the class. Responses such as “Fashion is cool,” “It looks like fun,” or “I don’t know--just because,” were more common than not. In fact, the outward visual signs of excitement such as smiling and giggling, usually accompanied these vague reasons.

Apparently several types of needs were attempting to be satisfied by students participating in the clothing and textiles courses I was instructing. *Extrinsic rewards* (see Appendix A for definitions of terms) of the educational experience and resulting end products were obvious from the responses. However, given the inability of some
to express their motivations and the fact that service options are widely available to most Americans nowadays to satisfy such needs as custom fitting and tailoring, not to mention the availability of commercially made quilts, clothes, and the like, I knew something else had to be somehow attracting individuals to activities related to fashion (such as clothing construction) and the manual construction of textile products (such as sewing, quilting, knitting, and the like) whether in an educational setting or not. This led me to also question the other explanations given. For those who indicated enrolling for social purposes, could they not have also found a suitable social environment apart from taking a class? And why did observing the activities of a grandmother or mother propel an individual to ultimately learn the activity? Furthermore, why did individuals impulsively purchase the components for multiple projects or wardrobes? Although these individuals did not recognize it at the time, maybe they did seek some sort of transformative or emancipative experience but couldn’t exactly verbalize what it was they desired.

Maslow’s Hierarchy of Needs

I turned to the work of Abraham Maslow and his *Theory of Human Motivation* and *Hierarchy of Needs* for insight. According to Maslow (1943), in order for a human to be truly happy, all the needs of that human should be met. He posited that human needs consisted of physiological, safety, love, esteem, and self-actualization needs, and they should be viewed in hierarchical form with physiological needs forming the base of the hierarchy and self-actualization as the top. One of Maslow’s key
propositions of his theory (and generally the one most criticized\textsuperscript{2}) is that “human needs arrange themselves in hierarchies of prepotency” (p. 370). In other words, before a higher human need can be satisfied, the previous one should be satisfied first. For example, according to Maslow’s theory, in order for a human to become self-actualized or ultimately happy, the lower order needs of physiological, safety, love, and esteem need to be first satisfied. In this way, what humans can be, they must be. They must be true to their own nature. This need we may call self-actualization…. [The term] refers to people’s desire for self-fulfillment, namely, the tendency for them to become actualized in what they are potentially….The specific form that these needs will take of course vary greatly from person to person….At this level, individual differences are greatest. However, the common feature of the needs for self-actualization is that their emergence usually rests upon some prior satisfaction of the physiological, safety, love, and esteem needs. (Maslow, 1987, p. 22)

Upon further examination of Maslow’s later works on human motivation however, his opinion of what he considered self-actualization changed from resting on the satisfaction of lower order needs to the display of unmotivated behavior (1987). This conclusion resulted from observations of individuals he deemed as being self-actualized in that he discovered that much of their behavior was expressive. “An expressive behavior does not try to do anything; it is simply a reflection of the personality” (p. 29). This he considered a “‘second naiveté’, a wise innocence, an ‘Easy State’” while coping behavior or that associated with the hierarchy, was “purposive and motivated” (p. 66) and a reflection of the current uneasy state of an individual.

\textsuperscript{2} Refer to Heylighen (1992), Kiel (1999), Rowan (1998 & 1999), and Wachter (2003) for this and other criticisms of Maslow’s Hierarchy of Needs.
This information led me to ask further questions of my students’ behaviors. Besides being extrinsically motivated by an external reward such as a new garment, quilt, knowledge, or so on, could my students also be eager to participate for growth-motivated reasons unknown to them as a means to become self-actualized? And, if they are consciously or unconsciously in need of personal transformation or emancipation, could the process of seeking self-actualization also satisfy these needs as well? If so, can I assume that their lower needs were already reasonably satisfied as Maslow originally suggested, or did the desire to learn overcome the lower needs through unmotivated expression? If these individuals were unconsciously and intrinsically unmotivated to pursue self-actualization by enrolling in my clothing and textiles classes, and self-actualization according to Maslow brings happiness because the individual is being what they truly are, how is that happiness manifested?

The Idea of Optimal Experience

A serendipitous discovery of an article on web site design provided an interesting answer (New Riders, 2003). In order to create more enjoyable experiences for web site users, the authors suggested web site design strategies that would induce flow experiences.

This “optimal experience” is “intrinsically enjoyable.” Time seems to stand still, and we lose our sense of self. We feel playful and are willing to try (and presumably buy) new things. Although flow can occur anywhere, certain activities like rock climbing, performing surgery, chess, and sailing lend themselves to this optimal state of focused attention. Responsive, well-designed web sites can also induce flow in their users. (p. 1)
Influenced by Maslow (1971) and his identification of peak experiences as “transient moments of self-actualization” (p. 46), psychologist Mihaly Csikszentmihalyi (1975) introduced his idea of optimal experience in the mid-1970s as a result of his observations and research of creative individuals.

[He] wanted to understand the experience of enjoyment…. Extrinsic rewards like money and prestige are limited resources that ultimately are about comparisons between people. Status is a zero-sum game; so something else must motivate us humans. Intrinsic rewards, doing activities for the sheer joy of it, are the key to understanding flow. (New Riders, 2003, p. 2)

Working inductively, Csikszentmihalyi (1975) discovered that although some individuals became thoroughly immersed in the creation of a product such as a painting, they seemed to lose all interest in it as soon as it was finished. He also discovered the same phenomenon when he observed and interviewed chess players, rock climbers, and composers who spent many hours a week devoted to their avocations but received no money or fame for their efforts.

Why were they doing it? It was clear from talking to them that what kept them motivated was the quality of experience [sic] they felt when they were involved with the activity. This feeling didn’t come when they were relaxing, when they were taking drugs or alcohol, or when they were consuming the expensive privileges of wealth. Rather, it often involved painful, risky, difficult activities that stretched the person’s capacity and involved an element of novelty and discovery. (Csikszentmihalyi, 1996, p. 110)

Through extensive interviews and multiple experiments he learned it was not so much the product that was rewarding but that of the process itself (Csikszentmihalyi, 1988a, 1997; Csikszentmihalyi & Graef, 1980; Csikszentmihalyi & LeFevre, 1989; Moneta & Csikszentmihalyi, 1999). “Eventually [he] came to call this experience flow. The term
had been used as a metaphor by some of [his] respondents to describe their feelings while involved in their favorite activities” and has since been adopted to replace the term “autotelic, or rewarding in and of itself” (Csikszentmihalyi, 1988a, p. 8). In other words, when the activity was going well, they felt that a current carried them easily along, or they felt that they were on “automatic pilot” (Csikszentmihalyi & Rathunde, 1993). From his studies, Csikszentmihalyi (1996) has since found that when several specific elements or conditions are present within the context of an individual experience flow can be achieved, and the result is a state of enjoyment.

Mihaly Csikszentmihalyi and Flow Theory

Csikszentmihalyi’s (1975, 1990) main premise for exploring human happiness is rooted in observations that despite the potential for better health and accumulation of wealth in modern society, “people often end up feeling that their lives have been wasted, [and] that instead of being filled with happiness their years [are] spent in anxiety and boredom” (p. 1). He discovered the exceptions were the individuals he observed that were involved in playful activities such as rock climbing, dancing, and chess playing. Although the pursuit of the activities did not seem to rely on any obvious outward incentives, these individuals did seem to be truly happy. Observations such as these began Csikszentmihalyi’s pursuit of characterizing the phenomena of human happiness as a product of intrinsic motivation over the last 30 years and have culminated into a theory of optimal experience or what is now known as the Flow Theory.
Through his initial interests in the study of play (Csikszentmihalyi & Bennett, 1971), Csikszentmihalyi hoped to reveal a different aspect of human motivation that was previously overlooked by other scholars—one based on enjoyment and human happiness.

Most theories of human motivation depend on a “deficit model,” which assumes that only a limited number of pleasurable physiological states exist; according to this model, behavior is simply a set of innate and learned responses directed toward satisfying basic needs. This closed homeostatic model, which grew out of observations made in the laboratory or on the couch, has some important implications. It suggests that one can derive enjoyment only from a finite number of experiences and objects. Therefore, life must be inherently painful because scarce resources of enjoyment lead to competition, and only a few can get more than intermittent satisfaction. (Csikszentmihalyi, 1975, p. x)

To begin his investigations, Csikszentmihalyi (1975) turned to three areas of psychological literature for direction. The first was the work of psychologists that provided detailed descriptions of self-actualization and peak experiences, namely Abraham Maslow. The next was the literature investigating intrinsic motivation (see Chapter 2). Finally, Csikszentmihalyi turned to the literature examining the phenomenon of play that indicated that “play provides peak experiences and intrinsic motivation” (1975, p. xiii). He posited that play experiences could be the unifying principle that solved the puzzle of why certain experiences and activities were enjoyable. However, he needed to conduct further studies combining the three approaches to be sure.
The goal was to focus on people who were having peak experiences, who were intrinsically motivated, and who were involved in play as well as real-life activities, in order to find out whether [he] could detect similarities in their experiences, their motivation, and the situations that produce enjoyment. (1975, p. xiii)

From his initial studies Csikszentmihalyi was able to identify several major components that contributed to an individual experiencing an optimal experience (1975, 1996, 1997). Optimal experience or “the state in which people are so involved in an activity that nothing else seems to matter” (1990, p. 4) was later coined as flow as discussed above. As a result of flow, a state of psychic negentropy is achieved in that one’s psychic energy, or attention, flows effortlessly, and there is no reason to worry or feel inadequate. “The positive feedback strengthens the self, and more attention is freed to deal with the outer and the inner environment” (p. 39). A sense of enjoyment and resulting happiness is therefore produced improving the quality of life.

In order to continue his exploration of human happiness, Csikszentmihalyi and his associates have since conducted thousands of interviews and numerous observations and experiments based on the questions “When do people feel most happy?” and “Why is ______ enjoyable?” (Csikszentmihalyi, 1990, p. 2). For instance, in just one research center, at the Medical School of the University of Milan, over 7,000 flow interviews from around the world have been collected and analyzed. Respondents as young as 7 and as old as 87 years report their most enjoyable experiences in very much the same terms. (Csikszentmihalyi & Rathunde, 1993, p. 59)

The conditions and characteristics that have emerged from these studies are discussed below.
Pleasure Versus Enjoyment

From his studies, Csikszentmihalyi (1990) discovered that there is a distinct difference between pleasure and enjoyment, and each affect human happiness in different ways. Pleasure, according to Csikszentmihalyi is “a feeling of contentment that one achieves whenever information in consciousness says that expectations set by biological programs or by social conditioning have been met’’ (p. 45). Pleasure can be induced by stimulating appropriate brain centers and therefore does not necessarily bring happiness because there is no investment of psychic energy or effort of attention that includes such functions as thinking, feeling, decision-making, and remembering. In contrast, enjoyment stems from “events [that] occur when a person has not only met some prior expectation or satisfied a need or a desire but also has gone beyond what he or she has been programmed to do and achieved something unexpected, perhaps something even unimagined” (p. 46). It is enjoyment that one experiences as a result of optimal experience or flow. Although both pleasure and enjoyment have the capacity of bringing individually determined happiness, the activities that produce enjoyment create a form of happiness that is more rich and meaningful. This higher form of happiness is what intrinsically motivates individuals to repeat an activity leading to the development of a more complex self, higher skill levels, and possibly skill mastery

Therefore happiness is a complex, elusive state that cannot be simply achieved by pleasurable events alone (see Table 1).

3 The term mastery is used to describe such conditions as individually perceived success in overcoming obstacles, the development of new understandings and insights, the solving of problems, and the development of high skill level(s) in an activity.
### Table 1

**Basic Assumptions of Happiness and Pleasure According to Csikszentmihalyi (1990)**

<table>
<thead>
<tr>
<th>Happiness</th>
<th>is elusive.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>does not just happen.</td>
</tr>
<tr>
<td></td>
<td>is not due to outside events.</td>
</tr>
<tr>
<td></td>
<td>depends on the individual interpretation of events.</td>
</tr>
<tr>
<td></td>
<td>is not a result of chance or money.</td>
</tr>
<tr>
<td></td>
<td>is determined individually.</td>
</tr>
<tr>
<td></td>
<td>must ensue and not be pursued.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pleasure:</th>
<th>does not bring happiness itself.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>does not involve an investment in psychic energy.</td>
</tr>
<tr>
<td></td>
<td>requires no effort if appropriate brain centers are stimulated.</td>
</tr>
</tbody>
</table>

In essence, happiness according to Csikszentmihalyi (1990) does not depend on outside events but on how we interpret these events in our consciousness. How we feel about ourselves, the joy we get from living, ultimately depend directly on how our mind filters and interprets everyday experiences. Whether we are happy depends on inner harmony…. Certainly we should keep on learning how to master the external environment, because our physical survival may depend on it. But such mastery is not going to add one jot to how good we as individuals feel or reduce the chaos of the world as we experience it. To do that we must learn to achieve mastery over consciousness itself. (p. 9)
Happiness therefore seems to be individually determined, and as is evident from the numerous international studies of flow, Csikszentmihalyi (1990) has concluded that although the activities that might induce a flow experience and resulting happiness may differ, the characteristics of flow experiences as well as the conditions making them possible seem to be identical worldwide.

Men and women, people high and low in socioeconomic class describe the same phenomenological state. What people do to enter the flow state varies by culture, gender, age, class, and personal inclination, but the structure of the experience appears to be remarkably similar. (Csikszentmihalyi & Rathunde, 1993, p. 59)

Elements and Conditions of Enjoyment

The elements and conditions of enjoyment reported by participants of Csikszentmihalyi’s (1990) studies of human happiness were remarkably similar. First of all, an experience was considered enjoyable if the individual had a clear perception of the goal(s) of an activity during each step of the process. In other words, a person does not experience contradictory demands or unsure purposes during an activity that produces flow. “In flow, we always know what needs to be done” (Csikszentmihalyi, 1996, p. 2). Goals are therefore clear, and the individual knows how to proceed moment by moment. A related element is that feedback as to the efficacy of one’s actions is immediate. “In a flow experience we know how well we are doing” (p. 3). Conversely, a detriment to experiencing flow is when one expects feedback from an
external source, and the response is negative or ambiguous. Therefore, an individual would do well by being able to “give feedback to themselves, without having to wait to hear from experts” (p. 3). See Table 2.

Another key element or condition of flow is that an individual’s skills and the challenge that he or she faces are suitably balanced (see Figure 1). According to Csikszentmihalyi (1975, 1997), when one undertakes an activity in which his or her skill level is too low to achieve the complexity of a task, worry and anxiety can occur. Likewise if a person’s skill level is too high given a particular task, boredom and again anxiety can result. Only when the task at hand is suitably, but not overly, challenging to one’s current skill level will an optimal experience occur. Therefore, in flow an individual is continually “balanced on the fine line between boredom and anxiety” (1997, p. 3). Of course as a result, in order for one to continually produce enjoyment through flow, he or she needs to continually increase the complexity of the task in order to prevent boredom but not so much that it induces a response of anxiety. With each experience of flow however, an individual approaches greater understanding, insight, solution, or mastery of an activity (1996).
Table 2

*Elements and Conditions of Enjoyment According to Csikszentmihalyi (1990)*

<table>
<thead>
<tr>
<th>Elements and Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>The effort is individual and voluntary.</td>
</tr>
<tr>
<td>The end result of the activity is perceived as worthwhile.</td>
</tr>
<tr>
<td>The task is perceived as being able to be completed.</td>
</tr>
<tr>
<td>An individual’s attention or psychic energy flows freely and is freely invested in clear goals perceived as realistic.</td>
</tr>
<tr>
<td>Information coming to awareness is congruent with the goals of the activity.</td>
</tr>
<tr>
<td>Surrounding conditions allow for intense concentration on the task to be possible.</td>
</tr>
<tr>
<td>During the activity, nothing else seems to matter to the individual.</td>
</tr>
<tr>
<td>An individual is able to act with effortless involvement where worries and frustrations disappear.</td>
</tr>
<tr>
<td>Any frustrations that do creep into consciousness are perceived as being able to be overcome.</td>
</tr>
<tr>
<td>Self-consciousness seems to disappear during the course of the activity.</td>
</tr>
<tr>
<td>Questioning of self-adequacy disappears.</td>
</tr>
<tr>
<td>During the activity, the body and/or mind are stretched to its limits.</td>
</tr>
<tr>
<td>The activity provides the individual with clear and immediate feedback.</td>
</tr>
<tr>
<td>The experience of the activity may or may not be pleasant while occurring.</td>
</tr>
<tr>
<td>The individual has the ability to control or order his or her consciousness during the duration of the activity.</td>
</tr>
<tr>
<td>An individual senses that they have control over their actions during the activity.</td>
</tr>
<tr>
<td>Disorder is absent during the activity.</td>
</tr>
<tr>
<td>The element of creativity is usually present in some aspect of the activity.</td>
</tr>
<tr>
<td>The individual’s skills reasonably match the opportunities or challenges of the activity.</td>
</tr>
<tr>
<td>The individual’s perception of time is forgotten or distorted during the course of the activity.</td>
</tr>
<tr>
<td>The individual’s biological needs are forgotten or pushed aside during the course of the activity.</td>
</tr>
<tr>
<td>During the activity, an individual perceives that there is no threat to defend against.</td>
</tr>
<tr>
<td>To slow the flow process may seem painful to the individual.</td>
</tr>
</tbody>
</table>
Figure 1. Model of the flow state.\textsuperscript{4}

\textsuperscript{4} Adapted from Beyond Boredom and Anxiety (Fig. 1), by M. Csikszentmihalyi, 1975, San Francisco: Jossey-Bass, Inc.
Other reported elements of the flow phenomenon include intense concentration or focusing only on the task at hand and that one only becomes aware of what is relevant in the here and now. In other words, there is a merging between action and awareness, and distractions are excluded from attention. Likewise, time is said to become distorted, and we become oblivious to failure and let go of our self-consciousness.

In flow, we are too involved in what we are doing to care about protecting the ego. Afterwards, we may emerge with a stronger self-concept because we know that we have succeeded in meeting a difficult challenge. Paradoxically, the self expands through acts of self-forgetfulness. (Csikszentmihalyi, 1997, p. 3)

As a result, because of this intense focusing of psychic energy, the self-realization of enjoyment and resulting happiness does not occur during flow. “Happiness is a distraction. It is only after we get out of flow, at the end of a session or in moments of distraction within it, that we might indulge in feeling happy” (Csikszentmihalyi, 1997, p. 4).

The final element of flow reported by respondents of Csikszentmihalyi’s studies is that although the activity was initially undertaken accidentally or for some extrinsic purpose, the activity becomes an end in itself after optimal experiences. For example, one “may be afraid to use a computer and learn to use it only because [the individual’s] job depends on it. But as [the individual’s] skills increase, [he or she] may begin to enjoy using the computer for its own sake as well” (1997, p. 4). The motivation for pursuing the activity now becomes intrinsic, and the experience is autotelic (1988a).
Characteristics of Optimal Experiences and Flow Activities

Optimal experience, or flow, has been described as a state of intense concentration accompanied by a sense of exhilaration and enjoyment during which biological needs are forgotten (see Table 3). There tends to be no sense of worry or questioning of personal adequacy, and any frustration or disorder perceived during this state is regarded as surmountable. Individuals have also described flow as the experiencing of rich epiphanies where one’s psychic energy flows effortlessly, and the information made aware is congruent with goals. Attention is freely invested, and because no threat is perceived to defend against, one feels in control over his or her own fate (Csikszentmihalyi, 1990).

Activities that induce flow states were found by Csikszentmihalyi (1990) to have several characteristics in common as well. These activities usually promote discovery and in turn provide “a creative feeling of transporting the person into a new reality” (p. 74). They tend to push an individual to continually seek higher performance levels, which leads to higher states of consciousness. As such, “almost every activity seems to be able to produce flow. Some, [however] such as games, sports, artistic performances, and religious rituals, are created expressly to promote the experience” and are more inclined to encourage conditions conducive to achieving flow (Csikszentmihalyi & Rathunde, 1993, p. 62). Again, as a result, the self is transformed into a more complex state each time the flow state is encountered.
Table 3

*Indications of an Occurrence of the Flow State According to Csikszentmihalyi (1990)*

- Feeling of exhilaration and gratification
- Deep sense of enjoyment
- The event is landmarked in memory.
- Provides one with a sense of what life should be like
- Pushes an individual to higher performance levels
- Motivates an individual to discover new opportunities for using their skills
- Description of the event as an extraordinarily rich epiphany
- The individual is willing to repeat the activity at an even greater cost just for the sake of doing it again.
- Feeling of mastery
- Sense of participation in the content of his or her life
- Experiences seem to join into a meaningful pattern
- Feeling of being in control of life and that life makes sense
- Past desires, unfulfilled needs, and expectations seem trivial after flow.
- Sense of discovery
- The individual feels that they were transported to a new reality.
- Individuals are given the ability to make *humdrum experiences* enjoyable after flow. Boring routines become purposeful.
- A person is more able to organize their consciousness in order to experience repeated episodes of flow.
- More flow experiences add up to an improved quality of life.
- One feels more *together* in terms of self and in relation to other people and the world.
- We become more willing to act freely just for the sake of the action itself rather than for an ulterior motive.
- We become more apt to choose a goal and then invest our energies in it to our limits knowing that it will be enjoyable in the end.
- Self-confidence is built, and skills are developed.
Another implication of experiencing flow is that the event tends to be “long cherished and . . . becomes a landmark in memory for what life should be like” (Csikszentmihalyi, 1990, p. 3). In other words, the individual achieves a sense of participation in that they are determining the content of their life. This according to Csikszentmihalyi (1990) “comes as close to what is usually meant by happiness as anything else we can conceivably imagine” (p. 4).

Repeated flow episodes, therefore, have many benefits especially to the development of the self. When one finds an activity that satisfies the conditions and induces the flow state, then continues to repeat the activity in such a way that boredom is surpassed and anxiety is suspended, the individual can progress towards mastery (see Figure 2). As a result, the positive experiences can then be joined into a meaningful pattern that strengthens one’s sense of self because “their psychic energy has been invested successfully in goals they themselves had chosen to pursue” (Csikszentmihalyi, 1990, p. 40).

The self becomes complex as a result of experiencing flow. Paradoxically, it is when we act freely, for the sake of the action itself rather than for ulterior motives, that we learn to become more than what we were. When we choose a goal and invest ourselves in it to the limits of our concentration, whatever we do will be enjoyable. And once we have tasted this joy, we will redouble our efforts to taste it again. This is the way the self grows. (p. 42)

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5 Figure 2 was developed by the researcher and is based upon Csikszentmihalyi’s (1975, 1988a, 1988b, 1990, & 1996) research and discussion of the flow phenomenon.
Extrinsically Motivated Behavior (No Occurrence of Flow State):

Extrinsically Motivated Behavior Transformed to Intrinsic as a Result of Flow:

Figure 2. Flow Theory diagrammed.
Another benefit is that experiencing flow regularly makes the present more enjoyable even if the episode is minute. In fact, Csikszentmihalyi (1975) learned from his studies that microflow activities are possible and may occur frequently throughout an individual’s day. Such events as doodling, taking a coffee break, stretching one’s muscles, and even watching television, although much less complex than flow activities, appear to have a necessary yet outwardly trivial function. As such Csikszentmihalyi suggests that the flow phenomenon may “exist on a continuum from extremely low to extremely high complexity” (p. 141).

Perhaps the most important contribution the phenomenon of optimal experience or flow makes to individuals is that the resulting enjoyment of flow episodes leads to repeated efforts to experience it again. In order to experience flow once more, one has to increase the complexity of the activity in order to surpass boredom. This “pushes us to stretch our skills or to discover new opportunities for using them” (Csikszentmihalyi, 1990, p. 75). This repeated cycle “builds self-confidence that allows us to develop skills and make significant contributions to humankind” (p. 42). Without the drive for new discoveries, society “grows stilted and stunted…. Therefore the significance of enjoyment is not trivial. It is vital to the survival of society” (Mitchell, 1988, p. 57). Furthermore “unless enough people are motivated by the enjoyment that comes from confronting challenges, there is no evolution of culture, no progress in thought or feeling” (Csikszentmihalyi, 1997, p. 2).
Individual Characteristics Supportive of Flow

Although not necessary to achieve flow, a few individual characteristics were discovered by Csikszentmihalyi (1990) as aiding inducement.\(^6\) From his studies, those individuals who were shown to have repetitive instances of flow experiences were ones who were able to achieve personal autonomy and learn to provide rewards for him or herself. In other words, these individuals were able to become independent of their environments in terms of its reward and punishments and were able to “develop the ability to find enjoyment and purpose regardless of external circumstances” (p. 16). As such, these individuals’ consciousnesses became emancipated in that they became “free of societal rewards” (p. 19) by learning how to substitute other rewards that were under their own power.

If a person learns to enjoy and find meaning in the ongoing stream of experience, in the process of living itself, the burden of social controls automatically falls from one’s shoulders. Power returns to the person when rewards are no longer relegated to outside forces. It is no longer necessary to struggle for goals that always seem to recede into the future, to end each boring day with the hope that tomorrow, perhaps, something good will happen. (p. 19)

With control over their consciousness, Csikszentmihalyi makes the assumption that an individual can now reclaim power over their experiences that can lead to more frequent flow states. Therefore “a person can make himself [sic] happy, or miserable, regardless of what is actually happening ‘outside,’ just by changing the contents of consciousness” (1990, p. 24).

\(^6\) These are very similar to some of the basic assumptions of humanistic psychology. See Chapter 2 for a discussion of humanism.
Obstacles to Flow

Besides the before mentioned obstacles of lack of feedback due to reliance on an outside reward system and distractions, obstacles to flow are numerous and multi-dimensional making the phenomenon elusive and all the more valuable to individuals who experience it. Macro influences that deter flow experiences include both societal anomie and alienation. Anomie, or “a condition in society in which the norms of behavior become muddled [and] when it is no longer clear what is permitted and what is not” (Csikszentmihalyi, 1990, p. 86) affects flow in that it becomes unclear in what one should invest his or her psychic energy. When a society is alienated, the people are constrained and are expected to act against their personal goals. Therefore, one cannot invest their energy in what they truly desire.

Obstacles to flow on the individual level can be a result of the above macro influences on the micro level but can also be a result of micro influences only. In other words, although societal, cultural, and even environmental influences can restrict an individual’s ability to achieve flow, one’s opportunities may also be restricted because of factors that act in conjunction or even independent to macro influences. Such factors may include hereditary or biological factors that cause attentional disorders or excessive self-consciousness (Csikszentmihalyi, 1990). Each acting alone or in conjunction with outside forces can limit one’s ability to control the psychic energy of consciousness seen to be crucial to the inducement of flow experiences. When consciousness is disrupted by information threatening an individual’s goals, a state of
psychic entropy impairs the opportunities for flow. Such states are detrimental to an individual’s sense of self, and “prolonged experiences of this kind can weaken the self to the point that it is no longer able to invest attention and pursue its goals” (p. 37).

Purpose of the Study

It is therefore my opinion that Csikszentmihalyi’s (1975) Flow Theory provides one answer to the question of why individuals seek out instruction and participate in such activities as clothing design and construction, knitting, quilting, weaving, embroidery, and the like (considered herein as non-industrial textile production activities) in contemporary American society. Although initially it may be extrinsic rewards (such as a tangible product or an educational degree) that attract individuals to a particular activity, it is the unconscious desire for optimal experience or flow that commits an individual to actual participation and continual involvement. These experiences of “positive, highly enjoyable states of consciousness” (New Riders, 2003, p. 1) lead an individual to repeat their participation with an activity. As a result, one’s skill set increases and their self grows.

Therefore, the purpose of this study was to test Csikszentmihalyi’s (1975) Flow Theory for applicability to clothing and textiles subject matter. Moreover, the

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7The term non-industrial textile production activities was chosen over the more common term handicrafts (Johnson & Wilson, 2005; Popelka, Fanslow, & Littrell, 1992; Schofield-Tomshin & Littrell, 2001) due to participant sensitivity. To some, the term is considered derogatory as they see their work as art and themselves as artists or fiber artists (N. Claflin-Blood, personal communications, 2003 & July 26, 2005).
proposition *Repeated episodes of flow leads to mastery* was tested using a combination of research methods resulting in quantitative and qualitative data. These data were used to determine whether individuals who developed high skill levels in a non-industrial textile production activity did so as a result of repeated episodes of optimal experiences or flow.

**Research Question**

Is Csikszentmihalyi’s (1975) Flow Theory useful in explaining clothing and textiles phenomena such as motivating individuals to continue participation in non-industrial textile production activities?

**Objectives**

The objectives of this study therefore included:

1. to link intrinsic motivation for continued participation in non-industrial textile production activities to the experiencing of flow occurrences.
2. to demonstrate that the advanced development of an individual’s non-industrial textile production skill-set may be a result of the enjoyment one experiences from repeated episodes of flow.
3. to illustrate the usefulness of Csikszentmihalyi’s (1975) Flow Theory in explaining clothing and textiles phenomena.
Hypotheses

1. There is a relationship between the skill level of non-industrial textile production students and producers and type of motivation (intrinsic and extrinsic).

2. There is an association between the skill level of non-industrial textile production students and producers and type of motivation (intrinsic and extrinsic).

3. There is a relationship between the skill level of non-industrial textile production students and producers and the occurrence of the elements and conditions associated with flow (low and high).

4. There is an association between the skill level of non-industrial textile production students and producers and the occurrence of the elements and conditions associated with flow (low and high).

Limitations and Assumptions

For this study dimensions of participants’ natural tendencies toward experiencing flow states were not investigated. It was assumed that the participants of this study were not affected by societal or personal alienation or anomie as discussed earlier. In addition, Csikszentmihalyi’s (1990) basic assumptions about happiness and pleasure should be noted. Again, see Table 1 and the discussion above. Further assumptions are listed in Chapter 2 in a discussion of humanism.
CHAPTER 2—REVIEW OF LITERATURE

The following review of literature contains topics deemed as being important to the testing of Csikszentmihalyi’s (1975) Flow Theory for applicability to clothing and textiles subject matter. First, the ideas and underlying assumptions of humanism will be discussed in order to communicate the basic ontological principles that guided this research approach. Next, a discussion of the main ideas in the area of intrinsic motivation will follow and aid in situating the Flow Theory relative to other theories of intrinsic motivation. Third, in order to illustrate the lack of investigation into this area of human behavior relative to clothing and textiles, a review of fashion theories and then research highlighting the concept of enjoyment as related to clothing and textiles subject matter will ensue. Finally, a look at current research regarding non-industrial textile production activities will conclude the review.

Humanism and Guiding Assumptions

According to Huberman and Miles (1994), “it is healthy medicine for researchers to make their preferences clear. To know how researchers construe the shape of the social world and how they mean to give us a credible account of it is to know just who we have on the other side of the table” (p. 429). Therefore, the ideas of humanistic psychology or humanism guided this research. Also known as the Third Force in psychology, humanism developed in response to a “need for a fresh approach to crucial human problems [that had] no systematic place either in positivistic or behavioristic theory or in classical psychoanalytic theory” (Sutich, 1961, pp. vii-viii).
Evolving since the middle of the last century, humanism is rooted in existential philosophy (Deci, 1975) and is heavily reliant on the phenomenological experiences of people (Bugental, 1964; Deci, 1975). Humanism focuses on the functioning and experience of the whole human being and is concerned with the person’s full development (Criswell, 2000). Topics such as creativity, joy, love, self, growth, basic need-gratification, self-actualization, higher values, ego-transcendence, autonomy, identity, positive psychological health, and peak experiences are embraced by scholars oriented to the humanistic tradition (Aanstoos, 2003; Criswell, 2000; Sutich, 1961).

Despite differing approaches, humanists share the following common characteristics:

They focus on the experiencing person and the meaning of experience to the person; they emphasize the human qualities of choice, creativity, values, self-realization, and so on; they are concerned with problems that are meaningful to humans; their ultimate concern is with valuing the dignity and worth of humans and an interest in the development of the potential inherent in every person. Particularly important is the person as he or she discovers his or her own being and relates to other persons and social groups. (Criswell, 2000, p. 77)

As such, scientific inquiry in humanistic psychology is characteristically non-experimental. Although criticized for lacking rigor in data collection procedures (Deci, 1975) and considered “little more than journalism” to some (Aanstoos, 2003, p. 124), it can also be said that given the assumptions of humanistic inquiry (see below), the lack of rigor makes sense. According to Deci (1975), “since personal experience is primary, humanistic psychologists tend not to be interested in careful measurement of
objective stimuli nor in assessment of internal states, which measurement they claim is not possible by using the techniques currently available” (p. 18). However since the mid 1980s, the use of qualitative inquiry has been more widely accepted, and “rigor and depth [have been] incorporated into qualitative methods capable of meeting the daunting challenge of explicating human experience” (Aanstoos, 2003, p. 124).

The first and foremost assumption that proponents of humanism make is that a human has free will, and through choice making, he or she defines him or her self (Bugental, 1964; Deci, 1975). “The humanistic self is an engaged, involved, situated self, concerned and caring about the whole of Being, of which it is an interrelated manifestation” (Aanstoos, 2003, p. 128). Through awareness, both conscious and unconscious (Bugental, 1964), an individual realizes that his or her choices can make an impact on the nature of the experiences that he or she encounters. Therefore he or she is not a bystander but a participant in the experiences of life, and through heightened awareness, humans also have the capability to change and to “transcend his [or her] creatureliness” (Bugental, 1964, p. 24).

Other assumptions of humanism set humans apart from other species. Supporters of humanism believe that “human beings are basically creative [and] behave out of intentionality and values” (Criswell, 2000, p. 76). From intentionality, humans build their identities distinguishing themselves from non-human species (Bugental, 1964). Humanism also emphasizes that the interpersonal potential of humans differentiates us from others, and “the unique nature of man [sic] is expressed through his always being in relation with his [or her] fellows” (p. 23).
Intrinsic Motivation

To study motivation is to study action (Eccles & Wigfield, 2002). A distinction is generally made between actions that are intrinsically and extrinsically motivated. “When extrinsically motivated, individuals engage in activities for instrumental or other reasons, such as receiving a reward” (p. 112). Engagement in an activity is intrinsically motivated when an individual participates without anticipating an external reward. “In addition, the behavioral episode is characterized by interest, enjoyment, and a voluntary willingness to continue” (Reeve & Cole, 2001, p. 441). According to Deci and Ryan (1985), the study of intrinsic motivation dates back to 1918 when Woodworth outlined a theory directly addressing behavior that was intrinsically motivated. “[He] proposed that an activity be initiated by an extrinsic motive but that ‘only when it is running by its own drive…can [it] run freely and effectively’” (Woodworth, 1918, p. 70; Deci & Ryan, 1985, p. 12). Since then numerous approaches and theories have developed to address and explain the phenomena of intrinsic motivation. The most common are outlined below.

Drive-Naming Approach

This approach, popular in the 1950s, resulted from findings from numerous experiments mostly using primates that supported the idea that behaviors such as curiosity, manipulation, and exploration are all intrinsically motivated behaviors. In other words, “organisms seem to need a certain amount of novel stimulation to function effectively, and the opportunity for novel stimulation…has frequently been
used to reinforce other responses” (Deci, 1975, p. 28). The drives that were essentially named during this time included the visual exploration drive by Butler (1953), the drive to manipulate by Harlow (1953), the exploratory drive by Montgomery (1954), and a boredom avoidance drive by Myers and Miller (1954). A drive to instinctually master was named earlier by Hendrick (1942, 1943), and Isaac (1962) added a sensory drive in the early 1960s. However, the drive-naming approach has since been considered inadequate by scholars because although it provides labels for different drives, it does not help us understand the phenomenon of intrinsic motivation any better (Deci, 1975; Deci & Ryan, 1985).

Psychological Incongruity Approach

Other scholars proposed that intrinsic motivation was an individual’s attempt to alleviate or eliminate any uncertainty or cognitive dissonance. “The central issue for most of the work in this area is the extent to which people will approach or avoid incongruous (or dissonant or discrepant [sic]) inputs (or cognitions)” (Deci, 1975, p. 32). Proponents of the psychological incongruity approach include Festinger (1957)—dissonance reduction; Kagan (1972) and Lanzetta (1971)—uncertainty reduction; McClelland, Atkinson, Clark, and Lowell (1953)—discrepancy from adaptation; Dember and Earl (1957) and Hunt (1965)—optimal incongruity; and Berlyne (1971)—optimal arousal potential (Deci & Ryan, 1985). Hunt (1963, 1965), however, seems to have been the strongest supporter of this notion of intrinsic motivation and incorporated his ideas of optimal incongruity into a general theory of intrinsic
motivation. His first central idea of the theory asserted that organisms have an inherent need for an optimal amount of psychological incongruity. The second aspect of the theory answers the question of *What initiates behavior?* In order to explain his ideas he utilized the TOTE model (Miller, Galanter, & Pribram, 1960). TOTE stands for test, operate, test, and exit:

> When there is an incongruity between the input stimulus and the standard of comparison, the organism will be motivated to behave, that is, it will in some way operate to reduce the incongruity. As it operates, there will be continual testing of the stimulus and standard. The operating will continue so long as the incongruity exists. However, when there is finally a congruity between the stimulus and standard, the operation will terminate (i.e., exit) and the organism will be freed of this process. (Deci, 1975, p. 37)

Given Hunt’s assumption that organisms need an optimal amount of psychological incongruity, Deci (1975) argued that Hunt’s theory needed to be modified to account for instances when the optimal amount is not reached. Therefore Deci posited that if the optimal is not reached, an individual will actively seek out additional stimuli to accommodate for the lack thereof.

**Physiological Arousal**

A related approach argues that an individual needs an optimal amount of physiological as well as psychological arousal. The idea of optimal arousal posited by Hebb (1955), Leuba (1955), and Fiske and Maddi (1961) explains intrinsic motivation as being initiated by “the central nervous system rather than in the psychological interpretation of the external stimuli” (Deci, 1975, p. 47). These scholars believe
humans have a need for “nonspecific cortical bombardment” (p. 62), and this “arousal may be achieved through optimal experiences with threat and puzzle” (Deci & Ryan, 1985, p. 21).

Besides optimal arousal, the idea of hedonism is usually associated with the idea of physiological motivation or physical pleasure. According to Ryan and Deci (2001), hedonism is an intrinsically motivated phenomenon “which focuses on happiness and defines well-being in terms of pleasure attainment and pain avoidance” (p. 141). According to Sobel (2002), hedonism consists of three varieties: pleasure as sensation, desirable consciousness, and an adverbial view.

The first understanding of pleasure is that it is a sensation like a tickle or pins and needles. The second...is that which “the sentient individual at the time of feeling it implicitly or explicitly apprehends to be desirable” [(Sidgwick, 1981, p. 131)]. The third is that a person takes pleasure in an experience iff [sic] she [or he] intrinsically wants that experience to continue. (p. 240)

Unlike optimal arousal discussed above however, the physical pleasure involved with hedonism has less bearing on an individual’s ability to achieve an optimal experience or flow state (see the discussion of Pleasure Versus Enjoyment in Chapter 1). For according to Csikszentmihalyi (1990), the happiness involved with physical pleasure is much easier to achieve than the happiness associated with enjoyment that is the result of pushing one’s self to a higher state by engaging in more rigorous and complex challenges.
**Competence and Self-Determination Approaches**

Although many other researchers have examined intrinsic motivation in terms of competence and self-determination (Harter, 1978; White, 1959; Angyal, 1941; deCharms, 1968), Deci and Ryan are well known in these areas. As such, they even define the concept of intrinsic motivation in terms of these approaches.

*Intrinsic motivation* is based in the innate, organismic needs for competence and self-determination. It energizes a wide variety of behaviors and psychological processes for which the primary rewards are the experiences of effectance and autonomy. Intrinsic needs differ from primary drives in that they are not based in tissue deficits and they do not operate cyclically…. Like drives, however, intrinsic needs are innate to the human organism and function as an important energizer of behavior. (Deci & Ryan, 1985, p. 32)

Combining the perspectives of several scholars, Deci and Ryan (1985) proposed the **self-determination theory**. This theory combines Hebb’s (1955) idea that organisms seek to maintain optimal stimulation levels with White’s (1959) notions of competence and deCharms’ (1968) concept of self-determination as basic human needs.

[Deci & Ryan (1985)] argued that people seek out optimal stimulation and challenging activities and find these activities intrinsically motivating because they have a basic need for competence. In addition, they argued that intrinsic motivation is maintained only when actors feel competent and self-determined. (Eccles & Wigfield, 2002, p. 112)

Empirical testing has lent support to this theory in that when external control is imposed and negative feedback is communicated an individual’s intrinsic motivation is reduced (Cameron & Pierce, 1994; Deci & Ryan, 1985; Deci, Koestner, & Ryan, 1999).
Emotions Approach

This final discussion of theories and approaches to inquiry into intrinsic motivation addresses the idea of the subjective emotional well-being of an individual. Besides Csikszentmihalyi (1975) and his research on flow experiences discussed in detail in Chapter 1, Izard (1977) is also recognized as having investigated intrinsic motivation in terms of emotional experiences. Proposing that humans experience ten different emotions, he felt that the emotion of interest-excitement formed the basis for behavior that was intrinsically motivated with the emotion of joy playing a secondary role.

Interest is involved whenever one orients toward an object, and it plays an important role in the amplification and direction of attention. Interest-excitement can therefore activate many types of investigatory or manipulative behaviors, particularly under conditions of novelty and freedom from other pressing demands of drives or emotions. (Deci & Ryan, 1985, p. 28)

Unlike Csikszentmihalyi who places greater emphasis on enjoyment, Izard (1977) however indicated that interest was a more fundamental motivator of intrinsic behavior. As such, Izard also recognized that the emotion of interest-excitement is central to the adaptation, development, and coordination of behavior in humans (Deci & Ryan, 1985).

In addition to flow and interest-excitement, the idea of eudaimonism has been introduced and is reminiscent of Maslow’s (1943) idea of self-actualization. According to Ryan and Deci (2001), this approach focuses on meaning and self-realization, and one’s emotional well-being is judged in terms of the degree to which a person is functioning fully as a human.
Both as ancient and current as the hedonic view, is that well-being consists of more than just happiness. It lies instead in the actualization of human potentials. This view has been called eudaimonism, conveying the belief that well-being consists of fulfilling or realizing one’s daimon or true nature. (p. 143)

As such, the idea of eudaimonism complements Csikszentmihalyi’s (1975) idea of flow in that although an individual is said to achieve happiness as a result of the flow state, multiple instances of flow leads to the strengthening of the self. As the self is strengthened, one is essentially realizing their true nature. Therefore, the individual achievement of flow could be an integral step for one to become self-actualized and to discover their daimon, which is certainly worth further investigation.

Flow and Other Theories of Intrinsic Motivation

From this review of literature of intrinsic motivation, it is apparent that Csikszentmihalyi’s (1975) Flow Theory has its place among the other theories of intrinsic motivation. Besides the idea of eudaimonism just discussed, Csikszentmihalyi and Rathunde (1993) feel that flow can be situated among many other works as follows:

Flow has many similarities to Maslow’s concept of self-actualization (1968), White’s notion of competence (1959), deCharms’s concept of personal causation (1968), Bandura’s effectance motivation (1977), Deci and Ryan’s autonomy (1985), Amabile’s findings on intrinsic motivation (1983), and the influential concept of optimal arousal formulated by Hebb (1955) and further developed by many others…. Our contribution differs mainly in that it focuses more on what happens in the ongoing stream of consciousness and less on the subjective or objective outcomes the experience might serve. (p. 65)
Therefore it is apparent from this discussion that the idea of optimal experience or flow certainly is important in contemporary research. Again, this theory is seen by the researcher as having great potential in explaining the phenomena associated with the field of clothing and textiles. As such, a discussion of currently used theories by clothing and textiles scholars begins below.

The Current State of Fashion Theory

Scholars who study theory generally agree that one of its functions is to seek explanations or answers to the question of why? (Chafetz, 1978; Lett, 1987; Sztompka, 1974; Walker & Avant, 1995; Winakor, 1988). Most theories that are used by clothing and textiles scholars ask why questions with a large-scale focus regarding the nature of fashion. For example, questions such as “why is the fashion system based on continual change,” “why do fashions change as they do,” and “why is there a difference between women’s and men’s fashions” emphasize examining fashion on a macro level (Entwistle, 2000, p. 57). Popular fashion theories include the trickle-down theory proposed by Bigg (1893), Veblen (1899), and Simmel (1904) that explains fashion diffusion as a vertical social phenomenon based on conspicuous consumption (Entwistle, 2000), the simultaneous adoption theory by King (1963) which “suggests that fashion adoption takes place simultaneously at all social levels” (Behling, 1985-86, p. 18), and fashion as collective selection posited by Blumer (1969) which focuses on “the construction of shared tastes and meanings” (Kaiser, Nagasawa, & Hutton, 1995, p. 173). Others include the trickle-up theory of fashion change (Field, 1970)
described as “an upward flow of fashion to the middle and upper social classes from
the blue collar worker, ethnic groups and the young” (Behling, 1985-86, p. 18), the
theory of Zeitgeist (or spirit of the times) which explains fashion as responding to
social and political changes (Ditcher, 1985), and the theory of the shifting erogenous
zone (Laver, 1995) which asserts that “at different times, women’s clothes display a
particular part of the female body but, in order to keep men’s desire, the emphasis
must continually shift” (Entwistle, 2000 p. 64).

These theories according to Entwistle (2000), however, attempt to explain
fashion as a result of a large-scale causal force and neglect the influence of the
individual. There are a few exceptions. Some theorists (Barnard, 1996; Davis, 1992;
Lurie, 1981) have examined fashion on the micro level in terms of its communicative
or expressive qualities, and although “this explanation is considered more fruitful than
other theories for dress, adornment and fashion” (Entwistle, 2000, p. 66) in that it is
more descriptive of the unique qualities of the relationship between an individual and
fashion, this body of work remains small.

Kaiser, Nagasawa, and Hutton’s (1995) SI Theory of Fashion however
attempts to formally develop “a bridge between macro-level cultural forces and micro-
level appearance processes” (p. 172). Using a symbolic interactionist approach, the
theory’s purpose is to provide explanations for the acceptance of new styles by
individuals. Developed in an effort to fill the “gap between explanations of style
change on a macro level and those addressing appearance management on the part of
individuals” (p. 173), these theorists not only acknowledge the need for more theories that address the *why* questions of fashion phenomena but also for those that are focused on individuals.

However as Pedersen (in press) asserts, theory in the realm of clothing and textiles subject matter does exist but simply remains unnamed.

Theory is present even if a specific, previously published or named theory has not been used. Theory is present even when the author is not intentionally developing theory….We are not always aware of theory because we have been trained to recognize [only] named theories, but generally we have not been trained to recognize “no name” or “private label” theories. (p. 3)

Unfortunately, this lack of training in theory recognition and the non-naming of micro theories only leads to further disconnects within the field. As stated earlier, in order to form a body of knowledge that is integrated, theory should be used as a beginning in the formulation of research questions (Tseelon, 2001). Therefore, if we can not even recognize or name the theory present in the products of our research, is it not logical to assume that theory was not used to generate the initial research questions? And if we are not using theory to guide our research because we are incapable of recognizing it, it is no wonder why named theories, which could potentially be out of date, remain popular and few.

**Clothing, Textiles, and Enjoyment**

Simply enough, “the plain truth seems to be that people do want to be happy...although clearly specific, positive emotional experiences have been, and to
some extent continue to be, neglected in social and personality research” (King, 2001, pp. 52-53). Research in clothing and textiles also has not related key concepts to enjoyment or even pleasure. With few exceptions, the connection between clothing and textiles and personal enjoyment remains at the periphery of importance to most researchers and seems to be dwarfed by the study of the influences societal and cultural processes have on the individual. However, through close examination of many scholars’ works, the relationship does emerge indirectly within the contexts of several empirical studies although this was not a research focus. The following brief discussion of research highlights the importance of individual enjoyment as part of the phenomena studied by clothing and textiles researchers.

**Aesthetics**

Although a wealth of research and subsequent information on aesthetics exists as it relates to traditional art forms, the phenomenon still remains relatively unexplored especially in regards to personal enjoyment and its relation to clothing and textiles subject matter. Fiore, Kimle, and Moreno (1996), however, attempt to define aesthetics and apply it to the creator and creative process inherent to many clothing and textiles activities. They describe an aesthetic object as a “stimulus pattern with structural properties that give it a positive hedonic value” (p. 30). They also continue with a description of the relationship between the aesthetic object and the subsequent aesthetic experience (or AE) it can create.
The aesthetic quality of the object is inherently stimulating, rewarding and pleasurable in itself, not because it affords external benefits such as social or economic gain…. The AE involves heightened and concentrated consciousness by the individual. It is marked by an apprehension of the sensual and emotional power of things and an exaggeration of normal life processes. (pp. 30-31)

As seen from the passage above, Fiore, Kimle, and Moreno (1996) not only liken the relationship of the creator and the creative process to a pleasure seeking or hedonistic endeavor but also characterize an aesthetic experience similarly to Csikszentmihalyi’s (1975) optimal experience or flow state described earlier. In fact in an exploration that centers on the individual experiences of apparel designers, Kimle (1994) cites Csikszentmihalyi to relate the state of inner order to the connection of mind and body “when one consciously reflects on the physical sensations of manipulating materials and the ability of the body to do so” (p. 66). This unconscious mental component of the aesthetic process, however, “has not been directly addressed by textiles and clothing researchers” (Fiore, Kimle, & Moreno, 1996, p. 36), and therefore, this study is a timely addition to this component of aesthetics research.

**Dress-Up as Play**

Miller (1997) built upon Eicher’s (1981) work of the self in order to investigate individual adult behavior regarding dressing the private and secret self. “According to Eicher (1981), the self is communicated in three ways; the self we let everyone know (public), the self we let close friends and family know (private), and the self we may not let anyone or only intimates know (secret)” (Miller, 1997, p. 223). By studying individuals who were involved in costumed activities of such groups as the Society for
Creative Anachronisms, science fiction conventions, historical reenactments, and other similar experiences, Miller hoped to gain a better picture of those who enjoyed adult play activities involving dress-up while testing Eicher’s framework. Her findings indicated that the individuals “associated feelings of fun with clothes, feel they dress out their fun side [sic] when among family and close friends and associate fun with clothes when engaged in an activity thus documenting instances of dress and the private self” (p. 231). She concluded that although the study supported Eicher’s ideas of dressing for the private and secret self, an expanded and more complex framework may be needed to fully understand the multi-dimensionality of fun and fantasy dress. Therefore, the Flow Theory, with the concept of enjoyment at its core, may also be useful in developing the framework needed to more fully explain the relationship of fun and dress.

*Home Sewing*

Kean and Levin (1989) reported that although a review of literature spanning a 30-year period revealed that both creativity and economic factors were the most cited reasons for pursuing home sewing activities, the results of their investigation supported the cost-savings attribute. However a review of relevant literature dated from 1927 to 1993 led Schofield-Tomschin (1999) to conclude that motivations for home sewing include not only economy and creativity but also the desire for higher quality and better fitting garments than what is available in ready-to-wear and the need for leisure activities that provide both physiological and psychological benefits.
Although creativity was considered a strong motivation for home sewing and a form of personal expression, home sewing also leads to a realization of self-worth and personal satisfaction...Leisure or recreational activities can have a positive affect on those who use them...Leisure can impact the physiological, psycho-physiological, economic, and social aspects of life. (p. 103)

Using the handwork involved in home sewing activities as an example, this review also led her to contend that the manual manipulation of the project can therapeutically aid arthritis sufferers or those who have suffered a hand injury. Furthermore, “the same handwork...can also promote psycho-physiological benefits, including reduced tension and anxiety, mental and physical relaxation, positive changes in mood, and enhanced outlook on life” (p. 104).

Although spanning more than half a century, Schofield-Tomschin’s (1999) review of these previous studies investigating motivations for home sewing included several mood-related responses including enjoyment, relaxation, and pleasure as well.

Mood is a prevalent and relevant by-product of leisure activities. Mood, which is used to denote a set of subjective feelings (i.e., pleasure, happiness, sadness), occurs as a consequence of leisure experiences. This induced mood can influence the behaviours [sic] and cognitions of persons long after they leave the leisure activity. Positive moods tend to promote feelings of control.... This sense of control over daily events may determine the effect stress can have on the psychological and physical well-being of an individual. (p. 104)

Again, several of the elements described above illustrating individual motivations for pursuing sewing activities at home are very similar to the elements and conditions indicated by Csikszentmihalyi (1975, 1990) discussed in Chapter 1. Despite the physical benefits seen to be relevant, the key ideas of promoting self-worth, inducing
positive mood, and the feeling of being in control are all indicative that an optimal experience can result from a non-industrial textile production activity such as sewing.

*Fashion Leadership*

The relationship between fashion and enjoyment has also been briefly touched upon by researchers studying individuals seen as fashion leaders. According to Goldsmith, Heitmeyer, and Freiden (1991), a fashion leader “can be defined as a consumer who has a greater than average interest in fashion, who [sic] purchases fashions relatively earlier than the rest of the market, and who influences later buyers to purchase new fashion items” (p. 37). Although studies of fashion leaders are generally meant to aid the marketing and promotion of new products for consumption, the characteristics and values of this consumer segment inadvertently reveals the nature of fashion-related activities as well. For example, “fashion leaders described themselves as more excitable, indulgent, contemporary, formal, colorful, and vain than the [fashion] followers” (Goldsmith, Flynn, & Moore, 1996, p. 246). Also, according to Goldsmith, Heitmeyer, and Freiden (1991), fashion leaders highly valued activities that were fun and produced excitement and enjoyment more than non-fashion leaders. As such, their “study found that the consumer with high values of fun, enjoyment, and excitement exhibited high fashion attitudes” (p. 43). Therefore, one can reasonably assume that the fashion activities in which individuals considered fashion leaders participate are characterized by elements and conditions that promote enjoyable, fun experiences and appeal to their excitable natures.
A related area of research to fashion leadership is that of consumer shopping behavior. Unlike the areas discussed previously, this area of clothing and textiles research seems to address the concept of enjoyment in relation to fashion-related activities in a direct manner. Given the assumption that an enjoyable shopping experience will increase the sales of consumer products, merchandising researchers seek to characterize not only the personality traits of a target market but also the conditions involved with the shopping experience itself. For instance, according to Forsythe and Bailey (1996),

shopping enjoyment is a particularly viable motivational construct that has not been empirically linked to shopping behavior. The possibility that enjoyment of shopping may affect time spent in product acquisition has been suggested, but has not been included in time allocation models. (p. 185)

Furthermore, these researchers emphasize the need for more research done on the pleasure inherent to the shopping process rather than just addressing consumer behavior as a “highly rational process, motivated by specific purchase intent and characterized by active information seeking” (p. 186). Relative to the results of their study, Forsythe and Bailey (1996) determined that the shopping enjoyment experienced by an individual did influence the amount of time they allocated to the shopping activity.

Adolescent female shopping behavior in terms of enjoyment is also a popular topic among fashion product consumption researchers. According to Abbott and Sapsford (2001),
consumption is hedonistic; it gives pleasure and is part of the search for pleasure as a leisure activity. Furthermore, the shopping mall is seen as accessible [to young people] and a place for social activities, for parading, for showing off clothes. The construction of the shopping center enables the trying-on of clothes, communal changing rooms allowing sampling of style with a friend without necessarily having to buy. (p. 24)

Chen-Yu and Seock’s (2002) study of purchase motivation of adolescents also supports the hedonic nature of shopping activity and recommended that “enjoyment during shopping should be included in the development of store image [and] items that are fun to shop for should be considered in product selection” (p. 71) in order to attract adolescent female consumers.

Another popular area in shopping behavior research in terms of fashion-related items is that of impulse shopping including that of adolescent females.

Mostly purchases were made on impulse, because something was seen as irresistible or too good a bargain to turn down. The layout of shops, the availability of communal changing rooms and the background presence of salespersons all encouraged young women to try on clothes and make purchases. For these young women, shopping is not a necessity but fun, an enjoyable way of spending their free time. (Abbott & Sapsford, 2001, p. 32)

However, impulse-shopping behaviors have also been examined for the differences between adult male and female impulse buying as well as the affective and cognitive processes involved with such behavior. According to Coley and Burgess (2003), “women were affectively and cognitively more impulsive [, and] significant differences were found between men and women in terms of irresistible urge to buy, positive buying emotion, mood management, cognitive deliberation and unplanned buying” (p. 293). It was noted that the atmospheric conditions of the shopping venue,
such as music, lighting, aroma, and creativity in visual merchandising, greatly heightened the excitement and pleasure involved with the shopping experience thereby leading to more impulsive purchases. Therefore it was recommended by researchers to use atmospherics not only in the physical space of a store, but also within other promotional environments including catalogs and commercial websites (Coley & Burgess, 2003; Fiore, 2002).

Non-Industrial Textile Production Research

As defined in Chapter 1, the term non-industrial textile production was used in this research study to describe activities that involve the manual design and creation of textile items that are not mass-produced such as via commercial assembly line methods. In other words, although the final product may be deemed worthy for selling by the creator or creators, the process to make the product was not typical of occupational piecework. Often considered hobbies in contemporary society, activities such as quilting, knitting, weaving, crocheting, embroidery, rug hooking, clothing construction, tatting, lace creation, and the like were all taken into consideration when the term non-industrial textile production was used in this study.

Other than the research investigating motivations for home sewing as discussed above, studies focusing on contemporary American non-industrial textile production activities are few. Although studies regarding the business success of handcraft entrepreneurs is evident (Littrell, Stout, & Reilly, 1991; Popelka, Fanslow, & Littrell, 1992) and the popularity of these types of activities is reflected in the
popular press (Benesh, 2001; Beshar, 2001; Cargill, 2002; Clark, 2002; Favelle, 2000; Hemmings, 2003; Isaacs, 2003; Pittel, 2002; Stuenkel, 2002; Tinsdale, 2003), scholarship addressing individual motivations for pursuing education or participation in non-industrial textile production activities is surprisingly absent. One exception is Cerny, Eicher, and DeLong’s (1993) investigation of quilt making and guild participation. They concluded that the participants of their ethnographic study sought to gain a sense of social self through guild participation as well as to satisfy leisure and educational needs. Fellowship was also deemed as a strong motivator in that “women draw from the friendships to empower creativity” (p. 20) and that inspiration “flows” from these relationships.

Another is Dohr’s (1985) investigation of the motivation for the participation of women in organized arts and design courses offered through continuing education programs. This research supported earlier studies by Boshier (1971) that adults enroll in these classes for the three major reasons of social, job, and learning aspects. As such, Dohr recommended that “educators planning arts and design programs must be cognizant of the variations in learners’ purposes for attendance” (p. 90) and that individual motivation can have an impact on overall learning.

Although the purpose of this next study was to explore the complexities of creativity via an exposition from a commercial knitwear designer, the content of Hegland and Hemmis’s (1994) report reflects the Flow Theory and is worth including.
For instance,

in the narrative, the knitter acknowledged a deep sense of personal satisfaction and accomplishment as she mastered increasingly difficult technological skills. She also understood that advancement in expertise led to greater creative opportunities. (p. 76)

Also,

at several points in the narrative, the knitter spoke of unpleasurable knitting experiences. She often used terms such as “tedious” or “frustrating.” Examples such as “following a color chart”… or “turning a cable” were cited as knitting techniques which disrupted the flow of the work…, and were thereby identified as unpleasurable. Moreover, she found the process of mastering the technological aspects of knitting rewarding in itself. (p. 76)

Furthermore,

the aesthetic aspects of knitting, characterized by its flow, were also important. A lessening of pleasure during a tedious process was only tolerated when the outcome was considered to be worth the effort. (p. 76)

As is evident from the above quotes discussing the development of one knitter’s technological expertise, several elements and conditions of enjoyment and flow occurrence indicators as well the resulting satisfaction is mentioned and deemed important. In fact, as with several of Csikszentmihalyi’s (1975) original respondents, the term *flow* was used repeatedly to describe the experience with this particular non-industrial textile production activity. Furthermore, the idea of disruption as detrimental (and unpleasurable) to the continuation of the flow state is clearly illustrated and supported by the passages above as well the notion that although sometimes tedious and psychologically painful, the process was well worth the struggle in the end.
Another academic study related the idea of successful aging to the participation in a handcraft guild. Reasons for participation were subsumed under two themes namely *Craft as I* and *Guild as We*. Also reflective of the concepts involved with the Flow Theory, the *Craft as I* minor theme of *process*

had the greatest number of informant references, suggesting that the process of creating served as a significant force in craft production. The common thread that tied the sub-themes together was the focus on personal enrichment, the betterment of self through participation in the craft. (Schofield-Tomschin & Littrell, 2001, p. 46)

As a result of the study, the researchers concluded that “participation in textile guilds enhances individuals’ sense of worth through participation in their roles in the guilds and provides control over their own lives” (p. 50). Furthermore, successful aging is seen to be a byproduct of handcraft participation, and they recommended that these activities be promoted to the elderly especially women who are seen to need help in “preserving their autonomy and dealing effectively with changing life conditions” (p. 50).

One final and recent study that specifically addresses motivational factors of female handcrafters is by Johnson and Wilson (2005). Three general themes emerged from their research including that it was the symbolic meanings between the maker, the creation, and the receiver of the object that “motivate[d] the contemporary textile hand crafter to continue to learn age-old skills and spend hours making special things” (p. 126). Another was that participation in such activities “provided the women an opportunity to identify their place in the world” (p. 115). Finally, it was the tangible and intangible benefits gained that also provided motivation. Such benefits included
learning skills that “translated into self-satisfying activities” (p. 127) as well as the added social benefits. A benefit of personal growth especially as one ages supported Schofield-Tomschin and Littrell’s (2001) rationale above. Finally the most obvious benefit was the physical product made was “special because they [were] made with love and are connected to personal histories” (p. 115).

Johnson and Wilson’s (2005) study also revealed that participating in handicrafts relieved daily and long term stresses such as a family illness or death. Furthermore, the participants continued with an activity not only due to tradition but also because they enjoyed the experience and wished to advance their own personal goals. New challenges were sought by trying other types of handicrafts that were either introduced to them by a friend or while shopping. They also felt that the cyclical popularity of some crafts encouraged them to expand their skill set as new trends emerged. Furthermore, “commitment to the learning of skills, and the planning and creation of textile handcrafts became a meaningful expenditure of precious time resources for these participants” (p. 121).

It is important to note here the timeliness and importance of Johnson and Wilson’s (2005) study on the motivational factors of contemporary female handcrafters in relation to this study. Although the elements and conditions of enjoyment related to flow are evident among the above-reviewed studies, their study in particular mirrors the subject under investigation, namely textile handcraft or as defined by the authors, “artifacts that have been individually produced (as opposed to mass produced) using implements such as sewing needles, crochet hook, or knitting
needles, and completed as lapwork” (p. 115) which is remarkably similar to the
definition stated earlier for non-industrial textile production activities. Although
examined from an historic perspective, their research question of “why [do] women
make, care for, give, and treasure hand-made creations during an era when other
avenues of creative expression are available…” (p. 116) further reflects the purpose of
this study which attempts to answer a similar question from an alternative perspective.
As such, it is fortunate that such a study exists that can complement the results of this
study so a more holistic explanation of the phenomenon can emerge and be developed
into a useful theory for the clothing and textiles field.

Summary of Review of Literature

In sum, the paradigm of humanism was used to guide the testing of
Csikszentmihalyi’s (1975) Flow Theory. Major perspectives regarding intrinsically
motivated behavior and fashion theories were examined, and a summary of related
literature was reviewed in terms of enjoyment, pleasure, and clothing and textiles
subject matter. It was found that although researchers may mention the concept of
enjoyment along the periphery of their studies, its relationship to commonly studied
clothing and textile subjects was generally not identified as being important.
Furthermore, as is evident from the few scholarly studies currently available, evidence
of flow is clearly illustrated in present clothing and textiles works yet not identified as
such. Also, although popular literature sources are saturated with the promotion and
reporting of non-industrial textile production activities, few scholars have chosen to
study these activities in the context of contemporary American society. It was noted however, that the findings of a recent study by Johnson and Wilson (2005) described above regarding motivational factors of handcrafters complements the current study and will be useful in later theory development.
CHAPTER 3—RESEARCH METHODS

The purpose of this study was to assess the applicability of the Flow Theory (Csikszentmihalyi, 1975) to subject matter relevant to the clothing and textiles field. Moreover, the proposition *Repeated episodes of flow leads to mastery* was tested using a combination of quantitative and qualitative methods in order to determine if repeated episodes of optimal experiences or flow contributed to the development of high skills with a non-industrial textile production activity.

Research Question

Is Csikszentmihalyi’s (1975) Flow Theory useful in explaining clothing and textiles phenomena such as motivating individuals to continue participation in non-industrial textile production activities?

Hypotheses

1. There is a relationship between the skill level of non-industrial textile production students and producers and type of motivation (intrinsic and extrinsic).

2. There is an association between the skill level of non-industrial textile production students and producers and type of motivation (intrinsic and extrinsic).

3. There is a relationship between skill level of non-industrial textile production students and producers and the occurrence of the elements and conditions associated with flow (low and high).
4. There is an association between the skill level of non-industrial textile production students and producers and the occurrence of the elements and conditions associated with flow (low and high).

Procedure

For this study, both quantitative and qualitative data collection techniques were employed. Scholars recommend the two approaches in order to gain a more realistic, "contextualized understanding of the phenomenon of interest" (Asay & Hennon, 1999, p. 409). By utilizing both quantitative and qualitative methods, a richer, more complete picture emerges as scientific rigor complements open, exploratory examination and vice versa. Sometimes referred to as between-methods triangulation, this method uses "more than one strategy to gather data for a particular research question [and] can provide for greater validity of the results and conclusions drawn" (Lennon & Burns, 2000, p. 220). An additional strength in the use of qualitative procedures is that they can also augment the process in determining "why two variables are related" (p. 220); this aids future theory development.

Quantitative Data Collection

Quantitative data were collected via a self-administered questionnaire. Participants were told prior to data collection that the purpose of the study was to test a psychological theory of motivation called the Flow Theory and to find out what motivated individuals to learn a particular non-industrial textile production activity
plus why they continued activity participation (See Table 4 for a listing of activities considered useful in this investigation. See Appendix B for informed consent documents and an interview and referral form). For those individuals who engaged in more than one type of non-industrial textile production activity, they were asked to pick only one and then respond to the questionnaire with only that activity in mind (See Appendix C for a copy of the questionnaire including directions.).

Table 4

*Non-Industrial Textile Production Activities Considered for the Study*

<table>
<thead>
<tr>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Traditional Rug Hooking</td>
</tr>
<tr>
<td>Cross Stitch</td>
</tr>
<tr>
<td>Crocheting</td>
</tr>
<tr>
<td>Embroidery (Crewel, Needlepoint, Machine Embroidery)</td>
</tr>
<tr>
<td>Knitting</td>
</tr>
<tr>
<td>Lace Making</td>
</tr>
<tr>
<td>Macramé</td>
</tr>
<tr>
<td>Quilting</td>
</tr>
<tr>
<td>Sewing</td>
</tr>
<tr>
<td>Spinning</td>
</tr>
<tr>
<td>Tatting</td>
</tr>
<tr>
<td>Weaving</td>
</tr>
</tbody>
</table>

*The questionnaire.*

Questions One through Three of the questionnaire were designed to collect basic activity information including the non-industrial textile production activity of interest and participation, years of participation, and reason(s) for becoming interested
in the activity. Question Four was composed of a ten-item self-efficacy test in order to
determine an individual’s perceived skill level in regards to the non-industrial textile
production activity. Using a 5-point Likert-type scale, participants rated their
responses from Strongly Agree=SA (coded as 1) to Strongly Disagree=SD (coded as
5). Question Five of the questionnaire targeted an individual’s intrinsic and extrinsic
motivations for starting and continued participation in the stated non-industrial textile
production activity. It was also used to determine if an individual experienced a low or
high occurrence of the elements and conditions most associated with the flow state
while engaged in the activity. This twenty-item section of the questionnaire, based on
Mayers’ (1978) Flow Scale that was originally designed to determine whether an
activity had the potential to produce a flow-like state, used the same 5-point Likert-
type scale as Question Four to record participant responses. A participant scoring high
on items b, h, i, k, r, and t of Question Five indicated an individual was motivated by
extrinsic reasons for participating in the activity. A participant that scored high on
items a, c, d, e, f, g, j, l, m, n, o, p, q, and s indicated that the individual experienced a
low occurrence of flow. Conversely, a participant scoring low on items b, h, i, k, r, and

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8 High, medium, and low skill levels were determined at the beginning of statistical analysis by
examining the data in graphical form for natural divisions. These were then used to determine
categories and the range for each.

9 As with the skill levels, high and low flow and motivation score ranges were determined at the
beginning of statistical analysis by examining the data in graphical form for natural divisions. These
were then used to determine categories and the range for each variable.
t of Question Five was motivated by intrinsic factors while scoring low on items a, c, d, e, f, g, j, l, m, n, o, p, q, and s indicated a high occurrence of flow experiences.$^{10}$

Questions Six and Seven of the questionnaire asked demographic information including age and gender. Question Eight gave the participant an opportunity to share additional relevant information regarding their stated activity involvement in an open-response format. Finally, if questionnaire participants wished to be contacted in order to participate further in the study as an interview subject, they were instructed to list their personal contact information on a separate referral form (see Appendix B).

**Questionnaire pre-testing and post-testing.**

Prior to actual data collection, the content of the questionnaire was examined by two individuals known to be highly experienced and two individuals known to have minimal experience in various non-industrial textile production activities in order to assess content clarity of the instrument. Cronbach’s Alpha was also used to measure internal reliability for the responses to Questions Four and Five after data collection was complete.

An overall Cronbach’s Alpha statistic of 0.889 (N=10) was achieved for all Question Four items of the survey (skill level) and 0.800 (N=20) was achieved for all Question Five items (both flow and motivation). However, the reliability of Question Five items related to the variable of flow was considerably higher than those of

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$^{10}$ Due to the arrangement of the questionnaire Likert scale from Strongly Agree to Strongly Disagree that was respectively coded from 1 to 5, resulting participant scores for this study were opposite the tradition of low scores equaling low levels and high scores equaling high levels of a variable.
motivation when separated. A 0.868 Cronbach’s Alpha statistic (N=14) was achieved for the flow items while a 0.296 statistic (N=6) was achieved for the items related to motivation. It was concluded that ambiguity and the negative wording of some of the motivation questions (for example, *I am not concerned with the end product.* See Appendix D.) as well as possible sub-categories or different dimensions of the variable of motivation may have been present among these items thus contributing to the low Cronbach’s Alpha score (T. Short, personal communications, June 27, 2006). Therefore, although a high degree of internal reliability was achieved for survey items pertaining to the variables of skill level and flow, internal reliability for motivation items was low.

Qualitative Data Collection

In addition to the open-response format of Question Eight of the survey, qualitative data collection took place via telephone semi-structured expert interviews with participants meeting sampling criteria (see Sampling & Participants below). According to Gall, Borg, and Gall (1996) a “semistructured [sic] interview involves asking a series of structured questions and then probing more deeply using open-form questions to obtain additional information” (p. 310). With an expert interview in contrast to biographical interviews,…the interviewee is of less interest as a (whole) person than in his or her capacity of being an expert for a certain field of activity. He or she is integrated into the study not as a single case but representing a group…. (Flick, 1998, p. 92)
As part of the interview informed consent process participants were reminded that the purpose of the study was to test a psychological theory of motivation as it related to their involvement in the non-industrial textile production activity they specified on their questionnaire. They were also asked to agree to the conversation being audio-recorded in order to insure accuracy of responses (see Appendix B). In order to alleviate any anxiety in regards to the interview, participants were sent a list of the questions that they were going to be asked prior to the interview (See Table 5 for a list of interview questions.).
Table 5

*Interview Questions (Adapted from Csikszentmihalyi, Rathunde, & Whalen, 1993)*

1. How long have you been interested in (Activity)?

2. How did you first get interested in (Activity)?

3. Describe your training in (Activity)? Was it formal? Informal?

4. Did you experience any type of training thereafter?

5. In your opinion what kept you and keeps your returning to (Activity)?

6. In what ways do you benefit from participation in (Activity)?

7. Has (Activity) ever caused you to experience boredom?

8. If there were no benefits, would you still participate in (Activity)? Why or why not?

9. Can you recall a particularly good time when engaged in (Activity)? If so, could you please describe it?

10. When things are going particularly well for you while engaged in (Activity), what is usually going on around you?

11. What challenges do you face when you participate in (Activity), and how do you overcome those challenges?

12. Currently, how do you feel about your interest in (Activity)?

13. When do you enjoy (Activity) the most?

14. What is the role of (Activity) in your life?

15. Will you continue (Activity) in the future? Why?

16. Is there anything else you’d like to tell me about your involvement in (Activity)?
During the telephone interview, participants were asked to respond to questions regarding their involvement and experiences with their chosen non-industrial textile production activity.11 These questions were developed using examples from previous studies investigating the flow phenomena (Csikszentmihalyi, Rathunde, & Whalen, 1993). Participants were also told that they could request that the researcher turn off the audio-recorder at any time and that other questions might be asked of them depending on their initial responses to the questions in order to clarify and expound upon the lines of thought expressed. Prior to the end of the interview, participants were asked if they had any additional information they wished to share in regards to their experiences with the activity in order to draw out any pertinent aspects of their experiences that might have been overlooked by the interview questions. In closing each interview, participants were told that they would be contacted via a postcard when the results were analyzed which would direct them to a website reporting the findings.

Sampling and Participants

Snowball sampling, a non-probabilistic sampling technique and useful when no population list is available (Taylor-Powell, 1998), was utilized in order to recruit the survey participants from throughout the United States. According to Bailey (1994) “a few persons having the requisite characteristics are identified....These persons are

11 Question Eight was eliminated early on in the interview process due to the unclear nature of the question and resulting participant confusion.
[then] used as informants to identify others who qualify for inclusion in the sample” and so on (p. 96). 12 Participant recruitment began by word of mouth inquiries as well as contact with an instructor at a local rug hooking camp located in Southwestern Pennsylvania. Interested individuals filled out the survey in the presence of the researcher, left a contact address for the researcher to send a questionnaire through US Mail, or took a survey and returned it later.

Survey participants were asked to fill out a referral form and return it with their questionnaire. The form was first used to find out if a survey participant was interested in further participating in the interview phase of the study. Second, survey participants were then asked if they knew of any other individuals involved in a non-industrial textile production activity that also would be willing to participate in the study. If so, they were asked to list these individuals’ names and contact information on the referral form (see Appendix B). The referred individuals were then sent a survey with a new referral form and informed of the referring party in a cover letter. This sampling process continued until 150 participants had been surveyed and 16 interviewed.

The only participant characteristic deemed desirable for the self-administered questionnaire phase of this study was that the individual had at some time participated in a non-industrial textile production activity. The level of experience and skills the survey participant had with an activity ranged from basic knowledge application (or low skills) to advanced knowledge application (or high skills).

12 Drawbacks to the snowball sampling method include that the data cannot be generalized to a larger population with much confidence and that “the sample composition is heavily influenced by the choice of initial [participants], and the method, in practice, also tends to be biased towards favoring more cooperative as opposed to randomly chosen subjects and those that are part of larger personal networks” (Magnani, Sabin, Saidel, & Heckathorn, 2005, p. 69).
Desirable characteristics for interview participants included those who reported on the questionnaire that they deemed themselves or had been recognized by their peers or colleagues as being highly proficient in the skills of a particular non-industrial textile production activity.\(^{13}\) Although not essential for interview selection, criteria such as the ability and confidence to teach another and the number of years of activity participation were considered.

Of the 173 surveys distributed, 150 were returned for a response rate of 86.7%. Further characteristics describing the participant sampling include an age range of 31 to 86 years of age with a Mean age of 60.47. Of the 150 survey participants, seven (4.7\%) were male and 143 (95.3\%) were female and living within the contiguous United States with 32 states represented. The participants’ years of experience with a given non-industrial textile production activity ranged from one to 65 with a Mean of 20.61 years, and of the activities considered useful for this study, all were reported on except that of spinning, tatting, weaving, and lace making with the majority of respondents (62\%) reporting on the activity of American traditional rug hooking. For the semi-structured interview portion of the study however, seven participants reported on rug hooking, two each reported on hand knitting and quilting, and one each reported on machine embroidery, macramé, cross stitch, home sewing, and crocheting for a total of 16 interviews. Of these 16 interview participants, 15 were female and 1 was male.

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\(^{13}\) It was important to the researcher that a variety of activities were represented in the interview phase in order to gain a broader understanding of the possible effects of flow. Therefore interview participants were chosen with type of non-industrial textile production activity in mind.
Data Analysis

Quantitative Analysis

The relationships among the ordinal variables of overall skill level, motivation, and flow state were statistically analyzed using the SPSS (Version 13.0) software package. More specifically the variables were analyzed using Pearson Correlation and Chi-Square tests. “Correlation concerns the strength of the relationship between the values of two variables” (Rowntree, 1981, p. 156) whereas the Chi-Square test is useful for variables with more than two categories such as overall skill level in this case. Furthermore, by using Chi-Square it allows one “to compare a sample distribution with a population distribution derived from a theory or null hypothesis and decide whether the sample could reasonably be a random sample from that population” (Koosis, 1997, p. 210). As such, the Pearson Correlation test was used to test overall motivation scores against overall skill level scores to test Hypothesis One. The Pearson Chi-Square test was used to test Hypotheses Two. For this test, counts of individuals displaying low and high motivation scores were compared to counts of individuals with low, medium, and high skill level scores with their given activity. In order to test Hypothesis Three, overall flow state scores were tested against overall skill level scores again using the Pearson Correlation test while the Pearson Chi-Square test was used to test Hypothesis Four and the same variables.

The Pearson Correlation and Chi-Square tests were further used to satisfy Objective 1 or to link intrinsic motivation for continued participation in non-industrial textile production activities to the experiencing of flow occurrences. To do
this, overall flow state scores were tested against overall motivation scores using the Pearson Correlation test to see if any significant relationships existed between these variables. Also, counts of individuals experiencing low and high occurrences of the flow state were compared to counts of individuals displaying low and high motivation scores. Furthermore, in order to satisfy Objective Two and to test the proposition of *Repeated episodes of flow leads to mastery*, information was gleaned from the quantitative and qualitative results and organized in matrix form for ease of comparison with the original theory.

Qualitative Analysis

Content analysis was used to examine and analyze the qualitative data. The process included first transcribing the responses from Question Eight of the questionnaire and the audio-recorded phone interviews.\(^\text{14}\) The researcher then used Miles and Huberman’s (1994) three sub-processes of qualitative data analysis, consisting of data reduction, data display, and conclusion drawing and verification, as a guide in examining the transcripts for evidence that mirrored or differentiated from Csikszentmihalyi’s (1990) elements and conditions of enjoyment and indications of an occurrence of the flow state as well as the model of the flow state and Flow Theory diagram (see Chapter 1, Tables 2 & 3 and Figures 1 & 2). Although described below

\(^\text{14}\)Relevant written comments from Question Three of the questionnaire or *What first interested you in this activity?* were also transcribed and included in the qualitative analysis related to original motivating factors. See Chapter 4, Tables 9 and 10.
as linear for the sake of clarity, the qualitative data analysis process undertaken was iterative. For example, upon initial data reduction, final themes and associations were already being developed without data display. Also, data display was still taking place at the conclusion and verification stage of analysis in order to link the data back to the model of the flow state and Flow Theory diagram.

In data reduction, the researcher engaged in such activities as “selecting, focusing, simplifying, abstracting, and transforming the data” (Miles & Huberman, 1994, p. 10) into a more manageable form after transcription. This process also included data coding, clustering, and discovering themes and was done by hand without the use of a computer program. Three overall categories were established. The first two, Csikszentmihalyi’s (1990) Elements and Conditions of Enjoyment (coded as E/C) and Csikszentmihalyi’s (1990) Indications of an Occurrence of the Flow State (coded as FO), consisted of the previous themes found by Csikszentmihalyi in regards to the Flow Theory. The third category evolved as a result of the coding process in which themes emerged specific to the experiences of the participants. This category was labeled Other Themes Specific to Non-Industrial Textile Production Activities and was coded as NITA. All main categories were then sub-divided into the respective themes that made up each category. These themes were assigned a code as well. For example, the theme The activity serves as relaxation or as a personal retreat. was coded as Therapy (NITA). In this way as the researcher analyzed the transcripts of participant responses, individual phrases relating to a particular theme were labeled with an appropriate code (Miles & Huberman, 1994).
During the data display stage, the coded participant responses were then organized and displayed in table or matrix form (see Chapter 4, Tables 10, 11, 15, 16, 20, and 21 and Appendix E). The matrix found in Appendix E was divided into three separate sections, one for each main category. Each category was then divided into themes accompanied by its category and theme codes. Finally, in order to establish the popularity of a theme among the participant responses with respect to a particular non-industrial textile production activity, the interview number as well as the corresponding activity for each theme was recorded. Evidence of a theme from survey open-ended responses was also indicated here as OER. The tables displayed in Chapter 4 show examples of popular themes and corresponding participant responses as they related to a particular main category (Huberman & Miles, 1994).

In the conclusion and verification stage of the qualitative data analysis, themes notable to the research question, hypotheses, and objectives were brought forth for further examination in conjunction with the results of the quantitative data analysis. By buttressing the findings from the survey and expert interviews, this examination helped link the findings back to the original purpose and goals of the study and was used to draw final conclusions (Huberman & Miles, 1994; Miles & Huberman, 1994). As a result, Csikszentmihalyi’s (1975) model of the flow state and the Flow Theory diagram were then both modified to accommodate the nuances inherent to non-industrial textile production activities as was revealed by the findings.
CHAPTER 4—RESULTS

The purpose of this study was to test Csikszentmihalyi’s (1975) Flow Theory for applicability to clothing and textiles subject matter. More specifically, the research question tested was Is Csikszentmihalyi’s Flow Theory useful in explaining clothing and textiles phenomena such as motivating individuals to continue participation in non-industrial textile production activities? The relationship between the variables of skill level and motivation, skill level and flow state, and flow state and motivation were examined both quantitatively and qualitatively using a data collection process that included surveys and telephone interviews. The results of this study are as follows:

Results of Hypothesis Testing

Hypothesis 1: There is a relationship between the skill level of non-industrial textile production students and producers and type of motivation (intrinsic and extrinsic).

The first hypothesis was supported with the results of the Pearson Correlation statistical test. In this test (see Table 6), the strength of the relationship of items from survey Question Four pertaining to the variable of skill level was tested for significance against the items pertaining to the variable of motivation (b, h, i, k, r, and t) in Question Five. Extrinsic motivation fuels behavior in which the individual expects an external reward such as money, material goods, prestige and so on. In contrast, an individual who is intrinsically motivated is propelled to act for reasons such as self-satisfaction and personal growth. The results of this test revealed a
positive relationship that was not very strong but was significant at the 0.01 level (p-value = 0.000). Though weak, a relationship was found that demonstrates that extrinsic motivation can fuel behavior at low skill levels and that intrinsic motivation can propel individuals at higher skill levels to continue with an activity.

Table 6

*Pearson Correlation Test—Motivation and Skill Level*

<table>
<thead>
<tr>
<th></th>
<th>Overall Skill Level</th>
<th>Motivation Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Skill Level</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>147</td>
</tr>
<tr>
<td>Motivation Score</td>
<td>Pearson Correlation</td>
<td>0.286**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>147</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).**

*Hypothesis 2: There is an association between the skill level of non-industrial textile production students and producers and type of motivation (intrinsic and extrinsic).*

The Pearson Chi-Square test (see Tables 7 and 8) tested and supported an association between the variables of skill level and motivation. For this test the
variable of motivation was divided into two levels of intrinsic motivation. A participant who exhibited tendencies towards being extrinsically motivated with their activity of choice would fall under the category of low intrinsic motivation or low motivation. Likewise, those who exhibited tendencies towards being intrinsically motivated with their activity would fall under the category of high motivation. In terms of testing Hypothesis Two, actual counts of eight individuals exhibiting characteristics of low intrinsic motivation and low skill level exceeded the expected count of 3.8 if there was no association between the variables. In other words, this test illustrated a weak association between an individual possessing low skills and only wanting extrinsic rewards.

Table 7

*Pearson Chi-Square Test—Motivation Category and Skill Level Category Cross-Tabulation*

<table>
<thead>
<tr>
<th>Motivation Category</th>
<th>Skill Category</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Count</td>
<td>8</td>
<td>24</td>
<td>24</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>Expected Count</td>
<td>3.8</td>
<td>24.8</td>
<td>27.4</td>
<td>56.0</td>
</tr>
<tr>
<td>High</td>
<td>Count</td>
<td>2</td>
<td>41</td>
<td>48</td>
<td>91</td>
</tr>
<tr>
<td></td>
<td>Expected Count</td>
<td>6.2</td>
<td>40.2</td>
<td>44.6</td>
<td>91.0</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>10</td>
<td>65</td>
<td>72</td>
<td>147</td>
</tr>
<tr>
<td></td>
<td>Expected Count</td>
<td>10.0</td>
<td>65.0</td>
<td>72.0</td>
<td>147.0</td>
</tr>
</tbody>
</table>
Table 8

Pearson Chi-Square Test—Motivation Category and Skill Level Category

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>8.176*</td>
<td>2</td>
<td>0.017**</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>8.094</td>
<td>2</td>
<td>0.017</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>4.377</td>
<td>1</td>
<td>0.036</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>147</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*1 cells (16.7%) have expected count less than 5. The minimum expected count is 3.81
**Chi-Square is significant at the 0.05 level.

Responses to Question Three of the survey (see Table 9) supported this weak association between the variables of low skill level and extrinsic rewards. Of the participants that chose the Other category (40%) as a reason why they first became interested in the activity, several stated the importance of the end product in the please describe area (see Table 10). However, it should be noted that 79.3% of the participants indicated that they became involved in the activity because they wanted to learn something new (an intrinsic motivator). In addition, other themes did emerge from this area as well such as a natural tendency or talent towards the activity, intrigue of the process, fellowship, family tradition, therapeutic effects, art, and creativity. These additional reasons for initial interest, however, are more indicative of intrinsic motivation rather than extrinsic.
Table 9

*Initial Motivators for Involvement*

Survey Question Three: What first interested you in this activity? (n=150)

<table>
<thead>
<tr>
<th>Motivator</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>It was a school requirement.</td>
<td>138 (92%)</td>
<td>12 (8%)</td>
</tr>
<tr>
<td>A friend or family member got me involved.</td>
<td>68 (45.3%)</td>
<td>82 (54.7%)</td>
</tr>
<tr>
<td>I had free time to fill.</td>
<td>83 (55.3%)</td>
<td>67 (44.7%)</td>
</tr>
<tr>
<td>I wanted to learn something new.</td>
<td>31 (20.7%)</td>
<td>119 (79.3%)</td>
</tr>
<tr>
<td>Retail stores didn’t have what I wanted.</td>
<td>115 (76.7%)</td>
<td>34 (22.7%)</td>
</tr>
<tr>
<td>Other (please describe)</td>
<td>90 (60%)</td>
<td>60 (40%)</td>
</tr>
</tbody>
</table>
Table 10

*Themes from the Other (please describe)* *Responses from Survey Question Three:* What first interested you in this activity?

<table>
<thead>
<tr>
<th>Motivation</th>
<th>Qualitative Theme</th>
<th>Please Describe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extrinsic</td>
<td>Desire for End Product</td>
<td>“wanted rugs for our large Federal home in New England &amp; could not afford to buy orientals”&lt;br&gt;“I made a quilt for my baby.”&lt;br&gt;“I could make personalized gifts.”&lt;br&gt;“opportunity to save money by making my own hand knit scarves”&lt;br&gt;“taking care of existing items”&lt;br&gt;“I like the looks of the finished product.”&lt;br&gt;“cost, making clothing was cheaper than some store bought items”&lt;br&gt;“Economics—save money by doing yourself”</td>
</tr>
<tr>
<td>Intrinsic</td>
<td>Natural Tendency/Talent &amp; Intrigue</td>
<td>“Instinct—I knew someday I would learn”&lt;br&gt;“to fulfill a long held desire to hook rugs”&lt;br&gt;“I have always been intrigued by textiles, textures &amp; colors”&lt;br&gt;“I have always been fascinated by small hand stitching.”&lt;br&gt;“Saw the process and wanted to learn it.”</td>
</tr>
<tr>
<td>Intrinsic</td>
<td>Fellowship</td>
<td>“moved to new area—wanted to meet people”&lt;br&gt;“to meet new people—be in a group of like minded”</td>
</tr>
<tr>
<td>Intrinsic</td>
<td>Family Tradition</td>
<td>“A relative had been a rug hooker years ago.”&lt;br&gt;“My great grandmother did this, but I couldn’t find a teacher until 5 years ago.”&lt;br&gt;“Remember seeing hooked rugs at my Aunt’s home as a child.”</td>
</tr>
<tr>
<td>Intrinsic</td>
<td>Therapeutic Need</td>
<td>“I needed to help a friend get out of depression.”&lt;br&gt;“eyes getting worse, so needlepoint was difficult”&lt;br&gt;“was caring for an ill husband and this kept me occupied [sic] at his side”&lt;br&gt;“Homemaker raising 4 children—Needed something for myself.”</td>
</tr>
<tr>
<td>Intrinsic</td>
<td>Creativity &amp; Art</td>
<td>“creative—make something from castoffs”&lt;br&gt;“I enjoy tactile art.”</td>
</tr>
</tbody>
</table>
The Pearson Chi-Square test further tested and supported an association between the variables of high skill level and high intrinsic motivation in that the actual count of 48 exceeded the expected count of 44.6 if there was no association. Despite this weak association, with few exceptions the importance of the end product was communicated readily by participants at all skill levels especially those who participated in the expert interviews (see Table 11). This finding would initially lead one to believe that producers of non-industrial textile products deviate from Csikszentmihalyi’s (1975) initial description of intrinsically motivated individuals in that they disregard the importance of the end product and lose interest in it after the fact. However, although participants of this study did place a high importance on the end product and did not lose interest in it later (see Appendix D, Questions 5b and 5t), it should be noted that they also stated that the products they created were readily given as gifts, donated to charitable organizations, or sold as a part of a small, hobby business as well as being kept for their own personal use, to commemorate the achievement, or to leave as a legacy. Therefore, although the end products were very important, they were not indispensable to the participants.
Table 11

*Examples of the Importance of End Products in Non-Industrial Textile Production Activity Participation According to Participants of the Expert Interviews*

<table>
<thead>
<tr>
<th>Theme</th>
<th>Activity</th>
<th>Participant Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants keep the end products for their own personal use.</td>
<td>Rug Hooking</td>
<td>“I had done fruit in all my dining room and in all my chairs, and so I definitely wanted to have a fruit rug.”</td>
</tr>
<tr>
<td></td>
<td>Macramé</td>
<td>“Well I will [continue with the activity] because I do have a few projects in mind…, and I have a screen house that needs a couple of more chairs. Actually, all of my chairs are pretty well gone. Either the frame has broke or the cord has rotted or…. So I’m in dire need. I only have two left.”</td>
</tr>
<tr>
<td>Participants give away the end products as gifts to family, friends, or charities.</td>
<td>Knitting</td>
<td>“I knit Christmas stockings to put babies in for a hospital, and then before Valentine’s Day I knit hearts to put babies in…..”</td>
</tr>
<tr>
<td></td>
<td>Machine Embroidery</td>
<td>“I had seen a sample [of a purse] in the store someplace, and they had a whopping price tag on it, and I thought, ‘That’s a ridiculous thing,’ so I came home and went through and grabbed out a piece of fabric and threw a zipper in and put this pattern on and showed it to my girlfriend and she said, ‘Oh my,’ she said, ‘I just love it!’ She said, ‘I want one of those!’ And I said, ‘Well here take it home!’ [laughs]”</td>
</tr>
<tr>
<td>Participants keep Quilting</td>
<td>“…my products will be my legacy…they’re going to go to all kinds of my family and friends. And my girls have directions to take boxes and put ‘em out for my ‘Sew by the Sea’ friends and fill them with at least one unfinished project…, and then give away my things to all those who know that I like sewing.”</td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Rug Hooking</td>
<td>“I mean you can only do so many quilts and so many sweaters and this and that, but the rugs are something that is going to last forever really….I like the feeling that it’s something that you can create that’s kind of long lasting and something to hand down to your children…and for them to hand down to their children.”</td>
<td></td>
</tr>
<tr>
<td>Participants use Rug Hooking Home Sewing</td>
<td>“…we each made a garment. I still have that garment. And every time I think I haven’t succeeded, I take that garment out and laugh hysterically, and then I feel better….It’s actually in my trunk of keepsakes.”</td>
<td></td>
</tr>
<tr>
<td>Rug Hooking</td>
<td>“…because what I did once, I got this rug [pattern] that I thought was beautiful, and I looked at it when I got it home, and I thought, ‘What am I going to do with this?’ So I actually put it away for five years and dug it out one day and think [sic], ‘Oh! Now I know what I’m going to do with this.’ And now it hangs on my wall.”</td>
<td></td>
</tr>
</tbody>
</table>
Figure 3 visually illustrates the association pertaining to the variables of motivation and skill level as a scatter plot diagram. Ideally, according to Csikszentmihalyi’s (1975) ideas, participants of low skill levels would exhibit low tendencies towards intrinsic motivation and participants of high skill levels would exhibit high tendencies towards intrinsic motivation in regards to their activity of choice. This would lead to a tight, linear pattern starting at the lower left and ending at the upper right of the scatter plot diagram. However, as displayed, the data from this study fall mainly in between low and high intrinsic motivation levels for all skill levels with few exceptions. The one outlier positioned in the upper right hand corner illustrates an individual fitting Csikszentmihalyi’s description as one who experiences frequent optimal experiences, is close to mastery, and intrinsically motivated with their activity of choice. However, the outlier to the far left of the scatter plot diagram illustrates an individual who perceives themselves as being unskilled and motivated mainly by extrinsic rewards. Nevertheless, despite these outliers it is apparent that only a weak association does exist between the variables of skill level and motivation in that the end product is important to individuals who participate in non-industrial textile production activities at all skill levels.

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15 As stated in Chapter 3, a high score indicated extrinsic motivation and low skill and flow level while a low score indicated intrinsic motivation and high skill and flow level. All scatter plot diagrams appearing in this chapter have been rotated so that low levels of the variables consistently appear in the lower left hand corner and progress either up or to the right for high levels.
Figure 3. Scatter plot diagram illustrating the relationship between the variables of motivation and skill level.
Hypothesis 3: There is a relationship between the skill level of non-industrial textile production students and producers and the occurrence of the elements and conditions associated with flow (low and high).

Hypothesis Three was supported by the results of the Pearson Correlation statistical test (see Table 12). The relationship between the variables of skill level (all items from Question Four) and the occurrence of the elements and conditions associated with flow (items a, c, d, e, f, g, j, l, m, n, o, p, q, and s from Question Five) was much stronger than the relationship and association between the variables of skill level and motivation, and significance was obtained at a p-level of 0.000.

Table 12

Pearson Correlation Test—Flow State and Skill Level

<table>
<thead>
<tr>
<th></th>
<th>Flow State Score</th>
<th>Overall Skill Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow State Score</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>150</td>
</tr>
<tr>
<td>Overall Skill Level</td>
<td>Pearson Correlation</td>
<td>0.625**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>147</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).
The scatter plot diagram in Figure 4 illustrates a more linear and thus stronger association between the variables of flow and skill level. Although a linear pattern is evident from lower left to upper right, a tighter grouping of points would be the ideal. Obvious outliers in this diagram exist in the lower and far left hand side and exhibit two individuals who experience low flow occurrences and who are at low skill levels with their activity of choice. Although further away from the majority, these individuals do fall within the same general linear configuration as the others. Therefore, this configuration may be more indicative of fewer participants at lower skill levels than medium and high skilled participants and not so much as outliers in the data. Nevertheless, it is evident that participants of non-industrial textile production activities do experience more occurrences of flow as they progress in skill.
Figure 4. Scatter plot diagram illustrating the relationship between the variables of flow state and skill level.
Hypothesis 4: There is an association between the skill level of non-industrial textile production students and producers and the occurrence of the elements and conditions associated with flow (low and high).

The Pearson Chi-Square statistical test was used to determine if there was an association between the variables of overall skill level and flow (see Tables 13 and 14). The results of the test revealed an even greater difference in the Chi-Square expected count of 2.4 and the actual count of 9 for the variables of low skill level and low occurrence of flow as compared to the previous association between the variables of low skill level and low motivation. This means that the characteristics associated with the flow state seem to be generally absent for unskilled or low skilled individuals. The Chi-Square test further tested and supported the association between the variables of high skill level and a high occurrence of flow in that the actual count of 67 exceeded the expected count of 54.4 if there were no association. Again, an association seems to exist between individuals experiencing frequent occurrences of the characteristics associated with the flow state and high skill levels with a particular non-industrial textile production activity.
Table 13

**Pearson Chi-Square Test—Flow State Category and Skill Level Category**

Cross-Tabulation

<table>
<thead>
<tr>
<th>Skill Category</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow State Category</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Count</td>
<td>9</td>
<td>22</td>
<td>5</td>
<td>36</td>
</tr>
<tr>
<td>Expected Count</td>
<td>2.4</td>
<td>15.9</td>
<td>17.6</td>
<td>36.0</td>
</tr>
<tr>
<td>High Count</td>
<td>1</td>
<td>43</td>
<td>67</td>
<td>111</td>
</tr>
<tr>
<td>Expected Count</td>
<td>7.6</td>
<td>49.1</td>
<td>54.4</td>
<td>111.0</td>
</tr>
<tr>
<td>Total Count</td>
<td>10</td>
<td>65</td>
<td>72</td>
<td>147</td>
</tr>
<tr>
<td>Expected Count</td>
<td>10.0</td>
<td>65.0</td>
<td>72.0</td>
<td>147.0</td>
</tr>
</tbody>
</table>

Table 14

**Pearson Chi-Square Test—Flow State Category and Skill Level Category**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>38.270*</td>
<td>2</td>
<td>0.000**</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>37.638</td>
<td>2</td>
<td>0.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>35.390</td>
<td>1</td>
<td>0.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>147</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*1 cells (16.7%) have expected count less than 5. The minimum expected count is 2.45
**Chi-Square is significant at the 0.05 level.
Qualitative analysis of participant comments from the expert interviews further supported this hypothesis. Simply by their participation with the study it was obvious that participant efforts with their activity of choice were indeed individual and voluntary reflecting one of Csikszentmihalyi’s (1975) most basic elements and conditions of enjoyment associated with flow (refer to Chapter 1, Table 2).\textsuperscript{16} Statements regarding perceived loss or distortion of time, the slowing of the flow process, the presence of extreme focus and creativity, the absence of disorder, worries, and frustrations, and the existence of clear and immediate feedback among others in regards to the activity were also shared by interview participants. These participant comments again echoed Csikszentmihalyi’s elements and conditions of enjoyment associated with the flow state. Examples appear in Table 15.

\textsuperscript{16} In fact, participants were very eager to share their experiences with their activity of choice. The reception to this investigation was very positive and welcomed.
Table 15  

*Examples of Csikszentmihalyi’s (1990) Elements and Conditions of Enjoyment Experienced through Participation with Non-Industrial Textile Production Activities*

<table>
<thead>
<tr>
<th>Element/Condition</th>
<th>Activity</th>
<th>Participant Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>During the activity, nothing else seems to matter to the</td>
<td>Knitting</td>
<td>“…I mean there’s sometimes when I, I can get, I can get pretty involved in it. And sometimes I think that they’ve [the family members] kind of figured out too, it’s like, ‘Well you have to wait until she gets done’ [laughs]. Evidently that’s not unusual. Some other people have told me that their families have learned.”</td>
</tr>
<tr>
<td>The individual’s perception of time is forgotten or distorted</td>
<td>Quilting</td>
<td>“…I get absorbed in it where I know I am loosing track of time...you know if the older one is at school and my daughter is taking a nap I could, you know, I could put her down for a nap to quilt and then think ‘She’s up already?’ and it’s been two hours.”</td>
</tr>
<tr>
<td>The activity provides the individual with clear and immediate</td>
<td>Rug</td>
<td>“And sometimes I’m not satisfied with it, and I will rip it out because I do not like, if I see something wrong, I don’t like the imperfection [laughs]. And if I can see something’s going better, I don’t mind ripping at all.”</td>
</tr>
<tr>
<td>To slow the flow process may seem painful to the individual.</td>
<td>Hooking</td>
<td>[In response to being asked how the participant felt about not being able to rug hook due to arthritis] “Oh I was moody. I couldn’t, I couldn’t settle down to doing things at night because I was, you know, upset. I couldn’t sit and do my rug hooking. I tried to read to, but, you know, couldn’t always get interested in the book.</td>
</tr>
<tr>
<td>The element of creativity is usually present in some aspect</td>
<td>Crocheting</td>
<td>“Oh, I just like the creative thing, I make up my own patterns…I don’t know, it’s a creative outlet for me.</td>
</tr>
</tbody>
</table>
Participant comments, such as those listed in Table 16, also helped support this hypothesis as well. These comments indicated that occurrences of the flow state (refer to Chapter 1, Table 3) were indeed associated with their participation with their non-industrial textile production activity of choice. The indicator most frequently shared by interview participants, however, was that they experienced enjoyment as a result of the activity. In fact, several spoke of their love of and happiness with their activity with a tone of awe and reverence in their voices to emphasize the importance of it in their lives. Several also indicated that they had traveled great distances to learn or be a part of a workshop, seminar, or camp related to the activity in order to repeat and continue their involvement. Furthermore, in regards to the indicator of feeling transported to a new reality, one rug hooker shared the following:

...[I]f you feel like your problems get too big, you just go and make up a design, and it’s gone! You just go to a different place. I always tell my students,...have you ever seen that little, it looks like a little genie in a turban that’s sitting on a flying carpet? I think everybody has seen that icon. Well, there is more to that than meets the eye because you actually do step out of this world.

This sentiment was also shared by another participant who compared her rug hooking experiences with Buddhism. She stated, “I’ve done some study about Buddhists…and how the Buddhists kind of want to get a quiet mind and disconnect their minds. It’s a lot like that.”
Table 16

*Examples of Csikszentmihalyi’s (1990) Indications of an Occurrence of the Flow State as a Result of Participation in a Non-Industrial Textile Production Activity*

<table>
<thead>
<tr>
<th>Theme</th>
<th>Activity</th>
<th>Participant Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description of the event as an extraordinarily rich epiphany</td>
<td>Rug Hooking</td>
<td>“But I knew right away after I took my first loops that this is something I really wanted to do.”</td>
</tr>
<tr>
<td>The individual is willing to repeat the activity at an even greater cost just for the sake of doing it again.</td>
<td>Rug Hooking</td>
<td>“And I went up to Kansas City then once a week, and that was a three and a half hour journey one way, so I’d make a round trip each time and do that every week.”</td>
</tr>
<tr>
<td>Motivates an individual to discover new opportunities for using their skills</td>
<td>Machine Embroidery</td>
<td>“…I thought as a way to express creativity, have a little fun, add embellishments, and just kind of see if some other doors would open to me.”</td>
</tr>
<tr>
<td>Pushes an individual to higher performance levels</td>
<td>Knitting</td>
<td>“…I just went through the whole book making samplers and everything ‘cause I wanted to learn all the stitches, and so I kind of methodically went through that and did that.”</td>
</tr>
<tr>
<td>Feeling of exhilaration and gratification</td>
<td>Quilting</td>
<td>“It’s just very satisfying, and I just really feel like I have accomplished something whenever I get that final stitch and the whole thing is done.”</td>
</tr>
<tr>
<td>A person is more able to organize their consciousness in order to experience repeated episodes of flow.</td>
<td>Macramé</td>
<td>“It orders my thinking. Makes me feel accomplished….”</td>
</tr>
</tbody>
</table>
Satisfaction of Study Objectives and Proposition Testing

**Objective 1:** To link intrinsic motivation for continued participation in non-industrial textile production activities to the experiencing of flow occurrences.

In order to satisfy the first objective of this study, the variables of flow state and motivation were also tested using the Pearson Correlation and Chi-Square statistical tests to further investigate the flow experience in relation to initial and continued participation in non-industrial textile production activities. Therefore motivation items b, h, i, k, r, and t from survey Question Five were tested against flow items a, c, d, e, f, g, j, l, m, n, o, p, q, and s of the same question. Correlation results revealed a weak positive significant relationship that was significant at the 0.01 level (p-value = 0.000) as is shown by Table 17. The results of the Chi-Square test also showed a weak significant association with a p-value of 0.005 and differences between expected and actual counts of the variables of low flow occurrences and low intrinsic motivation as well as the variables of high flow occurrences and high intrinsic motivation (see Tables 18 and 19).
Table 17

*Pearson Correlation Test—Flow State and Motivation*

<table>
<thead>
<tr>
<th></th>
<th>Flow State Score</th>
<th>Motivation Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow State Score</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>150</td>
</tr>
<tr>
<td>Motivation Score</td>
<td>Pearson Correlation</td>
<td>0.283**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>148</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).**
<table>
<thead>
<tr>
<th></th>
<th>Motivation Category</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Low</td>
<td>High</td>
<td>Total</td>
</tr>
<tr>
<td>Flow State</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Low Count</td>
<td>21</td>
<td>15</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>Expected Count</td>
<td>13.9</td>
<td>22.1</td>
<td>36.0</td>
</tr>
<tr>
<td></td>
<td>High Count</td>
<td>36</td>
<td>76</td>
<td>112</td>
</tr>
<tr>
<td></td>
<td>Expected Count</td>
<td>43.1</td>
<td>68.9</td>
<td>112.0</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>57</td>
<td>91</td>
<td>148</td>
</tr>
<tr>
<td></td>
<td>Expected Count</td>
<td>57.0</td>
<td>91.0</td>
<td>148.0</td>
</tr>
</tbody>
</table>

*0 cells (0.0%) have expected count less than 5. The minimum expected count is 13.86.

**Chi-Square is significant at the 0.05 level.

***Computed only for a 2x2 table
A weak association of these variables is also illustrated by the scatter plot in Figure 5. Again, the ideal of a tight grouping of points starting from the lower left hand corner and ending in the upper right would illustrate Csikszentmihalyi’s (1975) idea that individuals motivated by extrinsic reasons experience low occurrences of flow and individuals motivated by intrinsic reasons experience high occurrences of flow. Although a somewhat linear pattern is evident, the majority of scores fall in the middle range between low and high intrinsic motivation and between medium and high flow levels. This shows optimal experiences can occur frequently for individuals motivated by both extrinsic and intrinsic factors. There is evidence, however, that does support Csikszentmihalyi’s idea that individuals who experience high occurrences of flow are motivated by intrinsic reasons as well as those who experience fewer occurrences of flow (such as an individual still learning their activity of choice) are motivated by extrinsic factors. The one outlier that appears to the bottom of the scatter plot diagram illustrates an individual that experiences very little of the characteristics of the flow state but is motivated more by intrinsic rather than extrinsic factors. This person perhaps is a beginner but is able to foresee personal growth opportunities and the material rewards both associated with his or her activity of choice. Nevertheless, despite the weak association between the variables of flow and motivation, intrinsic motivation for continued participation with a non-industrial textile production activity can not be definitively linked to the experiencing of flow given the results of this study. As stated prior, extrinsic factors also contribute to the continued participation with an activity even as one progresses in skill level.
Figure 5. Scatter plot diagram illustrating the relationship between the variables of flow state and motivation.
Objective 2: To demonstrate that the advanced development of an individual’s non-industrial textile production skill-set may be a result of the enjoyment one experiences from repeated episodes of flow.

Proposition: Repeated episodes of flow leads to mastery.

Although this objective and proposition were both partially supported above through the testing of Hypotheses Three and Four, the data were examined further to satisfy Objective Two and in order to support the proposition of Repeated episodes of flow leads to mastery. To do this, the questionnaire data in scatter plot form were examined at the medium-range levels in order to fill in the gaps left by hypothesis testing of only the low and high levels of the variables. In other words, since Hypotheses One through Four dealt specifically with low and high scores relating to the variables of overall skill level, motivation, and flow state, characteristics of the participants falling in between extremes needed to be gleaned in order to create a more complete picture of the association between all skill levels, the occurrence of flow, enjoyment as a result of the flow state, and a progression towards mastery.

Figure 6 displays Csikszentmihalyi’s (1975) model of the flow state (refer to Chapter 1, Figure 1) further adapted to illustrate an ideal relationship between the above factors for ease of comparison with the results of this study. The previously discussed results were then organized along with the scatter plot information regarding the variables of skill level, motivation, and flow at medium levels in a matrix (see Table 20) for ease of identifying pertinent relationships. This matrix is accompanied by Csikszentmihalyi’s original Flow Theory also presented as a matrix.
Figure 6. Adapted model of the flow state.\textsuperscript{17}

\textsuperscript{17} Note the inclusion of medium levels of skill, flow, and challenge. Also delineated by dashed lines is the transformation from extrinsic to intrinsic motivation starting from the lower left hand corner and ending in the upper right mirroring the flow channel as skill and challenge increase.
Table 20

Comparison of Csikszentmihalyi’s (1975) Flow Theory to Study Results

Flow Theory Matrix

<table>
<thead>
<tr>
<th>Intrinsic Motivation Level</th>
<th>Skill Level</th>
<th>Flow Level</th>
<th>Intrinsic Motivation Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (High Extrinsic)</td>
<td>Low</td>
<td>Low</td>
<td>Low (High Extrinsic)</td>
</tr>
<tr>
<td>Medium</td>
<td>Medium</td>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>High (High Intrinsic)</td>
<td>High</td>
<td>High</td>
<td>High (High Intrinsic)</td>
</tr>
</tbody>
</table>

Study Results (Quantitative & Qualitative)

<table>
<thead>
<tr>
<th>Intrinsic Motivation Level</th>
<th>Skill Level</th>
<th>Flow Level</th>
<th>Intrinsic Motivation Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-Medium</td>
<td>Low</td>
<td>Low</td>
<td>Low-Medium</td>
</tr>
<tr>
<td>Tables 9 &amp; 10</td>
<td>H1 &amp; H2/Fig. 3</td>
<td>H3 &amp; H4/Fig. 4</td>
<td>Obj. 1/Fig. 5</td>
</tr>
<tr>
<td>Medium (Closer to Low)</td>
<td>Medium</td>
<td>Medium-High</td>
<td>Medium (Closer to Low)</td>
</tr>
<tr>
<td>Fig. 3</td>
<td>Fig. 4</td>
<td>Obj. 1/Fig. 5</td>
<td></td>
</tr>
<tr>
<td>Medium-High</td>
<td>High</td>
<td>High</td>
<td>Medium-High</td>
</tr>
<tr>
<td>Table 11</td>
<td>H1 &amp; H2/Fig. 3</td>
<td>H3 &amp; H4/Fig. 4</td>
<td>Obj. 1/Fig. 5</td>
</tr>
</tbody>
</table>

18 Hypotheses, figures, and tables are referenced within the table in order to explicate the origins of the matrix data.
Through comparison of the *adapted model of the flow state* (Figure 6) and the Flow Theory Matrix (Table 20) with the results of this study, a few things are apparent. First of all, as skill level increases so do the occurrences of flow experiences and resulting enjoyment and vice versa. For this study however, participants of medium skill level also reported medium to high occurrences of the characteristics associated with the flow state in relation to their participation with a particular non-industrial textile production activity. This finding deviates slightly from Csikszentmihalyi’s (1975) theory and might be due to participants underestimating their abilities with an activity or that possibly a threshold exists at the medium skill level in which individuals are able to experience increased episodes of optimal experiences even without progressing to a higher skill level. Nevertheless, the progression to a higher skill level seems to be in sync with increased episodes of flow as Csikszentmihalyi originally posited. Another key difference from the original theory is, as mentioned previously, participants of non-industrial textile production activities seem to experience both intrinsic and extrinsic motivating factors at all skill levels. This is evident from the scatter plot diagram data (refer to Figures 3 and 5) with the lack of clear demarcations between motivation levels as well as the qualitative comments from survey and interview participants.

These findings are further illustrated in Figure 7 that represents the model of the flow state as it relates specifically to individuals participating in non-industrial textile production activities. Note that both extrinsic and intrinsic motivation is now present at all skill and flow state levels as is indicated by the dashed bracketing along
the top of the figure. Also delineated by dotted lines are areas representative of the relationship between challenge, skill, and flow levels. Based on the results of this study, low flow levels are still consistent with low challenge and skill levels as Csikszentmihalyi (1975) posited (indicated by the box shape in the lower left hand corner). However, as stated earlier, individuals of medium skill levels reported experiencing both medium and high levels of the flow state; this is indicated in Figure 7 by the arrowhead-shaped area in the middle of the figure that appears over the original flow channel.
Figure 7. Model of the flow state as it relates to non-industrial textile production activities.
Research Question: Is Csikszentmihalyi’s (1975) Flow Theory useful in explaining clothing and textiles phenomena such as motivating individuals to continue participation in non-industrial textile production activities?

Objective 3: To illustrate the usefulness of Csikszentmihalyi’s (1975) Flow Theory in explaining clothing and textiles phenomena.

The quantitative and qualitative results discussed and displayed above give an indication that Csikszentmihalyi’s (1975) Flow Theory is useful in explaining phenomena related to the field of clothing and textiles and more specifically to non-industrial textile production activities such as knitting, sewing, quilting, rug hooking, macramé, and so on. This is evident from the hypothesis testing and the resulting significance and associations as well as from participant comments reflecting several of Csikszentmihalyi’s (1990) elements and conditions of enjoyment as well as the indicators of flow state occurrence (see Tables 15 and 16). However, despite the statistical significance of hypothesis testing and the reflective nature of participant comments to Csikszentmihalyi’s descriptions of flow occurrences, the very nature of non-industrial textile production activities as end product driven, as is indicated from the previously discussed results, leads to specific deviations from the original Flow Theory. For example, Csikszentmihalyi’s theory was originally developed mainly by studying chess players, mountain climbers, and surgeons among others in which no tangible end product was readily produced. For the participants of this study, however, although it was very apparent that as skill level increased so did the occurrence of flow states and vice versa, one’s motivation type did not start or transform strictly from
extrinsic to intrinsic as skill level increased. In fact, for participants of non-industrial textile production activities, both forms of motivation were evident from the beginning of skill acquisition to advanced levels. Evidence of outliers did indicate that for some individuals extrinsic rewards were very important at low skill levels and that intrinsic rewards were more important at high skill levels; these however were in the minority. Furthermore, participants of medium skill levels reported experiencing high levels of flow occurrences thus potentially revealing a plateau effect in which individuals stop the acquisition of higher skills but continue experiencing higher levels of flow nevertheless. This deviates from Csikszentmihalyi’s idea that as skills increase so does the occurrences of flow and vice versa and deserves further investigation.

Other Qualitative Themes Specific to the Participation in Non-Industrial Textile Production Activities

Other themes specific to the participation in non-industrial textile production activities were discovered from the qualitative analysis of the open-ended questionnaire responses and expert interviews of this study. Examples of dominant themes are listed with participant comments in Table 21. (Appendix E lists more themes and frequency of occurrence.) Other notable themes relevant to the experiencing of optimal experiences included those related to strategies to maintain challenges, to stave off boredom, and to avoid frustration with one’s activity of choice. It is apparent from participant responses that after the basics of an activity are learned, individuals graduate to the developing of original designs, experimenting with color,
developing resources to share with others such as books, or becoming a mentor or teacher in relation to the activity in order to continually challenge themselves. In order to prevent boredom and avoid anxiety, participants stated that they had multiple projects in progress concurrently, or they would place a project in storage for a period of time until their interest in it returned. They also reserved the mundane aspects of a project for a time in which they did not feel like being challenged such as after a long day of work or when they needed the repetition of the activity for its soothing therapeutic effect. Another strategy stated by participants was that they would engage in another non-industrial textile production activity until their interest waned in it as well. In fact, several participants of this study indicated that they engaged in several different types of non-industrial textile production activities and that each influenced the other. For example, one interview participant started off as a home sewer and moved on to quilting later in life. Another saw similarities among her involvement with macramé and knitting. When asked what kept her returning to macramé she stated,

I like the quietness of the weaving. Because you have to weave to make the designs, and I just like that. It’s sort of like knitting but on a different scale….The chairs are quicker, but it’s the same process. You have to pick your pattern. You have to decide on your hooks, your size of hooks, and then how you’re going to proceed.
Table 21

*Qualitative Themes Specific to Non-Industrial Textile Production Activity Participation*

<table>
<thead>
<tr>
<th>Theme</th>
<th>Activity</th>
<th>Participant Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>The activity serves as relaxation or as a personal retreat.</td>
<td>Cross Stitch</td>
<td>“…when I’m enjoying doing this, I can be by myself, I can be with a couple of friends, I can be on an airplane. It’s just very relaxing. It’s more of an escape, I would say, than anything else.”</td>
</tr>
<tr>
<td>Resources related to the activity are important motivators.</td>
<td>Machine Embroidery</td>
<td>“I probably think the biggest challenge is making sure I continue with it….I think that’s why I continue to read all that I can about it even on the internet along with my magazines. That’s why I continue to go to classes, meet with the girls, belong to the sewing club, and go down to the quilt shows to see all the new things that are out so that the appetite continues to be there.”</td>
</tr>
<tr>
<td>Socializing with others who share a common interest in the activity is an important motivator.</td>
<td>Rug Hooking</td>
<td>“Well we’ve enjoyed the people that we’ve come in contact with… and we stay in contact with ‘em. And then we also go continually to the work, ah, camps because of the contacts, personal contacts that you’ve made and see what’s going on and what the other people are doing.”</td>
</tr>
<tr>
<td>Life obligations can interfere with activity participation.</td>
<td>Rug Hooking</td>
<td>“I tried to do it while I was working, but I just couldn’t take afternoons off all the time every week to get to the group so I had to wait another year ‘til I retired.”</td>
</tr>
</tbody>
</table>
Table 21 (continued)

<table>
<thead>
<tr>
<th>Life obligations (cont.)</th>
<th>Home Sewing</th>
<th>“I just find chores. I think of things I should be doing around the house that need to be done, but I would rather be sewing.”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants can not imagine life without the activity and will continue with it as long as they can.</td>
<td>Knitting</td>
<td>“I cannot imagine not being able to knit to the point at my age I’m already thinking of, like my mother has macular degeneration, and that worries me because she used to crochet, and she can’t do it because she can’t see it. And I’ve already thought of ways I could still knit and not be able to see real well.”</td>
</tr>
<tr>
<td>The process of thinking about or planning future projects is exciting and rewarding.</td>
<td>Rug Hooking</td>
<td>“I have pattern designs in my head that I’ll never be able to get them all done….I’m getting ready to do another one….So I’m very excited about that right now. I can’t wait to get to it….I just finished a piece last week, and I’m chomping at the bit, I can hardly stand it, that I’m not working on anything.”</td>
</tr>
<tr>
<td>The activity keeps one learning and wanting to learn.</td>
<td>Machine Embroidery</td>
<td>“I always look forward to learning new and more and better. And to keep the appetite whet. But I do, I like, I love the creativity part of it.”</td>
</tr>
<tr>
<td>The activity serves as a personal reward.</td>
<td>Rug Hooking</td>
<td>“I enjoy it the most when I give myself permission to do it…. [B]ecause I work, there is always something else that I could or should be doing. So when I give myself permission to stop feeling guilty and enjoy and just let myself go, then that’s when I enjoy it the most.”</td>
</tr>
</tbody>
</table>
Another prominent theme among the participants interviewed in this study in relation to their involvement with a non-industrial textile production activity was that the activity kept their minds engaged as they aged, and it kept them active with other people even after retirement and prevented idleness. One participant had the following to say in this regard,

And so when I, when I retired, I was so afraid, ‘cause I’d worked for so many, I worked for almost 30 years, and I was so afraid that I was going to have no contacts. Because that’s what you think happens. People that have worked all their lives, all of a sudden, they’re not working—“Now what do I do?” And like I said, my days are filled. They’re filled from morning until night. So I…highly recommend “People if you want to retire, fine, but make sure you want to keep busy.”

Likewise, several indicated that although they may have learned the basics of the activity earlier in life, they couldn’t fully engage with it due to lack of time and money resources as well as family obligations until after retirement or their children leaving home. Also, although the activity was perceived as an important part and added to the quality of their lives, it was stressed by many that it was not an all-consuming part of their lives and that family matters came first. They described their involvement with their non-industrial textile production activity of choice mainly as a hobby that they hoped to continue with until they couldn’t participate anymore due to physical incapacity. When asked “How do you currently feel about your interest in rug hooking?” one interview participant answered,

Oh, I thoroughly enjoy it…. The only thing is I’ve, they’ve told me I have terminal cancer, and so I hope, I don’t know if I’m going to get this other rug done or not, but I’m looking forward to going back in September [to a rug hooking camp]; I hope I can make it....And I’m going to go as long as I can [laughs].
It is therefore apparent that participating in a non-industrial textile production activity adds to one’s quality of life, success in aging, and is ranked highly along with one’s family life and health.

Summary

All hypotheses were statistically tested using the Pearson Correlation and Chi-Square tests. Hypotheses One and Two tested the variables of skill level and motivation in which a weak positive relationship and association was found. Quantitative and qualitative data from Question Three of the survey as well as qualitative data from the expert interviews further supported this weak relationship in that both extrinsic and intrinsic motivating factors were considered important at all skill levels. Hypotheses Three and Four tested the variables of skill level and flow in which a stronger positive relationship and association was found. In other words, as skill level increased so did the occurrence of the flow state and resulting enjoyment and vice versa. Data from the expert interviews supported this finding in that those who participated in non-industrial textile production activities communicated experiences described with characteristics indicative of flow and enjoyment.

Objective One of the study which sought to link intrinsic motivation with repeated episodes of flow was satisfied by testing the relationship and association of the variables of flow and motivation using the Pearson Correlation and Chi-Square tests respectively. With the Pearson Correlation test a relationship that was statistically significant but weak and positive was found. Likewise, a statistically significant weak
association was found using the Chi-Square test. Analysis of the data in scatter plot form also supported this weak association.

Objective Two of this study, which was to illustrate the association between skill set advancement and repeated occurrences of optimal experiences, was satisfied, and the proposition of *Repeated episodes of flow leads to mastery* was tested by placing the results of hypothesis testing into a matrix specific to the experiences of non-industrial textile production students and producers which was then compared to an adapted model of the flow state and a matrix-version of the Flow Theory. Middle levels of the study’s variables, gleaned from scatter plot diagrams, were also included in the matrix in order to create a more complete picture of the phenomena.

Comparison of the two matrices, namely the matrix illustrating Csikszentmihalyi’s (1975) Flow Theory and the matrix displaying both the quantitative and qualitative results of this study, in addition to the testing of Hypotheses Three and Four, revealed that the variables of flow and overall skill level were positively associated thus supporting the proposition. However, it was also apparent that some participants at the medium skill level did experience high occurrences of the flow state which may indicate another phenomenon needing further investigation. A new model of the flow state was created in terms of non-industrial textile production activities in order to illustrate this deviation as well as the finding that both intrinsic and extrinsic motivation was present at all skill levels.

Objective Three and the overall research question pertaining to the usefulness of the Flow Theory in explaining clothing and textiles phenomena such as motivating
individuals to continue participation in non-industrial textile production activities was also satisfied and answered through the quantitative testing of the hypotheses and the analysis of the open-ended response survey comments and expert interviews. It is evident, however, that although the Flow Theory is useful in explaining the experiences one has when participating in non-industrial textile production activities, the sources of motivation are not as clearly demarcated as Csikszentmihalyi (1975) originally proposed. Again, both intrinsic and extrinsic motivation factors seem to be present at all skill levels given the end-product nature of non-industrial textile production activities.

Further qualitative analysis of both open-ended response comments of the survey and the expert interviews revealed several additional themes common to the experiences of participants of non-industrial textile production activities. These themes included the importance of fellowship as a motivating factor, use of the activity to keep busy in idle situations and later in life, alienation from the activity due to life obligations, enjoyment in thinking about and planning future projects, and use of the activity as a source of therapy and as an escape among others.
CHAPTER 5—SUMMARY AND CONCLUSIONS

Summary

The purpose of this study was to test Csikszentmihalyi’s (1975) Flow Theory for applicability to clothing and textiles subject matter. To do so, a questionnaire was first administered using a snowball sampling of individuals involved in non-industrial textile production activities such as knitting, sewing, crocheting, rug hooking, and so on. Basic demographic data as well as information pertaining to one non-industrial textile production activity with which the individual was involved was collected. Informants were asked about the mode of initial involvement and questions regarding skill level, motivation, and flow state. Data from the surveys (n=150) were then analyzed using scatter plots and Pearson’s Correlation and Chi-Square statistical tests in order to test the study’s hypotheses and to satisfy Objectives One through Three. The hypotheses were:

1. There is a relationship between the skill level of non-industrial textile production students and producers and type of motivation (intrinsic and extrinsic).

2. There is an association between the skill level of non-industrial textile production students and producers and type of motivation (intrinsic and extrinsic).

3. There is a relationship between the skill level of non-industrial textile production students and producers and the occurrence of the elements and conditions associated with flow (low and high).
4. There is an association between the skill level of non-industrial textile production students and producers and the occurrence of the elements and conditions associated with flow (low and high).

The objectives were:

1. to link intrinsic motivation for continued participation in non-industrial textile production activities to the experiencing of flow occurrences.

2. to demonstrate that the advanced development of an individual’s non-industrial textile production skill-set may be a result of the enjoyment one experiences from repeated episodes of flow.

3. to illustrate the usefulness of Csikszentmihalyi’s (1975) Flow Theory in explaining clothing and textiles phenomena.

Sixteen survey participants who reported high skill levels in their activity of choice and frequent flow state occurrences in relation to that activity were then interviewed by telephone. These interviews were transcribed, coded, and analyzed for similarities to Csikszentmihalyi’s (1990) elements and conditions of enjoyment as well as with the indicators of flow occurrences. This was done in order to further test the study’s hypotheses and satisfy the objectives. Open-ended responses from the survey were also analyzed in the same manner. In addition, emerging themes specific to those involved in non-industrial textile production activities were gleaned, developed, and reported. This qualitative data was then used to support the quantitative data and to satisfy Objectives One through Three of the study as well as
the overall research question of *Is Csikszentmihalyi’s (1975) Flow Theory useful in explaining clothing and textiles phenomena such as motivating individuals to continue participation in non-industrial textile production activities?*

Support was found for a positive relationship and association between skill level and the occurrence of flow states (H3 and H4). In other words, as individuals progressed in the development of their skills related to their activity of choice, they seemed to experience more episodes of flow and enjoyment as a result. In the same manner, the episodes of flow and enjoyment motivated and allowed the individual to apply, re-apply, and refine their abilities further leading to higher skill levels. Logically this pattern should eventually lead to the mastery of the skill set supporting the proposition *Repeated episodes of flow leads to mastery* as well as Objective Two.

The finding that some individuals of medium skill experienced high occurrences of the flow state was also revealed, however. Perhaps these individuals reached a level of self-actualization (Maslow, 1943) as described in Chapter 1 in which they felt no further need to pursue higher levels of skill with an activity in order to experience optimal experiences or to develop their self. Nevertheless, this result may be indicative of another phenomenon and deserves further investigation.

Although the statistical tests did reveal significance, a weak relationship and association only was established between the variables of skill level and motivation (H1 and H2) and the variables of motivation and flow state (Objective One).

Csikszentmihalyi (1975) posited that when an individual had no or low skills in an
activity, extrinsic rewards such as money, an end product, fame, and so on would be more important than intrinsic rewards such as the development of self and discovery. However, the results of this study, both quantitative and qualitative, revealed that both extrinsic and intrinsic motivators existed at all skill levels. In other words, although individuals with low skills did covet an end product for their efforts, most stated that their initial involvement was motivated by wanting to learn something new or because the activity connected them to a family member. Also, the participants of the expert interviews readily reported the joy they experienced from the products they created. However, although some reported keeping the end products for personal use or as a memento of a particular achievement, most took pride in the fact that they gave the products away as gifts to family and friends and to charitable organizations or that they were trying to establish a tangible legacy to be given to family members and friends after they had gone. Therefore, by the very nature of non-industrial textile production activities as being end-product driven, it is very reasonable to conclude that the extrinsic motivation for the product acts in conjunction with the intrinsic factors of self-growth, exploration, and love of process in order to consciously or unconsciously achieve flow and resulting enjoyment.

Limitations

Limitations to this study included the convenient nature of the snowball sampling method that began mostly with American traditional rug hookers. This lead to a large number of participants involved with and reporting on this activity, but this
limitation could be overcome in future studies by continuing the snowball sampling process further in order to gather a larger sampling of individuals who participate in other non-industrial textile production activities. Also, random samplings could be done using mailing lists for various non-industrial textile guilds or publications.

Another limitation to the study was the predominance of female participants although this factor is reflective of the population that generally participates in these types of activities. However, the one male who participated in an expert interview emphasized the desire for mastery in comparison to female participants who placed immediate importance on personal therapy, creativity, and the joy of giving gifts. Although Csikszentmihalyi and Rathunde (1993) indicated that “what people do to enter the flow state varies by culture, gender, age, class, and personal inclination…” (p. 59), this observation in regards to gender, motivation, and non-industrial textile production activities should be explored further.

The fact that the questionnaire Likert scale began with Strongly Agree and progressed to Strongly Disagree and was coded from 1 (Strongly Agree) through 5 (Strongly Disagree) respectively, instead of having Strongly Agree coded as 5 and Strongly Disagree coded as 1 could also be seen as a limitation to this study. This resulted in participants experiencing high levels of the variables obtaining low scores and participants experiencing low levels of the variable obtaining high scores. Although the statistical tests were conducted with this in mind, the scatter plot diagrams did need to be rotated in order for low levels of the variables to correctly appear in the lower left hand corner of the diagrams.
Finally, as reported in Chapter 3, the Cronbach’s Alpha score for the survey items pertaining to motivation were low and may have affected results. This low reliability score might have been due to ambiguity in question phrasing or that some questions contained negatives such as I am not concerned with the end product. Also, more than one dimension of motivation may have been represented by the questions. For example, the questions may not have addressed strictly intrinsic motivation as was originally intended. Future researchers may wish to check this low reliability of the motivation items by administering the instrument again with more participants of non-industrial textile production activities or other activities with a tangible product at its core. If the reliability score continues to remain low, these items may need to be revised if the instrument is to be used again for future studies.

Conclusions

Csikszentmihalyi’s (1975) Flow Theory is very applicable to clothing and textiles subject matter and more specifically to the experiences individuals have when participating in non-industrial textile production activities. Participants of this study frequently reported experiencing occurrences of flow state characteristics and the resulting enjoyment that the flow state produced after the fact. However, other characteristics specific to the nature of non-industrial textile production activities were also discovered. Figure 9 incorporates these findings into the original Flow Theory diagram thereby beginning the theory derivation process in order to develop a new
theory specific to the clothing and textiles field. (The original Flow Theory diagram is repeated here as Figure 8 for ease of comparison.) A discussion of this new theoretical diagram follows.
Extrinsically Motivated Behavior (No Occurrence of Flow State):

Extrinsically Motivated Behavior Transformed to Intrinsic as a Result of Flow:

Figure 8. Flow Theory diagrammed (Repeated from Chapter 1).
Figure 9. Non-industrial textile production activity Flow Theory diagram.

Strategies—Anxiety:
- Storage/Re-visitation, On own Terms/Pace, Materials on Hand, Isolation

Strategies—Boredom:
- Multiple Projects/Activities, Saving Mundane, New Materials/Methods

Motivation Assistants: Fellowship, Outside References, Materials on Hand, Gift Production, Charitable Causes, Idleness Prevention

Extrinsic Motivation or Accidental Event and/or Intrinsic Motivation

Activity (Low or No Skill)

Flow State

Recognition of Optimal Experience (Happiness/Enjoyment)

Feeling of Doing Well

Event is Landmarked in Consciousness

Development of Self

Mastery of Activity (High Skill)

Activity (Increased Rigor and Complexity)

Flow State/ Optimal Experience/ Repeated Enjoyment

Eureka Moments

Intrinsic and Extrinsic Motivation to Repeat Activity

Recognition of Optimal Experience (Happiness/Enjoyment)

Feeling of Doing Well

Strategies—Boredom:
- Multiple Projects/Activities, Saving Mundane, New Materials/Methods

Extrinsic and/or Intrinsic Motivation
Csikszentmihalyi (1975) originally proposed that either an accidental event or extrinsic motivation were the reasons one would begin acquiring skills in a certain activity. However, participants of this study became interested in non-industrial textile production activities both for extrinsic and intrinsic reasons. Then as part of the voluntary participation with the activity of choice, the individual experienced some type of enjoyment either with the activity itself such as “love at first loop” or that the surrounding conditions such as those described by Csikszentmihalyi (1990) supported the production of a flow state (refer to Chapter 1, Table 2). The optimal experience was then disrupted, but recognition of a happy, enjoyable time landmarked an association of that enjoyment with the non-industrial textile production activity.

Although for this study it was assumed that the participants were not affected by societal or personal alienation or anomie (refer to Chapter 1, Limitations and Assumptions), it is important to note here that many expert interview participants mentioned being estranged from their activity of choice due to a variety of reasons. For those individuals who were working, had families, did not have enough available physical space to accommodate the activity, ran out of needed materials, or had some other outside obligation impairing their participation with the activity, personal alienation did indeed seem to be a factor in determining their level of participation. In fact, several stated that they could not become as involved with the activity as they would have liked until after retirement. This finding supports Csikszentmihalyi’s (1975) hypothesis that an obstacle to flow could take the form of alienation in that one cannot invest their energies in what they truly desire because of some force. However,
the use of the activity as a reward reported by some participants could also have contributed to and explained why they managed to develop their skills with an activity before retirement and deserves further investigation. In other words, in order to at least experience *microflow* instances with the activity, an individual gave his or her self permission to engage in the activity after all the chores were complete, the kids were off to school, and so on. In this way, skills were still being developed although not on a scale one would have ideally hoped. Nevertheless, these individuals made a conscious choice reflective of the ideas of humanism to find a way to incorporate the activity into their lives thus promoting personal growth and supporting the development of their self.

Participant comments from this study also supported Csikszentmihalyi’s (1990) assumptions in regards to human happiness (refer to Chapter 1, Table 1). Except in a few instances, the term *pleasure* was not readily associated with activity participation, but the terms *happiness* and *enjoyment* were often used. From the initial experiencing of an optimal experience, resulting enjoyment, and landmark in consciousness, participants of non-industrial textile production activities became smitten with an activity but continued to be motivated by both intrinsic and extrinsic rewards. Again this is reflective of the end-product nature of non-industrial textile production activities.

The results of this study also revealed the presence of several *motivational assistants*. In other words, continued motivation to participate with an activity may have been helped along by factors that were neither extrinsic nor intrinsic but may
have occurred in conjunction with activity repetition. These factors included fellowship with others which supported the findings of Johnson and Wilson (2005) and Schofield-Tomschin and Littrell (2001). Also, the referencing of outside sources such as books and magazines, attending trade shows, and visiting with individual experts was frequently mentioned as avenues to maintain interest as well as to gain knowledge and clarification. Accumulating a supply or stash of materials also gave participants a ready source of inspiration when needed, and the idea of making gifts for family and friends as well as for charitable organizations helped individuals keep interest with an activity while staving off personal idleness. These helpers therefore assisted with the continued pursuance and application of skills in which flow states continued to occur and grow. They may have also helped initiate or complement eureka moments or events in which a concept associated with the activity was fully understood or success in execution had been achieved thus leading to higher skill levels and overall personal satisfaction and enjoyment.

Once the initial basic skills of an activity were acquired, participants of non-industrial textile production activities generally chose to increase the challenges they faced with the activity in order to maintain interest and grow in personal ability. Again, this was not always the case. One expert interviewee seemed to be content with producing afghans and stated that she had “not really deviated from the things that [she did] very well.” Again, this phenomenon of not progressing in skill level but still experiencing high occurrences of optimal experience is worth further investigation especially in terms of Maslow’s (1943) idea of self-actualization. However, for
those who did choose to continue challenging themselves within the realm of their activity of choice, many chose to pursue the study of color in regards to their work as well as experimenting with different and sometimes unusual materials. They also tested their abilities with developing their own kits, patterns, and designs or took on a role as a teacher or mentor. Others indicated an intention to develop resources such as *how to* books or to document their works such as through portfolios or personal biographies in relation to their experiences with the activity.

Study participants also shared several strategies to prevent boredom or to avoid worry, anxiety, and frustration in relation to their activities (see Figures 9 and 10). One strategy to prevent boredom was to have multiple projects going on concurrently. In this way, if one project began to seem too mundane, they could move on to another. Also, most stated that they were involved with more than one type of non-industrial textile production activity such as knitting and crocheting or the like. In order to prevent boredom with one, they would then switch to another type of activity and vice versa. Also, experimentation with different and new materials or new methods sparked creativity and resulting enjoyment while avoiding boredom. Furthermore, participants frequently stated that if an area of the project was not creative or exciting for them, such as a background area, they saved that area of the project for a time when they did not want to be challenged such as at the end of a long, stressful day.
Figure 10. Strategies for maintaining flow by participants of non-industrial textile production activities.
Strategies for the prevention of worry, anxiety, and frustration included putting away a project sometimes for an extended period of time and then re-visiting that project again when they felt more able to meet the challenges involved. Also, by not having deadlines and by working at a pace that they were comfortable also brought greater enjoyment than feeling rushed and under pressure. Keeping a stash of materials on hand also prevented the frustration of having to unexpectedly stop with an activity to gather more. Finally, isolating themselves from others either physically or by tuning others out helped them concentrate on project areas that were more complex and involved thus eliminating the anxiety and frustration of losing one’s place in project progression. These strategies whether intentional or not, helped induce or preserve the flow state thus contributing to the overall enjoyment experienced with the activity. This enjoyment, more often than not, was equated to cheap therapy in that the joy and relaxation the non-industrial textile production activity provided the individuals was very worthwhile. Many indicated that they experienced a shifting in their thought processes while participating in the activity allowing them clarity of life problems and concerns. Along the same lines, individuals experienced a great amount of enjoyment just in the thinking about and planning their next projects; this also seemed to produce the same type of therapeutic effect as actually engaging in the activity itself. Furthermore, therapeutic effects were also associated with the simple repetition of the motions involved with the activity. In other words, the pulling of loops or the making of stitches produced a relaxing state cherished by the participants.
Finally, the development of self came in many forms to the participants of this study. Some indicated that increased self-confidence was a by-product of their experiences. Others were thankful for the fact that the activity allowed them to maintain an emotionally and socially healthy life after retirement that kept their mind challenged which is consistent with findings by Schofield-Tomschin and Littrell (2001) related to successful aging. Still others equated the activity as an extension of their self in that it was such an integral part of their lives and existence that they couldn’t imagine life without it. In fact, several declared that they hoped to be able to continue with the activity until the day they died because it gave them so much satisfaction and enjoyment and was their passion. This was echoed by those who were estranged from the activity due to some type of physical ailment. These individuals became moody because of the inability to partake or became anxious until they were able to reunite with the activity.

In sum, this new diagram of the Flow Theory as it relates to the activities of non-industrial textile production deviates from Csikszentmihalyi’s (1975) original in that both intrinsic and extrinsic motivation are integral throughout. This may be due to the very nature of non-industrial textile production activities as being end-product driven such that even the mere thought and planning of future projects and the resulting end-product brings one enjoyment. Motivation assistants such as fellowship, the keeping of an inspirational stash, the prospect of gift giving, the use of outside references, as well as the desire to prevent idleness all help an individual maintain interest in the activity as well. Strategies to avoid anxiety and stave off boredom in
order to induce and maintain the flow state were also discovered and integrated into the new diagram of the Flow Theory as well as Csikszentmihalyi’s model of the flow state. These included storing a project and re-visiting it later, working at a comfortable pace and on one’s own terms, having a supply of materials on hand so as not to run out, and isolating themselves from others during the activity in order avoid anxiety, worry, and frustration. To avoid boredom, participants frequently switched to another project or to another non-industrial textile production activity. Participants also enjoyed working with new materials and methods to keep their interest peaked. Furthermore, less interesting parts of a project were saved for times when the repetitive nature of the activity provided them with a therapeutic effect. Development of the self was achieved by activity repetition and the resulting increase in skill. This lead to increased self-confidence, willingness to get involved with others of like interest, and equating the activity as an extension of their self in everyday life.

**Implications**

This study presents some very important implications for future research in the areas of human motivation in general, the study of successful aging, adult education strategies, lifelong learning, and topics relevant to the clothing and textiles field especially theory development. Motivation researchers may need to further investigate the relationship between intrinsic and extrinsic motivation as it relates to activities that by nature have a tangible, long lasting end-product at its core. The impact of a social atmosphere and resulting support system that surrounds activity participation should
also be considered key variables when studying certain activities associated with human motivation. Also, motivation researchers may wish to investigate the flow process further in regards to whether or not the presence, amount, and quality of Csikszentmihalyi’s (1990) elements and conditions of enjoyment affect the inducement of a flow state. Furthermore, exploration into the conditions surrounding the termination of participation with an activity altogether (such as not experiencing flow occurrences) would benefit this area of study as well.

With regards to implications for successful aging, participants of this study frequently communicated the importance of the activity in relation to keeping their minds active and staying apprised of the world. In fact, several feared not being active after retirement, but participation in a non-industrial textile production activity invigorated their lives and contributed to their overall well-being. The fact that many of this study’s participants could not fully engage with their activity of choice to the level they would have preferred until after their children were grown and they were able to retire, speaks loudly to the importance of such activities in easing an individual into this phase of their lives. Furthermore, the learning or continuance of skill development of an activity allows for social venues that might not otherwise be available adding to the enjoyment of life and the development of self.

Associated with the implications for successful aging, educators of adults can use the flow model as a foundation for successful learning settings by incorporating creativity and exploration into the classroom experience. This is especially important for educators of continuing education and non-credit courses or workshops where
students chose the course because they were intrigued by the process, end product, or they just wanted to learn something new. Educators need also to keep in mind the skill levels of their students so as to not over or underwhelm to prevent both worry and boredom while maintaining a social and supportive atmosphere leading to an enjoyment of lifelong learning. The pairing of high skilled with low skilled students may aid in creating such an atmosphere and deserves consideration by educators as well.

With regards to the clothing and textiles field, the results of this study could be far reaching. First and foremost, by knowing that Csikszentmihalyi’s (1975) Flow Theory is very applicable to clothing and textiles subject matter and especially non-industrial textile production activities, a new theory can now continue to be derived specific to phenomena related to non-industrial textile production activities. This new theory could be used to organize existing research findings, create linkages between subject matter as recommended by Nagasawa (1991), especially in terms of the concept of enjoyment, and generate new questions to be investigated.

Csikszentmihalyi’s (1975) original theory could also be tested and used as a basis to explain other clothing and textiles phenomena such as optimal experiences associated with shopping and image management. In other words, scholars could investigate whether the elements and conditions associated with flow are related to an individual’s shopping behavior or interest in image formation. Also, as with New Riders’ (2003) article suggesting web site design strategies that would induce flow
experiences, scholars interested in e-commerce shopping sites or physical retail space layouts as well as merchandising strategies may also benefit from using the concepts and structure of this theory. Furthermore, knowing that the enjoyment of both process and product leads to the mastery of skills can also help explain the evolution of clothing and textiles as we know it today. Without the enjoyment associated with optimal experiences, it is doubtful that styles related to clothing and textiles would have changed much throughout history.

Recommendations for Further Research

Research should be conducted to further link the participation in non-industrial textile production activities to successful aging. Factors such as using an activity as a personal reward to induce microflow experiences, the elimination of alienation due to retirement, lifelong learning, and the availability of social venues through activity participation are important to investigate in relation to life satisfaction and enjoyment. Individuals involved in the education of adults could use such information to implement new teaching strategies as well as in program development.

The idea that a threshold exists in skill level in which participants of non-industrial textile production activities need not progress in order to experience high occurrences of the flow state should be investigated especially in terms of Maslow’s (1943) idea of self-actualization. Gender differences and natural tendencies in regards to the achievement of flow states as well as the individual ability for and importance put on skill mastery are also topics not addressed by this research but worth exploring.
Furthermore, differences in the frequency of optimal experiences in relation to type of non-industrial textile production activity, as well as the context of participation (alone or with others), may also make for interesting studies. Related to this, individual preferences for a certain activity over another could also be investigated and linked to the findings of this study in order to further develop a theory for use specifically with clothing and textiles subject matter.
Bibliography


Appendix A
Definition of Terms

*Aesthetic Experience*: A result of an object that is “inherently stimulating, rewarding and pleasurable in itself [and] involves heightened and concentrated consciousness by the individual” (Fiore, Kimle, & Moreno, 1996, pp. 30-31).

*Alienation*: A condition in society where the people are constrained and are expected to act against their personal goals (Csikszentmihalyi, 1990).

*Anomie*: “A condition in society in which the norms of behavior become muddled [and] when it is no longer clear what is permitted and what is not” (Csikszentmihalyi, 1990, p. 86).

*Atmospherics*: Devices such as aroma, music, lighting, and creative visual merchandising that enhances the excitement and pleasure level of shoppers.

*Autonomy*: The state of functioning independently despite outside influences.

*Autotelic*: Describes an activity that is rewarding in and of itself.

*Cognitive Dissonance*: The mental state of uncertainty or confusion as a result of conflicting stimuli.

*Conspicuous Consumption*: The obvious display of material items in order to establish status among peers and social groups.

*Enjoyment*: Stems from “events [that] occur when a person has not only met some prior expectation or satisfied a need or a desire but also gone beyond what he or she has been programmed to do and achieved something unexpected” (Csikszentmihalyi, 1990, p. 46).
Extrinsic Motivation: The force that entices individuals to “engage in activities for instrumental or other reasons, such as receiving a reward” (Eccles & Wigfield, 2002, p. 112).

Extrinsic Rewards: Personal rewards such as money, material possessions, prestige, esteem, and power (Csikszentmihalyi, 1975).

Fashion: A prevailing custom or style and the underlying process that promotes continual style change at a given time or place (Horn & Gurel, 1981).

Fashion Leader: “A consumer who has a greater than average interest in fashion, who purchases fashions relatively earlier than the rest of the market, and who influences later buyers to purchase new fashion items” (Goldsmith, Heitmeyer, & Freiden, 1991, p. 37)

Flow Experiences: Synonymous to optimal experiences.

Hedonism: An intrinsically motivated phenomenon “which focuses on happiness and defines well-being in terms of pleasure attainment and pain avoidance” (Ryan & Deci, 2001, p. 141).

Humanism: A psychological paradigm emphasizing the self and the individual ability to overcome obstacles in order for an individual to become what they truly are.

Inductive Approach: A “direction of movement” (p. 9) from facts to the development of theory (Dubin, 1969).

Intrinsic Motivation: Autotelic influences that propels individuals to participate in an activity without anticipating an external reward.

Mastery: Individually perceived success of learning and/or applying a certain skill set.
**Microflow:** Small instances of flow that may occur throughout an individual’s day. These microflow instances are generally less complex than regular or deep flow states.

**Non-Industrial Textile Production Activities:** Activities such as home sewing, hand knitting, cross stitch, rug hooking, and the like that are done individually and not for commercial profit.

**Optimal Experience:** Experiences that are intrinsically enjoyable, in which time seems to distort, and we lose our self-consciousness among others. It is a positive state in which the result is enjoyment and a building of the self.

**Peak Experiences:** “Transient moments of self-actualization” (Maslow, 1971, p. 46).

**Perceived Time Poverty:** An individual’s perception of reduced shopping opportunities due to life obligations (Forsythe & Bailey, 1996).

**Pleasure:** “A feeling of contentment that one achieves whenever information in consciousness says that expectations set by biological programs or by social conditioning have been met” (Csikszentmihalyi, 1990, p. 45).

**Psychic Energy:** Csikszentmihalyi’s (1990) term for attention.

**Psychic Entropy:** The opposite of psychic negentropy that impairs flow opportunities.

**Psychic Negentropy:** A state when one’s psychic energy effortlessly flows, and there is not reason to feel inadequate or to worry.

**Self:** The phenomenon and study of individual experience and development.

**Self-Actualization:** According to Maslow (1987), the state of being true to one’s own true nature and realizing one’s own potential
Self-Efficacy: An individual’s perception of how well they are progressing in the completion of a task or towards mastering a skill set.

Third Force Psychology: Also known as humanism and developed in response to the first two forces of psychology namely psychoanalytic psychology and behaviorism.

Triangulation: The use of more than one data sources or methods in order to increase the validity of research findings (Gall, Borg, & Gall, 1996).

Unmotivated Behavior: Expressive behavior that “does not try to do anything; it is simply a reflection of the personality” (Maslow, 1987, p. 29).
Appendix B
Informed Consent Documents and Interview and Referral Form
TO: Elaine L. Pedersen,
Design and Human Environment

RE: Non-Industrial Textile Production as Optimal Experience: Applicability of the Flow Theory to Clothing and Textiles Research (Student Researcher: Janet A. Blood)

IRB Application No. 2577

The referenced project was reviewed under the guidelines of Oregon State University's Institutional Review Board (IRB). The IRB has approved the application. This approval will expire on 7/20/2005. This modification request was reviewed at the Expedited level. A copy of this information will be provided to the full IRB committee.

Enclosed with this letter please find the approved informed consent document for this project, which has received the IRB stamp. This information has been stamped to ensure that only current, approved informed consent forms are used to enroll participants in this study. All participants must receive the IRB-stamped informed consent document.

- Any proposed change to the approved protocol, informed consent form(s), or testing instrument(s) must be submitted using the MODIFICATION REQUEST FORM. Allow sufficient time for review and approval by the committee before any changes are implemented. Immediate action may be taken where necessary to eliminate apparent hazards to subjects, but this modification to the approved project must be reported immediately to the IRB.
- In the event that a human participant in this study experiences an outcome that is not expected and routine and that results in bodily injury and/or psychological, emotional, or physical harm or stress, it must be reported to the IRB Human Protections Administrator within three days of the occurrence using the ADVERSE EVENT FORM.
- If a complaint from a participant is received, you will be contacted for further information.
- Please go to the IRB web site at: http://oregonstate.edu/research/RegulatoryCompliance/HumanSubjects.html to access the MODIFICATION REQUEST FORM and the ADVERSE EVENT FORM as needed.

Before the expiration date noted above, a Status Report will be sent to either close or renew this project. It is imperative that the Status Report is completed and submitted by the due date indicated or the project must be suspended to be compliant with federal policies.

If you have any questions, please contact the IRB Human Protections Administrator at IRB@oregonstate.edu or by phone at (541) 737-3437.

Date: 1/24/05

By: Courtney Campbell and Wayne Krajdan
Institutional Review Board Co-Chairs
pc: 2577 file
INFORMED CONSENT DOCUMENT

Project Title: Non-Industrial Textile Production as Optimal Experience: Applicability of the Flow Theory to Clothing and Textiles Research

Principal Investigator: Elaine L. Pedersen, Design and Human Environment

Research Staff: Janet A. Bloed

PURPOSE
This is a research study. The purpose of this research study is to test a psychological theory of motivation called Flow Theory as it relates to the such activities as sewing, weaving, knitting, crochet, embroidery, rug hooking, and like considered for the purposes of this study as non-industrial textile production activities. Flow Theory attempts to explain why individuals continue participation with a specific activity; namely that the activity induces a highly focused state (called the “flow state”) characterized by an individual sense of control, heightened challenges, the disappearance of self-consciousness, the presence of creativity, and a perceived distortion of time among others. Flow Theory also contends that once the flow state subsides, the individual experiences a sense of personal satisfaction and enjoyment as a direct result of the experience.

The purpose of this consent form is to give you the information you will need to help you decide whether to be in the study or not. Please read the form carefully. You may ask any questions about the research, what you will be asked to do, the possible risks and benefits, your rights as a volunteer, and anything else about the research or this form that is not clear. When all of your questions have been answered, you can decide if you want to be in this study or not. This process is called “informed consent.” You will be given a copy of this form for your records.

We are inviting you to participate in this research study because you are participating or have participated in a non-industrial textile production activity such as sewing, weaving, knitting, crochet, embroidery, rug hooking, and the like. You are also 18 years of age or older and live in the United States. It is anticipated that 100 to 150 subjects will be participating in this aspect of the study.

PROCEDURES
If you agree to participate in this phase of the study consisting of a questionnaire, your involvement will last for approximately 15 minutes. If you would like to participate farther in this study by taking part in a face-to-face or telephone interview, please let the researcher know. Also, if you know of someone else who is involved in a non-industrial textile production activity that might be interested in participating in this study, please give the appropriate contact information to the researcher.

RISKS
There are no foreseeable risks to participants of this study.

OSU IRB Approval Date: 07-21-04
Approval Expiration Date: 07-20-05
BENEFITS
There are no direct benefits to individuals who participate in this study. However, some subjects may find participating in this study to be of particular interest to them.

COMPENSATION
No compensation will be given to the participants of this study.

CONFIDENTIALITY
Records of participation in this research project will be kept confidential to the extent permitted by law. However, federal government regulatory agencies and the Oregon State University Institutional Review Board (a committee that reviews and approves research studies involving human subjects) may inspect and copy records pertaining to this research. In the event of any report or publication from this study, your identity will not be disclosed. Results will be reported in a summarized manner or in such a way that you cannot be identified.

VOLUNTARY PARTICIPATION
Taking part in this research study is voluntary. You may choose not to take part at all. If you agree to participate in this study, you may stop participating at any time. Furthermore, you are free to skip any questions that you would not prefer to answer. If you decide not to take part, or if you stop participating at any time, your decision will not result in any hard feelings or penalty.

QUESTIONS
Questions are encouraged. If you have any questions about this research project, please contact: Elaine L. Pedersen at (541) 737-0984, pedersen@oregonstate.edu or Janet A. Blood at (724) 465-0463, janspun@bloodlinedesigns.com. If you have questions about your rights as a participant, please contact the Oregon State University Institutional Review Board (IRB) Human Protections Administrator, at (541) 737-3437 or by e-mail at IRB@oregonstate.edu.
Date

Recipient
Street Address
City, State, Zip

Dear ____________________________:

We are inviting you to participate in a research study that is testing a psychological theory of motivation called Flow Theory as it relates to such activities as sewing, weaving, knitting, crochet, embroidery, rug hooking, and like considered for the purposes of this study as non-industrial textile production activities. Flow Theory attempts to explain why individuals continue participation with a specific activity; namely that the activity induces a highly focused state (called the “flow state”) characterized by an individual sense of control, heightened challenges, the disappearance of self-consciousness, the presence of creativity, and a perceived distortion of time among others. Flow Theory also contends that once the flow state subsides, the individual experiences a sense of personal satisfaction and enjoyment as a direct result of the experience.

You have been selected to participate in this study because you have indicated an interest in this study (or were referred to us by ________________________) and have participated in one or more of such activities and may like to contribute your input. You are also 18 years of age or older and live in the United States. It is anticipated that 100 to 150 subjects will be participating in this aspect of the study.

We would appreciate it if you would take about 15 minutes to respond to the enclosed questionnaire and return it in the envelope provided. Your responses, together with others, will be combined and used for statistical summaries. Your participation in this study is voluntary and you may refuse to answer any question. The answers you provide will be kept confidential to the extent permitted by law. Special precautions have been established to protect the confidentiality of your responses. The number on your questionnaire will be removed once your questionnaire has been returned. We use the number to contact those who have not returned their questionnaire, so we do not burden those who have responded. Your questionnaire will be destroyed once your responses have been tallied. There are no foreseeable risks to you as a participant of this study; nor are there any direct benefits. However, your participation is extremely valued.

If you have any questions about the questionnaire, please contact me at (724) 465-0463 or by e-mail at janspup@bloodlinedesigns.com or Dr. Elaine L. Pedersen at (541) 737-9984 or by e-mail at pedersee@oregonstate.edu. If I am not available when you call, please leave a message and I will call back. If you have questions about your rights as a participant in this research project, please contact the Oregon State University Institutional Review Board (IRB) Human Protections Administrator at (541) 737-3437 or by e-mail at IRB@oregonstate.edu.

Thank you for your help. We appreciate your cooperation.

Sincerely,

Janet A. Blood
Student Researcher

OSU IRB Approval Date: 07-21-04
Approval Expiration Date: 07-20-08
INFORMED CONSENT DOCUMENT

Project Title: Non-Industrial Textile Production as Optimal Experience: Applicability of the Flow Theory to Clothing and Textiles Research

Principal Investigator: Elaine L. Pedersen, Design and Human Environment

Research Staff: Janet A. Blood

PURPOSE

This is a research study. The purpose of this research study is to test a psychological theory of motivation called Flow Theory as it relates to the such activities as sewing, weaving, knitting, crochet, embroidery, rug hooking, and like considered for the purposes of this study as non-industrial textile production activities. Flow Theory attempts to explain why individuals continue participation with a specific activity; namely that the activity induces a highly focused state (called the “flow state”) characterized by an individual sense of control, heightened challenges, the disappearance of self-consciousness, the presence of creativity, and a perceived distortion of time among others. Flow Theory also contends that once the flow state subsides, the individual experiences a sense of personal satisfaction and enjoyment as a direct result of the experience. The purpose of this consent form is to give you the information you will need to help you decide whether to be in the study or not. Please read the form carefully. You may ask any questions about the research, what you will be asked to do, the possible risks and benefits, your rights as a volunteer, and anything else about the research or this form that is not clear. When all of your questions have been answered, you can decide if you want to be in this study or not. This process is called “informed consent.” You will be given a copy of this form for your records.

We are inviting you to participate in this research study because you are participating or have participated in a non-industrial textile production activity such as sewing, weaving, knitting, crochet, embroidery, rug hooking, and the like. You are also 18 years of age or older and live in the United States. Furthermore, your score on the previously taken questionnaire indicates that you are highly skilled in the non-industrial textile production activity you reported. It is anticipated that 15 subjects will be participating in this aspect of the study.

PROCEDURES

If you agree to participate, your involvement will last for approximately 30-45 minutes. The following procedures are involved in this study:

The researcher will ask you a series of questions pertaining to your individual experiences with the same non-industrial textile production activity you identified on your questionnaire. Again,
there are no wrong answers. Also, please feel free to ask the researcher to clarify or re-state a question if it seems confusing. The researcher will take notes to record your responses. Your responses will be audiotape recorded as well. If at any time during the interview you do not wish to be audiotape recorded, please let the researcher know. The audiotapes will be used to facilitate transcription of your responses and will be available only to the researcher for analysis purposes. Your name will not be associated with your responses during the interview process or in reporting the results. Upon completion of the study, the tapes will be destroyed.

RISKS

There are no foreseeable risks to participants of this study.

BENEFITS

There are no direct benefits to individuals who participate in this study. However, some subjects may find participating in this study to be of particular interest to them.

COMPENSATION

No compensation will be given to the participants of this study.

CONFIDENTIALITY

Records of participation in this research project will be kept confidential to the extent permitted by law. However, federal government regulatory agencies and the Oregon State University Institutional Review Board (a committee that reviews and approves research studies involving human subjects) may inspect and copy records pertaining to this research. In the event of any report or publication from this study, your identity will not be disclosed. Results will be reported in a summarized manner or in such a way that you cannot be identified.

AUDIORECORDING

By initialing in the space provided, you verify that you have been told that audio recordings will be generated during the course of this study. The recordings are being made to ensure the accuracy of your responses that will be identified by a code number for data analysis purposes. Only Elaine L. Pedersen and Janet A. Blood will have access to the recordings that will be transcribed, stored, and destroyed by Janet A. Blood within a three-year period.

__________________________
Participant's initials

VOLUNTARY PARTICIPATION

Taking part in this research study is voluntary. You may choose not to take part at all. If you agree to participate in this study, you may stop participating at any time. Furthermore, you are free to skip any questions that you would not prefer to answer. If you decide not to take part, or if you stop participating at any time, your decision will not result in any hard feelings or penalty.

OSU IRB Approval Date: 01-24-05
Approval Expiration Date: 07-20-05
QUESTIONS

Questions are encouraged. If you have any questions about this research project, please contact: Elaine L. Pedersen at (541) 737-0984, pedersee@oregonstate.edu or Janet A. Blood at (724) 465-0463, janet.blood@iup.edu. If you have questions about your rights as a participant, please contact the Oregon State University Institutional Review Board (IRB) Human Protections Administrator, at (541) 737-3437 or by e-mail at irb@oregonstate.edu.

PARTICIPANT CONSENT

Your signature indicates that this research study has been explained to you, that your questions have been answered, and that you agree to take part in this study. You will receive a copy of this form.

Participant’s Name (printed): ____________________________________________

__________________________________________  ________________  __________
(Signature of Participant) (Date) (Phone #)
INTERVIEW AND REFERRAL FORM

Yes, I am interested in participating further in the interview phase of this study!

My contact information is as follows:

Name:________________________________________________________________

Address:________________________________________________________________

Phone #:___________________________ Email:_____________________________

Activity:______________________________________________________________

(Please list the same activity as on your questionnaire.)

I prefer to be contacted in the _______Morning _______Afternoon _______Evening
-----------------------------------------------------------------------------

These individuals may be interested in participating in your study:

Name:________________________________________________________________

Address:________________________________________________________________

Phone #:___________________________ Email:_____________________________

Activity:______________________________________________________________

••••••••

Name:________________________________________________________________

Address:________________________________________________________________

Phone #:___________________________ Email:_____________________________

Activity:______________________________________________________________

••••••••

Name:________________________________________________________________

Address:________________________________________________________________

Phone #:___________________________ Email:_____________________________

Activity:______________________________________________________________
Directions:

Thank you for choosing to participate! In order to assure anonymity, please do not put your name or any other identifying marks on the questionnaire. For Question One, please identify one and only one non-industrial textile production activity in which you participate (possible activities are listed below). With only this activity in mind, please answer the remaining items of the questionnaire following the directions listed before each section. When you are finished, please return your completed questionnaire to the researcher. If you received this questionnaire via US Mail, please return your completed questionnaire in the enclosed pre-addressed postage-paid envelope.

If you are also interested in participating in the interview phase of this study, please indicate this by filling out the top portion of the pink form given to you along with the informed consent information and this questionnaire. Also, if you know of anyone else who might also like to participate in this study and engages in a non-industrial textile production activity, please fill out the bottom of the same pink form. Please return the pink form to the researcher along with your completed questionnaire. Please keep the informed consent information for your records. There are no “right” answers, and your honest input is appreciated.

Activity Examples:

- Home Sewing
- Quilting
- Embroidery
- Cross Stitch
- Crewel
- Rug Hooking
- Weaving
- Knitting
- Macramé
- Tatting
- Lace Making
- Spinning
- Crocheting
Q1. In what activity do you participate?_____________________________________

Q2. How many years have you participated in this activity?______________________

Q3. What first interested you in this activity? (Circle an answer for each statement.)

YES  NO

a. It was a school requirement.           Y    N
b. A friend or family member got me involved.         Y            N
c. I had free time to fill.            Y    N
d. I wanted to learn something new.         Y               N
e. Retail stores didn’t have what I wanted. Y    N
f. Other (please describe)_____________________        Y    N

Q4. Thinking only about the activity you listed above, please use the following scale
to answer the questions below. (Circle an answer for each statement.)

SA=STRONGLY AGREE   A=AGREE   N=NEUTRAL OPINION   D=DISAGREE
SD=STRONGLY DISAGREE

a. I am proficient in the basic skills.   SA A N D SD
b. I feel I have successfully completed several projects.      SA A N D SD
c. I am proficient in more advanced skills.  SA A N D SD
d. I feel I can work without an instructor’s constant assistance or kit instructions.  SA A N D SD
e. I feel confident enough in my abilities to assist or teach another.     SA A N D SD
f. I do not rely on commercial patterns or kits for project completion.  SA A N D SD
g. I am actively involved in activity-related organizations such as clubs, guilds, regional associations, and so forth.  SA A N D SD
h. Others use my designs, kits, or instructions to create their own projects.  
SA A N D SD

i. I am sought after by others to share my techniques and skills.  
SA A N D SD

j. Others have requested to purchase the resulting products of my activity.  
SA A N D SD

Q5. Please rate your involvement and experiences with the same activity. (Circle an answer for each statement.)

SA=STRONGLY AGREE  A=AGREE  N=NEUTRAL OPINION  D=DISAGREE  SD=STRONGLY DISAGREE

a. I get involved easily with this activity.  
SA A N D SD

b. I am not concerned with the end product.  
SA A N D SD

c. I understand what steps need to be taken next in order to progress towards the completion of a project.  
SA A N D SD

d. I know how well I am progressing without the input of others.  
SA A N D SD

e. I feel I can handle all the demands of this activity.  
SA A N D SD

f. I lose my self-awareness when I am involved with this activity.  
SA A N D SD

g. I never get bored with this activity.  
SA A N D SD

h. I consider the time that I spend with others during this activity as a bonus.  
SA A N D SD

i. Earning credit towards a certificate or degree program is not related to my involvement with this activity.  
SA A N D SD

j. When involved with this activity, I overcome distractions easily.  
SA A N D SD
k. Any recognition I receive from others regarding my skills and my finished product(s) is not important.

l. When involved with this activity, time passes quickly.

m. I enjoy the experience of engaging in this activity.

n. I enjoy the use of my skills when involved in this activity.

o. I feel creative when engaged in this activity.

p. When involved with the activity, I often become very focused.

q. Stopping this activity is often psychologically painful.

r. I consider any monetary offers for the final product as an added bonus.

s. I feel challenged while engaging in this activity.

t. I lose interest in the end product of this activity after its completion.

Q6. What is your age? __________

Q7. Are you male or female?__________

Q8. If you have any additional comments about the activity you focused on to answer the above questions, please provide them below or on a separate sheet of paper.

Thank you for taking time to respond to this questionnaire.
Your participation is greatly appreciated!
Appendix D
Participant Responses to Questions Four and Five of the 2004 Non-Industrial Textile Production Activity Motivation Questionnaire

Question 4: Skill Level Questions

<table>
<thead>
<tr>
<th></th>
<th>SA</th>
<th>A</th>
<th>N</th>
<th>D</th>
<th>SD</th>
<th>Missing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Proficient at basic skills:</td>
<td>86 (57.3%)</td>
<td>54 (36.0%)</td>
<td>5 (3.3%)</td>
<td>3 (2.0%)</td>
<td>1 (0.7%)</td>
<td>1 (0.7%)</td>
<td>150 (100%)</td>
</tr>
<tr>
<td>b. Successfully completed several projects:</td>
<td>104 (69.3%)</td>
<td>39 (26.0%)</td>
<td>5 (3.3%)</td>
<td>1 (0.7%)</td>
<td>1 (0.7%)</td>
<td>0 (0.0%)</td>
<td>150 (100%)</td>
</tr>
<tr>
<td>c. Proficient at more advanced skills:</td>
<td>64 (42.7%)</td>
<td>51 (34.0%)</td>
<td>16 (10.7%)</td>
<td>17 (11.3%)</td>
<td>2 (1.3%)</td>
<td>0 (0.0%)</td>
<td>150 (100%)</td>
</tr>
<tr>
<td>d. Can work without instructors constant assistance or kit:</td>
<td>83 (55.3%)</td>
<td>55 (36.7%)</td>
<td>5 (3.3%)</td>
<td>4 (2.7%)</td>
<td>3 (2.0%)</td>
<td>0 (0.0%)</td>
<td>150 (100%)</td>
</tr>
<tr>
<td>e. Confident enough to assist or teach another:</td>
<td>67 (44.7%)</td>
<td>44 (29.3%)</td>
<td>22 (14.7%)</td>
<td>13 (8.7%)</td>
<td>4 (2.7%)</td>
<td>0 (0.0%)</td>
<td>150 (100%)</td>
</tr>
<tr>
<td>f. Do not rely on commercial patterns or kits:</td>
<td>49 (32.7%)</td>
<td>38 (25.3%)</td>
<td>25 (16.7%)</td>
<td>31 (20.7%)</td>
<td>6 (4.0%)</td>
<td>1 (0.7%)</td>
<td>150 (100%)</td>
</tr>
<tr>
<td>g. Actively involved in activity-related organizations:</td>
<td>57 (38.0%)</td>
<td>44 (29.3%)</td>
<td>14 (9.3%)</td>
<td>19 (12.7%)</td>
<td>16 (10.7%)</td>
<td>0 (0.0%)</td>
<td>150 (100%)</td>
</tr>
<tr>
<td>Question</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
<td>Missing</td>
<td>Total</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>----------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>----------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>h. Others use my kits, designs, instructions:</td>
<td>29 (19.3%)</td>
<td>21 (14.0%)</td>
<td>17 (11.3%)</td>
<td>47 (31.3%)</td>
<td>35 (23.3%)</td>
<td>1 (0.7%)</td>
<td>150 (100%)</td>
</tr>
<tr>
<td>i. Sought after by others to share skills:</td>
<td>35 (23.3%)</td>
<td>46 (30.7%)</td>
<td>22 (14.7%)</td>
<td>28 (18.7%)</td>
<td>18 (12.0%)</td>
<td>1 (0.7%)</td>
<td>150 (100%)</td>
</tr>
<tr>
<td>j. Requested to purchase resulting products of activity:</td>
<td>34 (22.7%)</td>
<td>42 (28.0%)</td>
<td>22 (14.7%)</td>
<td>30 (21.7%)</td>
<td>21 (14.0%)</td>
<td>0 (0.0%)</td>
<td>150 (100%)</td>
</tr>
</tbody>
</table>

Question 5: Flow State and Motivation* Questions

<table>
<thead>
<tr>
<th>Question</th>
<th>SA</th>
<th>A</th>
<th>N</th>
<th>D</th>
<th>SD</th>
<th>Missing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Get involved easily with activity:</td>
<td>94 (62.7%)</td>
<td>49 (32.7%)</td>
<td>4 (2.7%)</td>
<td>2 (1.3%)</td>
<td>1 (0.7%)</td>
<td>0 (0.0%)</td>
<td>150 (100%)</td>
</tr>
<tr>
<td>b. Am not concerned with end product:*</td>
<td>7 (4.7%)</td>
<td>9 (6.0%)</td>
<td>12 (8.0%)</td>
<td>37 (24.7%)</td>
<td>85 (56.7%)</td>
<td>0 (0.0%)</td>
<td>150 (100%)</td>
</tr>
<tr>
<td>c. Understand what steps to take to complete a project:</td>
<td>87 (58.0%)</td>
<td>59 (39.3%)</td>
<td>3 (2.0%)</td>
<td>1 (0.7%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>150 (100%)</td>
</tr>
<tr>
<td>d. Know how well I am progressing without input of others:</td>
<td>69 (46.0%)</td>
<td>68 (45.3%)</td>
<td>11 (7.3%)</td>
<td>2 (1.3%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>150 (100%)</td>
</tr>
<tr>
<td>e. I can handle all the demands of this activity:</td>
<td>55 (36.7%)</td>
<td>82 (54.7%)</td>
<td>6 (4.0%)</td>
<td>7 (4.7%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>150 (100%)</td>
</tr>
<tr>
<td>Statement</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
<td>Missing</td>
<td>Total</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
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<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td>f. I lose my self-awareness when involved with activity:</td>
<td>52 (34.7%)</td>
<td>60 (40.0%)</td>
<td>23 (15.3%)</td>
<td>13 (8.7%)</td>
<td>2 (1.3%)</td>
<td>0 (0.0%)</td>
<td>150 (100%)</td>
</tr>
<tr>
<td>g. Never get bored with this activity:</td>
<td>70 (46.7%)</td>
<td>59 (39.3%)</td>
<td>10 (6.7%)</td>
<td>7 (4.7%)</td>
<td>4 (2.7%)</td>
<td>0 (0.0%)</td>
<td>150 (100%)</td>
</tr>
<tr>
<td>h. Consider time I spend with others during activity a bonus:*</td>
<td>91 (60.7%)</td>
<td>38 (25.3%)</td>
<td>18 (12.0%)</td>
<td>2 (1.3%)</td>
<td>1 (0.7%)</td>
<td>0 (0.0%)</td>
<td>150 (100%)</td>
</tr>
<tr>
<td>i. Earning credit towards certificate/degree not related to activity:*</td>
<td>91 (60.7%)</td>
<td>42 (28.0%)</td>
<td>10 (6.7%)</td>
<td>5 (3.3%)</td>
<td>1 (0.7%)</td>
<td>1 (0.7%)</td>
<td>150 (100%)</td>
</tr>
<tr>
<td>j. Overcome distractions easily when involved with this activity:</td>
<td>52 (34.7%)</td>
<td>74 (49.3%)</td>
<td>19 (12.7%)</td>
<td>5 (3.3%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>150 (100%)</td>
</tr>
<tr>
<td>k. Recognition I receive regarding skill and products isn’t important:*</td>
<td>16 (10.7%)</td>
<td>49 (32.7%)</td>
<td>28 (18.7%)</td>
<td>38 (25.3%)</td>
<td>19 (12.7%)</td>
<td>0 (0.0%)</td>
<td>150 (100%)</td>
</tr>
<tr>
<td>l. When involved with activity, time passes quickly:</td>
<td>104 (69.3%)</td>
<td>43 (28.7%)</td>
<td>1 (0.7%)</td>
<td>2 (1.3%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>150 (100%)</td>
</tr>
<tr>
<td>Item</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
<td>Missing</td>
<td>Total</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
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<td>-------</td>
<td>-------</td>
<td>------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>m. Enjoy experience of engaging in activity:</td>
<td>110</td>
<td>37</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>150</td>
</tr>
<tr>
<td>n. Enjoy the use of my skills when involved in activity:</td>
<td>104</td>
<td>41</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>150</td>
</tr>
<tr>
<td>o. Feel creative when engaged in activity:</td>
<td>109</td>
<td>39</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>150</td>
</tr>
<tr>
<td>p. Become focused when engaging in activity:</td>
<td>90</td>
<td>54</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>150</td>
</tr>
<tr>
<td>q. Stopping activity is psychologically painful:</td>
<td>11</td>
<td>36</td>
<td>45</td>
<td>41</td>
<td>17</td>
<td>0</td>
<td>150</td>
</tr>
<tr>
<td>r. I consider monetary offers or product as an added bonus:*</td>
<td>31</td>
<td>59</td>
<td>37</td>
<td>10</td>
<td>12</td>
<td>1</td>
<td>150</td>
</tr>
<tr>
<td>s. I feel challenged while engaging in activity:</td>
<td>71</td>
<td>69</td>
<td>8</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>150</td>
</tr>
<tr>
<td>t. I lose interest in end product after completion:*</td>
<td>5</td>
<td>16</td>
<td>13</td>
<td>72</td>
<td>43</td>
<td>1</td>
<td>150</td>
</tr>
</tbody>
</table>
Appendix E
Qualitative Data Coding, Theme Assignment, and Theme Generation

The analysis of qualitative data is represented in the following matrix and is designed to illustrate the association between non-industrial textile production activity participation and the Flow Theory as well as how activity participation differs. The data from the Q8: If you have additional comments… section of the questionnaire as well as the data gleaned from the expert interview portion of this study were coded by first using Csikszentmihalyi’s (1990) elements and conditions of enjoyment as well as his indications of an occurrence of the flow state and are listed in the first column and the first and second sections of the matrix. Codes representing each are displayed in the second column. During coding, themes that emerged and were different from the above but were specific to participation in non-industrial textile production activities were recorded and given a code. These appear in the third portion of the matrix. As this process continued, the third column of the matrix was used to record the appropriate interview numbers and corresponding activity in which a particular theme was evident. If the theme appeared as part of a remark made by a survey participant in the Question 8 section of the questionnaire, it was also recorded in this column as Open-Ended Response or OER. Furthermore, if no direct reference to a particular theme was mentioned in an expert interview or in the Additional Comments section, NA or Not Applicable was recorded in the third column. It is important to note here that although not directly stated or referenced by a participant and therefore not coded and recorded as such, some themes could be argued as being present within the context of other comments nevertheless.
<table>
<thead>
<tr>
<th>Theme</th>
<th>Code</th>
<th>Interview #--Activity or Open-Ended Response (OER) from Additional Comments section of Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Csikszentmihalyi’s (1990) Elements and Conditions of Enjoyment (refer to Chapter 1, Table 2)</td>
<td>E/C = Elements/Conditions</td>
<td></td>
</tr>
<tr>
<td>The effort is individual and voluntary.</td>
<td>Voluntary/Individual (E/C)</td>
<td>1—Knitting  2—Rug Hooking  3—Rug Hooking  4—Rug Hooking  6—Rug Hooking  7—Home Sewing  8—Macramè  12—Quilting  13—Quilting  OER</td>
</tr>
<tr>
<td>The end result of the activity is perceived as worthwhile.</td>
<td>Worthwhile Result (E/C)</td>
<td>1—Knitting  3—Rug Hooking  6—Rug Hooking  12—Quilting  13—Quilting  15—Rug Hooking  16—Knitting  OER</td>
</tr>
<tr>
<td>The task is perceived as being able to be completed.</td>
<td>Can Be Completed (E/C)</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>-----------------------</td>
<td></td>
</tr>
<tr>
<td>An individual’s attention or psychic energy flows freely and is freely invested in clear goals perceived as realistic.</td>
<td>Energy Flows Freely (E/C)</td>
<td></td>
</tr>
<tr>
<td>Information coming to awareness is congruent with the goals of the activity.</td>
<td>Info. Awareness = Goals (E/C)</td>
<td></td>
</tr>
<tr>
<td>Surrounding conditions allow for intense concentration on the task to be possible.</td>
<td>Conditions Support Concentration (E/C)</td>
<td></td>
</tr>
<tr>
<td>Activity</td>
<td>Feedback Category</td>
<td>Activities</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>During the activity, nothing else seems to matter to the individual.</td>
<td>Extreme Focus (E/C)</td>
<td>2—Rug Hooking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3—Rug Hooking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4—Rug Hooking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7—Home Sewing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9—Rug Hooking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13—Quilting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16—Knitting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OER</td>
</tr>
<tr>
<td>An individual is able to act with effortless involvement where worries</td>
<td>Effortless Involvement (E/C)</td>
<td>1—Knitting</td>
</tr>
<tr>
<td>and frustrations disappear.</td>
<td></td>
<td>3—Rug Hooking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5—Machine Embroidery</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6—Rug Hooking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10—Cross Stitch</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11—Rug Hooking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12—Quilting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14—Crocheting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15—Rug Hooking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16—Knitting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OER</td>
</tr>
<tr>
<td>Any frustrations that do creep into consciousness are perceived as</td>
<td>Frustrations Manageable (E/C)</td>
<td>2—Rug Hooking</td>
</tr>
<tr>
<td>being able to be overcome.</td>
<td></td>
<td>3—Rug Hooking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5—Machine Embroidery</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8—Macramé</td>
</tr>
<tr>
<td>Self-consciousness seems to disappear during the course of the activity.</td>
<td>Self-Consciousness Disappears (E/C)</td>
<td>NA</td>
</tr>
<tr>
<td>Questioning of self adequacy disappears.</td>
<td>Quest. Of Self-Adeq. Disappears (E/C)</td>
<td>NA</td>
</tr>
<tr>
<td>During the activity, the body and/or mind are stretched to its limits.</td>
<td>Body/Mind Stretched (E/C)</td>
<td>2—Rug Hooking 4—Rug Hooking</td>
</tr>
<tr>
<td>The experience of the activity may or may not be pleasant while occurring.</td>
<td>Happiness=Activity (E/C)</td>
<td>1—Knitting 2—Rug Hooking 3—Rug Hooking 5—Machine Embroidery 13—Quilting 14—Crocheting 15—Rug Hooking 16—Knitting OER</td>
</tr>
<tr>
<td></td>
<td>Struggle=Activity (E/C)</td>
<td>2—Rug Hooking 12—Quilting</td>
</tr>
</tbody>
</table>
| The individual has the ability to control or order his or her consciousness during the duration of the activity. | Control of Consciousness (E/C) | 1—Knitting
3—Rug Hooking
6—Rug Hooking
8—Macramé |
| The individual senses that they have control over their actions during the activity. | Control of Actions (E/C) | 1—Knitting
2—Rug Hooking
3—Rug Hooking
11—Rug Hooking
12—Quilting
13—Quilting
15—Rug Hooking |
| Disorder is absent during the activity. | Absence of Disorder (E/C) | 1—Knitting
15—Rug Hooking
OER |
The element of creativity is usually present in some aspect of the activity.

<table>
<thead>
<tr>
<th>Creativity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2—Rug Hooking</td>
</tr>
<tr>
<td>3—Rug hooking</td>
</tr>
<tr>
<td>4—Rug Hooking</td>
</tr>
<tr>
<td>5—Machine Embroidery</td>
</tr>
<tr>
<td>6—Rug Hooking</td>
</tr>
<tr>
<td>7—Home Sewing</td>
</tr>
<tr>
<td>11—Rug Hooking</td>
</tr>
<tr>
<td>12—Quilting</td>
</tr>
<tr>
<td>13—Quilting</td>
</tr>
<tr>
<td>14—Crocheting</td>
</tr>
<tr>
<td>15—Rug Hooking</td>
</tr>
<tr>
<td>16—Knitting</td>
</tr>
<tr>
<td>OER</td>
</tr>
</tbody>
</table>
--Creativity is manifested through the use of unfamiliar materials with the activity.

--Creativity is manifested through the experiencing of new techniques and approaches with the activity.

<table>
<thead>
<tr>
<th>Creativity—Use of Materials (E/C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1—Knitting</td>
</tr>
<tr>
<td>2—Rug Hooking</td>
</tr>
<tr>
<td>4—Rug Hooking</td>
</tr>
<tr>
<td>7—Home Sewing</td>
</tr>
<tr>
<td>10—Cross Stitch</td>
</tr>
<tr>
<td>12—Quilting</td>
</tr>
<tr>
<td>14—Crocheting</td>
</tr>
<tr>
<td>15—Rug Hooking</td>
</tr>
<tr>
<td>16—Knitting</td>
</tr>
<tr>
<td>OER</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Creativity—New Experiences (E/C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1—Knitting</td>
</tr>
<tr>
<td>2—Rug Hooking</td>
</tr>
<tr>
<td>4—Rug Hooking</td>
</tr>
<tr>
<td>5—Machine Embroidery</td>
</tr>
<tr>
<td>8—Macramé</td>
</tr>
<tr>
<td>10—Cross Stitch</td>
</tr>
<tr>
<td>12—Quilting</td>
</tr>
<tr>
<td>15—Rug Hooking</td>
</tr>
<tr>
<td>16—Knitting</td>
</tr>
</tbody>
</table>
| The individual’s skills reasonably match the opportunities or challenges of the activity. | Skill Match Challenges (E/C) | 2—Rug Hooking  
3—Rug Hooking  
4—Rug Hooking  
5—Machine Embroidery  
6—Rug Hooking  
7—Home Sewing  
11—Rug Hooking  
12—Quilting  
15—Rug Hooking  
16—Knitting  
OER |
|---|---|---|
| The individual’s perception of time is forgotten or distorted during the course of the activity. | Lost Time (E/C) | 6—Rug Hooking  
12—Quilting  
13—Quilting  
15—Rug Hooking |
| The individual’s biological needs are forgotten or pushed aside during the course of the activity. | Forgotten Biological Needs (E/C) | 6—Rug Hooking  
12—Quilting  
15—Rug Hooking |
| During the activity, an individual perceives that there is no threat to defend against. | No Threat (E/C) | 3—Rug Hooking  
15—Rug Hooking |
To slow the flow process may seem painful to the individual.

<table>
<thead>
<tr>
<th>Slowing Flow—Physical Impairment (E/C)</th>
<th>Csikszentmihalyi’s (1990) Indications of an Occurrence of the Flow State (refer to Chapter 1, Table 3) FO = Flow Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>1—Knitting</td>
<td>Feeling of exhilaration and gratification Exhilaration (FO) 2—Rug Hooking 6—Rug Hooking 7—Home Sewing 8—Macramé 10—Cross Stitch 13—Quilting 15—Rug Hooking OER</td>
</tr>
<tr>
<td>6—Rug Hooking</td>
<td></td>
</tr>
<tr>
<td>9—Rug Hooking</td>
<td></td>
</tr>
<tr>
<td>12—Quilting</td>
<td></td>
</tr>
<tr>
<td>15—Rug Hooking OER</td>
<td></td>
</tr>
</tbody>
</table>
| Deep sense of enjoyment | Enjoyment (FO) | 1—Knitting  
2—Rug Hooking  
3—Rug Hooking  
4—Rug Hooking  
5—Machine Embroidery  
6—Rug Hooking  
7—Home Sewing  
8—Macramé  
9—Rug Hooking  
10—Cross Stitch  
11—Rug Hooking  
12—Quilting  
13—Quilting  
15—Rug Hooking  
16—Knitting  
OER |
|------------------------|----------------|--------------------------------------------------|
| The event is landmarked in memory. | Landmarked (FO) | 1—Knitting  
4—Rug Hooking  
5—Machine Embroidery  
6—Rug Hooking  
11—Rug Hooking  
12—Quilting  
15—Rug Hooking  |
| Provides one with a sense of what life should be like | Sense of Life (FO) | 1—Knitting  
OER |
| Pushes an individual to higher performance levels | Higher Performance (FO) | 3—Rug Hooking  
5—Machine Embroidery  
6—Rug Hooking  
12—Quilting  
16—Knitting  
OER |
|-----------------------------------------------|------------------------|--------------------------------------------------|
| Motivates an individual to discover new opportunities for using their skills | Motivation to Discover (FO) | 2—Rug Hooking  
3—Rug Hooking  
4—Rug Hooking  
5—Machine Embroidery  
6—Rug Hooking  
7—Home Sewing  
8—Macramé  
10—Cross Stitch  
12—Quilting  
13—Quilting  
14—Crocheting  
15—Rug Hooking  
OER |
| Description of the event as an extraordinarily rich epiphany | Epiphany (FO) | 2—Rug Hooking  
4—Rug Hooking  
5—Machine Embroidery  
6—Rug Hooking  
11—Rug Hooking  
15—Rug Hooking  
OER |
<table>
<thead>
<tr>
<th>The individual is willing to repeat the activity at an even greater cost just for the sake of doing it again.</th>
<th>Greater Cost for Repetition (FO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeling of mastery</td>
<td>Mastery (FO)</td>
</tr>
<tr>
<td>Sense of participation in the content of his or her life</td>
<td>Life Participation (FO)</td>
</tr>
<tr>
<td>Experiences seem to join into a meaningful pattern</td>
<td>Patterns of Meaning (FO)</td>
</tr>
<tr>
<td>Feeling of being in control of life and that life makes sense</td>
<td>Life Control and Sense (FO)</td>
</tr>
<tr>
<td>Past desires, unfulfilled needs, and expectations seem trivial after flow.</td>
<td>Problems Trivialized (FO)</td>
</tr>
</tbody>
</table>
| Sense of discovery | Discovery (FO) | 1—Knitting  
3—Rug Hooking  
4—Rug Hooking  
6—Rug Hooking  
10—Cross Stitch  
15—Rug Hooking |
|-------------------|---------------|----------------|
| The individual feels that they were transported to a new reality. | Other Reality (FO) | 2—Rug Hooking  
3—Rug Hooking  
6—Rug Hooking  
9—Rug Hooking  
10—Cross Stitch  
12—Quilting |
| Individuals are given the ability to make “humdrum experiences” enjoyable after flow. Boring routines become purposeful. | Enjoyable Boredom (FO) | 2—Rug Hooking  
12—Quilting |
| A person is more able to organize their consciousness in order to experience repeated episodes of flow. | Organization of Consciousness (FO) | 8—Macramé |
| More flow experiences add up to an improved quality of life. | Flow = Life Quality (FO) | NA |
| One feels more “together” in terms of self and in relation to other people and the world. | Personal Growth (FO) | 2—Rug Hooking  
5—Machine Embroidery |
<table>
<thead>
<tr>
<th>We become more willing to act freely just for the sake of the action itself rather than for an ulterior motive.</th>
<th>No Ulterior Motives (FO)</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>We become more apt to choose a goal and then invest our energies in it to our limits knowing that it will be enjoyable in the end.</td>
<td>Willingness to Invest Energies (FO)</td>
<td>3—Rug Hooking 5—Machine Embroidery 6—Rug Hooking</td>
</tr>
<tr>
<td>Self-Confidence is built, and skills are developed.</td>
<td>Development of Skills/Self-Confidence (FO)</td>
<td>2—Rug Hooking 4—Rug Hooking 8—Macramé 10—Cross Stitch 15—Rug Hooking 16—Knitting OER</td>
</tr>
</tbody>
</table>

Other Themes Specific to Non-Industrial Textile Production Activities  
NITA = Non-Industrial Textile Production Activities

| A family member had done the activity or had gotten them involved with an activity. | Family Tradition (NITA) | 1—Knitting 3—Rug Hooking 4—Rug Hooking 5—Machine Embroidery 6—Rug Hooking 12—Quilting 13—Quilting 14—Crocheting 16—Knitting OER |
Resources related to the activity are important motivators.

<table>
<thead>
<tr>
<th>Outside Refs. (NITA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1—Knitting</td>
</tr>
<tr>
<td>2—Rug Hooking</td>
</tr>
<tr>
<td>4—Rug Hooking</td>
</tr>
<tr>
<td>5—Machine Embroidery</td>
</tr>
<tr>
<td>6—Rug Hooking</td>
</tr>
<tr>
<td>8—Macramé</td>
</tr>
<tr>
<td>10—Cross Stitch</td>
</tr>
<tr>
<td>11—Rug Hooking</td>
</tr>
<tr>
<td>12—Quilting</td>
</tr>
<tr>
<td>15—Rug Hooking</td>
</tr>
<tr>
<td>16—Knitting</td>
</tr>
</tbody>
</table>

The activity serves as relaxation or as a personal retreat.

<table>
<thead>
<tr>
<th>Therapy (NITA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1—Knitting</td>
</tr>
<tr>
<td>2—Rug Hooking</td>
</tr>
<tr>
<td>3—Rug Hooking</td>
</tr>
<tr>
<td>4—Rug Hooking</td>
</tr>
<tr>
<td>7—Home Sewing</td>
</tr>
<tr>
<td>9—Rug Hooking</td>
</tr>
<tr>
<td>10—Cross Stitch</td>
</tr>
<tr>
<td>14—Crocheting</td>
</tr>
<tr>
<td>15—Rug Hooking</td>
</tr>
<tr>
<td>16—Knitting</td>
</tr>
<tr>
<td>OER</td>
</tr>
</tbody>
</table>
Participants give away the end products as gifts to family, friends, or charities.

| Gifts (NITA) | 1—Knitting  
5—Machine Embroidery  
8—Macramé  
9—Rug Hooking  
10—Cross Stitch  
12—Quilting  
14—Crocheting  
15—Rug Hooking  
16—Knitting  
OER |
|---|---|

The activity keeps the individual occupied in otherwise idle situations.

| Idleness Prevention (NITA) | 1—Knitting  
3—Rug Hooking  
9—Rug Hooking  
10—Cross Stitch  
13—Quilting  
OER |
|---|---|

Life obligations can interfere with activity participation.  
--Participants couldn’t fully engage with the activity because of work obligations.

| Alienation/Retirement (NITA) | 3—Rug Hooking  
5—Machine Embroidery  
9—Rug Hooking  
11—Rug Hooking  
12—Quilting  
15—Rug Hooking |
|---|---|
| Alienation/Empty Nest (NITA) | 1—Knitting  
4—Rug Hooking  
5—Machine Embroidery  
9—Rug Hooking  
11—Rug Hooking  
13—Quilting  
16—Knitting |
|-----------------------------|--------------------------------------------------|
| Alienation/Space (NITA)     | 4—Rug Hooking  
5—Machine Embroidery |
| Alienation/Daily Chores (NITA) | 4—Rug Hooking  
5—Machine Embroidery  
6—Rug Hooking  
7—Home Sewing  
8—Macramé  
9—Rug Hooking  
12—Quilting  
16—Knitting |
| Alienation/Teaching (NITA)  | 3—Rug Hooking  
6—Rug Hooking  
7—Home Sewing  
16—Knitting |
| Alienation/Part of Job (NITA) | 7—Home Sewing |

--Participants couldn’t fully engage with the activity because of child rearing obligations.

--Participants couldn’t fully engage with the activity due to lack of space to set up and spread out materials associated with the activity.

--Participants couldn’t fully engage with the activity until the completion of daily chores.

--Participants couldn’t fully engage with their own projects because of teaching responsibilities.

--Participants whose occupation was related to the activity were not motivated to engage with their own projects due to the association with work.
Participants couldn’t fully engage with the activity without the appropriate functioning equipment.

Challenges are not related to developing a skill set.

--Challenge is sought through the development of original designs.

--Challenge is sought through the exploration of color in relation to the activity.

--Challenge is sought through teaching others the activity.

--Challenge is sought by developing resources pertaining to the activity to share with others.

<table>
<thead>
<tr>
<th>Alienation/Appropriate Equipment (NITA)</th>
<th>7—Home Sewing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Challenge—Originals (NITA)</td>
<td>1—Knitting</td>
</tr>
<tr>
<td></td>
<td>4—Rug Hooking</td>
</tr>
<tr>
<td></td>
<td>6—Rug Hooking</td>
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<tr>
<td></td>
<td>9—Rug Hooking</td>
</tr>
<tr>
<td></td>
<td>14—Crocheting</td>
</tr>
<tr>
<td></td>
<td>15—Rug Hooking</td>
</tr>
<tr>
<td></td>
<td>16—Knitting</td>
</tr>
<tr>
<td>Challenge—Color (NITA)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4—Rug Hooking</td>
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<tr>
<td></td>
<td>6—Rug Hooking</td>
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<tr>
<td></td>
<td>9—Rug Hooking</td>
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<tr>
<td></td>
<td>10—Cross Stitch</td>
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<tr>
<td></td>
<td>11—Rug Hooking</td>
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<td></td>
<td>13—Quilting</td>
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<td></td>
<td>15—Rug Hooking</td>
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<tr>
<td></td>
<td>16—Knitting</td>
</tr>
<tr>
<td>OER</td>
<td></td>
</tr>
<tr>
<td>Challenge—Teaching (NITA)</td>
<td>2—Rug Hooking</td>
</tr>
<tr>
<td></td>
<td>11—Rug Hooking</td>
</tr>
<tr>
<td>Challenge—Developing Resources (NITA)</td>
<td>6—Rug Hooking</td>
</tr>
<tr>
<td></td>
<td>11—Rug Hooking</td>
</tr>
<tr>
<td></td>
<td>12—Quilting</td>
</tr>
<tr>
<td>The creative nature of the activity provides challenges.</td>
<td>Challenge—Creativity (NITA)</td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>The activity becomes a regular part of daily life as an extension of self.</td>
<td>Extension of Self (NITA)</td>
</tr>
<tr>
<td>Participants have been or currently are practitioners of other non-industrial textile production activities.</td>
<td>Other Activities (NITA)</td>
</tr>
</tbody>
</table>
Participants can not imagine life without the activity and will continue with it as long as they can.

<table>
<thead>
<tr>
<th>No Life W/O (NITA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1—Knitting</td>
</tr>
<tr>
<td>3—Rug Hooking</td>
</tr>
<tr>
<td>5—Machine Embroidery</td>
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<td>6—Rug Hooking</td>
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<td>11—Rug Hooking</td>
</tr>
<tr>
<td>13—Quilting</td>
</tr>
<tr>
<td>15—Rug Hooking</td>
</tr>
</tbody>
</table>

The activity serves as a personal reward.

<table>
<thead>
<tr>
<th>Reward (NITA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4—Rug Hooking</td>
</tr>
<tr>
<td>5—Machine Embroidery</td>
</tr>
<tr>
<td>10—Cross Stitch</td>
</tr>
<tr>
<td>11—Rug Hooking</td>
</tr>
<tr>
<td>12—Quilting</td>
</tr>
<tr>
<td>14—Crocheting</td>
</tr>
<tr>
<td>16—Knitting</td>
</tr>
<tr>
<td>OER</td>
</tr>
</tbody>
</table>

The process of thinking about or planning future projects is exciting and rewarding.

<table>
<thead>
<tr>
<th>Planning (NITA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2—Rug Hooking</td>
</tr>
<tr>
<td>3—Rug Hooking</td>
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<tr>
<td>4—Rug Hooking</td>
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<tr>
<td>12—Quilting</td>
</tr>
<tr>
<td>15—Rug Hooking</td>
</tr>
<tr>
<td>OER</td>
</tr>
</tbody>
</table>
Socializing with others who share a common interest in the activity is an important motivator.

| Fellowship (NITA) | 2—Rug Hooking  
3—Rug Hooking  
4—Rug Hooking  
5—Machine Embroidery  
6—Rug Hooking  
8—Macramé  
9—Rug Hooking  
10—Cross Stitch  
11—Rug Hooking  
15—Rug Hooking  
OER |
|---|---|

The activity is a large, but not all encompassing part of life.

| Role in Life (NITA) | 1—Knitting  
3—Rug Hooking  
4—Rug Hooking  
5—Machine Embroidery  
6—Rug Hooking  
7—Home Sewing  
9—Rug Hooking  
11—Rug Hooking  
12—Quilting  
16—Knitting  
OER |
|---|---|

The activity is enjoyable when taken at their own pace and on their own terms.

| Pressure (NITA) | 1—Knitting  
10—Cross Stitch  
12—Quilting |
|---|---|
Strategies are developed to avoid boredom and frustration:

--Participants have multiple projects going on at once.

--Participants switch to a different non-industrial textile production activity.

--Participants reserve the mundane portions of a project to a time when they can’t think clearly.

--Participants put a project away for a long period of time and revisit it at a later date.

--Participants keep extra project supplies on hand.

| Boredom—Multiple Projects (NITA) | 4—Rug Hooking
| Boredom—Multiple NITA Activities (NITA) | 7—Home Sewing
| Boredom—Part Reservation (NITA) | 12—Quilting
| Frustration—Storage (NITA) | 5—Machine Embroidery
| Frustration—Materials on Hand (NITA) | 10—Cross Stitch

The activity keeps one’s mind engaged and in touch others.

| Successful Aging (NITA) | 3—Rug Hooking
| 5—Machine Embroidery | 11—Rug Hooking
| OER |
| The activity keeps one learning and wanting to learn. | Lifelong Learning (NITA) | 2—Rug Hooking  
4—Rug Hooking  
6—Rug Hooking  
9—Rug Hooking  
11—Rug Hooking  
12—Quilting  
15—Rug Hooking  
16—Knitting  
OER |
|---|---|---|
| Participants regard the activity as an entertainment source and a hobby. | Hobby (NITA) | 1—Knitting  
3—Rug Hooking  
5—Machine Embroidery  
9—Rug Hooking  
13—Quilting  
14—Crocheting  
15—Rug Hooking  
OER |
| Participants regard activities with reverence and awe. | Reverence (NITA) | 1—Knitting  
5—Machine Embroidery  
6—Rug Hooking  
12—Quilting  
13—Quilting |
Participants progress from involvement in many NITA activities to only one.

| Dwindling Interest (NITA) | 1—Knitting  
|                          | 2—Rug Hooking  
|                          | 5—Machine Embroidery  
|                          | 9—Rug Hooking  
|                          | 11—Rug Hooking  
|                          | 14—Crocheting  
|                          | OER  |

Each participant can tailor their project to who they are and what they want to express.

| Expression of Self (NITA) | 2—Rug Hooking  
|                         | 3—Rug Hooking  
|                         | 4—Rug Hooking  
|                         | 5—Machine Embroidery  
|                         | 12—Quilting  |

Teaching and sharing as it relates to an activity is an enjoyable extension of the actual doing.

| Teaching/Sharing Enjoyment (NITA) | 2—Rug Hooking  
|                                   | 5—Machine Embroidery  
|                                   | 6—Rug Hooking  
|                                   | 8—Macramé  
|                                   | 11—Rug Hooking  
|                                   | 12—Quilting  
|                                   | OER  |

The repetitive actions involved in the activity are relaxing.

| Therapy—Repetition (NITA) | 2—Rug Hooking  
|                          | 4—Rug Hooking  
|                          | 8—Macramé  
|                          | 16—Knitting  |
| Participants use the end products as trophies to commemorate their achievements. | Trophy (NITA) | 2—Rug Hooking  
7—Home Sewing  
13—Quilting |
|---|---|---|
| A supply of materials is grown over time. | Stashing (NITA) | 6—Rug Hooking  
9—Rug Hooking  
11—Rug Hooking  
12—Quilting  
15—Rug Hooking |
| Older participants evolve to be mentors. | Mentor (NITA) | 6—Rug Hooking  
8—Macramé  
11—Rug Hooking  
15—Rug Hooking |
| Hobby businesses have evolved from the participation in the activity. | Biz (NITA) | 6—Rug Hooking  
11—Rug Hooking  
14—Crocheting  
16—Knitting  
OER |
| The participants enjoy the recognition they receive from others in regards to the end products of the activity. | Recognition of Others (NITA) | 5—Machine Embroidery  
6—Rug Hooking  
10—Cross Stitch  
12—Quilting  
13—Quilting  
OER |
| The activity is portable and easy to engage. | Ease of Engagement (NITA) | 10—Cross Stitch  
12—Quilting  
13—Quilting OER |
| Participants keep the end products for their own personal use. | End Product Important (NITA) | 6—Rug Hooking  
8—Macramé  
9—Rug Hooking  
10—Cross Stitch  
12—Quilting OER |
| Skills from individual non-industrial textile production activities complement each other. | Complement (NITA) | 8—Macramé  
10—Cross-Stitch  
11—Rug Hooking  
12—Quilting OER |
| Participants are enthusiastic in promoting the activity to others. | Promotion (NITA) | 5—Machine Embroidery OER |
| The end product embodies the thoughts and experiences that occur during the creation process. | Embodiment (NITA) | 12—Quilting OER |
| The end products make other people happy even when they don’t receive them as a gift. | Non-Gift (NITA) | 5—Machine Embroidery  
6—Rug Hooking  
11—Rug Hooking  
12—Quilting OER |
| The activity serves as a gateway to deep thought. | Gateway (NITA) | 6—Rug Hooking  
9—Rug Hooking  
12—Quilting  
OER |
| The activity can be self-taught. | Self-Taught (NITA) | 6—Rug Hooking  
8—Macramé  
10—Cross Stitch  
11—Rug Hooking  
12—Quilting  
OER |
| Participants find volunteer opportunities to use their skills. | Volunteering (NITA) | 1—Knitting  
7—Home Sewing |
| Products are kept for self or family only. | Selfishness (NITA) | 13—Quilting  
OER |
| The tactile and visual nature of the activity is regarded as a benefit. | Sensory Nature (NITA) | 10—Cross Stitch  
11—Rug Hooking  
OER |
| A connection between people and things is established. | Connection (NITA) | 12—Quilting |
| Participants keep and maintain the end products to leave as a personal legacy. | Legacy (NITA) | 9—Rug Hooking  
12—Quilting  
OER |