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To the Graduate Council:

I am submitting herewith a dissertation written by John A. Lewter entitled "Flow and the college experience." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Education, with a major in Educational Administration.

Norma T. Mertz, Major Professor

We have read this dissertation and recommend its acceptance:

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

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Norma T. Mertz, Major Professor

We have read this dissertation
and recommend its acceptance:

Leslee A. Fisher

John M. Peters

Joel F. Diambra

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean
of the Graduate School

(Original signatures are on file with official student records)

FLOW AND THE COLLEGE EXPERIENCE

A Dissertation
Presented for the
Doctor of Education
Degree
The University of Tennessee, Knoxville

John A. Lewter
May 2009

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Dedication

This dissertation is dedicated to my amazing wife, Megan, my wonderful son, Andrew, and my loving and supportive parents, Joy Lewter and Larry Lewter (deceased). Megan, please know that the completion of this dissertation would not have been possible without your hard work. You put as much effort into this degree as I did. You are my partner and we can accomplish anything as long as we tackle it together. Thank you for your patience, support, encouragement, understanding, and most importantly, love throughout this process. You are a part of me and I will love you forever.

Andrew, you have sacrificed a great deal for dad to finish this degree, but you have also served as incredible motivation. Throughout this journey, you have been a stress release for me and your humor and joy for living has helped me survive to this goal. I wanted to finish this degree to serve as an example for you in your own journey toward your dreams and goals in life. Thank you for all of your unconditional love – Dad loves you!

Mom, you have always served as an educational and professional role model for me. You have taught me many lessons about how to work with and lead others. Throughout this process, you have supported me and pushed me to reach this goal. Without you this would not have been possible.

Finally, to my father, you have left a mark on me that will live forever. I hope everyday that I am living the example that you set for me. You taught me many of the lessons and skills I needed to complete this degree. There is no doubt that you were with me every step of the way through this dissertation. I miss you terribly, but know that you would be proud.

Acknowledgements

Completion of this dissertation would not have been possible without the incredible influence as well as contributions of so many individuals to whom I owe my deepest appreciation and gratitude. Special thanks to my entire doctoral committee for their support throughout this process. In particular, Dr. Norma Mertz, dissertation chair, for her patience and guidance at every turn! We would meet, I would leave for a while without a word, then I would return, and she would welcome me back with open arms. I have learned a great deal both academically and professionally from working with her. Dr. Mertz deserves a great deal of credit for the completion of this dissertation. Dr. Leslee Fisher provided a great deal of expertise concerning flow to the committee and was always very supportive, encouraging, and positive throughout the study. Finally, Dr. John Peters and Dr. Joel Diambra provided extremely helpful ideas and suggestions on the research methods employed.

Heartfelt thanks go to several individuals in my professional life who provided encouragement, mentoring, and support as I traveled this path. Dr. Bill Seymour encouraged me to begin this degree and has taught me a great deal about college administration. Mrs. Sheree O'Connor for her patience and hard work covering the office as I left to work on one more requirement for this degree. She has also been a major cheerleader for team Andy. Mrs. Vandy Kemp has been a joy to work with during the last few years. Thank you for trusting my professional abilities and supporting me through this long journey. I have just incredible admiration for you as a leader and a person! Finally, to Dr. Bill McDonald who has served as a professional mentor to me

and when I was considering quitting the program showed me the importance of finishing and motivated me to get it done.

Special recognition goes to Mrs. Michelle Ballew Safewright, Dr. Ashley Tull, Dr. Jerrid Freeman, Dr. Luther McKinney, Mr. Chad Luke, and Ms. Paula McGhee for their assistance and encouragement along the way. And to the nine classes of Maryville College students who have had less of my time and attention while I worked to complete this degree. You continue to inspire me as I struggle to inspire you.

In conclusion, a very, very special thanks to my entire family. Without your love, humor, support, education, friendship, patience, and understanding, this would not have been possible. I love each and every one of you.

Abstract

Flow experiences are described as a state of consciousness where a person becomes totally absorbed in the experience. If college students experience flow, these experiences might impact their engagement, retention, academic progress, and graduation. The purpose of this study was to describe the flow experiences of undergraduate college students across the total college experience. The research questions guiding the study were: 1) To what extent do undergraduate college students report having “flow” experiences? 2) How do undergraduate college students describe their “flow” experiences? 3) How have “flow” experiences affected undergraduate college student’s college experience?

A total of 24 undergraduate college students from seven different subcultures participated in one of six focus groups. During the focus groups, the participants were given four written examples of flow experience and asked to write down examples of any similar experiences in their own lives. Then participants were asked a series of semi-structured, open-ended questions using an interview guide related to the research questions. A three level qualitative analysis was used to interpret each participant’s responses. The major findings of this study were: 1) All 24 participants experienced flow and associated that experience with 39 different flow activities. 2) Participants described their flow experiences as absorbing, an escape from their daily lives, having a positive affect on them, and feeling like they lost track of time. They also described flow was occurring more often during performance than during practice. 3) Flow experiences impacted the out of class experience of the participants, but not their in class experience.

Two themes (“flow as an escape” and “flow more common during performance than during practice”) emerged that had not appeared in the existing literature and may be idiosyncratic to the population studied or may have wider relevance.

Based on the findings it is reasonable to conclude that college students do experience flow in a wide variety of activities outside the classroom and they see their flow experiences as positive, absorbing, and a much needed escape from the stress of college life.

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Chapter 1: Introduction

Background and Context

Have you ever had an experience in which you lost yourself, an experience of intense focus where you lost track of time and, afterward, you felt satisfied and in control? Maybe you were playing a sport, performing artistically, or reading a good book. If you answered “yes”, you may have experienced “flow”.

As described by Csikszentmihalyi (1975), the father of flow theory, flow is the holistic sensation that people feel when they are totally involved in an experience, when the skills a person possesses and the challenges a person faces match and are at a high level. It is a state of consciousness where a person becomes totally absorbed in what s/he is doing to the exclusion of all other thoughts and emotions. “The metaphor of ‘flow’ is one that many people have used to describe the sense of effortless action they feel in moments that stand out as the best in their lives” (Csikszentmihalyi, 1997, p. 29).

Flow theory has its theoretical roots in the peak experience work of Maslow (1962; 1964). He ascribed the motivation to seek peak experiences as a “desire for ‘self-actualization’, a need to discover one’s potentialities and limitations through intense activity and experience” (Csikszentmihalyi & Csikszentmihalyi, 1988, p. 5).

Csikszentmihalyi became interested in intrinsic motivation and autotelic activity in the 1960’s while studying the creative process of artists (Nakamura & Csikszentmihalyi, 2002). Autotelic activities are those activities that are rewarding in and of themselves (Csikszentmihalyi & Csikszentmihalyi, 1988).

Csikszentmihalyi (1975) interviewed surgeons, chess players, rock climbers, and dancers asking what made them truly happy. His participants described periods of total

engagement in which things seemed to just flow. He chose the word “flow” to describe this phenomenon because the participants in his study used it so often. Since Csikszentmihalyi’s initial research, flow has been reported in performance activities like sports, music, and theater, and also in solitary activities like reading, long distance running, and literary writing.

Research on flow has provided descriptions of flow experiences during work (Csikszentmihalyi, 1990, 2003; Csikszentmihalyi & Csikszentmihalyi, 1988; LeFevre, 1988), play (Hills, Argyle, & Reeves, 2000; Jackson & Csikszentmihalyi, 1999; Thompson, 1993), and in academic settings (Larson, 1988; Nakamura, 1988). Larson (1988) studied 90 high school student writers. He found students experienced a “flow-like involvement in their writing” (Larson, 1988, p. 164). If the writers experienced flow, they enjoyed the experience of writing which kept them more engaged and led them to produce better papers. Nakamura (1988) studied public high school students with superior math ability to see if young people with high cognitive ability who use their talent show patterns of flow experience similar to talented students who fail to use their talent (Nakamura, 1988). She found “high achievers invest the time in schoolwork necessary for the development of their intellectual potential – they experience flow. On the other hand, low achievers study less in order to avoid anxiety” (Nakamura, 1988, p. 326).

Our knowledge of flow within the higher education setting is limited because few researchers have focused on the flow experiences of college students. Examples of studies involving flow and college students are Russell (2001) and Brinthaup & Shin (2001). Russell (2001) examined the influence of gender and sport on flow with 42

college athletes. His study provided empirical support for the construct of flow for male and female college students across team and individual sport settings and expanded the findings on flow and athletes. Brinthaupt & Shin (2001) studied the relationship between academic cramming and flow. One hundred and sixty-one college undergraduates were led through an assessment of study habits, an assessment of flow experiences, and a cramming simulation. The authors found that “self-reported crammers (those who cram by choice) performed better on the task and reported a greater amount of flow-like experiences” than self-reported procrastinators (Brinthaupt & Shin, 2001, p. 10). The findings suggest that students who cram by choice may do so because of the flow they experience. While these two studies verify that some college students experience flow, less is known about the nature of that experience or about what effect it might have on students’ total college experience.

The quality of students’ college experience is made up of many factors. One of these factors is their involvement/engagement in the academic setting and the life of the college (Milem & Berger, 1997). Astin’s theory of student involvement posits that in order for students to learn, they must be involved in the life of the campus; the higher the involvement, the greater the opportunity for learning. “Student involvement refers to the amount of physical and psychological energy that the student devotes to the academic experience” (Astin, 1984, p. 297). Astin argued that “for student learning and growth to take place, students need to actively engage in their environment” (Evans, Forney, & Guido-DiBrito, 1998, p. 27).

Tinto (1987) identified a relationship between student involvement and retention. The more students are engaged in the life of the college the more likely students are to

persist (Tinto, 1987). Tinto's theory of student departure suggests that satisfying and rewarding encounters with the formal and informal academic and social systems of the institution lead to greater integration into those systems and, thus, to greater student retention (Pascarella & Terenzini, 1991).

Student engagement and retention are major concerns for colleges and universities nationally. Jones (2004) claimed there is a decrease in student engagement not only in the classroom, but in the university as a whole. "Today's college freshmen appear to be more academically disengaged than ever before" (*Higher Education Research Institute, The American Freshman in 2001, 2002*). This decline in academic engagement is a cause of deep concern in higher education and has implications for college student learning and retention. Furthermore, the national first year retention rate for all four year institutions is 75.8% (*The NCHES Information Center for State Higher Education Policymaking and Analysis, 2005*). The rate for small private colleges' freshman to sophomore retention drops even further to 65.8% (*IPEDS Executive Peer Tool, 2004*). Student attrition impacts the university financially, academically, and socially.

Since flow experiences appear to be some of the most intensely engaging experiences that exist, they may provide a way to increase and even maximize student engagement. Developing a better and deeper understanding of the nature of flow experiences in college students than we currently possess holds the potential for developing teaching and learning strategies for increasing the number of students who experience flow and, thus, are engaged in their college experience. Furthermore, if Tinto's theory holds true, increased engagement should also lead to increased retention.

Statement of the Problem

Flow experience was originally studied by Csikszentmihalyi (1965; 1975a) through interviews with participants involved in creative pursuits. These qualitative studies led to the development of flow theory. Since this time, flow research has focused primarily on the quantification of the experience. Of course, this leads to concerns about the ability to truly quantify individual experience. Thompson (1993) states this quantitative research on flow “took on a life of its own as the data collection method seemed to take precedence over an understanding of the experience” (p. 18).

As stated previously, research on flow in the college student population is limited. Furthermore, research that does exist focuses on flow within single arenas of college life (i.e., athletics, academics, etc.). This study describes the nature of the flow experiences of college students across the wider college experience, that is, through multiple arenas of college life. Therefore, this research expands the literature concerning flow within the college experience.

Purpose Statement

The purpose of this study is to describe the flow experiences of undergraduate college students across the total college experience.

Research Questions

The research questions guiding this study are:

1. To what extent do undergraduate college students report having “flow” experiences?
2. How do undergraduate college students describe their “flow” experiences?

3. How have flow experiences affected undergraduate college student's college experience?

Significance

Research exists on flow theory in a variety of contexts; however, we know little about the nature and extent to which college students experience flow and, therefore, how it might be engendered. This study adds to the limited literature on flow and undergraduate college students and begins to fill a void in the literature on the undergraduate college student experience. Furthermore, it might also provide insight into how colleges could create environments that nurture flow experiences among students. Since flow experiences have consistently been depicted as engaging, challenging, and satisfying, if colleges are able to create environments in which flow is likely to occur, these environments might also nurture engagement and persistence in college.

Delimitations

This study focused on a sample of traditional age undergraduate college students (ages 18 to 23 years) who attended a small, liberal arts college in the Southeastern United States. The findings speak to the experiences of that group, in that college, and do not speak directly to the experiences of other college students in other settings.

Limitations

In choosing to use a qualitative approach for this study, breadth (i.e., scope and extent) has been sacrificed for depth. The study produced “rich, thick” data about students' experiences of flow; data that illuminated and reified their experience. Since

breadth was sacrificed for depth, the findings speak specifically to only the experiences of the students studied.

Definitions

Flow - a state of consciousness where a person becomes totally absorbed in the experience (Csikszentmihalyi, 1975a).

Flow Theory – “describes optimal or quality experience as an intense involvement that occurs when individuals are so deeply involved in an activity that their attention is focused on the present and they forget about other irrelevant thoughts and lose track of time” (Peterson & Miller, 2004, p. 124).

Retention – college student persistence from one semester to the next.

Traditional-age college students – college students between 18 to 24 years old.

Flow activity – activities in which the participants described experiencing flow.

Non-involved student – participants who were identified as not involved in extra-curricular activities on campus.

Total college experience – the summation of all of a person’s experiences during college, both in and out of the classroom.

Organization of the Study

This dissertation is organized into five chapters. Chapter 1 provides the background and introduction to the study, problem statement, purpose statement, research questions, significance, limitations, delimitations, and the organization of the study.

Chapter 2 presents a critical review of the literature relevant to the study. In chapter 3, the

research methods and procedures used in the conduct of the study are detailed. In chapter 4, the findings of the study are presented. And finally, in chapter 5, the study is reviewed and the findings summarized, followed by a discussion of the findings, conclusions are given, and recommendations to the field for further research are provided.

Chapter 2: Literature Review

The purpose of this study is to describe the flow experiences of college students across the total college experience. The intent of this chapter is to critically review the research and literature on flow. This chapter includes a discussion of the development of the flow concept, a description of the flow concept, and an in-depth critical review of the research concerning flow and athletics, flow and academics, and flow in the college setting. A review of the literature demonstrates that although flow has been studied in many fields including computers (Chen, 2000; Chou & Ting, 2003; Ghani & Deshpande, 1994; Hsu & Lu, 2004; Novak, Hoffman, & Duhachek, 2003; Rettie, 2001; Shoham, 2004; Voiskounsky & Smyslova, 2003), professional sports (Jackson, 1992; Kimiecik & Stein, 1992; Thompson, 1993), recreation (Celsi, 1992; Freeman, 1993; Jones, Hollenhorst, & Perna, 2003; Jones, Hollenhorst, Perna, & Selin, 2000), and certain education settings (Brinthaupt & Shin, 2001; Larson, 1988; Nakamura & Csikszentmihalyi, 2002; Rathunde & Csikszentmihalyi, 2005; Whalen, 1998; Zhu, 2001), no studies have focused on describing the flow experiences of college students across their total college experience.

The Development of the Flow Concept

Flow is a psychological state which occurs when a person is intensely engaged in an activity. The term flow was first coined by Mihaly Csikszentmihalyi in 1975, beginning with an article in the *Journal of Humanistic Psychology*, and then in the book *Beyond Boredom and Anxiety* (Csikszentmihalyi, 1975a, 1975b). Csikszentmihalyi began to investigate the range of experiences, that became known as flow, during the course of

his doctoral research on male artists in the 1960's (Csikszentmihalyi, 1965). The artists in his study spent hour after hour painting or sculpting with great concentration. Yet, he found that it was extremely common for an artist to lose all interest in a painting as soon as it was finished.

As long as he was at work on a canvas the artist was completely immersed in the painting. It filled his thoughts for twenty-four hours a day. Yet as soon as the paint was dry, he usually stacked the canvas in a distant corner of the studio against a wall and promptly forgot it (Csikszentmihalyi & Csikszentmihalyi, 1988, p. 3-4).

Csikszentmihalyi found that none of the extrinsic rewards like money or prestige seemed to motivate the artists. Even the finished product did not bring them satisfaction. Only the process/opportunity to create motivated them. "The activity of painting produced its own autonomous positive rewards" (Csikszentmihalyi & Csikszentmihalyi, 1988, p. 4).

Furthermore, Csikszentmihalyi found that the artists' reasons for painting did not seem to be the desire to achieve some external goal. They painted for the sake of painting.

This finding of the role of intrinsic motivation in creative endeavors did not accord with the prevailing sentiment at the time. In the mid-sixties, the predominant paradigm focused on explaining human behavior in terms of extrinsic rewards (Csikszentmihalyi & Csikszentmihalyi, 1988). The work of Abraham Maslow (1962; 1964) was one of the few exceptions. Maslow made a distinction between process and product orientations in creative behavior, which led him to develop the concept of peak experiences. Maslow's concept of peak experiences laid the conceptual foundation for the flow phenomenon. Maslow described "people who worked hard not in order to get

conventional rewards, but because the work itself was rewarding” (Csikszentmihalyi & Csikszentmihalyi, 1988, p. 5). He linked this motivation to a desire for self-actualization, a need to explore one’s potentialities and limitations through intense activity and experience.

Although Maslow’s work laid the conceptual foundation for the flow concept, his work was mostly reflective in nature. Csikszentmihalyi felt the need to study this phenomenon empirically and began to explore activities outside of creative endeavors. He questioned what other activities might produce flow experiences and whether it was possible for everyone to experience flow.

No one knew whether the deep involvement artists experienced at their easels was a common occurrence among adults in other walks of life, and whether that involvement was the manifestation of an underlying experience so enjoyable as to be a reward in its own right (Csikszentmihalyi & Csikszentmihalyi, 1988, p. 7).

By the early seventies, the dominant paradigm had shifted, and psychologists began to agree that a wider range of rewards besides food, sex, or avoiding pain motivated people. This led to experimental research on intrinsic motivation, particularly in natural settings. Researchers in this new field were interested primarily in intrinsically motivated behavior; what made it happen and what were its consequences (Csikszentmihalyi & Csikszentmihalyi, 1988).

Csikszentmihalyi was also interested in these issues, but his main concern was the “quality of the subjective experience” (Csikszentmihalyi & Csikszentmihalyi, 1988, p. 7). He wanted to know how intrinsic rewards felt and why they were rewarding. His first studies in this area involved in-depth interviews and observations with over 200

participants who spent much time and energy on activities that provided few extrinsic rewards. These participants included surgeons, chess masters, rock climbers, and modern dancers. His interviews addressed the participants' experiences and how they were feeling when things seemed to be going particularly well. Csikszentmihalyi (1975a; 1975b) identified a common set of characteristics across a widely diverse set of experiences that the respondents felt were autotelic, or rewarding in and of itself. The results of these studies constituted the first coherent statements about flow.

Even though autotelic experience is a more precise description of the concept, this phenomenon became known as "flow" because so many of the respondents used this word while describing how it felt to be involved in their favorite activities. Even though flow is now the most common term for this phenomenon, throughout the literature other terms have been used including peak experience (Maslow, 1964), optimal experience (Csikszentmihalyi & Csikszentmihalyi, 1988), and "being in the zone" (Van Raalte & Brewer, 2002).

The Flow Concept

Csikszentmihalyi (1975a) presented flow theory in his book, *Beyond Boredom and Anxiety*. In the four studies included in this book (surgeons, chess masters, rock climbers, and modern dancers), Csikszentmihalyi described a common set of characteristics or components that distinguished flow activities from the rest of everyday life. These components included: a balancing of perceived challenge and perceived skill, a merging of action-awareness, a clear set of goals, the receiving of unambiguous feedback, the loss of self-consciousness, concentrating on the task at hand, experiencing a

sense of control, a feeling of transformed time, and the outcome of autotelic experience. These nine components appeared to be common to the flow experiences described regardless of the activity, and the interaction of these components led to the flow experience. Each of these components were part of a “holistic experience” and depend on one another (Jackson & Csikszentmihalyi, 1999, p. 20). Figure 1 is a conceptualization of the flow process as described by Csikszentmihalyi (1975a; 1990; 1997), Csikszentmihalyi & Csikszentmihalyi (1988), Jackson & Csikszentmihalyi (1999), and Massimini & Carli (1988).

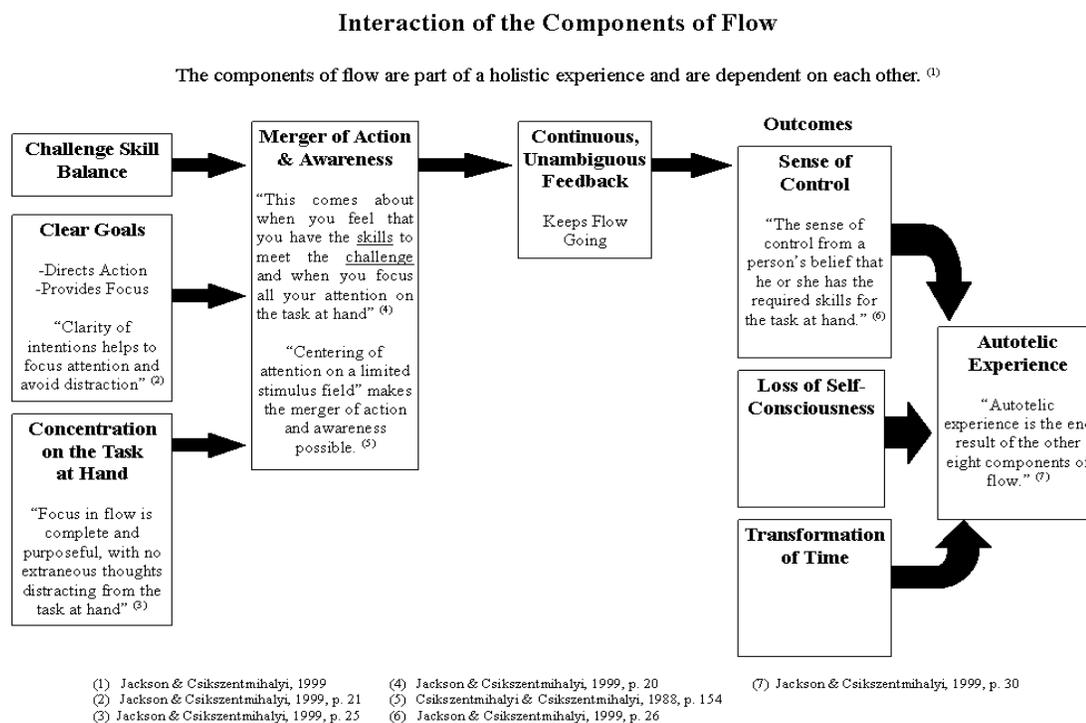


Figure 1: Interaction of the Components of Flow (Created by the Author)

As figure 1 suggests, some of the components help make flow possible, some keep the flow experience going, and others are outcomes of the experience. The balancing of challenge and skill, establishing clear goals, and concentrating on the task at hand help make the merger of action and awareness possible. The key to flow is the merger of action and awareness, in other words, becoming one with the experience. Flow occurs once a person's awareness merges with the activity. As the merger of action and awareness continues, unambiguous feedback provides information that helps the flow experience continue. As the flow experience continues, the person may experience a sense of control, a loss of self-consciousness, and a transformation of time. Finally, the activity becomes an autotelic experience, which is an experience of and for itself. Each of these components is explained in greater detail below.

Challenge and Skill Balance

The first and most central component of flow is the balance between opportunities for action (challenge) and perceived personal abilities (skill). When a person's perceived skills equal the challenges they face, flow is possible. Csikszentmihalyi (1975a) found that flow seemed to occur only when the tasks at hand were within the person's ability to perform. "The universal precondition for flow is that a person should perceive that there is something for him or her to do, and that he or she is capable of doing it" (Csikszentmihalyi & Csikszentmihalyi, 1988, p. 30). This balance between challenge and skill makes flow possible, but does not guarantee flow will occur.

The most widely cited and easiest to understand flow model contains four channels (see Figure 2). Developed by Csikszentmihalyi and expanded by Massimini &

Carli (1988), this model describes the relationship between challenge and skill. Using the Experience Sampling Method (explained in detail later) a respondent's weekly average of flow was determined. Once this average or baseline was established, the following model can be used to place each of the respondent's activities into one of the four channels.

The four channels are:

Flow context – both challenge and skills greater than respondent's average

Anxiety context – challenge greater / skills less than average (over challenged)

Boredom context - challenge less / skills greater than average (over skilled)

Apathy context – challenge and skills below respondent's average

For example, a runner competing in a 5K race might experience flow if his or her skills as a runner equal the challenge of the race. If his or her skills as a runner do not equal the challenge, the person may experience either anxiety (high race challenge, low running skill) or boredom (low race challenge, high running skill).

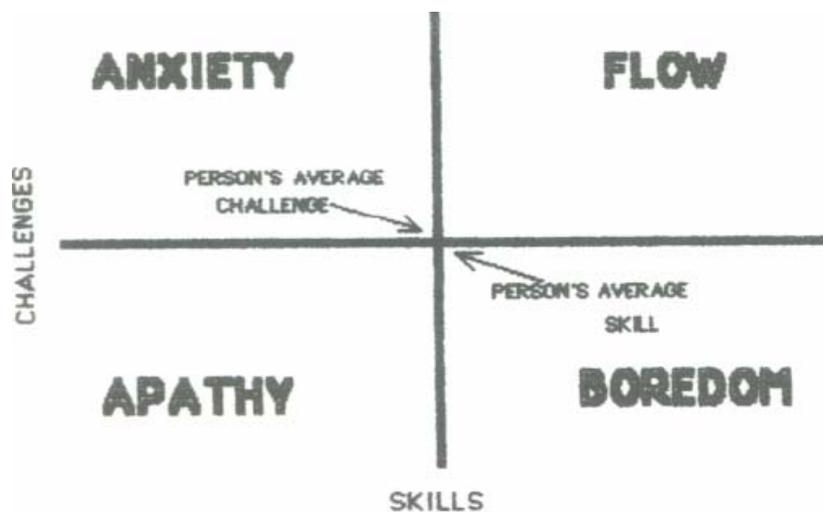


Figure 2: Four Channel Flow Model (Csikszentmihalyi & Csikszentmihalyi, 1988)

Similarly, apathy, which is a low level balance of challenge and skill, is found in less challenging activities that require little skill such as watching television. While watching television challenge and skill maybe balanced, but at such a low level flow is unlikely.

Massimini & Carli (1988) further expanded the four channel model into an eight channel model (see Figure 3) to provide even more detailed analysis of participant activities, if required. However, “if one operationalizes flow in terms of eight channels instead of four quadrants, fewer instances of flow will be found” (Csikszentmihalyi & Rathunde, 1992, p. 68). “The balancing of challenge and skills suggests the importance of a capacity to continuously adjust this balance by using anxiety and boredom as information, and identifying new challenges as skills grow” (Csikszentmihalyi & Csikszentmihalyi, 1999, p. 157). As a person’s skills grow, he or she must continue to increase the complexity of the challenges he or she faces in order to continue experiencing flow. Since flow experiences leave the person feeling satisfied and intrinsically rewarded, an individual may seek to replicate the experience. “As people master challenges in an activity, they develop greater levels of skill, and the activity ceases to be as involving as before” (Nakamura & Csikszentmihalyi, 2002, p. 92). Therefore, in order to continue experiencing flow, they must identify and engage in progressively more complex challenges. Furthermore, Massimini & Carli (1988) aver:

This balance is important not only to the climber moving up the rock face. It is in the ordinary life of every day that we learn, moment by moment, how to evaluate opportunities for action and how to match them with appropriate skills until the matching becomes as automatic as breathing (p. 268).

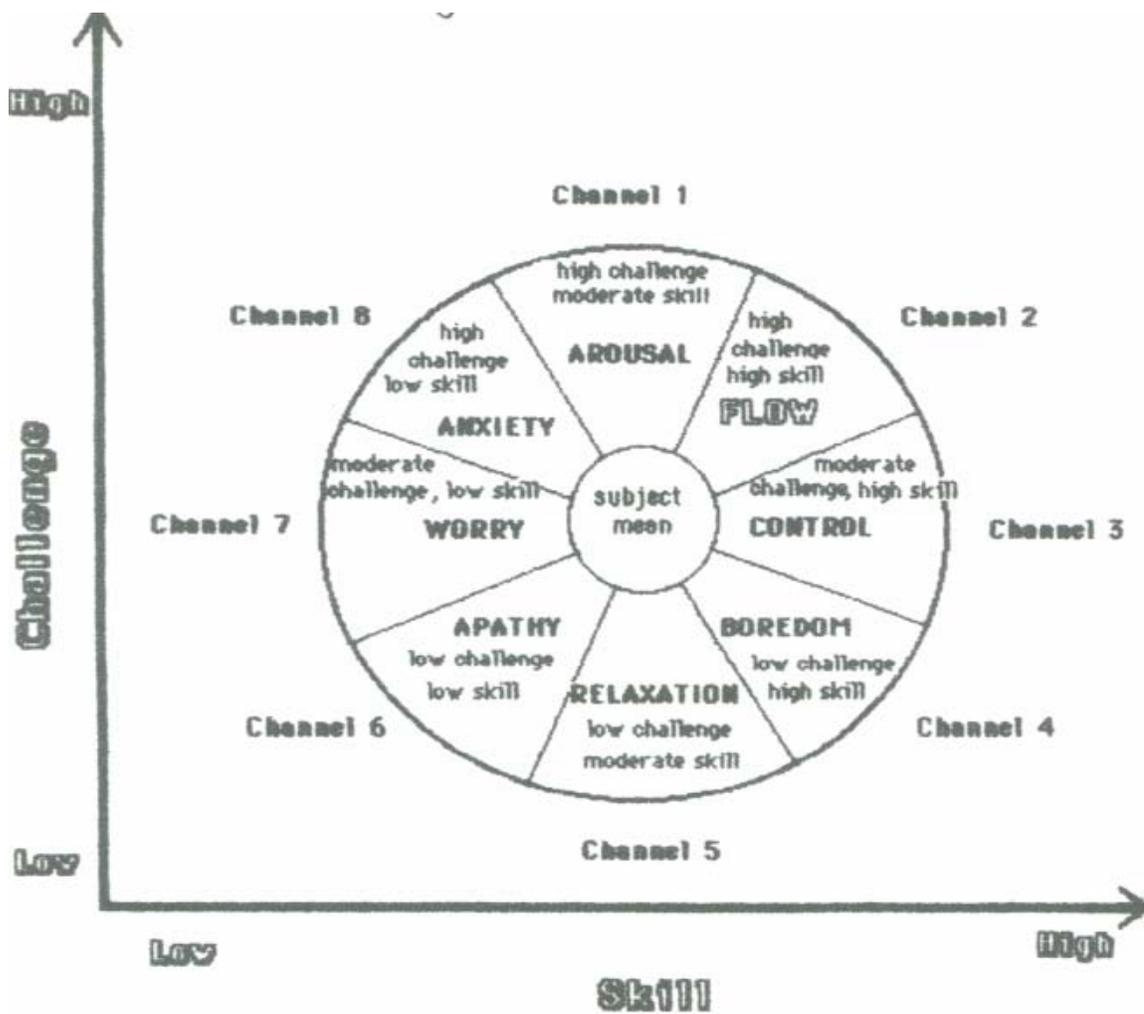


Figure 3: Eight Channel Flow Model (Csikszentmihalyi & Csikszentmihalyi, 1988)

Clear Goals

To enter flow, the goals of an activity must be clear and predetermined because they direct the person's actions and provide focus to the activity. It is important that the individual know exactly what needs to be done. As the activity progresses, the individual must know, moment-by-moment, what needs to happen next. For example, a basketball player needs to know the rules of basketball and have some plan before the game begins. This may be as simple as score more baskets than your opponent. This clarity of intentions "helps to focus attention and avoid distraction" (Jackson & Csikszentmihalyi, 1999, p. 21). Finally, Csikszentmihalyi (1975a) suggested, goals sometimes lose their substance and reveal themselves as mere tokens that justify the activity by giving it direction and determining rules of action.

Concentration on the Task at Hand

According to Csikszentmihalyi (1975a), concentration is a critical component of flow. In order to reach the flow state, a person must concentrate exclusively on the task at hand. Before this can happen, outside stimuli must be limited as much as possible. In flow there is no room for thoughts or feelings outside of the current experience. Flow is about being in the moment; focus is complete and purposeful, and no extraneous thoughts distract one from the task at hand. Some writers, including Maslow, have referred to this process as a narrowing of consciousness. Jackson and Csikszentmihalyi (1999) provide an example of the importance of this component:

If you are a skier shooting down a difficult slope, you cannot afford to think about your job or your love life at that moment; if your attention drifts away from the

run even for an instant, chances are you will find yourself up to you neck in snow (pp. 23 & 25).

When a person is experiencing flow, he or she simply does not have enough attention left to think about things outside of the experience. However, when the person centers his or her attention on a limited stimulus field the merger of action and awareness becomes possible.

Merger of Action and Awareness

Csikszentmihalyi (1975a) identified the merging of action and awareness as the clearest sign of flow. This merger is only possible when an individual becomes totally absorbed in an activity. When individuals feel they have the skills to meet the challenges before them, when clear goals have been set, and when all attention is focused on the task at hand, only then is the merger of action and awareness possible. Persons may then feel they have become a part of the experience, at one with the movements he or she is making. For example, the rock climber may feel he or she has become one with the mountain. This oneness does not require effort in flow because it is a seamless process. While experiencing flow, the person has no dualistic perspective: “he is aware of his actions but not of the awareness itself” (Csikszentmihalyi, 1975a, p. 38). Also, in order for flow to be maintained, one cannot reflect on the act of awareness itself. This reflection during flow would interrupt one’s concentration on the task at hand and therefore negatively influence the merger of action and awareness.

Attention becomes so focused on the event, in the moment, that some athletes reported not seeing or hearing anything or anyone outside the experience. Even the noises

and movements of the crowd are not distractions but a part of the total experience. They may hear the crowd but perceive “them to be of no influence or effect” (Jackson & Csikszentmihalyi, 1999, p. 25). Actions may also become effortless and spontaneous. Action and reaction may become so well-synchronized that the resulting behavior is automatic (Csikszentmihalyi & Csikszentmihalyi, 1999). Even though an athlete may be having a superhuman performance, in the moment the experience feels perfectly normal.

Unambiguous Feedback

Besides having clear goals, a flow activity must also provide quick and unambiguous feedback. Without feedback it is difficult to remain engaged in an activity. Feedback provides individuals with relevant knowledge about their performance, which allows for continued, focused pursuit of the goal. Jackson and Csikszentmihalyi (1999) aver:

Feedback is critical to successful performance, and athletes who are tuned into the feedback given by their own movements and bodies, as well as by external cues in the environment, are able to remain connected with what they are doing and in control of where they are headed (p. 22).

A musician playing the piano receives feedback through his or her fingers touching the keys, from hearing the notes he or she is playing, and from the reaction of the audience. From this continuous feedback an individual is able to make adjustments to maintain or return to an optimal level of performance. Sports are especially ripe with potential sources of feedback. These sources include other competitors, teammates, coaches, spectators, the setting and the equipment. “For example, a swimmer knows by the feel of

the arms and body through the water whether he is creating a smooth stroke or, alternatively, too much drag” (Jackson & Csikszentmihalyi, 1999, p. 23). This example demonstrates how swimmers can even receive feedback through the feel of their body in the water. The types of feedback can be quite diverse as long as it provides information toward accomplishing the goal.

Sense of Control

The flow experience leads people to feel in control of their actions and of their environment. Because flow activities force the person to concentrate on a limited stimulus field, there is great inner clarity. The person may have no active awareness of control but simply not be worried about the lack of control. This feeling of control and the corresponding absence of worry are present even in flow activities where objective dangers are quite real. For example, few would question the objective danger involved in rock climbing. However, these dangers “are foreseeable and hence predictable and manageable” (Csikszentmihalyi, 1975a, p. 46). Therefore, since the dangers are predictable and manageable, worry is lessened and the sense of control increased.

In the book, *Flow in Sports* (Jackson & Csikszentmihalyi, 1999), some athletes described an unshakeable self-esteem as part of the flow experience, a feeling that they could now take on anything and get through it. One participant reported feeling he could do no wrong. This feeling of control may actually involve a belief that given the skills one possesses, the challenge is doable, and the outcome of this sense of control may be a feeling of power, confidence, and calm. “In competitive activities, the feeling of control comes both from one’s own performance and from the ability to out perform the

opponent” (Csikszentmihalyi, 1975a, p. 44). This may cause the athlete to feel he/she is in total control of this little piece of the world. “It is this confidence of being able to exercise control through one’s skills that not only makes flow experiences enjoyable but also ensures a desire for their repetition” (Csikszentmihalyi & Csikszentmihalyi, 1999, p. 156).

This feeling of control, however, is a delicate balance. Too much control or seeking of control might actually push a person out of flow. Conversely, if there is too little control, then one is less likely to experience flow and more likely to experience boredom.

Loss of Self-Consciousness

In flow the person must concentrate solely on the task at hand. Because of this concentration there is little room for thoughts outside of the experience. This leads to a loss of self-consciousness. In other words, the concern for self disappears, as do worries, negative thoughts, and self-doubt. In that moment, “there is simply no attention left over to worry about the things that in everyday life we usually spend so much time dwelling on” (Jackson & Csikszentmihalyi, 1999, p. 27). This loss of self-consciousness is facilitated by the sense of control. When an individual feels in control, he/she is able to lose oneself in the activity. This experience can be empowering, refreshing, and liberating. “At the most challenging levels, people actually report experiencing a transcendence of self, caused by the unusually high involvement with the system of action so much more complex than what one usually encounters in everyday life” (Csikszentmihalyi & Csikszentmihalyi, 1988, p. 33).

Transformation of Time

Flow causes a person to have a transformed sense of time. “When you are focused entirely on a task, you cannot keep track of the passing of time, which, when you reflect back on the event, can lead to altered perceptions of how the time has passed” (Jackson & Csikszentmihalyi, 1999, p. 29). In flow, time may seem to either speed up or slow down. Actions may even seem to occur in slow motion. Some people report experiencing a shortening of time, so that hours pass by like minutes. The reverse can also occur, where minutes seem to stretch into longer periods. This may cause the individual to feel like he or she has all the time in the world. The experience of an ultra-endurance racer illustrates this dimension: “For sixteen and a half hours I was in it (flow) basically. If you ask me, did that feel like sixteen and a half hours? I’d say it felt like about three hours” (Jackson & Csikszentmihalyi, 1999, p. 29).

Time dependence can be a burden that prevents a person from becoming truly involved in an activity. A transformed sense of time seems to be a by-product of total concentration. Although it may be one of the components that most easily signals the possibility of flow, it may not be as universally experienced as the other nine components, especially for activities in which time is an integral part of the experience. In fact, Russell’s study of college athletes found “the transformation of time component may be less important than other factors in determining flow” (Russell, 2001, p. 102).

Autotelic Experience

An autotelic experience is one that is pursued for its own sake. The term is derived from two Greek words: “auto” meaning self and “telos” meaning goal. “It refers

to a self-contained activity, one that is done not with the expectation of some future benefit, but simply because the doing itself is the reward” (Csikszentmihalyi, 1990, p. 67). Although some authors list autotelic experience as a component of flow, Jackson & Csikszentmihalyi (1999) posit this component as the end result of the other eight components. Csikszentmihalyi & Csikszentmihalyi (1988) illustrated this concept succinctly: “The mountaineer does not climb in order to reach the top of the mountain, but tries to reach the summit in order to climb” (p. 33). In other words, “the goal is really just an excuse to make the experience possible” (Csikszentmihalyi & Csikszentmihalyi, 1988, p. 34).

Flow Research

Most of the research on flow stems from Csikszentmihalyi’s books (Csikszentmihalyi, 1975a, 1990, 1997; Csikszentmihalyi & Csikszentmihalyi, 1988). Csikszentmihalyi, as the founder of flow, has also co-authored much of the research on flow, published many articles, and even filmed a video presentation for classroom use (Csikszentmihalyi & Gardner, 2003). After publishing *Beyond Boredom and Anxiety* and the qualitative research on which it was based (Csikszentmihalyi, 1975a), Csikszentmihalyi turned his research focus toward discovering a method to measure flow empirically. Subsequently, most studies have been attempts to confirm and extend Csikszentmihalyi’s (1975a) findings, to measure flow, and to describe flow in a variety of populations and contexts. “The transition from theory to empirical validation, however, is never easy, especially when the phenomenon is a complex one” (Massimini & Carli, 1988, p. 266).

Attempts to Measure Flow

“The research of flow has lagged behind experiential awareness of the state due to the inherent difficulties of applying empirical methods to phenomenological experiences” (Jackson & Marsh, 1996, p. 17). Two approaches to measuring flow have dominated the research on the phenomenon: the Experience Sampling Method (ESM) (see Appendix A) or some form of survey instrument such as the Flow State Scale (FSS) (see Appendix B).

Until this point, most of the flow research had been based on interviewing participants about their flow experiences. In an attempt to quantify the flow experience, Csikszentmihalyi & Larson (1987) developed the Experience Sampling Method. In this method, participants are given pagers and a notebook of questionnaires (See Appendix A) for one week. Periodically, throughout each day, participants are paged and asked to complete the Experience Sampling Form (ESF) describing their current experience.

By the end of the week, the booklet will contain a systematic description of the external parameters of the person’s life (the activities performed, the places visited, the people encountered), and of the personal experiences and dimensions of consciousness of which the person was aware when the signal occurred (the affect, the cognitive efficiency, the motivational states, and so on) (Massimini & Carli, 1988, p. 268).

This method has been used in many flow studies (Chen, 2000; Clarke & Haworth, 1994; Csikszentmihalyi & Lefevre, 1989; Delespaul, Reis, & DeVries, 2004; DeVries, 1992; Freeman, 1993; Haworth & Evans, 1995; Hunter & Csikszentmihalyi, 2003; Jones et al., 2000; Larson & Delespaul, 1990; Leder & Forgasz, 2004; Moneta & Csikszentmihalyi, 1996; Nakamura, 1988; Peterson & Miller, 2004; Rathunde & Csikszentmihalyi, 2005;

Schere, 1998; Voelkl & Ellis, 1998; Zhu, 2001) and has replaced the interview approach as the most common method of flow research.

One limitation of this method is that depending on the activity, it may be more or less difficult to respond when beeped. For instance, a beep while playing sports might lead to a loss of focus or no chance to respond at the moment to the signal (Kimiecik & Stein, 1992). Therefore, other quantitative methods might work better in certain situations.

A second way flow has been studied is through the use survey instruments such as the Flow State Scale. The Flow State Scale (FSS) (See Appendix B) developed by Jackson and Marsh (1996) is a 36-item measure of the flow state as described by Csikszentmihalyi. The instrument, which allows respondents to report on their experience in terms of a 5-point Likert scale (higher score indicates higher flow experience), is administered immediately following a task or activity. Each of the 36 items was developed to reflect each of the nine components of flow. “It is important to establish (through construct validation approaches) the dimensional nature of flow and to develop instruments designed to measure the dimensions” (Jackson & Marsh, 1996, p. 21). Because Jackson & Marsh (1996) felt flow should be assessed as soon after the experience as possible, the flow state scale was designed to be administered immediately after a sporting event, thus circumventing a limitation in the ESM approach.

This instrument was validated on 394 athletes from the United States and Australia, who represented 38 different nationalities in 41 different sports. Jackson & Marsh found the FFS to be one useful, valid indicator of the flow construct. Although

originally developed as a psychometrically valid scale to assess the flow state in sports and other activity settings (Jackson, 1992; Jackson & Marsh, 1996; Russell, 2001), the FSS has now been applied to Internet shopping (Guo, 2004) and cramming for college exams (Brinthaupt & Shin, 2001). This instrument is limited by its retrospective approach to data collection.

The two measures of flow described above provide insight into the study of the flow phenomenon. However, researchers must be careful that in an attempt to measure flow they do not lose the experience itself. “Csikszentmihalyi (1992) cautions against putting too much weight on any empirical measures of flow, lest the experience of flow be lost in the process” (Jackson & Marsh, 1996, p. 32). Furthermore, Thompson (1993) suggested the ESM data collection method had begun to take precedence over an understanding of the flow experience.

Directions of Flow Research

Besides studies to validate flow research methods or instruments, most research has focused on flow in daily life or in certain populations/activities. Csikszentmihalyi & Csikszentmihalyi (1988) demonstrated the existence of flow during many individual events and activities (riding motorcycles, working, writing, sailing, etc.), but they also suggested the need for research to explore the possibility of experiencing flow in ordinary, everyday activities. Studies of flow in daily experience (Clarke & Haworth, 1994; Haworth & Evans, 1995; Hunter & Csikszentmihalyi, 2003; Jackson, 2003; Moneta & Csikszentmihalyi, 1996) suggest that some individuals may more easily experience flow regardless of the situation. These individuals are said to have an

“autotelic personality”. They generally do things for their own sake, rather than in order to achieve some future external benefit (Csikszentmihalyi, 1997). They may also be able to structure their lives such that they experience flow more often than other individuals. Csikszentmihalyi’s two popular self help books (1990; 1997) support this concept.

The second type of research study involves attempts to describe the nature of flow experiences within certain populations or during certain activities. These populations /activities include: Computers, especially online experiences (Chen, 2000; Chou & Ting, 2003; Ghani & Deshpande, 1994; Guo, 2004; Hsu & Lu, 2004; Novak et al., 2003; Rettie, 2001; Rezabek, 1994; Shoham, 2004; Voiskounsky & Smyslova, 2003), work and leisure activities (Csikszentmihalyi & Lefevre, 1989; Hills et al., 2000; LeFevre, 1988), sports and recreation (Celsi, 1992; Freeman, 1993; Jackson, 1992; Jackson & Csikszentmihalyi, 1999; Jackson, Kimiecik, Ford, & Marsh, 1998; Jones et al., 2003; Jones et al., 2000; Kimiecik & Stein, 1992; Progen, 1981; Russell, 2001; Thompson, 1993), music and the arts (Matthews, 2003; Perry, 1996, 1999; Schere, 1998), academics (Larson, 1988; Nakamura, 1988; Rathunde & Csikszentmihalyi, 2005; Whalen, 1998; Zhu, 2001), and college students (Brinthaup & Shin, 2001; Chang, 1996; Dees, 1994; Delespaul et al., 2004; Leder & Forgasz, 2004; Mundell, 2000; Yen, 1995).

Flow in sports

One area in which flow has been studied most extensively is sports. The goal and feedback structures found in games and sports fit Csikszentmihalyi’s flow model especially well. Sports and recreation flow research began with Csikszentmihalyi’s (1975a) study of rock climbers. Since then flow has been studied in professional figure

skaters (Jackson, 1992), elite female distance runners (Thompson, 1993), college athletes (Progen, 1981; Russell, 2001), high-risk sports (Celsi, 1992), and whitewater kayaking (Jones et al., 2003; Jones et al., 2000).

Jackson (1992) conducted an in-depth study of flow as experienced by elite figure skaters. The study examined the factors perceived as helping the skaters to achieve flow “to better understand possible antecedent flow conditions” and the factors perceived as preventing or disrupting flow in order “to gain insight into conditions which may make it less likely for flow to occur during sports performance” (Jackson, 1992, p. 161-162). Sixteen national champion figure skaters were interviewed and asked to complete a rating form on the eight components of flow. Each of the skaters had competed at the world level and seven had earned metals at the World Championships or the Olympics. The participants included nine females and seven males with a mean age of twenty-five years old. Jackson felt that “due to their level of experience and skill, the skaters are likely to have encountered many situations of a flow-producing nature” (Jackson, 1992, p. 165).

The interview questions in this study asked the participants about the term flow, about their skating experience, about the degree and frequency of flow in their skating, about important factors to enter flow, and about factors which prevent or disrupt flow. In addition to the interview questions, each skater completed an 11-item assessment of the degree of importance each flow component played in the skater’s experiences. Using a 10-point Likert scale, each skater was “asked to rate each item according to how relevant it was to their flow experiences in general” (Jackson, 1992, p. 166). This assessment was the precursor to the Flow State Scale (FSS).

The skaters in this study described the optimal skating experience which included clarity, perceived control of the experience, effortless focus, unison of mind and body, enjoyment, and a narrow focus like being in slow motion. “Although most of the skaters (13 out of 16) were not immediately familiar with the term flow, they all agreed that flow was an apt descriptor of their experience” (Jackson, 1992, p. 169). The skaters used their own language to describe flow: it clicked, automatic pilot, riding the wave, in a groove, riding the razor. Jackson felt the experience described by the skaters matched closely with Csikszentmihalyi’s description of the flow state. “There was close agreement between skaters’ perceptions of flow and theoretical descriptions of the flow construct” (Jackson, 1992, p. 177). Furthermore, each of the eleven items on the flow questionnaire completed by the participants reflected a close relationship between skating and the components of flow. On the 10-point scale, the mean scores of the eleven items were between 7.7 and 9.6. Therefore, both the interviews and questionnaire supported the flow theory.

Next, the author found a set of five factors that seemed to be the most important factors for getting into flow. These factors included: a positive mental attitude, a positive pre-competitive and competitive affect, maintaining appropriate focus, physical readiness, and unity with a partner. The author also discovered four factors preventing or disrupting flow: physical problems or mistakes, inability to maintain focus, negative mental attitude, and lack of audience response. Finally, concerning the frequency of experiencing flow, “the majority of the skaters (81%) said they did not experience flow very often” (Jackson, 1992, p. 176). Furthermore, it appeared that not every component of flow was relevant or necessary for flow to occur in all athletes. Nevertheless, Jackson

concluded that attention must be paid to physical, psychological, and environmental factors to ensure flow has the best chance of occurring, suggested that future research should include examining different sports and athletic levels to see if they had a bearing on the occurrence of flow.

Thompson (1993) interviewed elite female track athletes who ran distance events competitively. The purpose of her study was “to ascertain if Csikszentmihalyi’s flow theory was applicable to competitive sport situations as understood from an elite athlete’s perspective” (Thompson, 1993, p. 4). The participants of this study were five current and former female NCAA Division I collegiate distance runners. Each had attained All-American status and had participated in the USA Olympic Track and Field Trials. One had even been a member of the Olympic Team. A semi-structured, open-ended interview format was used with the hope that the athlete’s own framework of flow would emerge. The opening question of each interview was: “Can you recall and describe a competition in which you were especially pleased with your performance?” (Thompson, 1993, p. 39). Follow-up questions concerned concentration, control, merger of action and awareness, loss of self, and autotelic experience.

Thompson (1993) found that these athletes were able to be totally captivated by the race. They reported that they became completely focused and through this focus were able to run smoothly and effortlessly. They also found this experience to be extremely gratifying and were often surprised by the positive race outcome. Thompson discovered three major themes which might be precursors of flow type experiences each derived from the participant interviews: “giving it your all versus struggling, having the energy versus not into it, and being in control versus messing-up” (Thompson, 1993, p. 45).

“Giving it your all” concerns the experience of being totally captivated in the competition. The participants described this as running easy and effortlessly. “Having the energy” concerns what runners characterize as “a feeling or sense of vitality, invigoration, or motivation that enables them to make strong competitive moves in a race” (Thompson, 1993, p. 65). “Being in control” involves taking control or command of the race. It occurred when runners seemed to consciously know what they needed to do to run their best. The author saw these three thematic aspects as precursors to a flow-like experience she labeled “letting the race happen”.

Thompson’s runners intuitively and spontaneously responded to situations in the race that enabled them to “let the race happen”. Thompson felt “letting the race happen” was a flow type experience as described by Csikszentmihalyi. “These athletes are able to be totally captivated by the race, being able to focus, run easily and effortlessly, run smoothly and rhythmically, find the experience extremely gratifying and enjoyable, and are frequently surprised by the positive race outcome” (Thompson, 1993, p. 98). Also, because fellow competitors provided the challenge portion of the flow model, the other runners seemed to be an important factor in the participant’s flow experience. The experience of ‘Letting It Happen’ seems to be more of an interpersonal experience (that is between the individual and others) rather than exclusively a personal experience. Finally, Thompson agreed with Csikszentmihalyi’s (1975a, 1988) proposal that there seems to be a relationship between flow and the athlete’s enjoyment of their sport.

Progen (1981) was the first to explore flow theory in college athletes. The Sport Flow Q Sort, which contains 80 items and was developed by Progen, was administered to 358 male and female college athletes. These athletes participated in 11 different sports at

22 colleges and universities. The Sport Flow Q Sort forces participants to arrange cards, with individual statements on them, into a Likert type order from most like their sports experience to least like their sports experience. This dissertation found flow to be overwhelmingly perceived as most descriptive of the athletes' sports experience. Progen also found that athletes used skill development to meet increasing challenges as a method to alleviate anxiety. This finding applied to all athletes regardless of sport or gender. The findings in this study confirmed Csikszentmihalyi's flow model as descriptive of college athletes' sports experience.

The next study of flow in college athletics was by Russell (2001). The purpose of this study was to quantitatively examine the variables of gender and sport setting and their potential influence on flow factors, and to extend the qualitative findings of previous flow studies with less elite athletes. Before this study, some researchers believed flow could only be experienced by elite athletes performing at their peak (i.e., Jackson, 1992). Russell (2001) combined a qualitative interview approach and a quantitative assessment of flow (Flow State Scale). His study included 27 male and 15 female college athletes across eight different sports, both individual and team. The interviews asked the athletes what factors helped, prevented, and disrupted flow occurrence and whether they thought they could control these factors. After the interview, each athlete was asked to complete the 36-item Flow State Scale.

From the qualitative data, Russell (2001) found nine dimensions that helped athletes get into flow, eight dimensions that prevented flow, and six dimensions that disrupted the flow process. The nine dimensions that helped athletes enter flow included: optimal pre-competitive plan, confidence and positive thinking, optimal physical

preparation, optimal pre-competitive arousal, performance feeling good, motivated to perform, focus, optimal environmental conditions, and positive coach/team interaction. The eight dimensions that prevented athletes from entering flow included: non-optimal physical preparation and readiness, inappropriate focus, non-optimal environment/situation, non-optimal confidence/positive thinking, lacking motivation to perform, negative/non-optimal team interaction, over arousal before competition, and performing poorly. The six dimensions that disrupted an athlete once they entered flow included: non-optimal environmental and situational influences, performance errors, inappropriate focus, non-optimal physical state, putting self-pressure and self-doubt, and problems with team performance. The quantitative results provided empirical support for the construct of flow for male and female athletes across both team and individual sport settings. "College athletes experienced flow factors similarly, regardless of gender or sport settings" (Russell, 2001, p. 101). Russell also discovered that team athletes reported a significantly higher level of action-awareness merging than individual sport athletes. Finally, this study suggested that less elite athletes could experience flow, which is important to the present study since it demonstrates college students do experience flow, at least in the athletic realm.

Flow in educational settings

Since Russell (2001) demonstrated college athletes could experience flow, the next question seemed to be whether college students experience flow in other areas. Flow studies in the academic setting have focused mainly on the talent development of pre-college, high school students (Clarke & Haworth, 1994; Csikszentmihalyi, Rathunde, &

Whalen, 1993; Csikszentmihalyi & Schneider, 2000; Haworth & Evans, 1995; Hunter & Csikszentmihalyi, 2003; Jackson, 2003; Moneta & Csikszentmihalyi, 1996; Whalen, 1998) or ways to organize schools or teaching with the flow model in mind (Mayers, 1978; Plihal, 1982; Rathunde & Csikszentmihalyi, 2005; Shernoff, Csikszentmihalyi, Schneider, & Shernoff, 2003; Zhu, 2001). Other studies have focused on flow and certain academic skills such as writing (Larson, 1988; Perry, 1996, 1999; Schere, 1998), math (Nakamura, 1988), and reading (McQuillan & Conde, 1996). All of these pre-college population studies revolve around the concept that flow might improve the experience of the person involved, be it individually, in the classroom, or while performing academic skills. Although the studies on high school students listed above provide some insight into the flow experience in the academic setting, the current study focuses on undergraduate college student experience. This section will focus on the handful of studies which involved college students.

Flow in college settings

The early research on flow within college student populations were largely validation studies of peak experience survey instruments (Mathes, Zevon, Roter, & Joerger, 1982; Privette & Bundrick, 1987; Privette, Hwang, & Bundrick, 1997; Privette & Sherry, 1986). These validation studies assumed flow-like experiences existed in the college population, and sought to develop and validate their instruments for measuring it. None, however, provided insight into the nature of the experience. Also, while suggestive, these validation studies do not confirm the existence of flow experience among college students.

Besides these validation studies, a number of dissertations have been written with flow as the theoretical framework and college students as the participants (Chang, 1996; Dees, 1994; Mundell, 2000; Progen, 1981; Yen, 1995). Most of these studies did not focus specifically on the nature of the flow experience; thus, their results provide only limited insight into flow and the college experience. However, they do support the notion that college students can /do experience flow. A short synopsis of each dissertation is presented below.

Chang (1996) attempted to describe the factors giving rise to flow during the student teaching experience. The four-quadrant flow model was compared to eight different teaching activities (i.e. managing students, interacting with students, sharing student's success, etc.). During a two-week period, 20 student teachers twice completed a rating scale of perceived levels of challenge and skill with respect to eight teaching activities. Four of the teachers were then interviewed. Chang found more flow responses than non-flow responses. He also found that while "focused feedback" was seen as the most important element to cultivate flow, "flexibility" and "positive thinking" also emerged as flow-conducive elements. His results indicated a high potential for student teachers to experience flow while teaching.

Mundell (2000) examined flow and positive affect in 105 undergraduate psychology students. Each participant was first given an assessment of his or her perceptions of the level of skill and level of challenge for each task. Next they completed a creative writing task and a perceptual skills task. Finally, after these tasks their perception of skill and challenge were assessed again. Mundell found flow to be a unique experience related to positive affect but not identical to it. Furthermore, in her research

the belief that flow involved high perceived challenge and high perceived skill was not supported.

As mentioned previously in the sport section, Progen (1981) explored flow theory in sport as perceived by college athletes. She found flow overwhelmingly perceived to be most descriptive of the athletes' sports experience. Her findings confirmed Csikszentmihalyi's flow model as descriptive of college athletes' sports experience.

Finally, Yen (1995) examined the role of leisure in the lives of college students. He collected data from 879 Taiwanese college students using a six-section questionnaire. One of the questionnaire sections focused on flow experience during both leisure and study. Yen found students were more likely to experience flow during leisure than during studying. He also found that gender played some role in experiencing flow during leisure activities.

Beyond dissertation research, a number of published studies have addressed flow in the college setting (Brinthaupt & Shin, 2001; Delespaul et al., 2004; Peterson & Miller, 2004). Since each of these studies looks at flow in one area of college experience, these studies provide insight into pieces of the total college experience.

Brinthaupt & Shin (2001) studied the relationship between academic cramming and flow experience. At the time of this study, no other study had examined the possibility that flow might be related to certain types of studying behavior. Before the study, the authors hypothesized that some students "successfully adapted to the demands of heavy coursework with maximum efficiency" (Brinthaupt & Shin, 2001, p. 4). They described this as "acing the system" and said some of these students practiced calculated

procrastination. The authors hypothesized that procrastinators experienced a rush of excitement and stimulation from the pressure created by their delays.

In their study, one hundred and sixty-one undergraduate students from a large Southeastern University participated in an assessment of study habits, an assessment of general flow experiences, and a cramming simulation. The assessment of study habits and general flow experiences involved asking participants to provide their definition of academic cramming and then complete a 5-point Likert scale survey of study habits which included questions concerning the frequency of cramming for exams. This survey defined cramming as: “a period of neglect of study followed by a heavy burst of study immediately before an exam” (Brinthaupt & Shin, 2001, p. 6). Next, participants completed the 23-item Academic Procrastination State Inventory. This instrument focused on the participant’s tendencies to postpone academic tasks and engage in non-academic activities. Finally, participants rated their flow experiences across a wide variety of situations. “After reading a short paragraph defining flow experiences, they described any of their own past circumstances or activities that led to flow” (Brinthaupt & Shin, 2001, p. 6). Then they used a 5-point Likert scale to rate themselves on how often they experienced flow (1= never to 5=very frequently, often enough to be considered a routine experience).

The cramming simulation included having ten minutes to study a 34 page textbook chapter, taking a multiple choice test on the material studied, and completing the Flow State Scale concerning the cramming and testing experience. The Flow State Scale (FSS) developed by Jackson & Marsh (1996) is a 36-item measure of the flow

state, as described by Csikszentmihalyi, designed to be administered immediately following a task or activity (Brinthaupt & Shin, 2001).

The participants reported that cramming was more often a necessity rather than a choice and was frequently at the last minute. Also, “the respondents’ mean frequency of general flow experience was above the scale mid-point” or occasionally, a familiar experience (Brinthaupt & Shin, 2001, p. 8). Students with a greater frequency of general flow reported more satisfaction with their study habits. Furthermore, “students who normally cram reported greater flow during the simulation and tended to perform better on the test than the non-crammers” (Brinthaupt & Shin, 2001, p. 9). This study describes two different types of students who find themselves in need of cramming: intentional crambers and procrastinators. Procrastinators are those students who put off studying with no plan for dealing with the consequences. They have no intent to have an experience; they just have not gotten around to studying yet. The other group is crambers, who seem to intentionally delay studying in order to experience a rush of excitement and stimulation from the pressure created by their delays.

The self-reported crambers in this study performed better on the cramming simulation and reported a greater amount of flow-like experience than non-crambers. “When students procrastinate in their studies, they are either intentionally or unintentionally increasing the level of challenge they are facing” (Brinthaupt & Shin, 2001, p. 5). Furthermore, the authors suggested “crambers may wait for that time when the level of challenge matches their skills so that their experience is more enjoyable and engaging” (p. 10). Further, they opined that students “who cram by choice may be more skilled at cramming than those who cram because they are forced to” (Brinthaupt & Shin,

2001, p. 11). Cramming appears to feel good to these students and provides them with opportunities to demonstrate their study skills in a challenging environment. Some of the cramming skills these students possessed included the ability to stay awake and alert, the ability to manage limited time, and the ability to memorize and integrate large amounts of material. For these students, cramming appeared to provide the challenge-skill balance that made flow possible. The consequent flow experience may be rewarding in and of itself for some students and may provide a source of enjoyment from their academic requirements. Finally, the authors pointed out there might be some difference between flow during studying and flow during test taking. Therefore, they suggested further study to better understand flow in the academic environment.

Peterson & Miller (2004) evaluated the quality of college students' experiences during two different instructional contexts: cooperative learning and large-group instruction. Their sample included 90 undergraduate education majors at a private, mid-Atlantic university. These students included 20 men and 70 women who ranged in age from 18 to 32 years (mean age 19.5 years). Once during each form of instruction, students were interrupted to respond to a questionnaire adapted from the Experience Sampling Method.

Peterson and Miller (2004) found that instructional context played an important role in the quality of student experience. In fact, they found the overall quality of student experience was greater during the cooperative learning session. Further, they found that higher achieving students experienced greater overall quality of experience in both instructional contexts. Although most students were thinking about something on task or related to the task when interrupted regardless of the instructional method, "more

students were in flow during cooperative learning (61%) than during large-group instruction (48%)” (Peterson & Miller, 2004, p. 130). Students were more engaged during cooperative learning and cooperative learning seemed to provide the instructional context that made flow possible.

As interesting and suggestive as this study is, it does contain some research design problems. The researchers only collected data once during each instructional method. The results, therefore, are based on only one data collection point, which could skew the results. Also, they warned the students at the beginning of class on the day that data collection occurred. This prepared them for the interruption and possibly led them to be thinking about flow stimulated by the warning rather than the instructional method.

Delespaul et al. (2004) “explored the contextual and subjective determinants of flow in relation to activation in studying, and compared this with playing sports, and watching TV or listening to the radio” (p. 129). They referred to playing sports as an active form of leisure compared to watching TV or listening to the radio, which they called passive leisure. The participants in this study were 41 undergraduate medical and psychology students from the University of Maastricht in the Netherlands. The population included 22 women and 19 men with a mean age of 20.9 years. These students were assessed using the experience sampling method 10 times per day for one week. This method allowed for the assessment of each participant’s activities, the concurrent context, and mood at the time they were paged.

The ESM data reflected a distinct, yet odd pattern of challenges and skills among the three activities (studying, playing sports, watching TV /listening to the radio). The compulsory activity of studying was highly challenging but low in perceived skills. The

active leisure of playing sports was challenging but unrelated to skills. The passive leisure watching TV or listening to the radio was low in challenges but high in skills. What is odd about these findings is the fact that skill level was not important to these students in any of the three activities. This might be a reflection of this student population, the Dutch student culture itself, or the small sample size of this study. Furthermore, “subjects felt most active when challenged and this was unrelated to the skills level needed to accomplish the activity” (Delespaul et al., 2004, p. 139). Therefore, in this student population, the researchers found challenges, but not skills, drove activation. “The most active moments are moments when subjects are challenged, reasonably skilled, under tension, and not anxious” (Delespaul et al., 2004, p. 140).

The researchers found flow theory to be a “valuable model leading to predictions of optimal experience as well as activation” (Delespaul et al., 2004, p. 129). They also found that the dynamics of activity engagement were complex and related to the person’s concurrent emotions and the context in which the activity took place. Finally, as stated by Delespaul et al., in the Dutch student culture, escaping boredom or compulsory duties seems to motivate individuals more than the desire to pursue flow.

In summary, while these studies verify that college students experience flow, we know little about the nature of that experience or about the effect it might have on the student’s total college experience. What is missing from the current literature is a broad look at the flow experience across the entire spectrum of the college experience. This dissertation will attempt to provide that broad look.

Chapter 3: Method and Procedures

The purpose of this study was to describe the flow experiences of undergraduate college students across the total college experience. The research questions guiding the study are:

1. To what extent do undergraduate college students report having “flow” experiences?
2. How do undergraduate college students describe their “flow” experiences?
3. How have flow experiences affected undergraduate college student’s college experience?

This chapter describes the methods and procedures used to conduct the study, including a description of the research design, population and site, source of data, procedures followed, data analysis, and procedures used to enhance the credibility, transferability, and dependability of the study.

Research Design

Since the purpose of this study was to describe the flow experiences of college students across the total college experience, this exploratory and descriptive study used a qualitative approach, particularly focus groups to develop a “rich, thick” description of the students’ flow experiences. According to Firestone (1987), qualitative research methods are built on a phenomenological world view which assumes “that reality is socially constructed through individual or collective definitions of the situation” (p. 16). Furthermore, Patton (2002) states that qualitative approaches are used to capture and

communicate a person's experience of the world in his or her own words. Since this study involved individuals describing their personal flow experiences, a qualitative approach provided the most appropriate way to explore these experiences.

Research Site

The site for the study was a small, private, church-related liberal arts college in the Southeastern United States. This college is a residential campus (770 or 70% of students lived on campus) with an exclusively undergraduate enrollment of 1,100 students. Most of the student body (935 or 85%) were traditional-age college students (ages 18-24 years). Thirteen percent (143) were students of color and 30 students (2.7%) came from one of 23 foreign countries. The remaining students came from 32 states, with 74% (814) coming from Tennessee. The data was collected while the researcher was an administrator at the research site. Since the researcher knew many of the participants, extra care was given to insure voluntary participation. Students who the researcher had an especially close relationship with were not asked to participate.

Population

A segmentation sample of students was used for this study. Morgan (1997) defines segmentation as a way to manage group composition to match carefully chosen categories of participants. Twenty-four students participated in the study and constitute its population. These students were drawn from seven different subcultures: athletics, fine arts (i.e., music or drama), outdoor recreation, community service, student government, presidential scholars (i.e., top academic scholarship recipients), and "non-involved"

students. “Non-involved” students were defined as students who were not involved in any of the previously listed groups or similar activities. Every attempt was made to have equal representation by gender, race, and age. First-year students were excluded from the study due to their lack of college experiences. Students were assigned to one of six focus groups and each group contained representatives from different subcultures.

Source of Data

Focus groups were the single data collection method for this study. Morgan (1997) broadly defines focus groups as “a research technique that collects data through group interaction on a topic determined by the researcher” (p. 6). Mertens (1998) describes focus groups as both a data collection method and a strategy for research. She states that focus groups are basically group interviews that do not rely on the question and answer format of a traditional interview, but on the interactions among the group. “This reliance on the interaction between participants is designed to elicit more of the participants’ points of view than would be evidenced in more researcher-dominated interviewing” (p. 174). This method allowed for the collection of both individual and shared meanings. Furthermore, the method allows for producing concentrated amounts of data on precisely the topic of interest (Morgan, 1997). The focus groups in this study allowed for gathering rich, thick data about the flow experience, and, given that flow is a concept that is difficult for some people to understand, group interaction helped participants better understand and articulate their experience. Groups also maximized discussion on this topic, with each individual discussing his/her own experiences and building on that of others in the group.

Procedures

The first step in this study was to gain access to the research site by obtaining written permission from the site and from the University of Tennessee's Institutional Review Board (IRB). Since the focus groups were audiotaped, IRB Form B was submitted. Next an interview guide was developed based on the research questions (see Appendix C). "A guide is essential in conducting focus group interviews for it keeps the interactions focused while allowing individual perspectives and experiences to emerge" (Patton, 2002, p. 343-344). Further, it ensured that all groups were asked the same questions. A pilot focus group was conducted with student volunteers to test both the interview guide and focus group procedure as detailed below. No changes were indicated based on the findings of the pilot study.

Next a list of students from each subculture was generated from an existing Student Affairs Office database (i.e., a list of student athletes, a list of presidential scholars, etc.). The subcultures included: athletics, fine arts (i.e., music or drama), outdoor recreation, community service, student government, presidential scholars (i.e., top academic scholarship recipients), and "non-involved" students. The list of each subculture was used to select students to invite to participate. Seven students from each list were purposefully selected to participate in each of the six focus groups. Names were chosen somewhat randomly (i.e., from one list every tenth name was selected).

The selected members of each subculture were contacted individually by email, the study was explained to them, and they were invited to participate. If a student from a particular subculture group was not willing to participate, the next student from that

subculture's list was approached using the same method. The students willing to participate were then assigned to one of the six mixed subculture focus groups.

Each sixty-minute, audiotaped focus group began with an explanation of the purpose and nature of the study and a request for each participant to sign an informed consent document (see Appendix D). This document explained the purpose of the research, described data collection and reporting, and reminded them that their participation was strictly voluntary. Participants were assigned a reference code based on their focus group membership to ensure confidentiality. Participants were referenced in the transcripts and reports of the data solely by their code; no master list of codes was developed.

After participants gave their informed consent, they were asked to provide demographic information and were presented with four examples of flow taken from the literature (see Appendix E). Then, they wrote down any experiences they had had that were similar to the examples. This approach to initiating an exploration of experience was based on Morgan's (1997) suggestion that "there is something about the process of writing things down that reinforces a person's commitment to contributing these thoughts to the group, even in the face of apparent disapproval" (p. 50). After completion of this written part, the researcher asked participants two semi-structured, open-ended questions using the interview guide related to the research questions (see Appendix C). When appropriate the researcher asked probes to encourage discussion.

The sessions were audiotaped to insure complete collection of the data. After each focus group, the audiotape was transcribed verbatim by a transcriptionist. The researcher took written field notes to record his impressions of participants' responses and a

research assistant tracked the order of each speaker by their code. The research assistant, as well as the transcriptionist, signed a confidentiality statement (see Appendices F & G). It was important to track the order of speaking to assist in the transcription. No master list of speakers or codes was kept after the transcripts were analyzed. Field notes, session tapes, and the informed consent documents are stored in a locked filing cabinet in the researcher's office and all electronic files are password protected. No personally identifiable information was used on the tapes or field notes and only the confidential members of the research team (researcher, committee chair, research assistants, and transcriptionist) had access to these materials.

Data Analysis

As Miles & Huberman (1994) suggest, most qualitative analysis tactics are designed to “reduce the bulk of the data and find patterns in them” (p. 256). Methods used to reduce the amount of data and assist in answering the research questions involve three levels of operation. The researcher performed all three levels of analysis. The data analysis began simultaneously with data collection and continued until the analysis was completed and the research questions were answered using analytic strategies for identifying patterns and themes described by Miles & Huberman (1994). First, the verbatim transcripts from each group were reviewed. Repeated words, phrases, and ideas were color coded (marked) using the same color until all transcripts had been color coded (1st level of analysis). Care was taken to ensure that all of the ideas and responses expressed were accounted for in the coding. As a check on the first level of coding, three

doctoral level researchers each coded two transcripts. These researchers signed confidentiality agreements and their coding was consistent with the researcher's analysis.

These coded materials were then further analyzed to identify and note the themes and patterns they suggested (2nd level of analysis, thematic within group). As these 2nd level themes emerged, they included multiple 1st level codes. After all focus groups were conducted and the transcripts coded, all of the codes were reviewed by the researcher to identify themes common across all six focus groups (3rd level of analysis, thematic across group).

The 3rd level of analysis was weighted based on three criteria: (a) does each focus group mention the topic; (b) how many people within each individual group mention the topic; and (c) how much energy and enthusiasm does the topic generate among the group members. This process is called group-by-group validation (Morgan, 1997). "Group-by-group validation means that whenever a topic comes up, it generates a consistent level of energy among a consistent proportion of the participants across nearly all groups" (Morgan, 1997, p. 63). These themes were used to help answer the research questions.

Credibility, Transferability, and Dependability

"Validity" and "reliability" are uncommon terms in qualitative research. Rather, the concept of trustworthiness addresses some of the concerns encompassed by issues of validity and reliability in ways that are more appropriate to such research. Nevertheless, some noted qualitative researchers still use the terms validity and reliability when speaking about enhancing the trustworthiness of their study and data. "Ensuring validity

and reliability in qualitative research involves conducting the investigation in an ethical manner”(Merriam, 1998, p. 198).

Credibility or internal validity is an attempt to ensure the accuracy of the data collected and it addresses whether the study is really measuring what it sets out to measure (Creswell, 1994; Mertens, 1998). Strategies used to ensure credibility of the study include: group-by-group validation (a type of triangulation) which ensures that the findings speak to the experiences of the participants as a whole and are not idiosyncratic to one focus group and peer examination which involved three doctoral level researchers not involved in the study, reviewing and independently coding two transcripts, each providing feedback on theme development. Both strategies considered the consistency of the evidence across all sources of data.

Transferability or external validity which refers to the degree to which results can be generalized to other situations was addressed through the thick, rich, detailed descriptions generated. Mertens (1998) defines thick descriptions as an “extensive and careful description of the time, place, context, and culture”(p. 183). These detailed descriptions will provide future researchers interested in transferability with a framework for comparison. “In qualitative research, the burden of transferability is on the reader to determine the degree of similarity between the study site and the receiving context” (Mertens, 1998, p. 183).

Dependability or reliability concerns the stability of the data over time. In qualitative research, “change is expected, but it should be tracked and publicly inspectable” (Mertens, 1998, p. 184). It was addressed in this study by maintaining an audit trail. A dependability audit involves maintaining a written record that details each

step in the research process. This provides future researchers a blueprint to replicate this study. In the next chapter, the study results are presented.

Chapter 4: Findings

The purpose of this study was to describe the flow experiences of undergraduate college students across the total college experience. The findings of the study are presented in this chapter in terms of the research questions guiding the study:

1. To what extent do undergraduate college students report having “flow” experiences?
2. How do undergraduate college students describe their “flow” experiences?
3. How have flow experiences affected undergraduate college student’s college experience?

A total of 24 undergraduate college students participated in one of six focus groups between May 2007 and March 2008. Seventeen participants were female and seven were male. Twenty-one participants were Caucasian, two were African-American, and one was Asian-American. The participants ranged in age from 18 to 23 years. Participants came from seven student subcultures (i.e., athletics, fine arts, outdoor recreation, volunteers, student leaders, scholars, and “non-involved” students) and some participants were involved in more than one subculture as may be seen in Table 1.

Table 1: Student Sub-cultures in each Focus Group

Focus Group & Participant Code	Outdoor Recreation	Student Leaders	Athletes	Scholars	Volunteers	Fine Arts	Non-Involved
I, 1 (Shopper)		X					
I, 2 (Actor)		X	X			X	
I, 3 (Actress)			X		X	X	
I, 4 (Violinist)		X				X	
II, 1 (Choir, F)						X	
II, 2 (Reader)							X
III, 1 (Church Member)		X					
III, 2 (Dancer)		X	X			X	
III, 3 (Student Teacher)		X	X				
III, 4 (Actor 2)		X				X	
III, 5 (Public Speaker)		X					
III, 6 (Writer)		X					
IV, 1 (Conversationalist)		X		X			
IV, 2 (Soccer/Tennis)			X				
IV, 3 (Ballerina)	X					X	
V, 1 (Test Taker)	X					X	
V, 2 (Runner, M)	X		X				
V, 3 (Choir, M)	X					X	
V, 4 (Soccer, F)			X	X			
V, 5 (Athlete)			X	X			
VI, 1 (Cheerleader)			X				
VI, 2 (Worker)		X		X			
VI, 3 (Interpreter)				X			
VI, 4 (Artist)				X			

Research Question #1

To what extent do undergraduate college students report having “flow” experiences?

More simply stated, this research question asks: Have the participants experienced flow? If so, how often does flow occur for them and during what activities? Each of the 24 participants reported having experienced flow. None of the participants seemed to find the concept of flow hard to understand and each was able to relate it to experiences in his/her life. In fact, participants in one focus group agreed that they tended to choose activities in which to participate based on the possibility of experiencing flow. For example, one participant (V, 1) said: “I feel like I gravitate to the things I do because I can attain that flow state”. Although each participant reported experiencing flow, the frequency of the flow experience varied. Three participants said they experienced flow every time they shopped (I, 1), read a book (II, 2), or danced ballet (IV, 3). The remaining 21 participants seemed unsure of how often they experienced flow. One participant (III, 3) had this to say about how often flow experiences occurred for her: “Not so often that we can’t appreciate them, I mean, it happens enough times to relate to these situations but not enough times to just ignore it and think of it as an everyday occurrence.” Furthermore, she was glad flow did not happen every time because if it did, it would not feel as good.

The participants reported experiencing flow in thirty-nine different activities. Each participant (24) described one or two primary activities in which flow occurred most often. These primary activities were the first ones each participant mentioned and were also the activities described in the greatest detail. Sixteen participants identified additional activities in which they had experienced flow. The most common number of

flow responses was three flow activities; however, eight participants said they experienced flow in four to six different activities.

These thirty-nine “flow activities” can be grouped into six categories:

Sports/Recreation, Fine and Performing Arts, Academics, Social, Personal/Leisure, and Work. Table 2 presents the flow activities described by participants in this study.

Activities were included if a participant said s/he had experienced flow while participating in the activity. The numbers in parentheses reflect the number of participants who mentioned experiencing flow in the listed activity.

Table 2: Flow Activities Described by Participants

Sports / Recreation	Fine & Performing Arts	Academics	Social	Personal / Leisure	Work
Running (8)	Acting / Theatre (5)	Reading (5)	Deep Conversations w/ Friends (4)	Facebook (2)	Teaching Children (2)
Soccer (5)	Singing / Choir (3)	Writing (2)	Social Dancing (1)	Watching Television (2)	Sales (1)
Football (1)	Guitar (1)	Group Work (1)	Playing Cards (1)	Shopping (1)	Project Planning (1)
Cheerleading (1)	Violin (1)	Lectures (1)		Driving (1)	Advertising Design (1)
Swimming (1)	Piano (1)	Sign Language Interpreting (1)		Church (1)	Car Repair (1)
Rock Climbing (1)	Modern Dance (1)	Public Speaking (1)		Meditation (1)	Spanish Interpreting (1)
Tennis (1)	Ballet (1)	Political Debate (1)			
Karate (1)	Painting (1)	Taking Tests (1)			
	Drawing (1)				
	Ceramics (1)				

Research Question #2

How do undergraduate college students describe their “flow” experiences?

All of the experiences participants described involved an action, something that happened. As the participants described their flow experiences, five themes emerged from the descriptions and reached across multiple flow activities: (a) absorbed in the experience; (b) flow as an escape; (c) positive affect; (d) transformation of time; and (e) practice versus performance. Each is described below.

Absorbed in the Experience

Twenty-one participants (88%) cited becoming absorbed or lost in a wide variety of flow activities. This absorption involved a period of intense focus in which participants described feeling like they surrendered themselves to the experience. This intense focus helped to make flow possible by blocking out stimuli that might have interrupted the experience.

Three participants described becoming lost in the character while acting in the theatre. An actress (I, 3) said it was like being in a different world and an actor (I, 2) said it was hard to distinguish between himself and the character. The two dancers described losing themselves in the experience of dancing. The ballerina (IV, 3) said flow helped her push past the pain and felt that without flow, she would lose her motivation. She commented that ballet would not be worth it without experiencing flow. The other dancer (III, 2) shared that as her dance recital went on it was like she did not care what the audience thought; it was just about her being on the stage dancing.

A choir member (V, 3) described being consumed by the experience of singing and being able to block out the audience: “It’s like the music takes you and it can only be broken by the applause of the audience.” Another choir member and actor (III, 4) explained when singing in a group, being in the right setting and with the right group is very important: “Everything just comes together at once and it meshes. If you’re in the zone and you’re all working together that’s when it happens and it’s magical.”

A writer (III, 6) described becoming engrossed in the stories she was writing. As she sat in front of the computer, she was surprised she had written for two hours straight. She said it was like the stories spoke to her, like she was in the story. Furthermore, she opined that writing without flow would not be as personally fulfilling. The reader (II, 2) stated that while reading, she lost complete track of everything that was happening around her and would become unable to stop until she had finished the book. A poker player (VI, 2) said while playing “Texas Hold’em” he became absorbed in getting the right cards and playing them correctly. The shopper (I, 1) found Facebook, an online social network, extremely absorbing and said it had taken over her life. Another participant (VI, 3) described a mission trip to Central America where she interpreted Spanish for five hours straight, experienced the rhythm of the work, and became absorbed in the experience.

Three participants described experiencing this absorption while taking tests. The test taker (V, 1) spoke about being so focused while taking a test that she was not even thinking about the grade. “I’m just having fun like trying to figure the whole thing out; it’s just like total focus.” The soccer/tennis athlete (IV, 2) spoke about the total focus she experienced while taking the ACT test for college admission. Another soccer athlete (V,

4) felt she could make herself experience flow when taking tests if she really focused.

However, she said normally she was so busy that she just wanted to get the test over with as quickly as possible. She just wanted it to be done.

Three runners mentioned losing themselves in their running. One runner (VI, 2) said he would feel like he did not even have to breathe and could run forever. During this “runner’s high”, he described becoming so involved he did not even have to think about the running or feel separate from it. Another runner (V, 2) commented that when running, your mind must be in the moment. You must have the right mindset and be ready to run, not worried about other things or even the running. If your mind is everywhere else, you will struggle. Once he got into the flow of it, he would have a good time and everything began to work perfectly. A different runner (III, 1) described becoming lost in the experience while running and swimming, losing track of where she was:

It’s like I forget, lose track of where I am in everything I am doing until my mind gets jolted back into my surroundings and then it’s like, “oh, I just swam however far and I just ran however far” and I didn’t really recognize that while it was happening. I know I’ve gone from point A to point B on the path if I’m running, but I don’t remember that journey along that path.

This same participant (III, 1) also explained how she experienced flow during worship. She described becoming extremely focused on God and not the others around her. During these experiences she no longer worried about what other people were thinking about her.

Finally, multiple athletes shared the experience of being so focused during a game that they did not hear the crowd. Athlete (IV, 2) said during a big soccer game or tennis match, she was just focused on the game and did not really even remember the crowd

being there. Participant (VI, 2) cited being so completely into the experience that he never even heard the large, loud crowds while playing in a soccer game. Another athlete (I, 2) spoke about his extreme focus during football games stating that some activities required focus or you could really get hurt. He would become so focused that he did not even have to think about what he was doing. Finally, another participant (VI, 1) stated that at a certain point “your body gets used to picking up on relevant cues and it really allows you to block out all the unnecessary stuff.” She stated she becomes focused only on those things that are relevant and then everything seems to click.

Flow as an Escape

Ten participants (42%) described flow experiences as an escape from their daily lives (i.e., from school work, errands, stress, relationships). They said flow allowed them to put other things aside for a little while: “It distracts me from whatever else is stressing me out or is going on in my life” (IV, 1). One participant (III, 4) said that without the escape and stress relief provided by his flow experiences, he would not have been able to survive the rigors and stress of college life. Other participants explained that these experiences were a release for them; everything else seemed to disappear, giving them permission not to think about anything except the flow activity for awhile. One of the actors (I, 3) commented she could leave her personal life at the stage door and only be her character. This would distract her from whatever else was stressing her out: “Whenever you’re on the stage it’s like you’re in a different world and it’s nice to not have to think about what’s going on in your life.”

The conversationalist (IV, 1) declared that college students are on overdrive all the time, moving from one activity to the next. At some point during the week she would become frustrated and bogged down in day-to-day tasks and become unable to focus. At that point, her flow activity helped her get away from the hectic pace of college life, recharge, and be ready to focus again. The dancer (III, 2) also described escaping into her own little world:

When I do dance, like it's the one time I'm not thinking of anything else in the world. It's just like the stress of the world leaves me for a little while and I don't have to think about all the things I have to do later.

After dance practice, she would find it difficult not to think about dance anymore and transition back to other things.

Positive Affect

Twelve participants (50%) expressed the positive affect flow experiences had on their lives. Their comments addressed both a sense of control and other positive feelings that they felt during their flow experiences. Some of the positive feelings participants expressed included: Support, excitement, superiority, euphoria, and being successful, safe, and relaxed. A football player (I, 2) said he felt superior, like he could do anything while experiencing flow. "Awe, I feel like I could do anything right now. I feel like I'm the fastest, I feel like I could jump over the whatever. Whatever, I could do. I could do it right now."

Three other participants expressed the incredible feeling of accomplishment they received from these activities. A dancer (III, 2) described that when dancing "in the zone"

she feels like she does her best, is happy in that moment, and could dance for hours.

Another participant (VI, 2) described having a high energy level and not feeling tired.

The violinist (I, 4) noted that once he became absorbed in his music his playing became easier. An actor (I, 2) described the feeling of control experienced during flow this way:

You know, in life you can't really control it. But, when you're playing a sport or doing something you like you have some type of control over it. So, it's like you have some, you don't have ultimate control, but you feel like you have more of a handle on what you like doing.

Transformation of Time

Sixteen participants (67%) said they had lost track of time during flow experiences. They talked about time speeding up and hours passing by like minutes. Participants used phrases like: "the day went by so fast", "time really flew", and "time speeds up". One participant (I, 3) said when you are enjoying something, time really flies by. You do not even think about time. The reader (II, 2) said she always loses track of time when she reads. She said she becomes so focused, time is irrelevant. "Time is really not a factor when you are that focused." A runner (III, 1) described how she would realize she was farther down the trail than she expected, but did not remember where the time had gone. She knew time had passed because of the distance she had traveled.

Deep, late night conversations with fellow college students were mentioned three times (III, 3, III, 5, & IV, 1) as leading to time becoming less important, because you are enjoying the conversation so much. During these conversations, time became irrelevant, it flowed nicely, and everyone felt a part of it. They also described these conversations as

being deeply meaningful to them. One participant (V, 4) told a story of how she had a paper to write and went to the library to write it. During the time she worked on the paper, she blocked out other things going on in the library including banging pipes in the building. After four hours had gone by she finished the paper and had not realized so much time had passed. She had not even eaten lunch because she had been so totally focused on the task before her. Similarly, an artist (VI, 4) described working on a drawing from 10:00 am to 6:00 pm. He did not realize how much time he had spent on the piece, because he had been extremely focused and it had gone incredibly well.

Other issues related to time that emerged included the idea that time pressure could lead to a flow experience or, conversely, time could be a hindrance to flow experience. Deadlines sometimes motivated but sometimes hindered participants. One participant (V, 1) said that while taking a test the pressure of knowing time was passing kept her in the zone and the corresponding excitement helped her focus. Other participants described their lack of time (busyness) sometimes prevented them from allowing themselves to become absorbed in the activity. “It is really nice when you don’t have the limits of time” (III 2). Time pressure and time constraints were described as making it much more difficult to get into flow. With flow experience, you should not worry about time and just focus on what you are doing. A student teacher (III 3), while planning lessons for her class, described looking up and being amazed it was three hours later. She also commented she wanted to let herself get into that zone while teaching, because the kids would pay attention and have a better experience, but she felt she did not have enough time. Therefore, the time constraints of her daily schedule affected the possibility of flow.

Practice versus Performance

Flow appears more likely to occur during performance than during practice, especially in athletic and performing arts activities which involve practice to prepare for a performance. The performance might be a game, a dance recital, a concert, or a theatre production. The fifteen participants (63%) who experienced flow during these types of activities felt it might be possible to experience flow during practice, but said it was more common during a performance. In fact, some participants felt the audience of a performance was a key factor in their flow experience. Only one participant (III, 6) said flow was more common for her during practice. She described being able to practice the piano for three hour stretches; however, the audience of a performance made her anxious/nervous and, therefore, unable to experience flow.

The violinist (I, 4) said: “When I’m practicing, I’m not absorbed in the music”. Because practice was technical he could not let himself go to enjoy the experience. He felt flow was possible during a performance because he could just let go. A soccer athlete (IV, 2) said flow was possible during practice, but happened mainly during a game. During practice, she described feeling pressure to get it right and said you had to think and listen to your coach. She could not necessarily zone out the world around her during practice; however, during a game she was in the moment, not thinking or worrying about anything except the game. She said it did not happen in every game and was especially difficult during games with a large point spread (i.e., losing big or winning big). Another soccer athlete (I, 3) commented that during practice she had to focus on what she was doing, but during the game she could let herself go and focus on the game itself: “Like, I practiced enough, now I can just let go and put my whole body into it.”

Research Question #3:

How have flow experiences affected undergraduate college student's college experience?

All of the participants perceived that flow experiences had had an impact on their college experience. They reported that the impact of flow experiences while in college came in the form of an escape from the stress of college life, help in refocusing, and insight into possible future careers. One participant (III, 3) said her flow experiences with friends had been a meaningful part of her college experience: "If I wasn't able to feel that flow with friends, like through conversations and activities, I think this wouldn't have been college for me." A different participant (IV, 1) mentioned that her flow experiences affected what she chose to be involved in and the people she spent time with. Her deep conversations with fellow college students helped ground her and bring her back to center. She stated that college totally envelops your life:

You know, you live on the college campus, you wake up and you go to class and you've got meetings. You are in this constant environment and if you don't have something that helps you get away from that even for a little bit then you get really bogged down.

Another participant (III, 4) said without the escape and stress relief provided by his flow experiences, he would not have been able to survive the rigors and stress of college life.

Other participants agreed college would be more stressful without the escape. They expressed the need to take their minds off college for awhile and refocus. Furthermore, they said flow experiences helped discipline you and helped you learn to get things done while maintaining your sanity. One participant (VI, 3) even related that these experiences had helped shape her future career path: "Having these experiences

show me what I enjoy and what I'm at least marginally good at and, therefore, it's kind of helped shape the direction that I'm taking with my life." Finally, a participant (VI, 1) said during college she became aware of how much she needed her flow activities and had learned to find time for them. When she is away from her flow activities, she reported, she becomes very stressed.

Even though flow was reported in the college setting, it was not originally mentioned in the college classroom. When participants were asked about flow in the college classroom, they found the thought humorous. Only one participant (IV, 1) said she had experienced flow in the college classroom and had even lost track of time in the experience. "You can totally lose yourself in a class discussion and the next thing you know class is out."

The remaining participants expressed that flow in the college classroom was difficult to achieve but speculated that flow might be possible if certain factors were in place. These factors included: having the right people in the class, the right topic, the right type of class, the right class length, and the right charismatic professor. They felt everyone would have to be on the same page and have "students that are actually participating in the discussion and contributing something intelligent" (IV, 1). Furthermore, participants thought it would be difficult to reach flow in most lecture classes but felt it might be possible in very engaging class discussions. Class length was also mentioned as a factor. Participants felt being focused on what time it is affected engagement in class. Finally, the participants said flow in the classroom would depend greatly on the professor. The writer (III, 6) felt that if the student and professor jived, it

might be more conducive to classroom flow. The public speaker (III, 5) thought a professor experiencing flow might push students to focus more.

In summary, flow was experienced by all the student participants at this small, private, liberal arts college and they associated that experience with 39 different flow activities. In describing their flow experiences, they discussed how they became absorbed in the experience, how the experience was an escape from their daily lives, how it had a positive affect on them, and how time seemed to be transformed during flow. They also said flow was more common during performance than during practice. Finally, flow seemed to impact their out-of-class experience, but was not commonly a part of their college classroom experience.

Chapter 5: Summary, Discussion, and Conclusions

A college student's level of engagement in the life of the college is important to his/her retention, academic success, and graduation. Flow experiences are described as a state of consciousness where a person becomes totally absorbed in the experience. If flow experience occurs on the college campus, this might impact student engagement and, therefore, retention, academic progress, and graduation. Although the literature speaks about flow in certain subgroups of college students (especially athletes), very little is known about flow across the entire spectrum of college life.

The purpose of this study was to describe the flow experiences of undergraduate college students across the total college experience. The research questions guiding the study were:

1. To what extent do undergraduate college students report having “flow” experiences?
2. How do undergraduate college students describe their “flow” experiences?
3. How have “flow” experiences affected undergraduate college student's college experience?

A total of 24 undergraduate college students from seven different subcultures participated in one of six focus groups between May 2007 and March 2008. During the focus groups, participants were given four written examples of flow experience and asked to write down examples of any similar experiences they had had in their own lives. Then, participants were asked a series of semi-structured, open-ended questions using an interview guide related to the research questions (see Appendix D). The qualitative data collected through the focus groups were analyzed using a three-level process to identify

patterns and themes. In this, study findings, conclusions, and recommendations for further research are summarized and discussed.

Summary of the Findings

There are three major findings of this study:

1. All 24 participants experienced flow and associated that experience with 39 different flow activities.
2. Participants described their flow experiences as absorbing, an escape from their daily lives, having a positive affect on them, and feeling like they lost track of time. They also described flow as occurring more often during performance than during practice.
3. Flow experiences impacted the out-of-class experience of the participants, but not their in class experience.

Discussion of the Findings

This study found that college students experience flow and do so across a wide variety of activities. All 24 participants in this study experienced flow and they associated that experience with 39 different flow activities which occurred while they were enrolled in college. The previous literature on flow in the higher education setting had been quite limited. Although studies had established flow in certain subgroups of college students and within certain activities such as athletics (Progen, 1981; Russell, 2001), test cramming (Brinthaup & Shin, 2001), student teaching (Chang, 1996), and psychology classes (Mundell, 2000), these studies did not fully address the nature of the flow

experience for undergraduate college students or what impact flow might have on their total college experience. What was missing from the literature was a broad look at flow experience across the entire spectrum of college life. It is hoped that this study has provided that broad look and has shown that a diverse group of college students experience flow across a diverse set of activities.

Most studies on flow have accepted Csikszentmihalyi's (1975a) original nine components of flow, assuming them to be correct and complete. Three of the themes that emerged in this study (absorbed in the experience, positive affect, and transformation of time) seem to affirm five components of the Csikszentmihalyi model. Participants in this study described becoming absorbed or lost in their flow experiences. They described becoming extremely focused and blocking out the world around them. This is consistent with how Csikszentmihalyi (1975a) defined flow experiences as a state of consciousness where a person becomes totally absorbed in the experience. "Absorbed in the experience" seems to include Csikszentmihalyi's components of concentrating on the task at hand, the merger of action and awareness, and the loss of self-consciousness. This finding of flow being an absorbing experience also seems to confirm the findings of other flow studies (Jackson, 1992; Jackson & Csikszentmihalyi, 1999; Thompson, 1993)

The theme of "positive affect" included participant descriptions of a sense of control (e.g., one of Csikszentmihalyi's components) and other positive feelings experienced during flow. Participants in this study described feeling like they were in control during their flow experiences which confirms the findings of Csikszentmihalyi (1975a), Jackson (1992), and Jackson & Csikszentmihalyi (1999). Flow experiences were also described as positive and enjoyable in this study which agrees with the bulk of flow

studies (Csikszentmihalyi, 1975a; Csikszentmihalyi & Csikszentmihalyi, 1999, 1988; Jackson, 1992; Mundell, 2000; Thompson, 1993).

Participants in this study perceived that time did not pass in a normal way during flow experiences. Time seemed to speed up, with hours passing by and feeling like only minutes. The transformation of time appears to be a common occurrence during flow, has been found in most other flow studies, and is one of Csikszentmihalyi's nine components. Jackson & Csikszentmihalyi (1999) explained the transformed sense of time this way: "When you are focused entirely on a task, you cannot keep track of the passing of time, which, when you reflect back on the event, can lead to altered perceptions of how the time has passed" (p. 29). One participant in the current study even echoed a Csikszentmihalyi concern that time dependence can prevent some people from being willing to become truly involved in an activity. If time is limited, a person may feel too rushed to allow himself/herself to become fully absorbed by the flow activity. Multiple participants expressed the busyness of college life, which might mean students have less time to experience flow. Therefore, they would need to be even more intentional in planning time for their flow activities.

Csikszentmihalyi's components of challenge and skill balance, clear goals, unambiguous feedback, and autotelic experience were not described as a part of participants' experience in this study. They appeared to not be central to their experience as described. However, the participants were not directly asked about them. So it is not clear whether or not those four components were part of the students' experience.

Two descriptions of flow experience emerged in this study which do not appear in the current literature: Flow as an escape and flow more common in performance than

practice. Participants in this study seemed to need an escape from the rigors of academic life and the stress of college. They used their flow activities to separate themselves for a little while in order to recharge and be ready to get back to work. In addition, they felt flow occurred more often during performance than during practice. It is possible that a person's level of focus might be heightened during a performance which could make flow more likely. Because practice is normally a more common occurrence, maybe there is less build-up or excitement for practice. Also, since practice involves learning and preparing things for the upcoming performance, possibly it is more difficult to just let oneself go. Increased levels of anxiety or boredom might also affect flow during practice.

It is unclear why these two themes emerged in this study and not in previous studies. It is also unclear what this means for Csikszentmihalyi's flow model or how widespread these themes might be with other populations. It is possible "flow as an escape" might just be experienced by college students, although other adults describe experiences such as running as opportunities to relieve stress and escape other responsibilities. It is also possible other researchers have incorporated this theme into other components of the flow experience. The theme of flow in practice versus performance might not have been considered before. Flow has been widely examined in relation to athletic contests (Csikszentmihalyi, 1975a; Csikszentmihalyi & Csikszentmihalyi, 1988; Jackson, 1992; Jackson & Csikszentmihalyi, 1999; Kimiecik & Stein, 1992; Progen, 1981; Russell, 2001; Thompson, 1993), but it appears no one has asked about flow during practice for those events. Previous researchers may not have thought that flow was possible during practice and, therefore, did not ask about it. The

literature appears to be silent on these two themes which raises the possibility that they are new concepts altogether.

Finally, this study found that flow experiences impacted the participants' out-of-class experience but not their in-class experience. Although this finding does support Yen (1995) who found college students were more likely to experience flow during leisure than during studying, the fact that participants in this study had not experienced flow in the college classroom was both unanticipated and disappointing. Since flow experiences have been described as deeply engaging, it was hoped that students would have also experienced flow in the college classroom. It is hard to understand how flow experiences can be such a meaningful part of the non-academic life of a student and not also a part of the college classroom experience. It is possible that since students see their flow activities as an escape from the rigors and stress of college life, that they see the classroom as part of the problem; therefore, not an opportunity for an escape. The classroom could be part of the cause, not part of the solution. It is also possible students do not allow themselves to become fully engaged in the classroom experience, especially in a fifty minute class. Is it the experience or time which is a factor in whether or not students experience flow in the classroom, or is it both? If classes were longer, might students have more time to become engaged instead of thinking about when class will be over?

Although the participants in this study did not report experiencing flow in the classroom, it is intriguing that some speculated flow might be possible. They considered factors which they thought might make a difference in whether or not flow would be possible in the classroom including classroom structure, teaching methods, and teaching styles. A participant suggested that every student in the class would have to be

experiencing flow in order for flow to occur during class. This suggestion raises an interesting question of whether groups can experience flow. Can an entire team or dance troupe experience flow? The literature on flow seems to address flow as an individual experience and has not considered the concept of group flow. It is possible that in order for flow to occur in the college classroom, group flow must also be possible. As Csikszentmihalyi & Csikszentmihalyi (1999) state: “Ideally, of course, school and work . . . would be structured to provide flow experiences to a maximum number of people” (p. 156). With this in mind, are there ways to structure the college classroom which might increase the possibility of flow and, therefore, increase the student’s engagement in the class?

Conclusions

Based on the findings it is reasonable to conclude that:

1. College students do experience flow in a wide variety of activities outside the classroom.
2. College students see their flow experiences as positive, absorbing, and as a much needed escape from the stress of college life.

Recommendations for Further Research

Based on the findings of this study, several follow-up studies are recommended:

1. This study should be replicated in other higher education settings to see if the same findings occur, especially the theme of “flow as an escape”.

2. A qualitative study of performance-based activities should be undertaken to compare flow experiences during practice and during performance.
3. A sequential mixed method study (quantitative & qualitative) should be undertaken to explore flow experiences in the college classroom.
4. Studies should be undertaken to test the efficacy of various teaching and learning strategies for inducing flow in the college classroom.
5. Both quantitative and qualitative studies should be conducted to examine the relationship between flow and involvement/engagement in college as framed by Alexander Astin (1984) and Vincent Tinto (1987).

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Appendices

Appendix A

Experience Sampling Form

Date: _____ Time Beeped: _____ am/pm Time Filled out: _____ am/pm
 as you were beeped

What were you thinking about? _____

Where were you? _____
 What was the MAIN thing you were doing? _____

 What other things were you doing? _____

WHY were you doing this particular activity?
 I had to I wanted to do it I had nothing else to do

	not at all	some what	some what	quite	very
How well were you concentrating	0	1	2	3	4
Was it hard to concentrate?	0	1	2	3	4
How self-conscious were you?	0	1	2	3	4
Did you feel good about yourself?	0	1	2	3	4
Were you in control of the situation?	0	1	2	3	4
Were you living up to your own expectations?	0	1	2	3	4
Were you living up to the expectations of others?	0	1	2	3	4

Describe your mood as you were beeped:

	very	quite	some	neither	some	quite	very
alert	0	0	0	0	0	0	0
happy	0	0	0	0	0	0	0
irritable	0	0	0	0	0	0	0
strong	0	0	0	0	0	0	0
active	0	0	0	0	0	0	0
lonely	0	0	0	0	0	0	0
ashamed	0	0	0	0	0	0	0
involved	0	0	0	0	0	0	0
excited	0	0	0	0	0	0	0
closed	0	0	0	0	0	0	0
clear	0	0	0	0	0	0	0
tense	0	0	0	0	0	0	0
competitive	0	0	0	0	0	0	0

Did you feel any physical discomfort as you were beeped: severe
 Overall pain or discomfort none slight bothersome severe
 0 1 2 3 4 5 6 7 8 9

Please specify: _____
 Who were you with? _____
 alone friend(s) How many? _____
 mother female male
 father strangers
 sister(s) or brother(s) other _____

Indicate how you felt about your activity:

	low	not at all	high
Challenges of the activity	0	1	2
Your skills in the activity	0	1	2
Was this activity important to you?	0	1	2
Was this activity important to others?	0	1	2
Were you succeeding at what you were doing?	0	1	2
Do you wish you had been doing something else?	0	1	2
Were you satisfied with how you were doing?	0	1	2
How important was this activity in relation to your overall goals if you had a choice	0	1	2
Who would you be with? _____	0	1	2
What would you be doing? _____	0	1	2

Since you were last beeped has anything happened or have you done anything which could have an effect on the way you feel?
 Nasty cracks, comments, etc. *****

Appendix B

Flow State Scale

Please answer the following questions in relation to your experience in the event you have just completed. These questions relate to the thoughts and feelings you may have experienced during the event. There are no right or wrong answers. Think about how you felt during the event and answer the questions using the rating scale below. Circle the number that best matches your experience from the options to the right of each question.

Rating Scale:

Strongly disagree 1	Disagree 2	Neither agree nor disagree 3	Agree 4	Strongly disagree	Strongly agree 5
1. I was challenged, but I believed my skills would allow me to meet the challenge.	1	2	3	4	5
2. I made the correct movements without thinking about trying to do so.	1	2	3	4	5
3. I knew clearly what I wanted to do.	1	2	3	4	5
4. It was really clear to me that I was doing well.	1	2	3	4	5
5. My attention was focused entirely on what I was doing.	1	2	3	4	5
6. I felt in total control of what I was doing.	1	2	3	4	5
7. I was not concerned with what others may have been thinking of me.	1	2	3	4	5
8. Time seemed to alter (either slowed down or speeded up).	1	2	3	4	5
9. I really enjoyed the experience.	1	2	3	4	5
10. My abilities matched the high challenge of the situation.	1	2	3	4	5
11. Things just seemed to be happening automatically.	1	2	3	4	5
12. I had a strong sense of what I wanted to do.	1	2	3	4	5
13. I was aware of how well I was performing.	1	2	3	4	5
14. It was no effort to keep my mind on what was happening.	1	2	3	4	5
15. I felt like I could control what I was doing.	1	2	3	4	5
16. I was not worried about my performance during the event.	1	2	3	4	5
17. The way time passed seemed to be different from normal.	1	2	3	4	5
18. I loved the feeling of that performance and want to capture it again.	1	2	3	4	5
19. I felt I was competent enough to meet the high demands of the situation.	1	2	3	4	5
20. I performed automatically.	1	2	3	4	5
21. I knew what I wanted to achieve.	1	2	3	4	5
22. I had a good idea while I was performing about how well I was doing.	1	2	3	4	5
23. I had total concentration.	1	2	3	4	5
24. I had a feeling of total control.	1	2	3	4	5
25. I was not concerned with how I was presenting myself.	1	2	3	4	5
26. It felt like time stopped while I was performing.	1	2	3	4	5
27. The experience left me feeling great.	1	2	3	4	5
28. The challenge and my skills were at an equally high level.	1	2	3	4	5
29. I did things spontaneously and automatically without having to think.	1	2	3	4	5
30. My goals were clearly defined.	1	2	3	4	5
31. I could tell by the way I was performing how well I was doing.	1	2	3	4	5
32. I was completely focused on the task at hand.	1	2	3	4	5
33. I felt in total control of my body.	1	2	3	4	5
34. I was not worried about what others may have been thinking of me.	1	2	3	4	5
35. At times, it almost seemed like things were happening in slow motion.	1	2	3	4	5
36. I found the experience extremely rewarding.	1	2	3	4	5

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Jackson & Marsh, 1996, p. 34-35

Appendix C

Interview Guide

Main Questions (will be asked of each participant):

1. Have you ever had an experience similar to the examples presented, and if so what did it involve?

2. If you have had a similar experience, describe the nature of this experience?

Probes (will only be asked as follow ups to the main questions, if appropriate):

Say more about _____?

Talk about _____? (the circumstances surrounding this experience)

When did it occur? Under what circumstances?

How often does it occur?

What is it like when you are totally absorbed in this experience?

What was happening when it occurred?

What effect has this experience had on you?

“No one has mentioned _____, is this an issue?”

“I recall that some of you mentioned _____? Lets talk more about this.”

Final Questions to each participant:

Is there any thing else you would like to share before we finish?

Appendix D
INFORMED CONSENT FORM
Flow and the College Experience

You are invited to participate in a research study. The purpose of this study is to describe the flow experiences of college students.

If you agree to participate in the study, you will be asked to participate in one focus group. This focus group is a group interview with six other students. You will be presented with examples of flow experiences and asked questions concerning similar experiences you may have had. The focus group will last approximately 90 minutes. Over 35 other Maryville College students are being asked to participate in this study.

Although confidentiality is difficult to maintain in the focus group setting, the following measures will be taken to limit disclosure. All participants will be asked to not repeat what was discussed during the focus group sessions. You will be given a code with which to mark each document. Audio tapes will be used to record the focus groups, but no names will be used on the tapes. All materials, tapes, written responses, and your signed consent forms will be locked in a file cabinet at the principal investigator's office at Maryville College or in the Educational Psychology and Counseling Department at the University of Tennessee. Your data will not be released outside this study unless you specifically give permission in writing to do otherwise. No reference will be made in oral or written reports, which could link you to the study. All records will be destroyed in three years.

There are no direct benefits and no anticipated risks to your participation in this project.

If you have questions at any time about the study or procedures, you may contact the researcher, Andy Lewter, at Maryville College's Office of Student Development by calling (865) 981-8215. If you have questions about your rights as a participant, contact the Research Compliance Services section of the Office of Research at the University of Tennessee, Knoxville at (865) 974-3466.

Your participation in this study is completely voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at anytime without penalty and without loss of benefits to which you are otherwise entitled.

I have read the above information and agree to participate in this study. I have received a copy of this form.

Participant's Name (print) _____

Participant's Signature _____

Date _____

Appendix E Flow Examples

A Runner's Experience:

“I felt really in control, just felt terrific the whole way, and didn't feel the pain that I would normally feel in that run.... I just really enjoyed the experience of running and really had probably the most successful race ever of my life.... It wasn't as painful as the others. I felt very in control, I felt very strong. I was able to run as I had planned.... I felt really focused. I felt like, you know, like athletes say, “It clicked”; it felt great the whole way” (Jackson & Csikszentmihalyi, 1999).

Female Music Composer:

“I am really quite oblivious to my surroundings after I really get going. I think that the phone could ring, and the doorbell could ring, or the house burn down, or something like that.... When I start working, I really do shut out the world. Once I stop, I can let it back in again” (Csikszentmihalyi, 1975a, p. 41).

Expert Rock Climber:

“You are so involved in what you are doing [that] you aren't thinking of yourself as separate from the immediate activity.... You don't see yourself as separate from what you are doing” (Csikszentmihalyi, 1975a, p. 39).

Dancer:

“Your concentration is very complete. Your mind isn't wandering. You are not thinking of something else; you are totally involved in what you are doing.... Your body is awake all over.... Your energy is flowing very smoothly. You feel relaxed, comfortable, and energetic” (Csikszentmihalyi, 1975a, p. 39).

If you have had experiences similar to these examples, please jot down a few examples on the back of this page.

Appendix E
Flow Examples
(Second Page)

Gender _____ Age _____ Packet Code _____

Major _____ Race/Ethnicity _____

Classification: Sophomore Junior Senior

Appendix F
Research Team Member's Pledge of Confidentiality

Flow and the College Experience

Research Team Member's Pledge of Confidentiality

As a member of this project's research team, I understand that I will be reading transcriptions of confidential group interviews and/or assisting with focus group sessions. The information in these transcripts has been revealed by research participants who participated in this project on good faith that their interviews would remain strictly confidential. I understand that I have a responsibility to honor this confidentiality agreement. I hereby agree not to share any information from this project with anyone except the primary researcher, his/her doctoral chair, or other members of this research team. Any violation of this agreement would constitute a serious breach of ethical standards, and I pledge not to do so.

Research Team Member

Date

Appendix G
Transcriber's Pledge of Confidentiality

Flow and the College Experience

Transcriber's Pledge of Confidentiality

As a transcribing typist of this research project, I understand that I will be hearing tapes of confidential group interviews. The information on these tapes has been revealed by research participants who participated in this project on good faith that their interviews would remain strictly confidential. I understand that I have a responsibility to honor this confidentiality agreement. I hereby agree not to share any information on these tapes with anyone except the primary researcher of this project. Any violation of this agreement would constitute a serious breach of ethical standards, and I pledge not to do so.

Transcribing Typist

Date

Vita

John Anderson “Andy” Lewter received a Bachelor of Arts degree in political science from the University of Tennessee at Martin in 1994 and a Master of Education degree in Student Personnel Services from the University of South Carolina in 1996.

He came back to Tennessee in the Spring of 1996 and began working at Maryville College as the Director of Career Services. In 1998, he was promoted to Assistant Dean of Student having responsibility for judicial affairs, orientation, and student government. He was promoted to Associate Dean of Students in the summer of 2008.

He expects to receive his Doctor of Education degree in Educational Administration and Policy Studies (Higher Education) from the University of Tennessee, Knoxville in May of 2009.