PERCEPTION OF OPPORTUNITY FOR INNOVATION AND PRODUCTIVITY IN RELATION TO SUBJECTIVE WELL BEING OF INTERIOR DESIGN EDUCATORS AT MAJOR UNIVERSITIES IN THE UNITED STATES

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Submitted to the Faculty of the
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Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF PHILOSOPHY
August, 2001

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AND PRODUCTIVITY IN RELATION TO

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UNIVERSITIES IN THE

UNITED STATES

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ACKNOWLEDGMENTS

I am especially grateful to Dr. Shiretta Ownbey for her continual leadership and encouragement throughout this process. She has done much more than just serve as chair of my committee. She has guided me cheerfully along this academic adventure, never losing faith in the value of this research project.

Others at Oklahoma State University who deserve my appreciation are the members of my committee: Dr. Donna Branson, Dr. Cheryl Farr, and Dr. Kay Bull. Dr. Branson also serves as head of the Department of Design, Housing, and Merchandising, and in this role has been especially helpful in this project. Dr. Farr is also a member of the Department of Design, Housing, and Merchandising. She has never failed to take the time to discuss this project with me. Dr. Bull provided his usual keen perspective on research from his position in the College of Education. I also wish to express my appreciation to Dr. Janice Williams Miller and Dr. Larry Claypool for their guidance on the statistical portions of this study.

Finally, I would like to thank those who are closest to me: my parents, Roger and LaVera Thibeau, who provided encouragement and other support, and most especially, my wonderful husband, John, who has been a saint throughout these past few years. Thank you all.

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CHAPTER I

INTRODUCTION

As the 21st century unfolds, organizations are discovering that they must be more innovative in order to address the forces of change. These forces involve technology, demographics, and available resources. Technology has allowed advances that expand global networking and new market opportunities. Demographic changes have occurred because of the impact of the aging baby-boomer generation and its offspring. Resources have changed due to population shifts, corporate downsizing, and global competition (Naisbitt & Aburdene, 1990; Victor, 1999; West, 1999; Wind & Main, 1998).

Like most organizations, universities also face the same impacts of change from technology, demographics, and resources. But unlike commercial organizations, universities have additional obligations to their state and local communities. In the 1890s, land-grant universities were challenged with being innovative when they were asked to provide training and preparation for students who were shifting from an agrarian to an industrial way of life (Rudolph, 1990). Now, at the beginning of the 21st century, land-grant universities, as well as most universities, are asked to provide training and preparation for students shifting from an industrial to an information and technological-based way of life (Rudolph, 1990). Like corporate and private organizations, university

organizations depend on their people, and in particular faculty members, to be innovative and adaptive to the changes brought about by technology, demographics, and resources (Bean, 1998; Victor, 1999; West, 1999).

Innovation

Being innovative involves the recognition and flow of new ideas and ways of doing things. Innovation implies being creative and developing creative ideas, but also putting those ideas into action (Amabile & Conti, 1999). "Innovation concerns those behavioral and social processes whereby individuals, groups, and organizations seek to achieve desired changes or to avoid the penalties of inaction" (West & Rickards, 1999, p. 45). Currently, as well as in future "knowledge-intensive" societies, universities will play a role that demands an innovative work environment (Bean, 1998; Gryskiewicz & Epstein, 2000; Victor, 1999; West, 1999).

Theoretical Foundation

The theoretical foundation for this study is based on three components. The first component involves self-determination theory and the construct of subjective well being (Deci, Koestner, & Ryan, 1999; Diener, 1984, 1994, 2000; Diener & Fujita, 1995; Ryan & Deci, 2000). The second component concerns Maslow's (1962a, 1962b, 1965, 1968, 1970) theory of need-fulfillment satisfaction, and the third component is the context of work environment and its relationship to person-environment fit (Amabile, 1996; Amabile, Conti, Coon, Lazenby, & Herron, 1996; Amabile & Gryskiewicz, 1989; Isaksen, Puccio, Treffinger, 1993; Siegel & Kaemmerer, 1978; Tinsley, 2000).

Self-determination Theory and the Construct of Subjective Well Being

Self-determination theory is a "metatheory that highlights the importance of humans' evolved inner resources for personality development and behavioral self-regulation" (Ryan & Deci, 2000, p. 68). This theory concerns people's need to grow and self-actualize (Maslow, 1965). It focuses on "growth tendencies and innate psychological needs that are the basis for their self-motivation and personality integration, as well as for the conditions that foster those positive processes" (Ryan & Deci, 2000, p. 68). In other words, self-determination theory concerns "the design of social environments that optimize people's development, performance, and well being" (Ryan & Deci, 2000, p. 68).

The organizational climate may enhance or inhibit an employee's traits of well being. These traits are associated with positive growth experiences, such as "courage, future mindedness, optimism, interpersonal skill, faith, work ethic, hope, honesty, perseverance, and the capacity for flow and insight" (Seligman & Csikszentmihalyi, 2000, p. 7). Well being or sense of subjective well being (Diener, 2000) is a term associated with psychological health-oriented issues that nurture strength and resilience. Within the context of this current study, sense of subjective well being is used as an umbrella term that encompasses the constructs of (a) personal growth initiative (Robitschek, 1998), satisfaction with life (Diener, 2000; Diener, Emmons, Larsen, & Griffin, 1985), and need-fulfillment satisfaction (Maslow, 1970, 1962a, 1965; Porter, 1961). These constructs include three variables that Ryan and Deci (2000) suggest contribute to intrinsic motivation, and as a consequence to subjective well being. These

researchers suggest that the variables of competence, autonomy, and relatedness are social and environmental factors that influence subjective well being (Ryan & Deci, 2000).

Competence requires an environment that provides a communication process that offers task-oriented constructive feedback. In other words, the social-context that fosters feelings of competence during action enhances intrinsic motivation. "Optimal challenges, effectance-promoting feedback, and freedom from demeaning evaluations were all found to facilitate intrinsic motivation" (Ryan & Deci, 2000, p. 70).

Autonomy, or a positive level of internal perceived locus of control (Ryan & Connell, 1989), requires that employees not only perceive themselves as competent, but also experience that their behavior is self-determined. This requires a context that provides feedback in a positive and supportive manner and tolerance for individuals to set appropriate goals for themselves. It is also vital that employees are willing to take ownership for the success or failure of the product (Deci, Koestner, & Ryan, 1999).

Relatedness is a construct that is characterized by the dynamic that occurs in interpersonal settings. Exploration of issues and events is more likely to occur in environments that provide a sense of security. Ryan and Deci (2000) theorize that though "many intrinsically motivated behaviors are happily performed in isolation . . . proximal relational supports may not be necessary for intrinsic motivation, but a secure relational base does seem to be important for the expression of intrinsic motivation to be in evidence" (Ryan & Deci, 2000, p. 71).

Need-fulfillment Satisfaction

Self-determination theory links underlying intrinsic motivation to issues of alienation. Theoretically, it attributes lack of initiative and authenticity to the misuse of extrinsic motivation. The theory suggests that extrinsic motivation undermines the process of internalization and, thus, produces diminished functioning. The social context, as well as the environment must be examined to assess the degree to which the needs of competence, autonomy, and relatedness are being satisfied (Ryan & Deci, 2000). Maslow (1968) would suggest that if an individual's lower level needs are not satisfactorily being met (i.e. safety and security, love and belonging) then higher level needs (i.e. social esteem and self-actualization needs) will not be stimulated (Maslow, 1962a, 1962b, 1965, 1968, 1970). Whether the basic needs are physical or psychological, they represent an "energizing state that, if satisfied, conduces toward health and well being, but, if not satisfied, contributes to pathology and ill-being" (Ryan & Deci, 2000, p. 74). Ryan and Deci (2000) propose "that the basic needs for competence, autonomy, and relatedness must be satisfied across the life span for an individual to experience an ongoing sense of integrity and well being (Ryan & Frederick, 1997).

Context of Work Environment and its Relationship to Person-Environment Fit

The context of the work environment provides the support or hindrance for creativity and innovation (Amabile, 1996). Individuals can develop methods for cognitively distancing themselves from a negative work environment characterized by excessive restraints, fear of failure, preoccupation with order and tradition, and a reliance on ineffective algorithms. Nevertheless, an individual's sense of support in the work

environment, at least to some degree, is a link to, not only their productivity, but to their sense of subjective well being (Basadur, 1997; Dawis, 2000; Isaksen, Puccio, & Treffinger, 1993; Kirton, 1976; Ryan & Frederick, 1997; Ryhammar & Smith, 1999; Smith, Anderson, & Lovrich, 1995; Tinsley, 2000). The elements of support are leadership, ownership, norms for diversity, continuous development, and consistency (Siegel & Kaemmerer, 1978). These characteristics make up the organizational climate and reflect the attitudes and expectancies held by the organization.

Amabile (1996), along with other researchers, suggests that a good match between the needs of the organization and the domain-relevant skills, creativity-relevant skills, and task motivation of the individual, is important for creativity and innovation to occur (Amabile, 1996; Amabile, et al., 1996; Amabile & Gryskiewicz, 1989; Dawis, 2000; Isaksen, et al., 1993; Siegel & Kaemmerer, 1978; Tinsley, 2000; Trankina, 1991).

Summary

Teaching, research, and service efforts are complex projects that require innovative behavior (Bean, 1998; Endres & Wearden, 1996; Kirton, 1976). Faculty members are problem solvers who experience continual demands for creativity and innovation. One reason for this is that educators interact socially at a variety of levels, while at the same time, they are the gatekeepers for their profession (Seiler & Pearson, 1985; Singh, Dalal, & Mishra, 1998; Smith, Anderson, & Lovrich, 1995). The result of this multi-level interaction is a context of work that is a mix of criticism and competition, as well as support. This context may influence the ability of educators to be innovative across all levels of the problem solving process. The context of multi-level interaction, as

well as the context of organizational change, which universities now face, may influence faculty members' sense of subjective well being (Cervero, 1999; Endes & Wearden, 1996; Greaves & Sorenson, 1999; Miskell & Heller, 1973; Pearson & Seiler, 1983; Plascak, 1988; Plascak-Craig & Bean, 1989; Singh, et. al., 1998).

The need for problem solving and innovation will continue in the future as technology influences teaching and learning. Likewise, the balance of forces between innovation and conservation will become more critical (Bean, 1998; Ekvall & Ryhammar, 1999). Therefore, it will be helpful to gain a greater understanding of how the organizational climate enhances faculty perceptions of their sense of subjective well being in relation to their perceptions of support for innovation in the organization.

Purpose of the Study

Innovation involves creative problem-solving, but also implies taking action to create solutions (Amabile, 1996). Interior design educators at major universities may be experiencing the challenge of finding a balance between their own tendency toward being innovative and a sense of perceived support for innovation in their organizational climate (Dohr, 1991; Fowles, 1991; Guerin, 1991). The issue of fitting into an organizational context (Ekvall, 1999; Isaksen, Puccio, & Treffinger, 1993) may be the result of perceptions, pressures, resources, or communications in relation to educators' sense of perceived support for innovation in their work environment (Amabile & Gryskiewicz, 1989; Siegel & Kaemmerer, 1978). As a result of an educator's sense of fit and their level of self-determination, their sense of perceived support for innovation in their work environment may influence their sense of subjective well being (Buckmaster & Davis,

1985; Friedlander, 1963; Miskell & Heller, 1973; Pearson & Seiler, 1983; Plascak, 1988; Porter, 1961; Rhodes, 1990; Robitschek, 1998; Ronan, 1970; Ryan & Deci, 2000; Ryff, 1989; Waters & Roach, 1973; Wernimont, Toren, & Kapell, 1970; Wolf, 1970).

The overall purpose of this study was to investigate interior design educators' perceptions of their sense of subjective well being, in relation to their sense of perceived support for innovation in their organizations. The variable of sense of subjective well being includes the following constructs: (a) need-fulfillment satisfaction, (b) personal growth initiative, and (c) satisfaction with life.

The benefits of this study are two-fold: (a) To provide information for self-assessment in relation to job satisfaction and personal growth, and (b) to provide improved self-awareness of contextual work needs, which may aid faculty job stability.

Objectives

To achieve the general purpose of the study, the following objectives were established:

1. To investigate interior design educators' sense of subjective well being within the organizational climates where they work;

2. To investigate interior design educators' perceived support for innovation within the context of their organizational climates; and

3. To examine relationships among interior design educators' perceived support for innovation in their organizations, perceived sense of subjective well being, and demographic characteristics.

Hypotheses

Based upon the purpose of the study, eleven hypotheses were identified.

1. There is no statistically significant difference between each of the three constructs that comprise Sense of Subjective Well Being (a. Personal Growth Initiative, b. Satisfaction with Life, c. Need-fulfillment Satisfaction) of interior design educators whose highest academic degree is a masters' degree and each of the three constructs that comprise Sense of Subjective Well Being (a. Personal Growth Initiative, b. Satisfaction with Life, c. Need-fulfillment Satisfaction) of interior design educators whose highest academic degree is a doctoral degree.

2. There is no statistically significant difference between each of the three constructs that comprise Sense of Subjective Well Being (a. Personal Growth Initiative, b. Satisfaction with Life, c. Need-fulfillment Satisfaction) of interior design educators who have earned tenure and each of the three constructs that comprise Sense of Subjective Well Being (a. Personal Growth Initiative, b. Satisfaction with Life, c. Need-fulfillment Satisfaction) of interior design educators who have not yet earned tenure.

3. There is no statistically significant difference between each of the three constructs that comprise Sense of Subjective Well Being (a. Personal Growth Initiative, b. Satisfaction with Life, c. Need-fulfillment Satisfaction) of female interior design educators and each of the three constructs that comprise Sense of Subjective Well Being (a. Personal Growth Initiative, b. Satisfaction with Life, c. Need-fulfillment Satisfaction) of male interior design educators.

4. There is no statistically significant difference between each of the three constructs that comprise Sense of Subjective Well Being (a. Need-fulfillment

Satisfaction, b. Personal Growth Initiative, and c. Satisfaction with Life) of interior design educators who are 30 years of age and younger and each of the three constructs that comprise Sense of Subjective Well Being (a. Personal Growth Initiative, b. Satisfaction With Life, and c. Need-fulfillment Satisfaction) of interior design educators who are 31-40, 41-50, 51-60, or 61 and older.

5. There is no statistically significant difference between the Productivity Index of interior design educators whose highest academic degree is a master's degree and the Productivity Index of interior design educators whose highest academic degree is a doctoral degree.

6. There is no statistically significant difference between the Productivity Index of interior design educators who have earned tenure and the Productivity Index of interior design educators who have not yet earned tenure.

7. There is no statistically significant difference between the Productivity Index of female interior design educators and the Productivity Index of male interior design educators.

8. There is no statistically significant difference between the Productivity Index of interior design educators who are in five different age categories (a. 30 years and younger, b. 31-40, c. 41-50, d. 51-60, and e. 61 years and older).

9. Among the three Sense of Subjective Well-being constructs (a. Need-fulfillment Satisfaction, b. Personal Growth Initiative, and c. Satisfaction with Life) there are no statistically significant relationships with the Productivity Indexes of interior design educators.

10. Among the three Sense of Subjective Well-being constructs (a. Personal Growth Initiative, b. Satisfaction with Life, and c. Need-fulfillment Satisfaction) there are no statistically significant relationships with Perceived Support for Innovation in the Organization of interior design educators.

11. Among the three Sense of Subjective Well-being constructs (a. Personal Growth Initiative, b. Satisfaction with Life, and c. Need-fulfillment Satisfaction) there are no statistically significant predictors of Perceived Support for Innovation in the Organization of interior design educators.

Assumptions

For the purposes of this study, it is assumed that personal growth initiative, satisfaction with life, and need-fulfillment can be self-assessed. Further, study participants can communicate the self-assessments when responding to the items addressing their perceptions of their organizational climate and their sense of subjective well being. It was also assumed that the subjects understood the subject matter and responded appropriately to the instruments.

Limitations

This study was limited to one data collection method, surveying interior design educators at major universities in the United States. Therefore, the results of the study may be generalized to this population only. The investigation was limited to the organizational climate of the departments in which the interior design educators represented in the sample were employed. The predictors were limited to assessing the organizational climate and not attitudes or events beyond the work environment.

The researcher calculated the Productivity Index employed in this study by summing the number of courses each educator taught, on average, per academic year and the number of creative or research scholarship items that were disseminated by the educator in one year. Clearly, productivity of faculty members includes a complex set of assignments and contributions (in addition to scholarship and instruction). Consequently, for the purposes of this research project the index must operate as a construct that "links relations among phenomena" (Vogt, 1993, p. 44). Similar to the artificiality of measuring the construct of intelligence, the construct of productivity can always be questioned. Nevertheless, the Productivity Index offers a basis for comparing the number of classes taught per year and the number of scholarship items disseminated per year, among faculty members from a variety of institutions and investigating possible linkages between educators' productivity and other variables.

Working Definitions

The following terms are defined as they are used in the context of the present study.

1. Creativity can be defined "as the processes leading to the generation of new and valued ideas" (West & Rickards, 1999, p. 45). "The modern definition of creativity has moved away from aesthetics and discovery to an emphasis on meeting competition" (Cropley, 1999, p. 511). The ideas of novelty, relevance, and effectiveness are important to defining creativity. Creativity can also be defined as a social phenomenon that can be facilitated or hindered by factors in the micro and macro environment, such as the workplace. Here the interaction between the person and the environment can affect the process of innovation (Cropley, 1999).

2. The concept of climate when applied to a social setting has symbolic meaning describing the social context of the environment. Researchers theorize that there is a relationship between resources and organizational climate, and their influence on productivity, job satisfaction, innovation, employee well being, and profits (Amabile & Conti, 1999; Ekvall, 1999; Siegel & Kaemmerer, 1978).

3. Global job satisfaction refers to general satisfaction or dissatisfaction with an organization or job. Global job satisfaction is the issue of concern rather than the issue of general life satisfaction. Job satisfaction is considered to be a dimension of general life satisfaction. Job satisfaction refers to the level to which employees have a positive orientation toward their place of employment (Porter, 1961).

4. Innovation implies action related to the development of unique, novel, or creative ideas being produced. "Innovation concerns those behavioral and social processes whereby individuals, groups, or organizations seek to achieve desired changes or to avoid the penalties of inaction" (West & Rickards, 1999, p. 45). Innovation concerns any new or improved means of doing or producing something.

5. Need satisfaction refers to Maslow's theory of "basic or primary needs, such as those for food, water, and sleep, that an individual satisfies (at least minimally) first, after which he turns to so-called higher-order needs, such as those for affiliation, nurturance, and esteem. Finally, if the individual has achieved some degree of satisfaction of these first-order and middle-order needs, he may then spend effort on trying to satisfy the highest-order need, that of self-actualization—the "desire for self-fulfillment, namely...the tendency [for a person] to become actualized in what he is potentially...the desire to become more and more what one is, to become everything that one is capable of

becoming..." (Maslow, 1970, p. 91).

6. Organizational climate refers to "recurrent patterns of behavior, attitudes, and feelings that characterize life in an organization" (Ekvall, 1999, p. 403). It is the manner in which an organization relates to its members, as well as how the members relate to the organization. The organizational climate is a two-way process of communication, whereas the psychological climate, characterizes how the members of the organization relate to the organization, which is more of a one-way process (Ekvall, 1999). The interchange of organization to members and members to organization creates a climate that supports or inhibits innovative production (Amabile, 1996; Siegel & Kaemmerer, 1978).

7. Person-Environment Fit refers to a correspondence or congruence of the employee to a job. This concept of fit involves three measures. The first is employee desires, which are characterized as "needs," "goals," "values," "interests," and "preferences." Part of the issue of employees' desires is their interpretation of job attractiveness, or what inner need is being addressed by their being attracted to the position. The second measure involves the job constructs, which include "reinforcers," "benefits," "maintainers," and "payoffs." These constructs may be referred to as "supplies." The third measure involves employee abilities, such as "education," "experience," "aptitudes," "abilities," "intelligence," and "motivation." The outcome of a good "fit" suggests benefits of "(a) reduced job stress, strain, anxiety, absenteeism, turnover intentions, and turnover; (b) improved physical health, psychological health, emotional stability, adjustment, goal-setting behavior, coping, adaptation, attitudes toward learning, and vocational choice; and (c) increased creativity, motivation,

performance, occupational success, commitment, tenure, job satisfaction, and work morale" (Tinsley, 2000, p. 149).

8. Sense of subjective well being incorporates "people's cognitive and affective evaluations of their lives" (Diener, 2000, p. 34). Sense of subjective well being is related to the concept of happiness and a concern with self-fulfillment (Diener, 2000). For the purposes of this study, sense of subjective well being incorporates the constructs of personal growth initiative (Robitschek, 1998), satisfaction with life (Diener, 2000; Diener, et al., 1985), and need-fulfillment satisfaction.(Maslow, 1970, 1962, 1965; Porter, 1961). Further, studies of sense of subjective well being are guided by the concepts explained by self-determination theory. This theory focuses "on the social—contextual conditions that facilitate versus forestall the natural processes of self-motivation and healthy psychological development" (Ryan & Deci, 2000, p. 68).

CHAPTER II

REVIEW OF LITERATURE

Introduction

Based on the purpose and objectives of the research study, the Review of Literature examines (a) the context of change at many major universities, (b) the sense of subjective well being, (c) the context of the work environment and person-environment fit, and (d) a summary. The "Context of Change at Many Major Universities" component of the Review of Literature includes information on the issues of changing technology at universities, directions that the United States higher education system may take, and changes in the student body. The "Sense of Subjective Well Being" component of the Review of Literature includes information on the following subject areas: (a) Personal growth initiative, (b) satisfaction with life, and (c) need-fulfillment satisfaction. The "Context of the Work Environment and Person-Environment Fit" component of the Review of Literature includes information on the following subject areas: (a) The work environment, (b) work environment as an organizational climate and fit, (c) productivity, and (d) person-environment fit.

Context of Change Occurring at Many Major Universities

The needs of students, the characteristics of the student body, and methods of delivering knowledge to students are changing in the information age of the 21st century. Technology has afforded a global marketplace for education as well as a variety of technological vehicles with which to educate. Post-secondary education is being impacted by driving forces to bring about change, but the greatest deterrents to change seem to be faculty, costs, and the reluctance to alter the image of the university "as purveyors of knowledge" (West, 1999, p. 1). Since the 1990s and the advent of "affordable information technology through the use of the Internet and the World Wide Web," (Victor, 1999, p. 2) universities have had to recognize the challenge of their role as the sole repository of knowledge (Victor, 1999). Researchers speculate that students of the 21st century will be unwilling to invest in expensive degree-granting programs and prefer to rely on the availability of technology to deliver information (Apps, 1988; Victor, 1999; West, 1999).

Researchers suggest several directions that U.S. education may take in the future. The first view focuses on the concept of experience camps. These camps would be publicly funded enterprises, which provide study and social service experiences. A second possible direction is corporate-focused universities directed at the non-traditional student, such as those already created by Harcourt Brace and Bergdorf Goodman (Blumenstyk, 1999b). A third direction is advanced learning networks, educational enterprises without campuses.

Mega-universities outside the U.S. have already established themselves as prime competitors in distance learning. Turkey's Anadolu University is the world's largest,

with an enrollment of 577,804 students and a full-time faculty of 579 and a part-time faculty of 680. Electronic institutions exist in China, South Korea, India, Indonesia, South Africa, Thailand, and Iran. These schools reportedly have between 100,000 and 350,000 students enrolled annually (Victor, 1999). The U.S. has the Western Governors University and the University of Phoenix, which are advanced learning networks without campuses. The growth of electronically delivered education will have great impact on the 3,500 existing colleges and universities in the U.S., as well as their $175 billion collective annual budget (Victor, 1999).

One of the forces that contributes to the conditions which foster the need for an electronic-based educational system is not only a reallocation of resources and the availability of technology, but a change in the student body. There is a shortage of traditional students who can or who are willing to support this country's investment and tradition of classroom teaching (Victor, 1999). Today, fewer than 25% of the national student body represent the traditional college-student demographic. The characteristics of the traditional student describe an individual who is a recent high school graduate, 18-21 years old, and has no professional work experience (Twigg, 1994). The evolving college population is comprised of adult students who are over the age of 25. They are non-residential students who are working full time (Katz, Blustain, Duderstadt, Farrington, Goldstein, Graves, & Lozier, 1999).

Lifelong learning is recognized as a need for most individuals entering today's workforce. Either through personal growth or changing market conditions, individuals will change jobs or career directions five to six times during their careers (Rowley, Luhan, & Dolence, 1998). Today's employees are expected to have entrepreneurial

attitudes, to have a specialty, and to think globally. The needs of the information age place different demands on today's future employees than the employees of the industrial age. As the non-traditional student has different demands placed on them, they in turn have different expectations of the university. Post-secondary education may need to be as innovative as industry in meeting the challenges of the information age (Apps, 1988; Cervero, 1999; Lynton & Elman, 1987; Rowley, Lujan, & Dolence, 1998). The term that business and industry has used to address the need for change is "re-engineering the corporation. Re-engineering the corporation meant that there entire management system needed to be changed" (Saba, 2001, p. A33).

Similar to corporate middle-management employees, who are the agents of change in the business world, the critical agents of change at universities are the faculty members. As change agents, faculty members must prepare themselves to address new demands for change. Faculty members at universities are learning technology at an ever-increasing pace. They must learn to use the technology in research, in the classroom, and to train the students to use technology. At the same time that faculty address subject-matter activities, they now must learn to address instructional and educational design issues when they develop and/or deliver online courses. In growing numbers, faculty members are not only interacting with students at different levels than in the past, but they are interacting with a growing number of support personnel as they create more technologically-driven courses (Saba, 2001, p. A33; Victor, 1999).

Electronic forms of publication impact the pace of technological change. Virtual publications may take the place of printed forms of publication. Virtual publication will also influence the use of textbooks, as well as the production of and access to journal

publication. The consequence of more research, more readily available, and to a broader audience may impact teaching, research, and service requirements. New research may have broader access and faster feedback. Virtual publishing may be "an extension of the virtual classroom" (Victor, 1999, p. 1).

Organizational change at universities may demand transformational learning on the part of individual faculty members due to the changing demands of students, the changing demands of technology, and the changing levels of resources available to universities. Faculty may need to cope with these demands by being creative and innovative in order to learn and grow, and at the same time maintain a sense of well being.

Sense of Subjective Well Being

Sense of subjective well being incorporates three constructs: (a) Personal growth initiative, (b) satisfaction with life, and (c) need-fulfillment satisfaction. This section of the Review of Literature summarizes the characteristics that influence one's sense of subjective well being. Sub-sections focus on personal growth initiative, satisfaction with life, and need-fulfillment satisfaction.

A general sense of subjective well being incorporates characteristics such as "hope, wisdom, creativity, future mindedness, courage, spirituality, responsibility, and perseverance" (Seligman & Csikszentmihalyi, 2000, p. 5). These characteristics are aligned with the characteristics that many individuals associate with the concept of "happiness" (Myers, 2000). These characteristics are usually associated with positive health conditions as described by Maslow (1968) and Rogers (1980). A sense of

subjective well being is also associated with the following characteristics: (a) Self-acceptance, (b) positive relations with others, (c) autonomy, (d) environmental mastery, (e) purpose in life, and (f) personal growth (Diener, 2000). Self-acceptance incorporates the concept that individuals possess a positive attitude toward themselves and their goals. Positive relations with others suggest that individuals have trusting relationships with colleagues. Autonomy refers to individuals having an independent and self-guided attitude towards their teaching, research, and service activities. They have successfully integrated the standards of their field and these standards guide their professional development. Environmental mastery suggests that individuals have a sense of competence in managing tasks that they know must be completed for them to fulfill their professional goals. In addition, environmental mastery includes the concept of making effective use of surrounding opportunities. Further, environmental mastery incorporates the life characteristics of having a sense of direction and goal development. As a consequence, individuals believe in the value of their past activities, as well as value the meaning and purpose of their present life.

Personal Growth Initiative

The personal growth characteristic indicates an attitude of continued development. Individuals recognize that they are in a process of realizing their potential. They believe that they are growing and expanding in their area of work, are open to new experiences, and feel effective (Bean, 1998; Fernandez & Mateo, 1993; Pearson & Seiler, 1983; Plascak-Craig & Bean, 1989; Riger, Stokes, Raja, & Sullivan, 1997). Maslow (1965, 1968) associates these experiences with higher-level needs, and consequently with a tendency toward self-actualization.

The Personal Growth Initiative Scale can be associated with humanistic philosophy and psychology of Abraham Maslow's (1968) self-actualization theories and Carl Rogers' (1980) person-centered development theories. Humanist-oriented theorists associate personal growth with positive psychology (Rogers, 1980). Having a good life (Rogers, 1980) corresponds with the concept of a tendency to grow toward self-actualization (Maslow, 1968) of one's potential. Individuals tend to approach life as a process of exploration rather than defining their successes or failures based on specific outcomes (Maslow, 1970). The issue of personal growth initiative is based on striving or working toward a goal rather than focusing on outcomes or reaching ideals. Individuals grow and describe themselves as happy, whether they are experiencing setbacks as they move toward their goals, or whether they are modifying their directions (Robitschek, 1998). Developmental, environmental and intentional processes can stimulate personal growth, even without the individual's knowledge or awareness of the process (Robitschek, 1998). Frequently, though, individuals intentionally pursue activities that may foster personal growth, such as taking on projects or jobs that they actively know will involve them in a process of personal change. Altering one's vocational choice is an example of actively engaging "in self-exploration to find a better fit within the world of work" (Robitschek, 1998, p. 183).

In theory, individuals most able to deal with change processes across their life span have "high levels of self-efficacy (Bandura, 1977) for the domain of personal growth and change (Robitschek, 1998, p. 184). "The term *Personal Growth Initiative* (PGI) describes this active, intentional engagement in the process of personal growth. PGI encompasses the cognitive components of self-efficacy, including beliefs, attitudes,

and values that support personal growth....PGI, however, is much broader than self-efficacy in that it includes behavioral components as well, which involve implementing these cognitions across growth domains" (Robitschek, 1998, p. 184).

Satisfaction with Life

Satisfaction with life is a concern of global satisfaction. The concept refers to cognitive-judgmental aspects of life satisfaction, and can be defined as "a global assessment of a person's quality of life according to his [sic] chosen criteria" (Shin & Johnson, 1978, p. 478). This assessment is subjective in the sense that one's "judgments of satisfaction are dependent upon a comparison of one's circumstances with what is thought to be an appropriate standard," not the criteria of the researcher (Diener, et al., 1985, p. 71). Diener, et al. (1985) suggest that it is important to let the individual assess his/her satisfaction based on the person's unique set of attitudes and values, "rather than summing across their satisfaction with specific domains, to obtain a measure of overall life satisfaction" (p. 71).

Need-fulfillment Satisfaction

Need-fulfillment satisfaction can be interpreted according to Maslow's (1965) concepts of eupsychian psychology, which is very close to McGregor's (Tiffin & McCormick, 1965) Theory Y management theory, as well as the humanistic approach to facilitating activities in the workplace. Maslow's (1965) eupsychian psychology suggests a work environment where "evolved individuals assimilate their work into the identity, into the self (i.e., work actually becomes part of the self) part of the individual's definition of himself. Work can be psychotherapeutic, psychogogic (making well people

grow toward self-actualization)" (p. 1). Maslow (1965) suggests this integration process is healthy for healthy people within a system. He goes on to suggest that this activity of identifying and integrating organizational goals and objectives that match one's personal goals and objectives, results in a circular growth process through which the individual as well as the organization grow and prosper.

Self-actualization occurs when there is a minimal amount of threat-rigidity (Staw, Sutton, & Pelled, 1994). Threat-rigidity occurs when organizations are under stress brought about by drastic changes or threatening conditions. Employees are able to recognize when a mechanistic shift in behavior occurs. This behavior shift includes the following characteristics: (a) Centralized control, (b) conservation of resources, (c) restricted information flow, and (d) a reliance on familiar, well-practiced routines (Amabile, 1997a; Staw et al., 1994). In contrast to an environment characterized by threat-rigidity, Amabile (1996) and other researchers (Ryan & Deci, 2000; Siegel & Kammerer, 1978; Staw, et al., 1994) describe a positive work environment as having the following characteristics: (a) Encouragement of creativity, (b) autonomy or freedom, (c) adequate resources and information, (d) a balance of positive challenge and negative workload pressure, and (e) collegial support. The work of these researchers suggests that an organization's work environment does influence creative behavior.

Context of the Work Environment and Person-Environment Fit

The environment in which faculty work at large universities is a complex mix of values, attitudes, and needs. Within the context of the academic work environment, some individuals will thrive within a context of competition and conflict, while others will

wither or make changes in their environment to survive. Likewise, some individuals will respond positively to the social encounters demanded, and others will withdraw. Some educators will be stimulated by the diversity of tasks, while others will be overwhelmed (Dawis, 2000; Ford, 1999; Gati, 2000; Rickards, 1999; Tinsley, 2000). Whether overwhelmed or stimulated, the faculty members have the closest contact with students. As a result, students experience either the behavior of faculty members who model a pattern of life-long learning and well being or a pattern of stress-related behavior. Cangemi (1984) suggests that the real purpose of education is to foster an environment that encourages self-actualization both in oneself and in one's students (Appes, 1988; Bean, 1998; Cares, 1978). Boyer (1990) suggested that faculty may be able to define their work in such ways that will enrich, rather than restrict the quality of their lives.

The Work Environment

Faculty members' work environments, like that of their corporate counterparts, are complex organisms of personality characteristics and are impacted by their own subjective perceptions of their needs. How faculty members perceive their needs being met in the work environment influences their sense of well being. A synchronicity of goals and values among individuals and the leadership of an organization may contribute to a positive work environment (Maslow, 1968). But a positive work environment is based on individuals who are operating at higher need levels than the safety-need level. According to Maslow's (1965) management-related theories, when fear and insecurity exist, a less positive work environment results. The integration of goals and values must occur in a "relatively anxiety-free" (Maslow, 1965, p. 22) environment. In other words,

individuals must operate with "enough courage to overcome their fears, they must be able to go ahead in the face of uncertainty, etc." (Maslow, 1965, p. 23). Consequently, psychological health is associated with a desire for personal growth and personal challenge (Maslow, 1965). Maslow (1965) suggests that an organization should "assume that everyone prefers to feel important, needed, useful, successful, proud, respected, rather than unimportant, interchangeable, anonymous, wasted, unused, expendable, and [sic] disrespected" (p. 25).

The impulse toward personal growth and self-actualization cannot be considered a universal characteristic in any organization, but in the university environment, with its three-fold mission of teaching, research, and service, there appears to be opportunity for personal growth and self-actualization (Boyer, 1990). The dimensions of teaching and research are cited as satisfying elements for faculty (Cares, 1978; Moxley, 1977; Pearson & Seiler, 1983). Many aspects of faculty life at a university aid creative and positive growth. Maslow (1965) would describe such growth as assuming an "active trend to self-actualization" (p. 23).

Work Environment as an Organizational Climate and Fit

The organizational climate in which educators work is one place to study the quality of their lives, as well as their sense of subjective well being. A sense of subjective well being is related to person-environment fit. The concept of "fit" is used interchangeably with the concept of correspondence or congruence. Correspondence Theory describes the relationship between individuals and the environment in which they find themselves, such as their work environments (Tinsley, 2000). The work

environment has an organizational climate made up of the recurrent patterns of the workers that is based on the "behavior, attitudes, and feelings that characterize life in the organization" (Ekvall, 1999, p. 403). "Climate is distinct from culture in that it is more directly observable within the organization. Culture refers to the deeper and more enduring values, norms, and beliefs within the organization" (Isaksen, Lauer, Ekvall, & Britz, 2000-2001, p. 171). The Theory of Work Adjustment suggests that there are elements in the workplace that correspond to needs, goals, and values. An individual's abilities, aptitudes, and experience have an influence on his/her needs, goals, and values. A combination of these traits and abilities make up an employee's characteristics. The organizational climate also has characteristics. The organization supplies not only benefits, but also motivator and maintenance factors (Herzberg, Mausner, & Snyderman, 1959). When there is correspondence between an employee's characteristics and the organizational climate's characteristics, it is hypothesized that there will be person-environment fit. Researchers further hypothesize that when there is person-environment fit, the outcome is likely to be enhanced psychological health for both the individual and others in the workplace (Maslow, 1965, 1968; Tinsley, 2000). One of the tests of the psychological health of an organization is how employees approach creative problem solving in an effort to be innovative and as a means of coping with change (Amabile, 1996; Amabile & Gryskiewicz, 1989).

Amabile (1996, 1997b) suggests that people who tend toward creative production view their projects as a labor of love. The projects themselves are energizing and drive their behavior. Amabile (1996) theorizes that intrinsic motivation fuels creativity, along with the drive to gain domain-relevant skills (Amabile, 1996; Amabile, Hill, Hennessey,

& Tighe, 1994; Ryan & Deci, 2000). Intrinsic motivation, along with the concept of drive, incorporates the concepts of self-determination, autonomy, and competence (Deci & Ryan, 1985; Ryan & Deci, 2000). In addition, the affective components of interest, excitement, happiness, and the 'flow' of deep task involvement are important (Csikszentmihalyi, 1975, 1978, 1990).

The innovative workplace. An innovative atmosphere in the workplace can be an emergent process, or characteristic of the general attitudes held by the people working together. Emergent innovation is a spontaneous occurrence of workflow among individuals versus a pre-planned effort to produce an innovative product or way of doing something. Research by Amabile and Gryskiewicz (1989) suggests that environmental aspects influencing either climate have the following characteristics: (a) Challenging work, (b) organizational encouragement of creativity, (c) work group supports, and (d) minimal impediments to creativity. Additional aspects that carry lesser weight are: (a) Sufficient resources, and (b) workload pressure. Research on work environments experiencing rapid transition, such as downsizing, showed the following results: (a) All environmental stimulants to creativity declined, and (b) productivity and creativity declined even though workload pressure remained constant (Amabile & Conti, 1999). Amabile's (1996) Componential Framework for Creativity ties task motivation, domain-relevant skills, and creativity relevant skills together.

Innovation depends on creativity, yet creativity tends to be dampened during times of stressful change (Amabile & Conti, 1999). The context in which individuals work "encompasses all elements of the psychological climate of both the formal organization (policies and procedures) and the informal organization (values, norms, and

interpersonal relationships)" and makes up the organizational climate (Amabile & Conti, 1999, p. 631). Gryskiewicz and Epstein (2000) suggest that the most stimulating work climates can be described as environments with "positive turbulence" (p. 2). These researchers suggest that such environments have an "energizing climate, one that upsets the status quo and impels organizations toward renewal. Turbulence--chaotic, bubbling, swirling, frenetic, threatening to drown us all—is the breeding ground for personal, team, and organizational renewal. It may seem only like disruption and chaos, which are both inevitable facts of economic life, but the challenge is to seize it and make it work for you. By creative positive turbulence, organizations can not only survive change but prosper from it" (Gryskiewicz & Epstein, 2000, p. 2).

Productivity. Productivity is considered an outcome of an innovative work environment (Amabile, 1996; Amabile & Conti, 1999). Research by Ryan and Deci (2000) suggests that competency, autonomy, and relatedness influence motivation for creative and innovative behavior and that these characteristics are related to an individual's subjective sense of well being and influence productivity. Ryan and Deci (2000) suggest that whether one is proactive and engaged or passive and alienated is a function of the social conditions in which thee person works. Self-determination theory suggests that the social-contextual conditions that facilitate versus forestall the natural processes of self-motivation and healthy psychological development is related to intrinsic motivational factors. Intrinsic motivation, self-regulation, and well being are related to "three innate psychological needs" (p. 68). Those needs are (a) competence, (b) autonomy, and (c) relatedness.

In many environments, productivity is dependent on similar conditions that foster self-motivation and personality integration. These conditions are related to the same innate psychological needs mentioned previously, which are competence (Harter, 1978), autonomy (Deci & Ryan, 1995), and relatedness (Baumeister & Leary, 1995; Reis, Sheldon, Gable, Roscoe, & Ryan, 2000). These conditions "appear to be essential for facilitating optimal functioning of the natural propensities for growth and integration, as well as for constructive social development and personal well being" (Ryan & Deci, 2000, p. 68). Ryan and Deci (2000) suggest that a work environment, which frustrates these three basic psychological needs, hinders an employee's sense of psychological well being.

Research by Amabile and Conti (1999) suggests that highly creative projects are generally related to work environments which have the characteristics associated with stimulating creative and innovative behavior. The researchers suggest that there is a "relationship between the work environment and the level of creativity produced by individuals..." (p. 631). Individuals working in an environment oriented toward creativity perceive opportunities to be creative, take risks, and be innovative (Siegel & Kammerer, 1978). Additionally, they would have confidence in their problem-solving abilities and their ability to take action (Amabile, 1996; Diener & Fujita, 1995).

Innovative and creative attitudes have additional implications on an individual's health and well being. Studies indicate that responding to job challenges in a creative and innovative manner aids an individual's sense of resilience (Freudenberger, 1977; Maslach, 1976). People who can mold and improve their jobs "to fit their own way of doing things" also are "prone to introduce new and improved ways of doing things"

(West & Rickards, 1999, p. 47). Likewise, these individuals were "more satisfied with their jobs and better adjusted at work than those who did not have such opportunities" (West & Rickards, 1999). For individuals who "experience reduced opportunities to be creative at work, the decrements in their mental health were greater than among those managers and professionals who became temporarily unemployed" (West & Rickards, 1999, p. 47). Likewise, individuals vary in their ability to process the context in which they work. Their ability to immunize themselves to the context of their work environment can influence their total productivity and sense of innovation (Amabile, 1996; Bayer & Dutton, 1977; Levine & Stephan, 1991; Root-Bernstein, 1999; Root-Bernstein, R., Bernstein, M., & Garnier, 1993; Ronan, 1970; Simonton, 1990).

Creativity and taking action in the form of innovative behavior is not only a coping mechanism, but also an important element of empowerment (Ford, 1999; Ford & Borgatta, 1970). Occupational stress theory suggests that both intrinsic and extrinsic factors impact the personality and as a result the person-environment fit. Research suggests that stress, social support, and negative events impact health (Cohen, Tyrell, & Smith, 1993; Cohen & Wills, 1985; Cooper & Marshall, 1976).

Person-environment fit. Person-environment fit is a measure of the relationship between a given worker's preferences regarding certain occupational characteristics, and the actual requirements of that characteristic in a given job (Freudenberger, 1977, 1980; MacNeil, 1981; Maslach, 1976). The view of researchers is that there is "an influence of specific stressors to a 'quality of work life' view that emphasizes the interaction of environment and the personal characteristics of the worker (Person-Environment Fit) as the major determinant of stress in the workplace" (MacNeil, 1981, p. 71).

Summary

Interior design educators may be experiencing challenge with issues of person-environment fit in relation to the context of changing workplace demands. Balancing one's own tendency toward creativity and innovation and one's perceived opportunity for innovation in the organizational climate (Dohr, 1991; Fowles, 1991; Guerin, 1991) may influence the faculty member's person-environment fit. As a consequence, the issue of balance or ecological fit (Ekvall, 1999; Isaksen, Puccio, & Treffinger, 1993) may influence the person's sense of subjective well being. The individual's sense of subjective well being may be related to their sense of need-fulfillment satisfaction (Friedlander, 1963; Plascak, 1988; Plascak-Craig & Bean, 1989; Porter, 1961; Ronan, 1970; Waters & Roach, 1973; Waters, Roach, & Batlis, 1973; Wolf, 1970), personal growth initiative (Robitschek, 1998), and/or global life satisfaction (Diener, Emmons, Larsen, & Griffin, 1985; Diener & Fujita, 1995).

Attitudes of interior design faculty members toward the context of their work environment have not been assessed in previous studies, in relation to their sense of subjective well being and productivity. There is rapid change occurring at land-grant universities and major research universities across the United States, and therefore there is value in gaining an understanding of the interior design educators' work environment. The information will provide an opportunity for self-assessment in relation to job satisfaction and personal growth of interior design faculty members. In addition, there may be a greater understanding of the perceived organizational climates of interior design departments. The overall benefit will be improved job stability and productivity

(Amabile, 1996; Cares, 1978; Deci, Eghari, Patrick, & Leone, 1994; Diener & Fujita, 1995; Diener, Sandvik, Seidlitz, & Diener, M., 1993).

CHAPTER III

METHODS

Introduction

The overall purpose of the study was to investigate faculty members' sense of subjective well being in relation to their perceptions of opportunity for innovation in their work environments and their demographic characteristics. Specific objectives were established to achieve the study purpose. This chapter summarizes the methodology used to achieve the purpose. Included are the following sections: (a) Selection of the sample, (b) description of the pilot study, (c) development of the questionnaire, (d) description of the instrument, (e) instrument design and data collection procedures, (f) analysis of the data, and (g) assumptions.

Selection of the Sample

Data were obtained from full-time, tenure-track interior design faculty members at United States public universities with a student population exceeding 8,000. For the purposes of this study, faculty members are identified as those individuals who have a rank of assistant professor and higher ranks. Identification of the sampling frame was accomplished by using the list of land-grant universities identified by the National Association of State Universities and Land-Grant Colleges (NASULGC, 1995). In

addition, *The Directory of Interior Design Programs* (2000), published by the Foundation for Interior Design Education and Research (FIDER) was used to identify accredited programs. Faculty included in the sample were from FIDER accredited programs, as well as from programs not accredited by FIDER. Each of the department offices of the 64 identified interior design programs were contacted by e-mail and/or telephone and a list of current interior design faculty members was requested. A staff member within each department identified the individuals whom they believed were full-time, tenure-track faculty members. The average number of faculty members identified was four members per department. Data were not requested on how many part-time faculty members were employed within each department. In a few cases, staff members mistakenly identified part-time faculty members as being full-time employees. Data from questionnaires completed by part-time faculty members were not included in the analyses for this study.

Development of the Questionnaire

The questionnaire designed for data collection followed the guidelines recommended by Dillman (2000). The questionnaire included items with a six-point fixed response scale that measured the extent of each respondent's agreement or satisfaction. For the present study, the response options were adapted from the response options used by the authors of the original scales (Diener, et al., 1985; Porter, 1961; Robitschek, 1998). For the present study, a six-point, fixed response scale was employed to avoid neutral responses. The questionnaire consisted of the following sections: (a) Sense of Subjective Well-being Scale (SWB), (b) Perceived Support for Innovation in the

Organization Scale (PSIO), and (c) demographic questions. The Sense of Subjective Well-being Scale consists of the following sub-sections: (a) Personal Growth Initiative Scale (Robitschek, 1998), (b) Satisfaction with Life Scale (Diener, et al., 1985), and (c) Need-fulfillment Satisfaction Scale (Porter, 1961). The demographic questions were developed specifically for the present study. Two demographic items, (a) number of courses taught in an academic year; and (b) number of items disseminated on behalf of creative or research scholarship in the last ten years, were used to create the Productivity Index (see the "Productivity Index" section of this chapter for further details).

Several steps were followed to ensure that the questionnaire was developed using sound procedures. For example, the questionnaire was prepared in a booklet format (Dillman, 2000) and took approximately 15 minutes to complete. The layout of the instrument was influenced by feedback from eight faculty members in the Paul Miller School of Journalism and Broadcasting at Oklahoma State University, who served as reviewers prior to the pilot study. The decision to place the demographic questions last was based on Dillman's (2000) suggestion for ordering the questionnaire items. In addition, permission to use the existing scales was received from the authors of the respective instruments.

Description of the Pilot Study

A pilot study was conducted in February of 2001 with 40 faculty members of the College of Human Environmental Sciences, College of Education, and the College of Arts and Sciences at Oklahoma State University. A questionnaire was sent to 40 faculty members holding tenure-track positions of the rank of assistant professor or a higher

rank. A cover letter described the intent of the pilot survey and asked the faculty members to complete the questionnaire. In addition, participants were asked for feedback regarding the clarity of items on the questionnaire and legibility of the general layout. Fourteen faculty members completed the questionnaire. Minor adjustments were made to the questionnaire based upon feedback from these respondents. For example, one item (Happiness Scale) related to "how you feel about your life as a whole" was deleted. Also, the numbering of items on the Need-fulfillment Satisfaction Scale was adjusted for clarity. In addition, the amount of white space on each page was increased to enhance readability. Also, instructions were improved for brevity and clarity. For example, boldface type was used to highlight key issues within items. Overall, the general format of the questionnaire was adjusted for improved readability.

Description of the Instrument

The instrument used for data collection was comprised of four sections and was presented in a booklet format. Section A included the Personal Growth Initiative Scale and the Satisfaction with Life Scale. Section B of the questionnaire included the Need-fulfillment Satisfaction Scale and Section C included the Perceived Support for Innovation in the Organization Scale. Section D included 16 demographic items developed specifically to achieve the purpose of the present study.

Sense of Subjective Well-being Scale (SWB)

The Sense of Subjective Well-being Scale is comprised of three constructs. Each of the three SWB constructs was measured using a sub-scale of the SWB Scale. The

following sub-sections describe these sub-scales: (a) The Personal Growth Initiative Scale, (b) the Satisfaction with Life Scale, and (c) the Need-fulfillment Satisfaction Scale.

Personal growth initiative scale (PGIS). The Personal Growth Initiative Scale represents the first element of three measures that make up the Sense of Subjective Well-being Scale. Maslow (1968) frequently relates personal growth as a characteristic of self-actualizing individuals. The Personal Growth Initiative Scale (PGIS) is based on Robitschek's (1998) nine-item scale (Items 1 - 9, Section A of the questionnaire in Appendix C). The Robitcheck (1998) scale included a four-point, fixed response scale. The original scale was adapted for the present study by creating a six-point response scale. When analyzing data for the present study, a number representing each participant's response (1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, and 6 = Strongly Agree) was recorded for each of the nine items included in the scale. Then, the scores recorded for the nine items were summed, resulting in a PGIS index that ranged from 9 - 54 for each respondent. A low index represented stronger disagreement with statements included in the scale (greater disagreement with positively stated issues regarding one's sense of personal growth initiative). A higher score represented stronger agreement with statements included in the scale (greater agreement with positively stated issues regarding one's sense of personal growth initiative).

Personal growth is associated with an intentional process in which one is fully aware of one's goals and one's commitment to those goals. Striving rather than reaching the ideal is the critical aspect of personal growth (Robitschek, 1998). The scale was

developed to evaluate outcomes of adults going through wilderness training at the same time that they were experiencing personal and vocational transitions. Researchers theorized that perceived crises and peak experiences might be used as learning opportunities (Robitschek, 1998). Robitscheck (1998) reported Cronbach's alphas of .83 (purpose), .82 (self-confidence), .69 (transitions), .75 (balance), .57 (patterns), and .93 (total score), with interscale correlations ranging from .57 to .82 ($p < .003$).

Satisfaction with life scale (SWLS). The Satisfaction with Life Scale represents the second element of the three measures that comprise the Sense of Subjective Well-being Scale. The Satisfaction With Life Scale is a five-item scale developed by Diener, et al. (1985) to measure global life satisfaction (Items 10 – 14, Section A of the questionnaire in Appendix C). The original Diener, et al. (1985) scale included a seven-point, fixed response scale. However, the original response scale was adapted for the present study, resulting in a six-point, fixed response scale. When analyzing data for the present study, a number representing each participant's response (1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, and 6 = Strongly Agree) was recorded for each of the five items included in the scale. Then, the scores recorded for the five items were summed, resulting in a SWLS index that ranged from 5 – 30 for each respondent. A low index represented stronger disagreement with statements included in the scale (greater dissatisfaction with one's life in general). A higher score represented stronger agreement with statements included in the scale (greater satisfaction with one's life in general). The researcher acknowledges that the scale is narrowly focused on life satisfaction and does not assess positive affect or loneliness.

Diener, et al., (1985) factor analyzed 48 self-report items related to satisfaction

with one's life. "The affect items were eliminated, as were items from satisfaction factors that had loadings less than .60, and 10 items were left. Because of semantic similarity of several item, five were dropped, resulting in a five-item scale, the SWLS" (p. 72). The factor loadings ranged from .61 for the question, "If I could live my life over, I would change almost nothing," to .84 for the question, "In most ways my life is close to my ideal." The Satisfaction With Life Scale was administered along with a battery of subjective well-being measures, for which Diener, et al. (1985) report strong correlations (.58 -.75, n = 176) in a test, retest situation.

Need-fulfillment satisfaction scale (NFS). The Need-fulfillment Satisfaction Scale represents the third element that comprises the Sense of Subjective Well-being Scale, and is based on Porter's (1961) instrument (Items 1 – 31, Section B of the questionnaire in Appendix C). Porter's (1961) scale was based on 18 management-position characteristics to be rated, 15 of which were concerned with need satisfaction. Each of the characteristics were rated by responding to the following questions: (a) "How much of the characteristic is there now connected with your management position?" (b) "How much of the characteristic do you think should be connected with your management position?" and (c) "How important is this position characteristic to you?" For the present study, a six-point, fixed response scale was employed. When analyzing data for the present study, a number representing each participant's response (1 = Strongly Dissatisfied, 2 = Dissatisfied, 3 = Slightly Dissatisfied, 4 = Slightly Satisfied, 5 = Satisfied, and 6 = Strongly Satisfied) was recorded for each of the 31 items included in the scale. Then, the scores recorded for the 31 items were summed, resulting in a NFS index that ranged from 31 – 186 for each respondent. A low index represented greater

dissatisfaction while a higher index represented greater satisfaction with issues of security, workload, support received, perceived competence, criteria used for evaluation, appreciation of teaching and scholarship efforts, autonomy, self-actualization, income level, and opportunity to stay informed.

Porter (1961) investigated the fulfillment of needs in relation to job satisfaction as described by Maslow's (1954/1968) Hierarchy of Needs. Porter's questionnaire followed the Hierarchy of Needs categories as identified by Maslow (1954/1968), which are physiological needs, safety and security needs, love and belonging needs (social), self-esteem needs, and self-actualization needs. Researchers conducted studies to corroborate Porter's (1961) concept of using Maslow's Hierarchy of Needs as the foundation for a questionnaire (Friedlander, 1963; Imparto, 1972; Waters & Roach, 1973; Wernimont, et al., 1970; Wolf, 1970). Porter's (1961) questionnaire asks subjects to answer questions based on perceptions of their position in an organization. Regarding each item, the respondent is asked to assess three questions, which are (1) "How much of this characteristic is there now? (2) How much of this characteristic should there be? and (3) How important is this characteristic to me?" In an initial review of the questionnaire for the present study with eight journalism educators, there was a negative reaction to Porter's original three-part response format. Plascak (1988) incorporated Porter's three response models in her study, but also added a fourth response model which was, "How satisfied are you with this element?" Because the present study focused on need-fulfillment satisfaction, Plascak's fourth response model was adapted for use in this study. A satisfaction model was employed by Fernandez and Mateo (1993) in their survey of faculty members at the Universidad Complutense, Madrid, Spain.

Perceived Support for Innovation in the Organization Scale (PSIO)

The Perceived Support for Innovation in the Organization Scale is based on Siegel and Kaemmerer's (1978) instrument (Items 1 – 14, Section C of the questionnaire in Appendix C). This instrument assesses five dimensions which Siegel and Kaemmerer (1978) identified as characteristic of innovative organizations (leadership, ownership, norms for diversity, continuous development, and consistency). These researchers used a six-point, fixed response scale. The same type of scale was used for the present study. When analyzing data for the present study, a number representing each participant's response (1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, and 6 = Strongly Agree) was recorded for each of the 14 items included in the scale. Then, the scores were recorded for the 14 items and summed, resulting in a PSIO index that ranged from 14 – 84 for each respondent. A low index represented stronger disagreement with statements included in the scale associated with the organizational climate (greater disagreement with positive-oriented statements describing leadership, ownership, norms for diversity, continuous development, and consistency). A higher score represented stronger agreement with statements included in the scale associated with the organizational climate (greater agreement with positive-oriented statements describing leadership, ownership, norms for diversity, continuous development, and consistency).

The 61 items used by Siegel and Kaemmerer (1978) correspond closely to the items used by Amabile and Gryskiewicz (1989) in their "Creative Environment Scales: Work Environment Inventory." For the present study, 14 items were selected to represent the PSIO scale because the items had factor loadings of plus or minus 0.50 in

previous studies. In Siegel and Kaemmerer's (1978) pilot study, the responses to the instrument indicated significant differences were found between traditional and innovative environments ($F(5, 102) = 16.11$, $p < .001$). "High correlations were observed among all the subscales, with the lowest being 0.65" (Amabile & Gryskiewicz, 1989, p. 78). Orpen (1990) replicated the study and also reported the items relating to a single general factor and showing positive relationships between the scores on Perceived Support for Innovation, job satisfaction, work motivation, and job involvement. Therefore, based on the previously reported measures of reliability of the items, the scale was considered appropriate for the concept to be measured (i.e. perceived support for innovation in the organization). Past research has indicated that mail surveys can "validly and discriminately rate job facet satisfactions" (Plascak, 1988, p. 71), can "combine ordinal or interval data ratings of job elements to show a valid response to one's overall emotional response to a job" (Plascak, 1988, p. 71).

Productivity Index

An index was developed to represent productivity for the present study. The index was based on two items within the demographic section of the questionnaire: (a) Number of courses taught in one academic year (Item 9a., Section D of the questionnaire in Appendix C) and (b) number of creative or research items disseminated during the last ten years (Item 11, Section D of the questionnaire in Appendix C). Because the scholarship item was based on productivity over the last ten years, parity had to be maintained among those individuals who had worked ten years or longer and those who had worked fewer than ten years. To achieve this goal, the following procedure was

used. Demographic Item #1 asked respondents to indicate the number of years of experience they had completed as a faculty member in higher education. Those employed ten years or more were assigned a value of 10 for the purpose of calculating the productivity index. Individuals employed fewer than ten years were assigned the actual number of years they had worked as a faculty member in higher education. The rationale for this decision was that individuals employed for ten years or more were actually reporting ten years of "items disseminated" in Demographic item #11. However, educators employed for fewer than ten years were not able to report ten years of scholarship productivity when responding to Demographic item #11. For individuals who had taught ten years or more, total number of "scholarship items disseminated" were divided by ten, resulting in the number of items disseminated in one year. For educators employed fewer than ten years, the number of items disseminated (Demographic item #11) was divided by the years of experience in higher education (Demographic item #1), also resulting in the number of items disseminated in one year. The resulting number of scholarship items disseminated per year was then combined with the number of courses taught in one academic year (Demographic item #9a), resulting in a Productivity Index that was used to test Hypotheses 5-9.

Demographic Questions

The questionnaire included a demographic section to secure the following data: (a) Years of experience as a faculty member in higher education, (b) highest degree held, (c) NCIDQ certification achieved, (d) age, (e) industry experience, (f) experience in other higher education positions, (g) employment status, (h) current academic activities, (i)

professional organization membership, (j) scholarly items disseminated, (k) sex, (l) ethnicity, (m) citizenship, and (n) marital status. These data were collected in order to describe the sample and in order to test hypotheses related to demographic characteristics of interior design educators.

Data Collection Procedures

Data were collected during the months of April and May of 2001. Procedures for designing, constructing, and implementing the mail survey followed *The Tailored Design Method* (Dillman, 2000). E-mail contact preceded the mailing of the questionnaire alerting prospective respondents of the survey. One week after the e-mail contact, the questionnaire was mailed. A cover letter (Appendix C) was mailed with each questionnaire emphasizing the importance of the study. In addition, the letter addressed the importance of the respondent's participation, that their confidentiality would be protected, and procedures to follow if they chose to withdraw from the study at any time. A stamped envelope addressed to the researcher was included for use by each study participant to return the questionnaire. A custom-designed bookmark was also included in the initial mailing as a gift for taking the time to participate in the survey.

A week after the questionnaire was mailed, a thank-you and reminder postcard was sent. One week after the postcard was sent, a second mailing was sent, which included a cover letter, replacement questionnaire, and a stamped, self addressed envelope. Copies of the e-mail message, cover letters, postcard, and questionnaire are provided in Appendix C. Each questionnaire was numbered and the same number was assigned to the corresponding name on the mailing list. As each completed questionnaire

was received, the number and corresponding respondent's name were removed from the mailing list to ensure that no additional correspondence was sent to the respondent.

Analysis of Data

The questionnaires were coded, tabulated, and analyzed using the SPSS for Microsoft Windows statistical package. The raw scores on items from the scales were entered. Two items within the PSIO scale (Section C of the questionnaire, Appendix C), items 6 and 12, were reverse-coded as they were the only two statements worded with a negative orientation. Total index scores for each scale were calculated by summing the numerical responses to all items comprising each scale.

The responses for the PGIS, SWLS, and PSIO scales ranged from 1 = Strongly Disagree to 6 = Strongly Agree. Low index scores on the PGIS, SWLS, and PSIO scales indicated stronger disagreement with the items comprising each scale. Higher index scores indicated stronger agreement with the items. Low index scores on the NFS scale indicated stronger dissatisfaction with statements comprising the scale. Higher index scores indicated greater satisfaction with items within the scale. The responses for the NFS scale ranged from 1 = Strongly Dissatisfied to 6 = Highly Satisfied.

Various statistical analysis procedures were employed. The reliability coefficient Cronbach's alpha was calculated to assess the internal consistency of the Personal Growth Initiative Scale, the Satisfaction With Life Scale, the Need-fulfillment Scale, and the Perceived Support for Innovation in the Organization Scale. Descriptive statistics were used to describe the sample. Correlation analysis and multiple regression procedures were conducted for the quantitative data, and one-way analysis of variance

was conducted for the nominal data. The following sections describe the statistical analysis procedures used to test the hypotheses.

1. Hypothesis One: One-way Analysis of Variance (ANOVA) was conducted to identify if statistically significant differences existed between each of the three Sense of Subjective Well-being (SWB) constructs (a. Need-fulfillment Satisfaction, b. Personal Growth Initiative, and c. Satisfaction with Life) of respondents with a master's degree and each of the three SWB constructs of respondents with a doctoral degree.

2. Hypothesis Two: One-way ANOVA was conducted to identify if statistically significant differences existed between each of the three SWB constructs (a. Need-fulfillment Satisfaction, b. Personal Growth Initiative, and c. Satisfaction with Life) of respondents who had earned tenure and each of the three SWB constructs of respondents having not earned tenure.

3. Hypothesis Three: One-way ANOVA was employed to identify if statistically significant differences existed between each of the three SWB constructs (a. Need-fulfillment Satisfaction, b. Personal Growth Initiative, and c. Satisfaction with Life) of respondents who were male and each of the three SWB constructs of respondents who were female.

4. Hypothesis Four: One-way ANOVA was employed to identify if statistically significant differences existed between each of the three SWB constructs (a. Need-fulfillment Satisfaction, b. Personal Growth Initiative, and c. Satisfaction with Life) of respondents who were in five different age categories (a. 30 years and younger, b. 31-40, c. 41-50, d. 51-60, and e. 61 years and older).

5. Hypothesis Five: One-way ANOVA was conducted to identify if statistically significant differences existed between the Productivity Indexes of respondents with a master's degree and the Productivity Indexes of respondents with a doctoral degree.

6. Hypothesis Six: One-way ANOVA was employed to identify if statistically significant differences existed between the Productivity Indexes of respondents having earned tenure and the Productivity Indexes of respondents having not earned tenure.

7. Hypothesis Seven: One-way ANOVA was conducted to identify if statistically significant differences existed between the Productivity Indexes of female respondents and the Productivity Indexes of male respondents.

8. Hypothesis Eight: One-way ANOVA was conducted to identify if statistically significant differences existed between the Productivity Indexes of respondents who were in five different age categories (a. 30 years and younger, b. 31-40, c. 41-50, d. 51-60, and e. 61 years and older).

9. Hypothesis Nine: Correlations were calculated to assess if there were statistically significant intercorrelations among the Productivity Index and the three SWB constructs (a. Need-fulfillment Satisfaction, b. Personal Growth Initiative, and c. Satisfaction with Life).

10. Hypothesis Ten: Correlations were calculated to assess if there were statistically significant intercorrelations among the three constructs that comprise SWB (a. Need-fulfillment Satisfaction, b. Personal Growth Initiative, and c. Satisfaction with Life) and responses to the Perceived Support for Innovation in the Organization Scale.

11. Hypothesis Eleven: The multiple regression statistic was employed to identify if there was a significant predictor of responses to the Perceived Support for Innovation

in the Organization Scale among the three SWB constructs (a. Need-fulfillment Satisfaction, b. Personal Growth Initiative, and c. Satisfaction with Life).

CHAPTER IV

RESULTS

Introduction

The overall purpose of this study was to investigate the sense of subjective well being of interior design educators and the organizational climate in which they work at major universities in the United States. Data were obtained through the distribution of a questionnaire mailed to interior design educators. The questionnaire consisted of demographic questions and scales that assess perception of each educator's Sense of Subjective Well Being and of the context of the work environment. The results are reported in the following sections: (a) Distribution and return of questionnaires, (b) description of the sample, (c) responses to Sense of Subjective Well-being Scale (d) responses to Perceived Support for Innovation in the Organization Scale, (e) reliability of the questionnaire, and (c) analysis of hypotheses.

Distribution and Return of Questionnaires

The questionnaire was sent to 345 interior design educators. The first mailing included a cover letter (Appendix C), a questionnaire, a bookmark gift, and a postage-paid, self-addressed envelope. After the first mailing, 76 responses were received. Names of the 76 respondents returning questionnaires were removed from the mailing

list. Approximately one week after the first mailing, a thank-you and reminder postcard was sent. Forty-nine responses were received after the postcard was sent. One week after the postcard was mailed, a second mailing was sent to individuals who had not responded. The second mailing included a second cover letter (Appendix C), a questionnaire, a bookmark as a gift, and a postage-paid, self-addressed envelope.

Eighteen responses were received after the second mailing. Of the 345 educators contacted, 27 who responded did not meet the criteria for the sample of the present study. Those 27 questionnaires were not included in the analysis and were subtracted from the 345 total educators contacted for calculation of the response rate. The total response rate was 36.5% with 116 usable questionnaires.

Description of the Sample

Table 1 provides an overview of personal demographic characteristics of the sample. The sample consisted of both male (42%, n = 47) and female (58%, n = 65) respondents with marital status of single (26.8%, n = 30), married (59.8%, n = 67), and other marital status categories, such as widowed or divorced (13.4%, n = 15). In terms of ethnic identification, the sample was predominately white (95.6%, n = 108). Only 9 respondents (8%) were not U.S. citizens. The sample was comprised of individuals having a master's degree (64.9%, n = 74) and those having a doctoral degree (35.1%, n = 40). Educators who had earned Ed.D. and Ph.D. degrees were aggregated into one "doctoral degree" category. Survey participants ranged from one individual who was under 30 years of age to 11 individuals who were "61 or older" (10.4%). The largest age group represented in the sample was "51-60" (38.7%, n = 41) followed by the "41- 50"

Table 1

Personal Demographics Related to Age, Sex, Ethnicity, Citizenship, and Marital Status

Personal Demographic Traits	n	%
Age		
under 30	1	0.9
31-40	19	17.9
41-50	34	32.1
51-60	41	38.7
61 or older	11	10.4
Total responses	106	
Sex		
Male	47	42.0
Female	65	58.0
Total responses	112	
Ethnic identification		
American Indian	0	0.0
Asian	3	2.6
Black	1	0.9
Hispanic	0	0.0
White	108	95.6
Other	1	0.9
Total responses	113	
United States citizen		
Yes	104	92.0
No	9	8.0
Total responses	113	
Present marital status		
Single	30	26.8
Married	67	59.8
Widowed	4	3.6
Divorced	8	7.1
Separated	0	0.0
Other	3	2.7
Total responses	112	
Highest degree held		
Master's	74	64.9
Doctoral	40	35.1
Total responses	114	

age group (32.1%, n =34) and the "31-40" age group (17.9%, n = 19). Given the high number of open positions for interior design educators at the time of this study, the ages represented in the sample indicate that upcoming retirements will result in continued demand for professionals in this field.

Table 2 provides a summary of the industry employment demographics of the sample. The sample consisted of 41 (38%) interior design educators who had received National Council for Interior Design Qualification (NCIDQ) certification. In terms of industry experience, 62.4% (n = 68) reported having industry experience. Of those educators with industry experience, 51.4% (n = 55) reported 10 or more years of experience. This level of industry experience of interior design educators is positive because industry experience can enrich the classroom experience of students, provide industry connections for the interior design program, and provide possibilities for industry-based scholarship endeavors.

Table 3 provides an overview of higher education employment demographics. The sample consisted of educators who had both part-time and full-time experience in higher education with 51.3% (n = 59) of the sample reporting 14 or more years of full-time employment experience. There were 62.1% of the sample that were full-time tenured faculty members.

Table 2

Industry Employment Demographics

Industry Employment Traits	n	%
Receipt of NCIDQ[a] certification		
Yes	41	38.0
No	67	62.0
Total responses	108	
Past industry experience		
Interior designer	68	62.4
Architect	17	15.6
Other	24	22.0
Total responses	109	
Number of years in industry		
0	2	1.9
1–3 years	12	11.2
4–6 years	22	20.6
7–9 years	16	14.9
10 years or more	55	51.4
Total responses	107	

[a]National Council for Interior Design Qualification

Table 3

Higher Education Employment Demographics

Higher Education Employment Traits	n	%
Years of experience as faculty in higher education		
Part-time employment		
1–3	35	30.4
4–9	19	16.5
10–13	2	1.8
14 or more	3	2.6
Total responses	115	
Years of experience as higher education faculty		
Full-time employment		
1-3	16	13.9
4-9	26	22.6
10-13	14	12.2
14 or more	59	51.3
Total responses	115	
Other higher education faculty positions		
No	51	44.3
Yes	64	55.7
Number of other higher education faculty positions		
0 positions	50	43.8
1–2 positions	45	39.5
3–4 positions	16	14.0
5–6 positions	3	2.7
Total responses	114	
Employment status		
Full time tenure track, not tenured	44	37.9
Full time tenure track, tenured	72	62.1
Total responses	116	

Table 4 provides a summary of higher education responsibilities and assignments. The sample consisted of educators who taught from two to six or more courses per academic year. Of those who responded, 34.5% (n = 40) taught six or more courses per academic year and 34.5% (n = 40) taught four courses per academic year. Regarding undergraduate advisees, 68.7% (n = 77) advised 21 or more students per year, and 47.2% (n = 51) of the sample did no graduate advisement. Regarding the issue of membership in professional organizations, 37.1% (n = 43) belonged to one organization and 34.5% (n = 40) belonged to two organizations. The sample was comprised of 61.2% educators who identified themselves as being a member of the Interior Design Educators Council (IDEC).

Table 5 provides an overview of scholarship activities of interior design educators participating in the survey. This table summarizes the number of items respondents recorded as representing their creative or research scholarship output during the last ten years. For individuals whose creative scholarship was entered in juried exhibitions, 31.0% (n = 36) were represented in one to three exhibitions with 53.5% (n = 62) not participating in juried exhibitions at all during the last ten years. Among individuals who published research journal articles, 24.2% (n = 28) published one to three articles in the last ten years with 26.7% (n = 31) not publishing work in research journals at all during the same time period.

Table 4

Higher Education Responsibility and Assignment Demographics

Higher Education Responsibilities and Assignments	n	%
Average number of courses taught per academic year		
1	0	0.0
2	8	6.9
3	5	4.3
4	40	34.5
5	23	19.8
6 or more	40	34.5
Total responses	116	
Number of current undergraduate advisees		
0	20	17.9
1–10	5	4.5
11–20	10	8.9
21 or more	77	68.7
Total responses	112	
Number of current graduate advisees as major professor		
0	51	47.2
1–2	25	23.1
3–4	19	17.6
5–6	7	6.5
7 or more	6	5.6
Total responses	108	
Number of memberships in professional organizations		
1 organization	43	37.1
2 organizations	40	34.5
3 organizations	18	15.5
4 organizations	6	5.2
5 organizations	4	3.4
Affiliation with specific professional organizations		
IDEC[a]	71	61.2
ASID[b]	25	21.6
IIDA[c]	25	21.6
EDRA[d]	20	17.2
IESNA[e]	5	4.3
Other	47	40.1

[a]Interior Design Educators Council [b]American Society of Interior Designers [c]International Interior Design Association [d]Environmental Design Research Association [e]Illuminating Engineering Society of North America

Table 5

Scholarship Activity Demographics

Scholarship Items Disseminated in Last Ten Years	n	%
Juried exhibitions		
0	62	53.5
1–3	36	31.0
4–6	7	6.0
7 or more	1	9.5
Total response	116	
Non-juried exhibitions		
0	77	69.4
1–3	26	23.4
4–6	5	4.5
7 or more	3	2.7
Total responses	111	
Trade publications		
0	75	67.6
1–3	26	23.4
4–6	3	2.7
7 or more	7	6.3
Total response	111	
Consumer publications		
0	96	86.5
1–3	11	9.9
4–6	1	0.9
7 or more	3	2.7
Total responses	111	

(table continues)

Table 5 (continued)

Scholarship Activity Demographics

Scholarship Items Disseminated in Last Ten Years	n	%
Research publications		
0	31	26.7
1–3	28	24.2
4–6	23	19.8
7–9	10	8.6
10–12	8	6.9
13–15	5	4.3
16–18	3	2.6
19 or more	8	6.9
Total responses	116	
Client-centered projects		
0	56	50.5
1–3	18	16.2
4–6	15	13.5
7–9	3	2.7
10–12	6	5.4
13–15	4	3.6
16–18	9	8.1
19 or more	0	0.0
Total responses	111	
Other		
0	88	80.3
1–3	11	10.3
4–6	2	1.9
7–9	2	1.9
10 or more	6	5.6
Total responses	109	

Responses to Sense of Subjective Well-being Scale

Table 6 (Appendix B) summarizes the participants' responses to the Sense of Subjective Well Being Scale, which is comprised of three sub-scales. In Table 6, the numbered questionnaire items are grouped according to the three sub-scales (a. Personal Growth Initiative Scale, b. Satisfaction with Life Scale, and c. Need-fulfillment Satisfaction Scale). Each participant responded to each statement by indicating either degree of agreement (PGIS and SWLS) or their degree of satisfaction (NFS Scale).

Responses to Personal Growth Initiative Scale

In regard to the Personal Growth Initiative Scale (PGIS), participants responded to each statement (see Table 6, Appendix B) by indicating degree of agreement or disagreement using a six-point, fixed response scale (1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, and 6 = Strongly Agree). In response to the PGIS, 96.6% (n = 112) of the respondents indicated positive agreement with PGIS Statement 2, "I have a good sense of where I am headed in life." Also, 96.6% (n = 112) of the respondents stated positive agreement with PGIS Statement 3, "If I want to change something in my life, I usually initiate the steps toward making a change." Regarding PGIS Statement 6, "I have a specific action plan to help me reach my goals," only 10.4% (n = 12) of the respondents indicated disagreement with the statement. Positive responses to all three of these questions indicate a proactive attitude among interior design education faculty members.

Responses to Satisfaction with Life Scale

In regard to the Satisfaction with Life Scale (SWLS), participants responded to each statement (see Table 6, Appendix B) by indicating degree of agreement or disagreement using a six-point, fixed response scale (1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, and 6 = Strongly Agree). Responses to the SWLS indicated that 80.3% (n = 93) of the respondents held feelings of positive agreement with SWLS Statement 10, "In most ways my life is close to ideal." Also, 82.8% (n = 96) of the respondents agreed to some extent with SWLS Statement 11, "The conditions in my life are excellent." Positive responses to both of these questions indicate that there may be greater satisfaction among interior design educators at major universities then anecdotal evidence often suggests. In contrast, however, 37.4% (n = 43) of respondents indicated disagreement with SWLS Statement 14, "If I could live my life over, I would change nothing." This finding indicates that while interior design educators may have a degree of overall satisfaction with their lives, they may upon reflection, be able to identify changes that they wish they had made in their lives in order to experience an even higher degree of satisfaction.

Responses to the Need-fulfillment Satisfaction Scale

Statements within the Need-fulfillment Satisfaction (NFS) Scale relate directly to Maslow's theory of a Hierarchy of Needs (Physiological, Safety and Security, Belongingness, Esteem, and Self-actualization Needs). As indicated in Table 6, the third Sense of Subjective Well-being construct is measured by the NFS Scale. Study participants responded to each NFS Scale question by indicating a degree of satisfaction or dissatisfaction using a six-point, fixed response scale (1 = Strongly Dissatisfied, 2 =

Dissatisfied, 3 = Slightly Dissatisfied, 4 = Slightly Satisfied, 5 = Satisfied, and 6 = Highly Satisfied).

The first NFS Scale question addresses needs for safety and security. Question 1 asks, "How satisfied are you with the balance between your workload and other activities?" The results indicate that 57.7% (n = 67) of the educators were slightly to highly satisfied with the balance between workload and other activities. For Question 4, "How satisfied are you with your feeling of security with your current faculty position?" 83.3% (n = 95) of the respondents were slightly to highly satisfied. This finding indicates that interior design educators feel at least to some extent, that they hold a secure position in their work environments.

The support received by faculty members may impact their feelings of safety and security in the workplace. For NFS Scale Question 5, "How satisfied do you feel with the support you receive from your department regarding your duties as a teacher?" 73.8% (n = 85) of the respondents were slightly to highly satisfied. For Question 6, "How satisfied do you feel with the support you receive from your department regarding your duties as a scholar?" 64.6% (n = 75) of the respondents were slightly to highly satisfied. Question 8 addresses perceived competence as a teacher and is also probably related to issues of safety and security for faculty members. For Question 8, "How satisfied do you feel with your level of competence as a teacher?" 93% (n = 107) of respondents were slightly to highly satisfied. Clearly, a large percentage of interior design faculty members feel some degree of satisfaction with the support they receive in regard to teaching and scholarship and feel competent in their role as instructors. These findings are positive

indicators of the well being of a large percentage of the educators who participated in this study.

Maslow's third level of Hierarchy of Needs relates to love and belonging, which is addressed by questions concerning relatedness with colleagues or students. Ryan and Deci's (2000) research suggests that relatedness is an important part of Self-Determination Theory. The NFS Scale questions that concern the issue of relatedness are Questions 12, 13, and 14. For Question 12, "How satisfied are you with your opportunity to give help to other people?" 93.7% (n = 107) of the educators were slightly to highly satisfied. For Question 13, "How satisfied are you with your opportunity for interaction with colleagues in your department?" 77.6% (n = 90) of the educators were slightly to highly satisfied. As indicated by these findings, opportunities to help others through one's work and to interact in a positive manner with colleagues seem to be linked with one's feelings of satisfaction regarding need fulfillment.

Self-esteem needs are addressed in questions 14, 15, 16, 17, 18, and 19 by asking respondents how they feel that students, the university, and society appreciate their teaching and research efforts. For Question 14, "How satisfied are you with the appreciation of your teaching efforts you perceive from students?" 76.6% (n = 88) of the educators were slightly to highly satisfied. In response to Question 15, "How satisfied are you with the appreciation of your teaching efforts you perceive from the university?" 62.1% (n = 72) of the respondents were slightly to highly satisfied. For Question 17, "How satisfied are you with the appreciation of your research efforts you perceive from students?" 69% (n = 78) of the educators reported that they were slightly to highly satisfied.

In NFS Scale Questions 20 to 25, higher-level autonomy needs are addressed. For the purpose of the current study, the need for autonomy may be interpreted as relating to issues of safety and security, esteem, and self-actualization needs. Ryan and Deci"s (2000) self-determination theory suggests that autonomy plays an important role, along with competence and relatedness in need fulfillment satisfaction. In response to question 21, "How satisfied do you feel with your opportunity for independent thought and action as a scholar?" 88.6% (n = 101) of the respondents were slightly to highly satisfied. In response to Question 22, "How satisfied do you feel with your opportunity for participation in the setting of your goals related to teaching?" 89.4% (n = 102) of the respondents were slightly to highly satisfied. For question 24, educators were asked "How satisfied are you with being allowed to determine your own work activities?" and 85% (n = 96) of the respondents were slightly to highly satisfied. In response to question 25, "How satisfied do you feel with your opportunity for personal growth and development in your position as a teacher?" 81.6% (n = 93) of the respondents were slightly to highly satisfied. In responding to Question 29, "How satisfied are you with your opportunities for working with creative ideas?" 81.6% (n = 93) of the educators were slightly to highly satisfied. And finally, for Question 30, "How satisfied do you feel with your level of income from your academic position?" only 49.5% (n = 56) of the educators were slightly to highly satisfied. Except for the issue of income, the largest percentage of respondents reported a level of satisfaction (represented by an index) that was above the median score for each of the constructs that comprise Sense of Subjective Well Being (a. Personal Growth Initiative, b. Satisfaction With Life, and c. Need-

fulfillment Satisfaction). Clearly, income is an issue that interior design educators consider less satisfying than other work-related issues addressed in this study.

Responses to Perceived Support for Innovation in the Organization Scale

Table 7 (Appendix B) summarizes the participants' responses to the Perceived Support for Innovation in the Organization (PSIO) Scale. In the table, the numbered items correspond to the questionnaire items (Appendix C). Participants responded to each statement by indicating degree of agreement or disagreement using a six-point, fixed response scale (1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, and 6 = Strongly Agree).

In regard to PSIO Question 2, "Our ability to function creatively is respected by the leadership in this department," 77.4% (n = 89) of the respondents slightly to strongly agreed. For Question 4, "Creativity is encouraged in this department," 84.3% (n = 96) of the respondents slightly to strongly agreed. In response to Question 10, "This department is open and responsive to change," 71.3% (n = 82) of the educators slightly to strongly agreed. For Question 11, "Individual independence is encouraged in this department," 71.7% (n = 81) of the faculty members responded with slightly to strongly agree. And finally, on Question 14, "The way we do things seems to fit with what we're trying to do," 71.7% (n = 81) of the respondents slightly to strongly agreed. Overall, the responses tended toward positive agreement regarding questions of support for innovation in the educators' organizational climate. These findings provide positive feedback for the leadership of interior design programs participating in the survey.

Reliability of the Questionnaire

Reliability (internal consistency) of the scales of the questionnaire was assessed using Cronbach's alpha statistic. An alpha of 0.84 was calculated for the Personal Growth Initiative Scale. For the Satisfaction with Life Scale, an alpha of 0.90 was calculated. An alpha of 0.95 was calculated for the Need-fulfillment Satisfaction Scale and an alpha of 0.95 was generated for the Perceived Support for Innovation in the Organization Scale. According to Guilford (1973), an alpha in the range of 0.80 to 0.90 indicates an acceptable level of reliability.

Analysis of Hypotheses

Hypothesis 1

Hypothesis 1 is as follows:

> There is no statistically significant difference between each of the three constructs that comprise Sense of Subjective Well Being (a. Need-fulfillment Satisfaction, b. Personal Growth Initiative, and c. Satisfaction with Life) of interior design educators whose highest academic degree is a masters' degree and each of the three constructs that comprise Sense of Subjective Well Being (a. Need-fulfillment Satisfaction, b. Personal Growth Initiative, and c. Satisfaction with Life) of interior design educators whose highest academic degree is a doctoral degree.

Hypothesis 1 was tested using one-way Analysis of Variance (ANOVA). Table 8 provides means and standard deviations for responses to each of the three Subjective Well-being sub-scales based upon highest degree earned by educators responding to the questionnaire. The means within Table 8 indicate that interior design educators responded similarly to each of the sub-scales regardless of their highest degree achieved. In addition, it is interesting to note that all means are higher than the median. Table 9 summarizes results of the one-way ANOVA used to test Hypothesis 1. The results

Table 8

Mean Scores and Standard Deviation Statistics for the Three Sub-scales of the Sense of Subjective Well-being Scale Grouped by Highest Academic Degree Received

Subjective Well Being Scales	Highest Degree	n	M[a]	SD
Personal growth initiative scale	Master's	74	44.7	4.9
	Doctoral	39	43.9	5.0
Satisfaction with life scale	Master's	74	22.6	4.0
	Doctoral	39	22.6	4.0
Need-fulfillment satisfaction scale	Master's	74	134.5	20.5
	Doctoral	39	127.9	24.2

[a]The mean scores on each of the three sub-scales, grouped by highest degree achieved, are derived from the total mean scores of a six-point Likert–type scale summed for each scale and represent the average scores for all respondents.

Table 9

One-way ANOVA Test Results for Differences between Master's and Doctoral Degreed Faculty Members Regarding Responses to the Personal Growth Initiative Scale

Source of Variance	SS	df	MS	F	Sig. of F
Between groups	16.156	1	16.156	.730	.395
Within groups	2413.214	109	22.140		
Total	2429.369	110			

indicate no statistically significant differences between master's degreed and doctoral degreed interior design educators in regard to responses on the PGIS. Table 10 summarizes ANOVA findings, which indicate no statistically significant difference between master's and doctoral degreed educators in regard to their responses to the SWL sub-scale. Table 11 summarizes findings, which indicate no statistically significant difference between master's and doctoral degreed educators in regard to their responses to the NFS sub-scale. The null hypothesis, therefore, is accepted. In summary, both groups of educators (master's and doctoral degreed) appear to have a similar level of agreement with all statements in the three sub-scales. These findings indicate that interior design educators participating in the study having different educational levels did not have significantly different perceptions related to Need-fulfillment Satisfaction, Personal Growth Initiative, or Satisfaction with Life.

Table 10

One-way ANOVA Test Results for Differences between Master's and Doctoral Degreed Faculty Members Regarding Responses to the Satisfaction with Life Scale

Source of Variance	SS	df	MS	F	Sig. of F
Between groups	0.01208	1	0.01208	0.001	0.978
Within groups	1819.04800	114	15.95700		
Total	1819.060	115			

Table 11

One-way ANOVA Test Results for Differences between Master's and Doctoral Degreed Faculty Members Regarding Responses to the Need-fulfillment Satisfaction Scale

Source of Variance	SS	df	MS	F	Sig. of F
Between groups	1072.111	1	1072.111	2.256	0.136
Within groups	54179.751	114	475.261		
Total	55251.862	115			

Hypothesis 2

Hypothesis 2 is as follows:

> There is no statistically significant difference between each of the three constructs that comprise Sense of Subjective Well Being (a. Need-fulfillment Satisfaction, b. Personal Growth Initiative, and c. Satisfaction with Life) of interior design educators who have earned tenure and each of the three constructs that comprise Sense of Subjective Well Being (a. Need-fulfillment Satisfaction, b. Personal Growth Initiative, and c. Satisfaction with Life) of interior design educators who have not yet earned tenure.

Table 12 provides means and standard deviations for responses to each of the three Sense of Subjective Well Being sub-scales based upon whether tenure has been received or not by the educators responding to the questionnaire. The means within Table 12 indicate that interior design educators had similar average scores in response to the PGIS regardless of whether they have received tenure or not. Faculty members with tenure had higher means on the NFS Scale than those without tenure.

Table 13 summarizes results of the one-way ANOVA used to test Hypothesis 2. The results indicate no statistically significant differences between the tenured and not-tenured interior design educators in regard to their responses to the PGIS. However, Table 14 summarizes one-way ANOVA findings which do indicate a statistically significant difference between tenured and non-tenured interior design educators in regard to their responses to the SWLS [$F(1,114) = 4.133$, $p < .05$]. Table 15 summarizes ones-way ANOVA findings, which indicate a statistically significant difference between tenured and non-tenured interior design educators in regard to their responses to the NFS Scale [$F(1,114) = 5.572$, $p < .05$]. In summary, both groups of educators (tenured and non-tenured) appear to have a similar level of agreement with all the statements in the PGIS, but differing levels of agreement with regard to the statements comprising the SWLS and questions comprising the NFS Scale. Thus, the null hypothesis is rejected in terms of the statistically significant relationships between tenure status and each of the two Sense of Subjective Well Being constructs, (a.) Satisfaction with Life (b) and Need-fulfillment Satisfaction.

Table 12

Mean Scores for the Three Sub-scales of the Sense of Subjective Well-being Scale Grouped by Tenured and Non-tenured Faculty Status

Subjective Well Being Scales	Tenure Status	n	M[a]	SD
Personal growth initiative scale	Tenure	74	44.7	4.9
	Not tenured	39	43.9	5.0
Satisfaction with life scale	Tenure	74	22.6	4.0
	Not tenured	39	22.6	4.0
Need-fulfillment satisfaction scale	Tenure	74	134.5	20.5
	Not tenured	74	127.9	24.2

[a]The mean scores on each of the three sub-scales, grouped by tenured or not-tenured, were derived from the total mean scores of a Likert-type scale summed for each scale and represent the average scores for all respondents.

Table 13

One-way ANOVA Test Results for Differences between Tenured and Non-Tenured Faculty Status Regarding Responses to the Personal Growth Initiative Scale

Source of Variance	SS	df	MS	F	Sig. of F
Between groups	15.624	1	15.624	0.706	0.403
Within groups	2413.745	109	22.144		
Total	2429.369	110			

Table 14

One-way ANOVA Test Results for Differences between Tenured and Non-Tenured Faculty Status Regarding Responses to the Satisfaction with Life Scale

Source of Variance	SS	df	MS	F	Sig. of F
Between groups	63.640	1	63.640	4.133	0.044
Within groups	1755.420	114	15.398		
Total	1819.060	115			

Note. $R^2 = 0.035$ (Adjusted $R^2 = 0.027$).

Table 15

One-way ANOVA Test Results for Differences between Tenured and Non-Tenured Faculty Status Regarding Responses to the Need-fulfillment Satisfaction Scale

Source of Variance	SS	df	MS	F	Sig. of F
Between groups	2603.591	1	2603.591	5.572	0.020
Within groups	53264.986	114	467.237		
Total	55868.578	115			

Note. $R^2 = 0.047$ (Adjusted $R^2 = 0.038$).

Hypothesis 3

Hypothesis 3 is as follows:

> There is no statistically significant difference between each of the three constructs that comprise Sense of Subjective Well Being (a. Personal Growth Initiative, b. Satisfaction With Life, and c. Need-fulfillment Satisfaction) of female interior design educators and each of the three constructs that comprise Sense of Subjective well-being (a. Personal Growth Initiative, b. Satisfaction With Life, and c. Need-fulfillment Satisfaction) of male interior design educators.

Table 16 provides means and standard deviations for responses to each of the three Subjective Well Being sub-scales based upon the interior design educators being female or male. The means within Table 16 indicate that interior design educators had similar average scores for the three sub-scales regardless of whether they were female or male. In addition, it is interesting to note that all means are higher than the median.

Table 17 summarizes results of the one-way ANOVA used to test Hypothesis 3. The results indicate no statistically significant difference between responses to the PGIS of interior design educators who are female and those who are male. Table 18 summarizes one-way ANOVA findings, which indicate no statistically significant difference between female interior design educators' responses to the SWLS and male participants' responses to the SWLS. Table 19 summarizes one-way ANOVA findings, which indicate no statistically significant difference between female interior design educators' responses to the NFS Scale and male educators' responses to the same scale. In summary, both groups of educators (females and males) appear to have similar levels of agreement/satisfaction with all statements/questions within the three sub-scales. Thus, the null hypothesis is accepted.

Table 16

Mean Scores for the Three Sub-scales of the Sense of Subjective Well-being Scale Grouped by Sex of Faculty Members

Subjective Well Being Scales	Sex	n	M[a]	SD
Personal growth initiative scale	Female	65	44.6	3.8
	Male	47	44.4	5.5
Satisfaction with life scale	Female	65	22.5	3.5
	Male	47	22.7	4.5
Need-fulfillment satisfaction	Female	65	129.6	21.7
	Male	47	135.8	20.9

[a]The mean scores on each of the three sub-scales, grouped by sex of faculty members, are derived from the total mean scores of a Likert-type scale summed for each scale and represent the average scores for all respondents.

Table 17

One-way ANOVA Test Results for Differences between Females and Males in Terms of Responses to the Personal Growth Initiative Scale

Source of Variance	SS	df	MS	F	Sig. of F
Between groups	0.528	1	0.528	0.025	0.874
Within groups	2204.220	105	20.993		
Total	2204.748	106			

Table 18

One-way ANOVA Test Results for Differences between Females and Males in Terms of Responses to the Satisfaction with Life Scale

Source of Variance	SS	df	MS	F	Sig. of F
Between groups	1.031	1	1.031	0.066	0.798
Within groups	1720.076	110	15.937		
Total	1721.107	111			

Table 19

One-way ANOVA Test Results for Differences between Females and Males in Terms of Responses to the Need-fulfillment Satisfaction Scale

Source of Variance	SS	df	MS	F	Sig. of F
Between groups	1061.847	1	1061.847	2.327	0.130
Within groups	50199.215	110	456.357		
Total	51261.062	111			

Hypothesis 4

Hypothesis 4 is as follows:

> There is no statistically significant difference between each of the three constructs that comprise Sense of Subjective Well Being (a. Need-fulfillment Satisfaction, b. Personal Growth Initiative, and c. Satisfaction with Life) of interior design educators who are younger than 30 years of age and each of the three constructs that comprise Sense of Subjective Well Being (a. Personal Growth Initiative, b. Satisfaction With Life, and c. Need-fulfillment Satisfaction) of interior design educators who are 31-40, 41-50, 51-60, or 61 and older.

Table 20 provides means and standard deviations for responses to each of the three Subjective Well Being sub-scales based upon the age of interior design educators responding to the questionnaire. The means within Table 20 indicate that interior design educators had similar average scores for each of the sub-scales regardless of their age categories. In addition, it is interesting to note that all means are higher than the median.

Table 21 summarizes results of the one-way ANOVA used to test Hypothesis 4. The results indicate no statistically significant differences among age categories of interior design educators in regard to responses to the PGIS. Table 22 summarizes one-way ANOVA findings, which indicate no statistically significant differences among age categories of interior design educators in regard to their responses to the SWLS. Table 23 summarizes one-way ANOVA findings, which indicate no statistically significant differences among age categories of educators in regard to their responses to the NFS Scale. In summary, all groups of educators (30 years and younger, 31-40, 41-50, 51-60, and 61 or older) appear to have a similar levels of agreement or satisfaction with the statements and questions comprising the three Sense of Subjective Well Being sub-scales. The null hypothesis, therefore, is accepted.

Table 20

Mean Scores and Standard Deviation Statistics for the Three Sense of Subjective Well-being Sub-scales Grouped by Age Categories

Subjective Well Being Scales	Level	n	M[a]	SD
Personal growth initiative scale	30 & younger	1	44.0	0.0
	31-40	19	44.5	3.3
	41-50	34	44.2	5.5
	51-60	41	43.7	3.8
	61 or older	11	44.2	7.6
Satisfaction with life scale	30 & younger	1	23.0	0.0
	31-40	19	21.8	4.2
	41-50	34	23.0	3.9
	51-60	41	22.3	4.7
	61 or older	11	23.0	4.1
Need-fulfillment satisfaction scale	30 & younger	1	114.0	15.5
	31-40	19	126.6	25.5
	41-50	34	129.3	21.8
	51-60	41	134.6	25.0
	61 or older	1	130.7	23.7

[a]The mean scores on each of the three sub-scales, grouped by age categories, were derived from the total mean scores of a Likert-type scale summed for each scale and represent the average scores for all respondents.

Table 21

One-way ANOVA Test Results for Differences in Responses to Personal Growth Initiative Scale by Faculty Members in Different Age Categories

Source of Variance	SS	df	MS	F	Sig. of F
Between groups	41.706	4	10.426	0.468	0.759
Within groups	2137.740	96	22.268		
Total	2179.446	100			

Table 22

One-way ANOVA Test Results for Differences between Differences in Responses to Satisfaction with Life Scale by Faculty Members in Different Age Categories

Source of Variance	SS	df	MS	F	Sig. of F
Between groups	21.684	4	5.421	0.321	0.863
Within groups	1704.779	101	16.879		
Total	1726.462	105			

Table 23

One-way ANOVA Test Results for Differences in Responses to Need-fulfillment Satisfaction Scale by Faculty Members in Different Age Categories

Source of Variance	SS	df	MS	F	Sig. of F
Between groups	1318.104	4	329.526	0.665	0.618
Within groups	50049.556	101	495.540		
Total	51367.660	105			

Hypothesis 5

Hypothesis 5 is as follows:

> There is no statistically significant difference between the Productivity Index of interior design educators whose highest academic degree is a master's degree and the Productivity Index of interior design educators whose highest academic degree is a doctoral degree.

Descriptive data are provided within Table 24 that are relevant to Hypotheses 5-8. In testing Hypotheses 5-8, educators' responses were grouped according to four demographic characteristics (highest academic degree, tenure status, sex, and age). Table 24 provides means and standard deviations for responses from the interior design educators to the Productivity Index with their scores grouped by degree, tenure status, sex, and age. The Productivity Index was derived by summing " number of courses taught per academic year" and "number of scholarship items disseminated per academic year" for each interior design educator.

Table 24

Mean Scores and Standard Deviation Statistics for the Productivity Index Grouped by Demographic Characteristics of Highest Degree Achieved, Tenure Status, Sex, and Age

Demographic Characteristics	n	M[a]	SD
Highest degree achieved			
Masters degree	74	5.8	2.5
Doctoral degree	42	5.4	2.0
Tenure status			
Not tenured	44	5.8	3.1
Tenured	72	5.5	1.7
Sex			
Female	65	5.3	2.9
Male	47	6.1	3.0
Age categories			
30 and younger	1	7.7	0.0
31-40	19	6.0	2.6
41-50	33	6.1	3.4
51-60	43	5.2	1.5
61-older	10	5.3	1.1

[a]The mean scores on the Productivity Index, grouped by degree, tenure, sex, and age were derived from the total mean scores of a Likert-type scale summed for each scale and represent the average scores for all respondents.

Note. The Productivity Index was based on the number of courses taught in one academic year added to the number of creative and/or research items disseminated during one year.

Table 25 summarizes findings of the one-way ANOVA used to test Hypothesis 5. The ANOVA results indicated no statistically significant differences between responses to the Productivity Index based upon whether the respondents had master's or doctoral degrees. The null hypothesis, therefore, is accepted. This finding is an important one in relation to the fact that within the interior design field, there are significant numbers of faculty members whose highest degree is a master's degree. Consequently, ongoing debates address whether or not faculty members with a master's degree produce as much as faculty members with a doctoral degree. These findings provide some evidence that interior design educators, on average, are generally producing at approximately the same level (given the limitations related to the method of measuring productivity level in the present study), regardless of the highest degree they have achieved.

Table 25

One-Way ANOVA Test Results for Differences between Productivity Indexes of Master's and Doctoral Degreed Faculty Members

Source of Variance	SS	df	MS	F	Sig. of F
Between groups	4.090	1	4.090	0.743	0.390
Within groups	627.138	114	5.501		
Total	631.228	115			

Note. The Productivity Index was based on the number of courses taught in one academic year added to the number of creative and/or research items disseminated during one year.

Hypothesis 6

Hypothesis 6 is as follows:

> There is no statistically significant difference between the Productivity Index of interior design educators who have earned tenure and the Productivity Index of interior design educators who have not yet earned tenure.

Hypothesis 6 was tested using one-way Analysis of Variance (ANOVA). Table 26 summarizes one-way ANOVA findings, which indicate no statistically significant differences between the Productivity Indexes of educators who have achieved tenure and those who have not achieved tenure. The null hypothesis, therefore, is accepted. This finding is important in light of anecdotal data, which indicate that society often perceives higher education faculty members as employees who "stop producing" once they achieve tenure. Based upon the data collected in the present study, interior design educators seem to continue producing at approximately the same level after achieving tenure as they did prior to achieving tenure.

Table 26

One-Way ANOVA Test Results for Differences between Productivity Indexes of Tenured Faculty Members and Non-tenured Faculty Members

Source of Variance	SS	df	MS	F	Sig. of F
Between groups	4.720	1	4.720	0.859	0.356
Within groups	626.508	114	5.496		
Total	631.228	115			

Note. The Productivity Index was based on the number of courses taught in one academic year added to the number of creative and/or research items disseminated during one year.

Hypothesis 7

Hypothesis 7 is as follows:

> There is no statistically significant difference between the Productivity Index of female interior design educators and the Productivity Index of male interior design educators.

Table 27 summarizes findings, which indicate no statistically significant difference between the Productivity Indexes of female and male interior design educators. The null hypothesis, therefore, is accepted. This finding indicates that, in general, male and female interior design educators are producing at approximately the same levels.

Hypothesis 8

Hypothesis 8 is as follows:

> There is no statistically significant difference between the Productivity Index of interior design educators who are in five different age categories (a. 30 years and younger, b. 31-40, c. 41-50, d. 51-60, and e. 61 years and older).

Table 28 summarizes one-way ANOVA findings, which indicate no statistically significant differences in the Productivity Indexes of interior design educators in five different age categories. Thus, the null hypothesis was accepted. This finding is related to the findings resulting from testing hypothesis 6 (no statistical differences in the Productivity Indexes of faculty members having achieved tenure and those having not achieved tenure). Most often, faculty members having not achieved tenure are younger. One might assume that a younger faculty member who has not achieved tenure works harder and has a higher level of production than an older faculty member who has achieved tenure. However the findings related to testing Hypotheses 6 and 8 do not

Table 27

One-Way ANOVA Test Results for Differences between Productivity Indexes of Female and Male Interior Design Educators

Source of Variance	SS	df	MS	F	Sig. of F
Between groups	17.606	1	17.606	3.184	0.077
Within groups	608.220	110	5.529		
Total	625.826	111			

Note. The Productivity Index was based on the number of courses taught in one academic year added to the number of creative and/or research items disseminated during one year.

Table 28

One-Way ANOVA Test Results for Differences between Productivity Indexes of Interior Design Educators in Five Different Age Categories

Source of Variance	SS	df	MS	F	Sig. of F
Between groups	22.829	4	5.707	0.975	0.425
Within groups	591.145	101	5.853		
Total	613.974	105			

Note. The Productivity Index was based on the number of courses taught in one academic year added to the number of creative and/or research items disseminated during one year.

support the assumption that faculty members slow their production or stop producing as they age or after they achieve tenure, for the sample in the present study.

Hypothesis 9

Hypothesis 9 is as follows:

> Among the three Sense of Subjective Well Being constructs (a. Need-fulfillment Satisfaction, b. Personal Growth Initiative, and c. Satisfaction with Life) there are no statistically significant relationships with the Productivity Indexes of interior design educators.

Correlation analysis was employed to test hypothesis 9. Table 29 summarizes the intercorrelations, mean scores, and standard deviations for the constructs that make up the Sense of Subjective Well Being variable (a. Personal Growth Initiative, b. Satisfaction with Life, and c. Need-fulfillment Satisfaction) and the Productivity Index. There were intercorrelations among educators' responses to the three Sense of Subjective Well Being sub-scales. Educators' responses to the PGIS correlated with their responses to the SWLS (0.608, $p < .01$) and the NFS Scale (0.485, $p < .01$). Participants' responses to the SWLS were correlated with their responses to the NFS Scale (0.521, $p < .01$).

As indicated in Table 29, there were no correlations between the three Sense of Subjective Well Being constructs (a. Personal Growth Initiative, b. Satisfaction with Life, and c. Need-fulfillment Satisfaction) and the Productivity Index. Upon examination of these findings, the researcher conducted a follow-up test to assess if correlations might exist between any of the three Subjective Well Being constructs and a revised version of the Productivity Index. The Productivity Index tested in hypothesis 9 was derived from summing the number of classes taught per year and the number of scholarship items disseminated per year for each faculty member. For the follow-up test, the researcher

used only the total number of scholarship items disseminated per year (as the Productivity Index) and conducted the correlation analysis a second time. However, no statistically significant correlations were identified between each of the three Sense of Subjective Well Being constructs and the revised Productivity Index. The null hypothesis, therefore, was accepted. In summary, these findings indicate that while some relationships exist among the three Sense of Subjective Well Being constructs, there appears to be no strong relationship between these constructs and the interior design educators' resulting levels of productivity.

Table 29

Intercorrelations and Means for Sense of Subjective Well-being Sub-scales and the Productivity Index

Sub-scales[a]	PGIS	SWLS	NFS	PROD	n	M	SD
PGIS	1.00				111	44.4	4.7
SWLS	0.608**	1.00			116	22.6	3.9
NFS	0.485**	0.521**	1.00		116	132.1	22.0
PROD	0.049	-0.122	-0.025	1.00	116	5.6	2.3

[a]PGIS = Personal Growth Initiative Scale, SWLS = Satisfaction with Life Scale, NFS = Need-fulfillment Satisfaction Scale, PROD = Annual Productivity Index.

**$p<.01$.

Note. The Productivity Index was based on the number of courses taught in one academic year added to the number of creative and/or research items disseminated during one year.

Hypothesis 10

Hypothesis 10 is as follows:

> Among the three Sense of Subjective Well Being constructs (a. Personal Growth Initiative, b. Satisfaction with Life, c. Need-fulfillment Satisfaction) there are no statistically significant relationships with Perceived Support for Innovation in the Organization of interior design educators.

Table 30 provides intercorrelations, means, and standard deviations for the Sense of Subjective Well Being sub-scales and the Perceived Support for Innovation Scale. The strongest correlation between responses to the Perceived Support for Innovation Scale was with responses to the Need-fulfillment Satisfaction Scale ($r = 0.559$, $p < .01$). The null hypothesis, therefore, is rejected. This finding suggests that there is a relationship between the interior design educators' sensing that their needs are being met in relation to their work environments. This finding would lend support to both Maslow's Theory of a Hierarchy of Needs, as well as Ryan and Deci's (2000) Self-determination Theory.

Hypothesis 11

Hypothesis 11 is as follows:

> Among the three Sense of Subjective Well Being constructs (a. Personal Growth Initiative, b. Satisfaction with Life, c. Need-fulfillment Satisfaction) there are no statistically significant predictors of Perceived Support for Innovation in the Organization of interior design educators.

Hypothesis 11 was tested using multiple regression analysis. Table 31 provides the summary table of results which indicate statistically significant predictability among the constructs that comprise the Sense of Subjective Well Being variable and Perceived Support for Innovation in the Organization [$F(3,107) = 18.929$, $p < .001$).

Table 30

Means and Intercorrelations among Responses to Sense of Subjective Well-being Sub-scales and Responses to Perceived Support for Innovation in the Organization Scale

Sub-scales[a]	PGIS	SWLS	NFS	PSIO	n	M	SD
PGIS	1.00				111	44.4	4.7
SWLS	0.608**	1.00			116	22.6	3.9
NFS	0.485**	0.521**	1.00		116	132.1	22.0
PSIO	0.226*	0.208*	0.559**	1.00	116	58.7	14.4

[a]PGIS = Personal Growth Initiative Scale, SWLS = Satisfaction with Life Scale, NFS = Need-fulfillment Satisfaction Scale, PSIO = Perceived Support for Innovation in the Organization Scale.

*p<.05.

**p<.01.

Table 31

F-Table for Basic Regression Statistic for the Sub-scales of Sense of Subjective Well-being and Perceived Support for Innovation in the Organization Scale

Source of Variance	SS	df	MS	F	Sig. of F
Between Groups	7889.083	3	2629.694	18.929	0.000**
Within Groups	14865.151	107	138.927		
Total	22754.234	110			

Note. $R^2 = 0.347$, Adjusted $R^2 = 0.328$

**p < .01

The null hypothesis, therefore, is rejected. The coefficient of multiple determination between Perceived Support for Innovation in the Organization and the Sense of Subjective Well Being sub-scales ($R^2 = 0.347$) suggests practical significance of 34.7%. This means that 34.7% of the variability of Perceived Support for Innovation in the Organization can be explained by the contribution of responses to the Sense of Subjective Well Being sub-scales. In addition, as indicated in Table 32, a Stepwise Regression indicated that the strongest predictor of Perceived Support for Innovation in the Organization is the Need-fulfillment Satisfaction construct [$F(3,107) = 52.257$, $p < .001$]. This means that in the present study, the educators' responses to the Need-fulfillment Satisfaction Scale predicted responses to the Perceived Support for Innovation in the Organization Scale more efficiently than responses to the Personal Growth Initiative Scale and the Satisfaction with Life Scale. Table 33 provides a summary of the basic regression statistics related to the variables, Need-fulfillment Satisfaction and Perceived Support for Innovation in the Organization. The coefficient of multiple determination between Perceived Support for Innovation in the Organization and the Need-fulfillment Satisfaction construct ($R^2 = 0.324$) suggests that the practical significance is 32.4% as indicated in Table 32. This finding lends further support to Maslow's Hierarchy of Needs Theory indicating that as the educator's needs are satisfied the educator also perceives that his or her efforts to produce innovative work are being supported by the organization.

Table 32

Forward Regression Statistics for the Three Sub-scales of Sense of Subjective Well Being and the Dependent Variable, Perceived Support for Innovation in the Organization

Independent Variables	Standardized Regression Coefficient	Partial Correlation Coefficient	t-values with 1 and 110 df	Sig. Level
PGIS[a]	0.655	--	7.174	0.000**
SWLS[b]	-0.150	--	-1.421	0.158
NFS[c]	-0.026	0.569	-0.250	0.803

[a]PGIS = Personal Growth Initiative Scale [b]SWLS = Satisfaction with Life Scale
[c]NFS = Need-fulfillment Satisfaction Scale

Notes. Basic Regression $R^2 = .333$; Forward Regression $R^2 = .324$.

F Change = 52.257

**P < .01

Table 33

Basic Regression Statistics for Responses to Need-fulfillment Satisfaction Scale and Perceived Support for Innovation in the Organization Scale

Source of Variance	SS	df	MS	F	Sig. of F
Between groups	7454.281	1	7454.281	51.754	0.000**
Within groups	16419.607	114	144.032		
Total	23873.888	115			

Note. $R^2 = 0.312$, Adjusted $R^2 = 0.306$

**p < .01

Responses to Demographic Open-ended Item 16

Table 34 presents a summary of the open-ended comments made by study participants in response to Question 16 in Section D of the questionnaire (Appendix C). Question 16 stated, "What would you need in your current work environment to improve your sense of well-being?" The comments generated by this question totaled 157. Of these comments, 25.5% concerned support issues, 19.7% concerned workload and time issues, and 9.6% concerned salary. The comments are grouped by themes that concern the organizational climate, such as administrative and financial support, attitude, and environment. The information provided by educators to this open-ended question is valuable, particularly to administrators of interior design programs. Administrators may use the insight strategic planning that may be gained from reviewing the educators' perceptions of what is needed in order to develop a greater sense of well being. The same information may help interior design educators when they learn that colleagues from other institutions have similar needs as theirs.

Summary

In summary, a correlation exists among the three constructs that comprise the Sense of Subjective Well-being variable. The Need-fulfillment Satisfaction Scale was the most efficient predictor for the variable Perceived Support for Innovation in the Organization. There were no relationships between each of the constructs that comprise the Sense of Subjective Well-being variable and the Productivity Index.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

Interior design educators at major universities may be experiencing the challenge of finding a balance between their own tendency toward being innovative and a sense of perceived support for innovation in their work environment. Because of the need for innovation in university environments due to changes in technology, the student body, and availability of resources, it is important to examine how educators perceive the context of their work environment. The purpose of this study was to assess the organizational climate of interior design educators at major universities in the United States. The objectives were to investigate interior design educators' (a) sense of subjective well-being within the organizational climate where they work, (b) perceived support for innovation within the context of their organizational climate, and (c) the relationships among interior design educators' perceived support for innovation in the organization, sense of subjective well-being, and selected demographic characteristics. This chapter includes (a) a summary and discussion of the study, (b) a summary and discussion of the findings, (c) conclusions, and (d) recommendations.

Summary and Discussion of the Study

Response to the Survey

The response rate of useable questionnaires was 36.5%, and was the result of four contacts, which were an initial e-mail, a mailed cover letter with questionnaire, a thank-you/reminder postcard, and a second mailed cover letter with replacement questionnaire. The response rate may have been impacted by the questionnaires being distributed at the end of April, near the end of the academic year when faculty members are very busy. The researcher's ability to generalize the results is limited to the present sample, since there may be significant differences between respondents and non-respondents. In general, the response to the survey was positive.

Demographic Characteristics of Faculty Members

Demographically, women represented 29.5% of the faculty in public research institutions in the United States in 1998 (National Center for Education Statistics [NCES], 2001). In the present study, 56% of the respondents were women, which is probably typical of the mix of males and females employed within the interior design field (i.e., more women than men). The average age of faculty members employed in public research institutions throughout the United States in 1998 was 48.8 years (NCES, 2001). In this study of interior design educators, the largest percentage of respondents was in the 41-60 age category (70.8%, n = 75) of the sample. According to the NCES, 30.3% of faculty members in public research institutions in 1998 were 55 years of age and older. In the present study of interior design educators, 52% of the educators were 51 years of age or older, a much larger percentage than the national average. This finding

indicates that there will be increasing need for interior design faculty members as these older faculty members retire during the next 10-15 years. In 1998, the largest percentage (84.5%) of full-time instructional faculty at public research institutions was white, non-Hispanic (NCES, 2001). In the present study, 95.6% (n = 108) of the faculty identified themselves as white, a finding indicating that the ethnic make-up of interior design faculty may not be as diverse as that of higher education faculty members in general. Within public research institutions in the United States, 89.6% of the educators were United States citizens in 1998 (NCES, 2001). In this study of interior design educators, 92% (n = 104) of the educators were U.S. citizens, a slightly higher but similar percentage as compared to the national statistics. For public research institutions in the United States in 1998, 59.6% of the educators were tenured (NCES, 2001). In the current study, 62.1% (n = 72) were tenured, a similar percentage when compared to the national statistics. For public research institutions in the United States in 1998, 67.0% of the educators held Ph.D. degrees (NCES, 2001). In this study of interior design educators, only 35.1% (n = 40) of the educators held doctoral degrees. This finding appears to be an accurate reflection, in general, of the educational level of interior design educators throughout the United States. (i.e., fewer interior design educators having doctoral degrees than is typical within many other disciplines).

This comparison of interior design educators, who participated in the present study, with higher education faculty members in various disciplines throughout the United States, reveals some marked similarities and some clear differences. For example, the national sample and the sample in this study had similar percentages of tenured faculty and similar percentages of faculty members who were U.S. citizens. However,

differences were notable. For example, within the interior design sample there were far more females, more faculty within the 55+ years of age category, and far fewer faculty with doctoral degrees, than in the national sample. These notable differences present a different set of challenges and paradigms for the interior design field than faculty members and administrators in other disciplines may experience. For example, those interior design academic programs offering doctoral degrees require interior design faculty members who have doctoral degrees to mentor doctoral students. The present shortage of doctoral degreed faculty members, as supported by the demographic characteristics of the sample in the present study, has a significant impact on graduate programs throughout the United States. Interior design educators with doctoral degrees are in demand throughout the United States.

Faculty Perceptions of Their Work Environment

The issue of satisfaction within the organizational climate was one focus of this study. The findings related to satisfaction of educators can be viewed from two different perspectives: (a) Issues with which faculty members are most satisfied and (b) issues with which faculty members are most dissatisfied. From the second perspective (i.e., issues of dissatisfaction for faculty), Table 35 provides a listing of the issues that participants assessed in regard to their satisfaction or dissatisfaction. Work-environment issues are listed in the table in descending order with highest levels of dissatisfaction listed first and lowest levels of dissatisfaction listed last. The six work-environment issues for which educators indicated the highest levels of dissatisfaction were: (a) Resources available to the department (53.4%, n = 62), (b) level of income (50.4%, n = 57), (c) balance between

workload and other activities (42.2%, n = 49), (d) appreciation of teaching efforts by the university (37.9%, n = 44), (e) clarity of criteria used to evaluate scholarship (37.1%, n = 43), and (f) clarity of criteria used to evaluate teaching (36.4%, n = 42).

Conversely, the six work-environment issues with which educators were least dissatisfied (most satisfied) were: (a) Opportunity to participate in setting scholarship goals (13.1%, n = 18), (b) opportunity for worthwhile accomplishment as a teacher (11.5%, n = 13), (c) opportunity for independent thought and action as a scholar (11.4%, n = 13), (d) opportunity to participate in setting teaching goals (10.5%, n = 12), (e) level of competence as a teacher (6.9%, n = 8), and (f) opportunity to give help to other people (6.1%, n = 7).

Other researchers studying the academic environment also have reported levels of satisfaction and dissatisfaction of faculty members. Pearson and Seiler (1983) found "teaching dimensions and research requirements were the most satisfying elements of the academic work environment; support and compensation aspects were the most dissatisfying. Faculty from professional schools reported higher levels of satisfaction for almost all of the 22 separate environmental dimensions, and these faculty also reported higher salaries and less stringent requirements for tenure and promotion" (p. 35). The 22 environmental dimensions included teaching-related elements, recognition-related elements, support-related elements, and compensation-related elements. The professional colleges included: (a) Business administration, (b) Engineering, (c) Education, (d) Pharmacy, (e) Architecture, (f) Medicine, (g) Law, and (h) Nursing. The attitudes of the faculty members from professional colleges were contrasted against other colleges, such as (a) Humanities, (b) Science and Mathematics, and (c) Fine Arts. "The demographic

variables which explained the greatest amount of variance in work satisfaction scores were tenure, teaching load, sex, institution (public-private), and age" (Pearson & Seiler, 1983, p. 35). Salary and academic rank had less impact on levels of job satisfaction for faculty members than the teaching dimensions, such as overall teaching load, teaching schedule, class size, and physical classroom and office facilities.

The issue of gender has been the subject of other faculty studies. Male and female faculty in the Smith, et al. (1995) study reported different levels of stress. Stress was defined as an individual's perception of an environmental situation putting excessive demands on their capabilities or resources. Therefore, when a faculty member perceives that the job content and complexity, role ambiguity, and role conflict exceed their capabilities and/or resources, they may perceive themselves to be in stress. In the current study of interior design educators, the Need-fulfillment Satisfaction Scale was designed to assess faculty satisfaction with their needs being met at several different levels described as physiological needs, safety and security needs, love and belonging needs (social), self-esteem needs, and self-actualization needs. The study by Smith, et al. (1995), corroborated previous studies of women faculty members in higher education. Their study found that women faculty members experience higher levels of work-related stress than their male counterparts, which they attributed to role conflict (Smith, et al., 1995; Witt & Lovrich, 1988). In addition, the Smith, et al. (1995) study found that "sources of stress among women were not limited to role specification and conflict," but also task-based stress. In the Smith, et al. (1995) study, 76% of the respondents were male. In the Pearson and Seiler (1983) study, 81% of the respondents were male. In the current study of interior design educators, 47% of the respondents were male. In this

study, there were no significant differences between females and males regarding their responses to the Sense of Subjective Well-being Scales or the Productivity Index.

In the Pearson and Seiler (1983) study, the researchers theorized that university faculty fit in a "category of individuals whose higher order needs dominate. Content factors, for university faculty, include the process of teaching, guiding, and molding minds, along with the discovery and dissemination of new knowledge. The context factors include the university environment in which these teaching and research processes take place. Of considerable significance is the degree of control faculty members may exercise over the differing categories of satisfaction factors" (p. 37). Pearson and Seiler (1983) suggested that due to the high level of satisfaction of faculty members regarding the control over the content elements of their work life and the predominant role played by the satisfaction of higher order needs, that context elements, such as pay level and physical environment, do not contribute significantly to job satisfaction. Pearson and Seiler (1983) found that only 48.3% of the respondents were slightly to highly satisfied with their level of compensation. The findings of the present study of interior design educators are similar to the Pearson Seiler (1983) study. The current study found that 49.5% of interior design educators were slightly to highly satisfied with their income. Also in the present study, 9.6% of the open-ended comments provided by faculty in response to Demographic Question #16, "What would you need in your current work environment to improve your sense of well-being?" referred to the need for higher salaries.

Table 35

Dissatisfaction Levels of Interior Design Educators in Relation to Work-environment Issues

Work Environment Issues	Levels of Dissatisfaction[a] in Descending Order n	%
Resources available to your department	62	53.4
Level of income	57	50.4
Balance between workload and other activities	49	42.2
Appreciation of teaching efforts by university	44	37.9
Clarity of criteria used to evaluate scholarship	43	37.1
Clarity of criteria used to evaluate teaching	42	36.4
Support received for scholarship duties	41	35.4
Appreciation of research efforts by university	37	32.7
Appreciation of teaching efforts by society	37	32.5
Appreciation of research efforts by society	35	31.8
Physical condition of office space	36	30.9
Appreciation of research efforts by students	35	30.9
Support received for teaching duties	30	26.0
Support received for service duties (to the field)	28	24.4
Appreciation of teaching efforts by students	27	23.5
Opportunity for interaction with departmental colleagues	26	22.4
Opportunity for personal growth and development as a scholar	25	21.9
Opportunity for staying informed on what is happening in the field of interest	25	21.6

(table continues)

Table 35 (continued)

Dissatisfaction Levels of Interior Design Educators in Relation to Work-environment Issues

Work Environment Issues	Levels of Dissatisfaction[a] in Descending Order	
	n	%
Level of competence as a scholar	23	20.1
Opportunity for personal growth and development as a teacher	21	18.5
Opportunities for working with creative ideas	21	18.4
Feelings of security with current position	19	16.7
Being allowed to determine your own work activities	17	15.1
Opportunity for worthwhile accomplishment as a scholar	17	15.0
Opportunity for independent thought and action as a teacher	17	14.9
Opportunity to participate in setting scholarship goals	18	13.1
Opportunity for worthwhile accomplishment as a teacher	13	11.5
Opportunity for independent thought and action as a scholar	13	11.4
Opportunity to participate in setting teaching goals	12	10.5
Level of competence as a teacher	8	6.9
Opportunity to give help to other people	7	6.1

Note. A higher frequency and higher percentage indicate a higher level of dissatisfaction with the corresponding issue.

[a]The three levels of dissatisfaction were Slightly Dissatisfied, Dissatisfied, and Strongly Dissatisfied. The educators' responses at these three levels of dissatisfaction were summed to derive the percentages and frequencies reported within this table.

Pearson and Seiler (1983) found that faculty members of professional colleges, such as business and engineering colleges, tended to teach fewer courses per semester, and earn higher salaries, than other colleges, such as humanities, science and mathematics, and fine arts. These professional colleges also tended to have a smaller proportion of women and fewer tenured faculty members than the other colleges. There was a higher level of satisfaction evident in the professional colleges than the other colleges. Pearson and Seiler (1983) credit their findings to the fact that faculty members employed in programs such as business administration, engineering, education, pharmacy, architecture, medicine, law, and nursing colleges have more alternative employment paths if they become highly dissatisfied with academic life.

Relationship of Demographic Variables to Faculty Members' Satisfaction

In the current study, interior design educators having earned tenure had higher levels of Satisfaction With Life [$F(1,114) = 4.133$, $p. < .05$] and higher levels of Need-fulfillment Satisfaction [$F(1,114) = 5.572$, $p. < .05$] than those educators who had not earned tenure. This finding is consistent with those of Pearson and Seiler (1983) who reported that tenure was the only independent variable in their study that had a significant effect as a predictor of faculty members' satisfaction. These are reasonable outcomes and would lend support to theory postulated by previous researchers. For example, Ryan and Deci (2000) theorized that a relative sense of security based on achieving levels of competence, coupled with gathering a collegial network of support for work efforts contribute to self-determination. Further, they suggested that having high levels of competence, autonomy, and relatedness fuels self-determination in individuals. These

characteristics are elements that contribute to intrinsic motivation, and as a result directly impact self-determination of an individual's life activities. In Ekvall & Ryhammar's (1999) study, the researchers found that human relations-oriented values and leadership (r = .55***) were correlated with a creative climate. Available resources (r = .35***) played an important role in relation to creative production. In the Riger, Stokes, Raja, and Sullivan (1997) study, married faculty reported a more supportive climate than unmarried faculty and individuals with a higher personal salary perceived greater support, as did tenured faculty. Faculty working longer than 10 years perceived greater support in the context of their work environment. In the Riger, et al., (1997) study, age and perceived climate were related; older faculty reported a more supportive climate than younger faculty. In the current study, questions were not stated exactly as the questions were posed in the Riger, et al. study. However, responses to the open-ended question (item #16) revealed some of the perceptions of interior design educators regarding their needs. The comment category with the highest percentage of response (25.5%) concerned the need for administrative, financial, political, staff, and teaching support. See Table 34 (Appendix B) for a listing of the perceived needs submitted by respondents to the open-ended Question 16, "What would you need in your current work environment to improve your sense of well being?"

Relationship of Interior Design Educators' Perception of the Constructs that Comprise Subjective Well-being and Support for Innovation in the Organization

The constructs that comprise Sense of Subjective Well Being were measured using three sub-scales: (a) Personal Growth Initiative Scale (Robitschek, 1998), (b) Satisfaction With Life Scale (Diener, et al., 1985), and (c) Need-fulfillment Satisfaction

Scale (Porter, 1961). The fourth scale used in this study was the Perceived Support for Innovation in the Organization Scale (Siegel & Kaemmerer, 1978). This scale addresses issues that make up the contextual climate of an organization by looking at the five dimensions that are characteristic of innovative organizations. These dimensions are (a) leadership, (b) ownership, (c) norms for diversity, (d) continuous development, and (e) consistency.

In Ekvall and Ryhammar's (1999) study assessing the creative climate of a Swedish University, similar characteristics to those assessed in the present study were expored but expanded to include (a) challenge, (b) support, (c) trust/openness, (d) risk taking, and (e) idea time. Ekvall and Ryhammar (1999) found mixed results regarding the behavioral level of the organization's culture. These researchers posed the hypothesis that climate would influence organizational outcomes, or creativity levels. They asked faculty members about their perceptions of creativity in their departments. The results indicated that "climate operates in the organization as a lever for leadership and as a manifestation on the behavioral level of the organization's culture, defined as basic values" (Ekvall & Ryhammar, 1999, p. 308). They also found that resources played a critical role in relation to creative achievements, but workload pressure, academic values, and order/clarity were more strongly related to creativity.

In the current study of interior design educators, the questions asked are similar in intent to those of the Ekvall and Ryhammar (1999) study. The questions in the interior design educator's study concern the organizational climate as assessed by the Perceived Support for Innovation in the Organization Scale, but relate to similar issues in the Personal Growth Initiative Scale, the Satisfaction With Life Scale, and the Need-

fulfillment Satisfaction Scale. This relationship is supported by the intercorrelations shown in Table 32. In contrast, though, the Ekvall and Ryhammar's (1999) study addressed issues of academic value, plus an organizational-values questionnaire addressing structure orientation, people orientation, and change/development orientation. Though both studies directly investigated academic perceptions, Ekvall and Ryhammar (1999) looked at more basic elements that contribute to the organizational climate, such as playfulness, order, centralization, and formalization characteristics.

Organizational climate, behavior, attitudes, and feelings common in organizations, are all factors that Ekvall and Ryhammar (1999) suggest operate in the organization as a lever for leadership and as a manifestation on the behavioral level of the organization's culture. Their results using a stepwise multiple regression analysis with climate as the dependent variable found five variables explaining 52% of the variance in the climate score. The variables and Multiple R coefficients were (a) people orientation (0.60), change/development centered (0.67), openness (0.69), employee/relations centered (0.70), and sufficient resources (0.072). Ekvall and Ryhammar (1999) found "that order and structure can be detrimental to creativity in professional organizations where values of freedom and flexibility are salient. Workload...which is often related to stress and strain, thus blocking creativity, here showed a positive correlation with creativity" (Ekvall & Ryhammar, 1999, p. 306) ($r = .22$, $p < .05$) as well as, sufficient resources ($r = 0.31$, $p < .001$). Where Ekvall and Ryhammar's (1999) study focused on organizational climate in relation to creativity issues, the current study of interior design educators explored the educators' perception of support for innovation in the organization. In the context of the interior design educators' study, innovation is more

action directed. In this study, the mean score for Perceived Support for Innovation in the Organization was 58.7 (SD = 14.4; range: 6 – 84; Median = 60; Mode = 59) indicating that there is some perception of a lack of support for innovation in many of the academic departments represented in this study.

In the present study, the correlation matrix of responses to the Personal Growth Initiative Scale, Satisfaction With Life Scale, and Need-fulfillment Scale revealed intercorrelations among these three constructs and between each of the three constructs and responses to the Perceived Support for Innovation Scale (PSIO). Findings indicated that Need-fulfillment Satisfaction responses were most strongly correlated with PSIO responses ($r = 0.559^{**}$). Responses to the Personal Growth Initiative Scale ($r = 0.226^{*}$) and Satisfaction With Life Scale ($r = 0.208^{*}$) were also significantly related. The Need-fulfillment Satisfaction Scale is a scale that was based on Porter's (1961) research using Maslow's theory on motivation and the satisfaction of needs. Porter developed the scale for application within a business environment, including questions that addressed each level of need. Porter added two additional items: (a) Satisfaction with salary level, and (b) staying abreast of one's field. Plascak (1988) used the scale to assess general job satisfaction of 246 university professors. Her study incorporated four models, which were (a) "How much of this element do you currently have?" which she classified as "global satisfaction;" (b) "How satisfied are you with this element?" which she classified as "satisfaction;" (c) "How much of this element do you want?" which she classified as "need;" and (d) "How important is this element to you? How much do you value this element?" which she classified as "value" (Plascak, 1988, p. 166). The models of (a) global satisfaction, (b) satisfaction, (c) need, and (d) value represent the variables that

Plascak (1988) used when assessing her sample of university professors. She found that work autonomy/creativity was a variable that was significantly related in three of the four models for males (need, satisfaction, and value). Finances, administration, and conflict issues were important to males. For females, colleague relationships, finances, teaching activities, and work/creativity related to the satisfaction model. Finances, peer recognition, conditions, and work load were critical for males. Teaching-mentoring, peer recognition, and conditions were significantly related to satisfaction for females. "Autonomy-creativity" was a significant predictor for male satisfaction, while "value of work" was the predictor for females. In this study of interior design educators, the scores for Need-fulfillment Satisfaction Scale for females and males showed no significant differences [$F(1,110) = 2.233$, $p > .05$]. The mean scores were 129.6 for females (SD = 21.7) and 135.8 for males (SD = 20.9). The mean for responses to the Need-fulfillment Scale was 132.1 (SD = 22.0). When the Need-fulfillment Scale scores are contrasted between females and males, the mean score for females on the Need-fulfillment Satisfaction Scale is below the average score, while the mean score for the males is slightly above the mean score on the Need-fulfillment Satisfaction Scale.

Summary and Discussion of the Findings

Hypotheses 1 to 4 allowed exploration of possible relationships between each of four demographic characteristics (highest academic degree achieved, tenure status, sex, and age) and three constructs that comprise the Sense of Subjective Well-being variable. Findings indicated that of the four identified demographic characteristics, the only statistically significant relationship existed between tenure status (tenured or non-

tenured) and educators' responses to the Need-fulfillment Satisfaction Scale. This finding indicates that tenured faculty do perceive a higher level of Need-fulfillment Satisfaction. One might theorize that faculty members are addressing higher level needs in the academic environment and this finding would complement what Ekvall and Ryhammar (1999) called academic values. Similar conclusions were made in the Plascak (1988), Rigers, et al., (1997), Pearson and Seiler (1983), and the Smith, et. al. (1995) studies. Pearson and Seiler (1983) suggested that faculty members who are employed at universities are addressing higher level needs regarding matters of job content, such as control over the nature of the work itself, versus job context issues, such as salary. The findings of the previous studies, plus the current study, offer support to Maslow's theory regarding higher level needs and the tendency toward self-actualization. Maslow's (1970, 1965, 1968) theories on psychological development and self-actualization suggest that individuals who are operating with a tendency toward actualizing their full potential are more healthful. Maslow (1970, 1965, 1968) never suggests that individuals do not take on challenges and responsibilities and bear the accompanying stress. In fact, Maslow (1970, 1965, 1968) suggests that self-actualizing individuals are attracted to challenges and responsibilities because of the inherent personal development from the activities, as well as the overall societal benefit. In addition, Self-determination Theory (Ryan & Deci, 2000) is also supported by the findings of these studies. Self-determination Theory suggests that competence, autonomy, and relatedness are important elements of an individual's make-up in order for a sense of well being to be experienced. Again, this does not mean that there is no stress in the individual's life, but that the individual feels that he/she has the skills and resources to meet the demands of the tasks

ahead. Self-determination theory suggests that the needs of competence, autonomy, and relatedness are "essential for facilitating optimal functioning of the natural propensities for growth and integration, as well as for constructive social development and personal well-being" (Ryan & Deci, 2000, p. 68). Consequently, faculty members who have attained higher degrees, tenure, and rank may be doing so as demonstrations of competency, provided that there was an adequate level of autonomy and relatedness.

Hypotheses 5 to 8 concern productivity. These hypotheses stated that there were no statistically significant differences between the Productivity Index of interior design educators having different demographic characteristics (i.e., male and female, tenure and non-tenured, master's and doctoral degreed, and five different age categories). Based on the current study, null Hypotheses 5-8 were supported. A visual interpretation summarizing the Productivity Index and the Scholarship data is presented in Figures 1 – 8 in Appendix A. Figure 1 presents the Productivity Index data, which represents a combination of teaching and scholarship productivity. The teaching component was based on the number of courses taught in one academic year (Item 9a., Section D of the questionnaire in Appendix C). The scholarship component was based on the number of creative or research items disseminated during the last ten years, but adjusted to an annual rate for analysis purposes. The histogram in Figure 1 indicates that the highest Productivity Index was 6.0. The mean Productivity Index for the sample was 5.6 ($n = 116$). Because this mean Productivity Index included the number of courses taught per academic year and scholarship items disseminated per year, clearly the courses taught per year impacted the Productivity Index greatly. Therefore, a histogram presenting the data on scholarship alone is presented within Figure 2 in Appendix A. The Scholarship

Production score is the adjusted annual score of items produced in six categories. The categories were (a) juried exhibitions, (b) non-juried exhibitions, (c) research publications, (d) trade publications, (e) consumer publications, and (f) client-centered projects. Information was gathered on other activities, but due to the varied types of activities, it was difficult to summarize in a meaningful manner. The histogram in Figure 2 indicates a rather low scholarship production score for the sample (M = 2.1, SD = 6.97).

In order to gain greater understanding of the manner in which the six components contributed to the Scholarship Production score, a histogram is presented of each scholarship component within Figures 3 – 8 in Appendix A. Figure 3 depicts the responses to Demographic Question 11a concerning items disseminated through juried exhibitions (M = 0 .31, SD = 0 .78). Figure 4 depicts the responses to Demographic Question 11b concerning items disseminated through non-juried exhibitions (M = 0.12, SD = 0.34). Figure 5 presents the responses to Demographic Question 11c concerning items disseminated through research publications (M = 0.19, SD = 0.58). Figure 6 depicts the responses to Demographic Question 11d concerning items disseminated through trade publications (M = 0.18, SD = 0.58). Figure 7 presents the responses to Demographic Question 11e concerning items disseminated through consumer publications (M = 0.07, SD = 0.31). Figure 8 depicts the responses to Demographic Question 11f concerning items disseminated through client-centered projects (M = 1.3, SD = 1.3).

Separating scholarship production from teaching production may not contribute to a greater understanding of overall faculty production. Teaching, advising students,

serving on committees, and some scholarship are all activities that comprise an educator's work environment. Scholarship production, whether in the form of bringing recognition to the university or in building the body of knowledge, is an important component of interior design education prospering at major universities in the future. It is difficult to find parallel fields where educators have comparable opportunities for both creative and research production, but in 1998 at the national level, the average number of research publications disseminated by full-time instructional faculty and staff in public research institutions was 3.3 (NCES, 2001). Self-determination Theory (Ryan & Deci, 2000) suggests that if there are positive levels of competency, autonomy, and relatedness, there would be a positive level of well-being. Maslow's (1970, 1965) theories on eupsychian management suggests that if there is a positive level of well-being, that individuals tend toward self-actualizing activities. Amabile's (1996) Components for Creative Performance suggest that if there are domain-relevant skills, creativity-relevant skills, and task motivation, creative production should occur. Whether there are issues of motivation, satisfaction, time management, or role clarity present, the productivity level of the interior design field requires further investigation.

Hypothesis 9 stated that there were no statistically significant relationships among the sub-scales that comprise Sense of Subjective Well-being and the Productivity Index. Based on the current study, Hypothesis 9 was supported. In review of the histograms presenting the data from Hypotheses 5 – 8, it has already been noted that the productivity level is at the low end of the scale for the majority of the interior design educators. Theories addressing creative production and the creative environment suggest that there is a relationship between these two elements. Though the interior design educators were

well above the mean on the sub-scales that make up the variable Sense of Subjective Well Being (PGIS = 44.4, SD = 4.7; SWLS = 22.6, SD = 3.9; NFS = 132.1, SD = 22.0) there does not seem to be the action tendency for scholarship production. The open comments to Demographic Question 16 reveal concerns for support, workload, and time issues. In Table 35, which addresses dissatisfaction levels, 20.1% (n = 23) indicate that they are dissatisfied with their competency as a scholar; 18.5% (n = 21) indicate dissatisfaction with their opportunity for personal growth and development as a teacher; 18.4% (n = 21) indicate dissatisfaction with their opportunity for working with creative ideas; and 16.7% (n = 19) indicate dissatisfaction with feelings of security with their current position. Additional research to assess the non-respondents in order to determine how typical the levels of satisfaction and dissatisfaction are through the entire population of interior design educators, may aid the understanding of scholarship production within the field of interior design.

Hypothesis 10 stated that among the three Sense of Subjective Well-being constructs (Personal Growth Initiative, Satisfaction with Life, and Need-fulfillment Satisfaction) there are no statistically significant relationships with Perceived Support for Innovation in the Organization of interior design educators. This null hypothesis was rejected because there were correlations between all three constructs and PSIO (NFS: r = .561**, PGIS: r = 0.226*, SWLS: r = 0.208). This result supports Ryan and Deci's (2000) self-determination theory. Studying the constructs of need-fulfillment in relation to global satisfaction, Porter (1961) and Plascak (1988) studies revealed similar results.

Hypothesis 11 stated that among the three Sense of Subjective Well-being constructs (a. Personal Growth Initiative, b. Satisfaction with Life, and c. Need-

fulfillment Satisfaction) there are no statistically significant predictors of Perceived Support for Innovation in the Organization of interior design educators. The results of the multiple regression analysis indicate that there is significant predictive ability between the variables of SWB and PSIO. The r-square is .333, which would indicate that this relationship explains 33% of the variance of PSIO [$F(3,107) = 17.800$, $p < .001$). A Forward Regression tested the order in which the variables were entered. Need-fulfillment Satisfaction had the strongest predictive value resulting in an R^2 of 0.324 [$f(1,100) = 52.257$, $p < .01$). This finding implies that the interior design educator's Need-fulfillment Satisfaction level most efficiently predicts his/her level of Perceived Support for Innovation in the Organization (when compared to Personal Growth Initiative and Satisfaction with Life as predictors of PSIO). These results would lend support to Maslow's Theory of a Hierarchy of Needs, as well as Ryan & Deci's (2000) self-determination theory. Self-determination theory is based on the inherent needs of competency, autonomy, and relatedness. These three constructs are represented in the Need-fulfillment Satisfaction Scale.

Conclusions

The conclusions of the study are as follows:

1. Tenured interior design educators reported a significantly higher degree of satisfaction with life and a significantly higher level of satisfaction with their needs being fulfilled than non-tenured educators reported.

2. Regardless of their highest degree achieved, age, or sex, interior design educators reported similar feelings regarding the statements within the Personal Growth Initiative Scale.

3. Regardless of the highest degree achieved, tenure status, age, or sex, interior design educators represented in the sample were producing at approximately the same level in relation to number of classes taught per year and numbers of scholarship items disseminated per academic year.

4. The Productivity Indexes (comprised of number of courses taught in one academic year and number of scholarship items disseminated in one academic year) of interior design educators represented in the sample were relatively low in comparison to similar statistics reported for faculty from all disciplines at the national level.

5. Among the three Sense of Subjective Well-being constructs (a. Personal Growth Initiative, b. Satisfaction with Life, and c. Need-fulfillment Satisfaction) there were no statistically significant associations with the Productivity Indexes of interior design educators.

6. The interior design educators' personal growth initiative, levels of satisfaction with life, and levels of satisfaction with needs being fulfilled were associated with their feelings regarding the support for innovation they received within the work environment. Of these associations, the educators' satisfaction with their needs being fulfilled was the strongest predictor of their perceptions regarding the support for innovation that they received within the work environment.

7. Of 31 work-environment issues rated, interior design educators were most dissatisfied with resources available to their departments, levels of income, balance between

workload and other activities, appreciation of teaching efforts by the university, clarity of criteria used to evaluate scholarship, and clarity of criteria used to evaluate teaching.

8. Of 31 work-environment issues rated, interior design educators were most satisfied with opportunities to participate in setting scholarship goals, opportunities for worthwhile accomplishment as a teacher, opportunities for independent thought and action as a scholar, opportunities to participate in setting teaching goals, level of competence as a teacher, and opportunities to help other people.

Recommendations

The following are suggestions for further research to build upon the present study:

1. Replication of this study should address educators in different fields to provide a base for comparison among academic disciplines.

2. Data collection should occur at a different time than the end of an academic semester in an effort to increase the response rate.

3. A revised questionnaire might incorporate scales to address personality characteristics, problem-solving traits, and values in place of the Personal Growth Initiative Scale and the Satisfaction With Life Scale.

4. Replication of this study in another manner than a mail survey may yield additional information.

5. Explore, at an in-depth level, the issue of productivity of interior design educators, incorporating a broader perspective regarding the components included with the productivity construct.

6. Replicate the study with a larger sample that is more representative of the population of interior design educators with the United States.

7. Replicate the study, comparing interior design faculty representing different categories of institutions (private, public, research, teaching, etc.) in relation to the same variables explored in the present study.

8. Investigate the tenure and promotion criteria (and clarity of criteria) of interior design programs throughout the United States in relation to their productivity levels and in comparison to faculty from other disciplines.

9. Explore the creative profiles or creativity levels of interior design educators in relation to variables examined in the present study.

In the present study, a sample of interior design educators was assessed in regard to the variables of subjective well being, the organizational climate, and productivity. The researcher recognizes that due to the complexity of the organizational climate, the examination of the selected variables may be only part of the factors that contribute to the context in which interior design faculty members work. Also, due to the complexity of educators' productivity levels, an expanded examination of productivity is recommended in the future. Hopefully, findings generated through this study may contribute to an improved understanding of the variables that contribute to well being and productivity in the work environment.

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APPENDICES

APPENDIX A

FIGURES

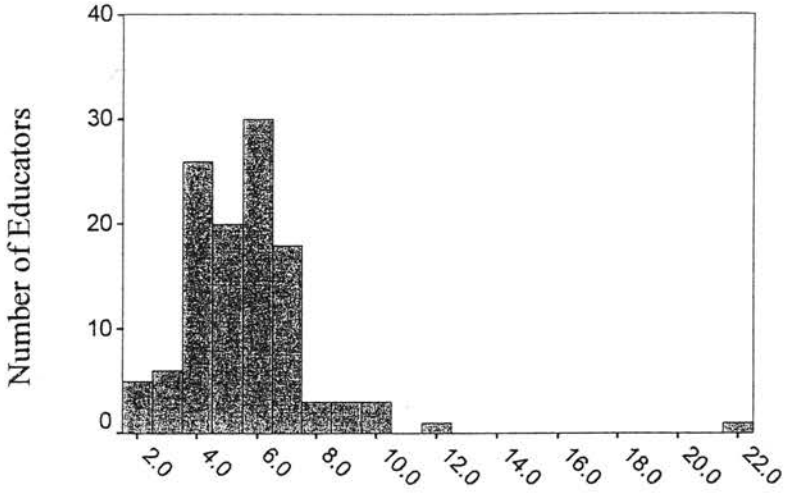


Figure 1. The Productivity Index of interior design educators was derived by summing the number of courses taught per academic year and the number of scholarship items disseminated per academic year (N = 116, M = 5.6, SD = 2.34).

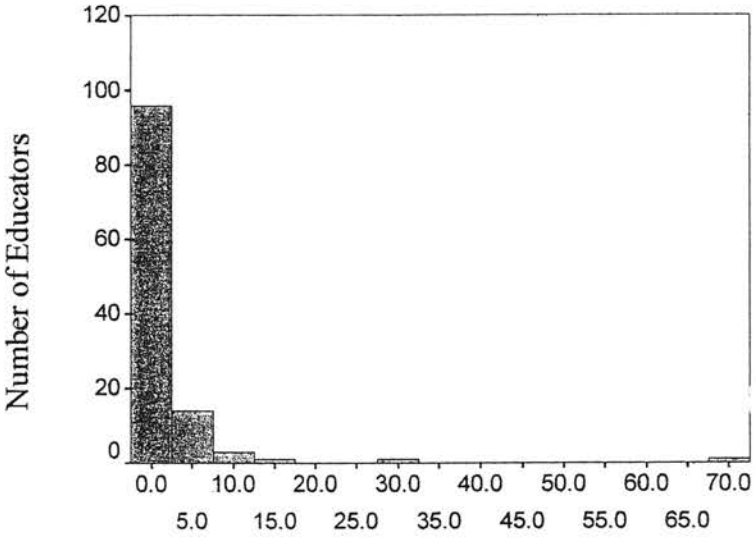


Figure 2. Annual scholarship productivity of interior design educators which includes all scholarship items (juried exhibitions, non-juried exhibitions, research publications, trade publications, consumer publications, and client-centered projects) disseminated in one year (N = 116, M = 2.1, SD = 6.97).

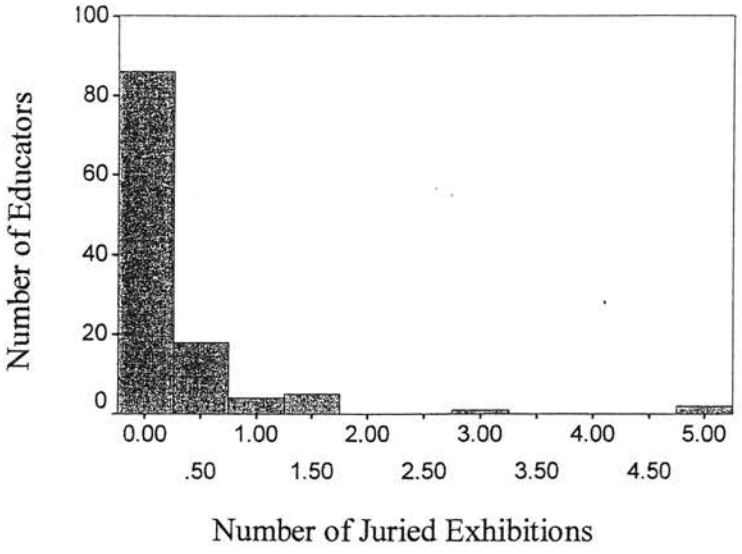


Figure 3. Juried exhibitions in which interior design educators exhibited creative scholarhip during one year (N = 116, M = 0.31, SD = 0.78).

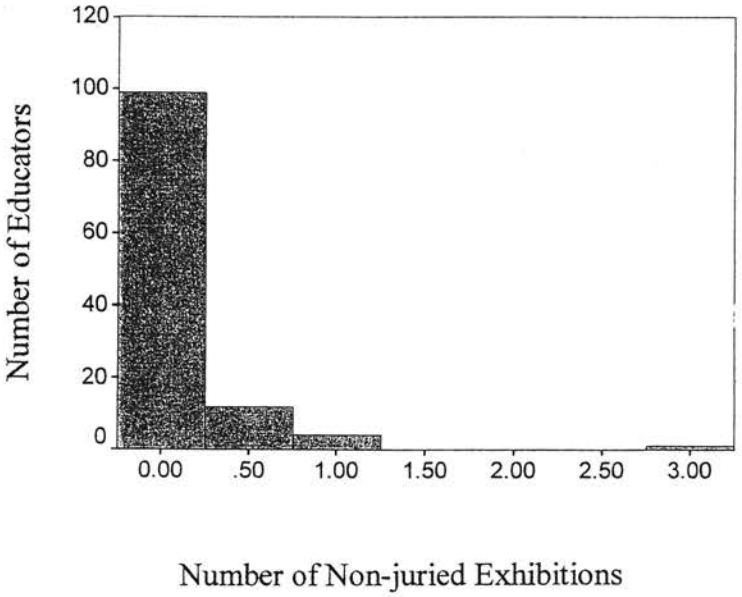


Figure 4. Non-juried exhibitions in which interior design educators exhibited creative scholarship during one year (N = 116, M = 0.12, SD = 0.34).

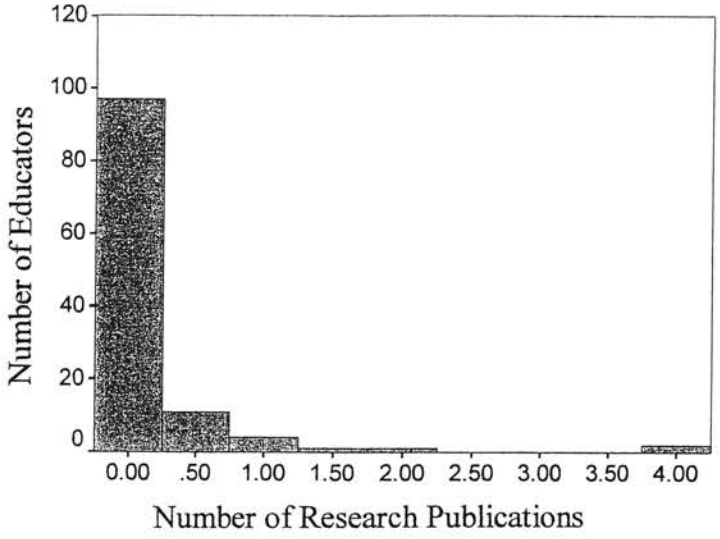


Figure 5. Research publications disseminated by interior design educators during one year (N = 116, M = 0.19, SD = 0.58).

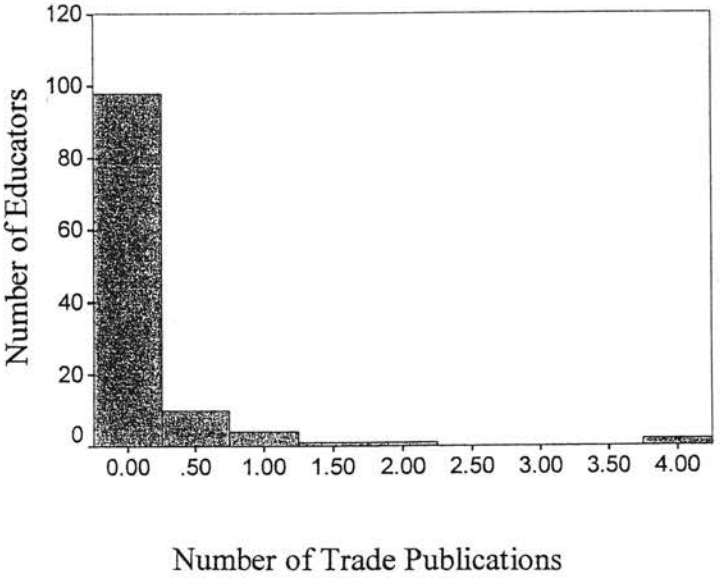


Figure 6. Trade publications disseminated by interior design educators during one year (N = 116, M = 0.18, SD = 0.58).

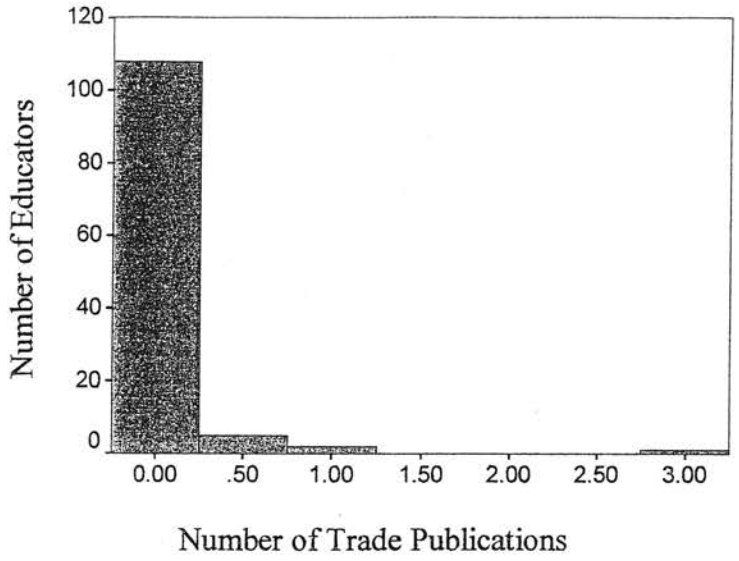


Figure 7. Consumer publications disseminated by interior design educators during one year (N = 116, M = 0.07, SD = 0.31).

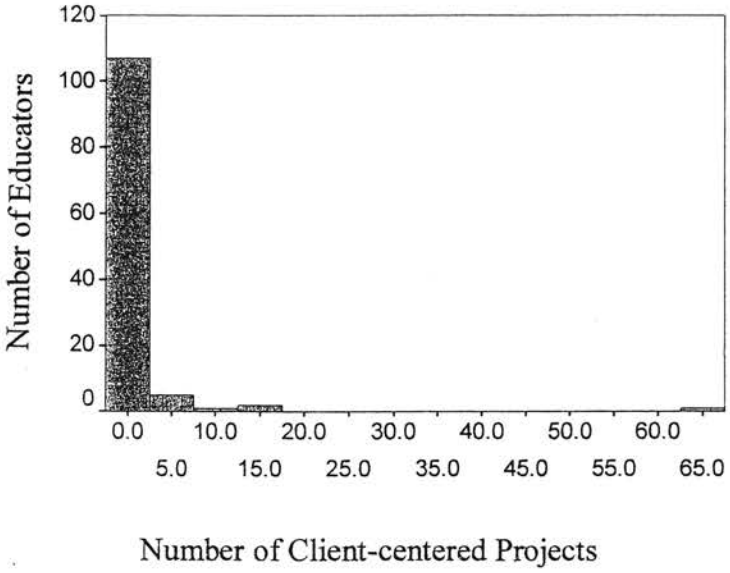


Figure 8. Client-centered projects completed by interior design educators during one year (N = 116, M = 1.3, SD = 6.43).

APPENDIX B

TABLES

Table 6

Summary Table for Responses to Sense of Subjective Well-being Scale Grouped by Three Sub-scales

Statements Grouped by Sub-scales	Strongly Agree		Agree		Slightly Agree		Slightly Disagree		Disagree		Strongly Disagree	
	n	%	n	%	n	%	n	%	n	%	n	%
Personal Growth Initiative Scale[a]												
1. I know how to change specific things that I want to change in my life.	28	24.3	72	62.6	10	8.7	4	3.5	1	0.9	0	0.0
2. I have a good sense of where I am headed in life.	38	32.8	63	54.3	11	9.5	3	2.6	1	0.9	0	0.0
3. If I want to change something in my life, I usually initiate the steps toward making a change.	37	31.9	64	55.2	11	9.5	3	2.6	1	0.9	0	0.0
4. I can choose the role that I want to have in a group.	19	16.5	61	53.0	27	23.5	1	0.9	7	6.1	0	0.0
5. I know what I need to do to get started toward reaching my goals.	31	27.0	70	60.9	12	10.4	2	1.7	0	0.0	0	0.0
6. I have a specific action plan to help me reach my goals.	21	18.1	49	42.2	34	29.3	6	5.2	5	4.3	1	0.9

(table continues)

Table 6 (Continued)

Summary Table for Responses to Sense of Subjective Well-being Scale Grouped by Three Sub-scales

Statements Grouped by Sub-scales	Strongly Agree		Agree		Slightly Agree		Slightly Disagree		Disagree		Strongly Disagree	
	n	%	n	%	n	%	n	%	n	%	n	%
7. I usually take charge of my life.	36	31.0	63	54.3	15	12.9	1	0.9	1	0.9	0	0.0
8. I know what my unique contribution to the world might be.	25	21.6	53	45.7	26	22.4	7	6.0	3	2.6	2	1.7
9. I have a plan for making my life more balanced.	13	11.5	47	41.6	35	31.0	9	8.0	7	6.2	2	1.8
Satisfaction with Life Scale[b]												
10. In most ways my life is close to ideal.	9	7.8	54	46.6	30	25.9	10	8.6	10	8.6	3	2.6
11. The conditions of my life are excellent.	16	13.8	53	45.7	27	23.3	9	7.8	7	6.0	4	3.4
12. I am satisfied with my life.	21	18.1	61	52.6	22	19.0	4	3.4	5	4.3	3	2.6
13. So far I have gotten the important things I want in life.	29	25.0	58	50.0	23	19.8	4	3.4	1	0.9	1	0.9
14. If I could live my life over, I would change nothing.	6	5.2	35	30.4	31	27.0	17	14.8	19	16.5	7	6.1

(table continues)

Table 6 (Continued)

Summary Table for Responses to Sense of Subjective Well-being Scale Grouped by Three Sub-scales

Statements Grouped by Sub-scales	Highly Satisfied		Satisfied		Slightly Satisfied		Slightly Dissatisfied		Dissatisfied		Strongly Dissatisfied	
	n	%	n	%	n	%	n	%	n	%	n	%
Need Fulfillment Satisfaction Scale[c]												
1. How satisfied are you with the balance between your workload and other activities?	7	6.0	32	27.6	28	24.1	20	17.2	20	17.2	9	7.8
2. How satisfied are you with the physical condition of your office space?	20	17.2	44	37.9	16	13.8	12	10.3	20	17.2	4	3.4
3. How satisfied are you with resources available to your department?	6	5.2	29	25.0	19	16.4	27	23.3	23	19.8	12	10.3
4. How satisfied are you with your feelings of security with your current faculty position?	27	23.7	56	49.1	12	10.5	5	4.4	6	5.3	8	7.0
5. How satisfied do you feel with the support you receive from your department regarding your duties as a teacher?	19	16.5	41	35.7	25	21.7	15	13.0	10	8.7	5	4.3
6. How satisfied do you feel with the support you receive from your department regarding your duties as a scholar?	10	8.6	32	27.6	33	28.4	19	16.4	8	6.9	14	12.1

(table continues)

Table 6 (Continued)

Summary Table for Responses to Sense of Subjective Well-being Scale Grouped by Three Sub-scales

Statements Grouped by Sub-scales	Highly Satisfied		Satisfied		Slightly Satisfied		Slightly Dissatisfied		Dissatisfied		Strongly Dissatisfied	
	n	%	n	%	n	%	n	%	n	%	n	%
7. How satisfied do you feel with the support you receive from your department regarding your duties in service to the field?	11	9.6	41	35.7	35	30.4	9	7.8	11	9.6	8	7.0
8. How satisfied do you feel with your level of competence as a teacher?	33	28.7	59	51.3	15	13.0	6	5.2	2	1.7	0	0.0
9. How satisfied do you feel with your level of competence as a scholar?	14	12.2	47	40.9	31	27.0	14	12.2	8	7.0	1	0.9
10. How satisfied are you with the clarity of criteria used to evaluate your teaching activities?	10	8.7	32	27.8	31	27.0	22	19.1	15	13.0	5	4.3
11. How satisfied are you with the clarity of criteria used to evaluate your scholarship activities?	6	5.2	36	31.0	30	25.9	21	18.1	14	12.1	8	6.9
12. How satisfied are you with your opportunity to give help to other people?	17	14.7	66	57.9	24	21.1	7	6.1	0	0.0	0	0.0

(table continues)

Table 6 (Continued)

Summary Table for Responses to Sense of Subjective Well-being Scale Grouped by Three Sub-scales

Statements Grouped by Sub-scales	Highly Satisfied		Satisfied		Slightly Satisfied		Slightly Dissatisfied		Dissatisfied		Strongly Dissatisfied	
	n	%	n	%	n	%	n	%	n	%	n	%
13. How satisfied are you with your opportunity for interaction with colleagues in your department?	22	19.0	45	38.8	23	19.8	12	10.3	13	11.2	1	0.9
14. How satisfied are you with the appreciation of your teaching efforts you perceive from students?	18	15.7	60	52.2	10	8.7	18	15.7	7	6.1	2	1.7
15. How satisfied are you with the appreciation of your teaching efforts you perceive from the university?	6	5.2	36	31.0	30	25.9	23	19.8	18	15.5	3	2.6
16. How satisfied are you with the appreciation of your teaching efforts you perceive from society?	6	5.3	37	32.5	34	29.8	22	19.3	13	11.4	2	1.8
17. How satisfied are you with the appreciation of your research efforts you perceive from students?	8	7.1	39	34.5	31	27.4	21	18.6	10	8.8	4	3.5
18. How satisfied are you with the appreciation of your research efforts you perceive from the university?	8	7.1	29	25.7	39	34.5	18	15.9	11	9.7	8	7.1

(table continues)

Table 6 (Continued)

Summary Table for Responses to Sense of Subjective Well-being Scale Grouped by Three Sub-scales

Statements Grouped by Sub-scales	Highly Satisfied		Satisfied		Slightly Satisfied		Slightly Dissatisfied		Dissatisfied		Strongly Dissatisfied	
	n	%	n	%	n	%	n	%	n	%	n	%
19. How satisfied are you with the appreciation of your research efforts you perceive from society?	8	7.3	36	32.7	31	28.2	14	12.7	17	15.5	4	3.6
20. How satisfied do you feel with your opportunity for independent thought and action as a teacher?	41	36.0	46	40.4	10	8.8	9	7.9	4	3.5	4	3.5
21. How satisfied do you feel with your opportunity for independent thought and action as a scholar?	31	27.2	59	51.8	11	9.6	4	3.5	6	5.3	3	2.6
22. How satisfied do you feel with your opportunity for participation in the setting of your goals related to teaching?	35	30.7	60	52.6	7	6.1	5	4.4	4	3.5	3	2.6
23. How satisfied do you feel with your opportunity for participation in the setting of your goals related to scholarship?	26	22.8	57	50.0	16	14.0	4	3.5	7	6.1	4	3.5

(table continues)

Table 6 (Continued)

Summary Table for Responses to Sense of Subjective Well-being Scale Grouped by Three Sub-scales

Statements Grouped by Sub-scales	Highly Satisfied		Satisfied		Slightly Satisfied		Slightly Dissatisfied		Dissatisfied		Strongly Dissatisfied	
	n	%	n	%	n	%	n	%	n	%	n	%
24. How satisfied are you with being allowed to determine your own work activities?	25	22.1	55	48.7	16	14.2	8	7.1	3	2.7	6	5.3
25. How satisfied do you feel with your opportunity for personal growth and development in your position as a teacher?	24	21.1	53	46.5	16	14.0	13	11.4	6	5.3	2	1.8
26. How satisfied do you feel with your opportunity for personal growth and development in your position as a scholar?	15	13.2	49	43.0	25	21.9	11	9.6	8	7.0	6	5.3
27. How satisfied do you feel with your opportunity for worthwhile accomplishment in your position as a teacher?	28	24.6	55	48.2	18	15.8	10	8.8	1	0.9	2	1.8
28. How satisfied do you feel with your opportunity for worthwhile accomplishment in your position as a scholar?	15	13.3	49	43.4	32	28.3	8	7.1	4	3.5	5	4.4
29. How satisfied are you with your opportunities for working with creative ideas?	28	24.6	47	41.2	18	15.8	10	8.8	7	6.1	4	3.5

(table continues)

Table 6 (Continued)

Summary Table for Responses to Sense of Subjective Well-being Scale Grouped by Three Sub-scales

Statements Grouped by Sub-scales	Highly Satisfied		Satisfied		Slightly Satisfied		Slightly Dissatisfied		Dissatisfied		Strongly Dissatisfied	
	n	%	n	%	n	%	n	%	n	%	n	%
30. How satisfied do you feel with your level of income from your academic position?	4	3.5	27	23.9	25	22.1	25	22.1	18	15.9	14	12.4
31. How satisfied do you feel with your opportunity for staying informed of what is happening in your field of interest?	10	8.6	45	38.8	33	28.4	16	13.8	6	5.2	3	2.6

[a]Items 1–9 , Section A of questionnaire, Appendix D
[b]Items 10–14, Section A of questionnaire, Appendix D
[c]Items 1–31, Section B of questionnaire, Appendix D

Note. Item numbers correspond with numbers on questionnaire.

Table 7

Summary Table for Responses to Perceived Support for Innovation in the Organization Scale

Statements	Strongly Agree		Agree		Slightly Agree		Slightly Disagree		Disagree		Strongly Disagree	
	n	%	n	%	n	%	n	%	n	%	n	%
1. This department is always moving toward the development of new answers.	12	10.4	36	31.3	36	31.3	15	13.0	7	6.1	9	7.8
2. Our ability to function creatively is respected by the leadership in this department.	19	16.5	41	35.7	29	25.2	10	8.7	6	5.2	10	8.7
3. Around here people are allowed to try to solve the same problem in different ways.	15	13.0	49	42.6	30	26.1	9	7.8	7	6.1	5	4.3
4. Creativity is encouraged in this department.	24	21.1	40	35.1	32	28.1	8	7.0	5	4.4	5	4.4
5. The role of the leader of this department can best be described as supportive.	29	25.7	47	41.6	14	12.4	10	8.8	8	7.1	5	4.4
6. The head of this department (leader) acts as if we are not very creative.	5	4.5	9	8.0	8	7.1	15	13.4	46	41.1	29	25.9
7. Assistance in developing new ideas is readily available.	10	8.8	27	23.7	36	31.6	17	14.9	17	14.9	7	6.1

(table continues)

Table 7 (continued)

Summary Table for Responses to Perceived Support for Innovation in the Organization Scale

Statements	Strongly Agree		Agree		Slightly Agree		Slightly Disagree		Disagree		Strongly Disagree	
	n	%	n	%	n	%	n	%	n	%	n	%
8. People in this department are encouraged to develop their own interests, even when they deviate from those of the department.	9	7.8	34	29.6	37	32.2	15	13.0	9	7.8	11	9.6
9. Members of this department realize that in dealing with new problems and tasks, frustration is inevitable; therefore it is handled constructively.	7	6.1	36	31.6	32	28.1	19	16.7	13	11.4	7	6.1
10. This department is open and responsive to change.	12	10.4	40	34.8	30	26.1	14	12.2	8	7.0	11	9.6
11. Individual independence is encouraged in this department.	14	12.4	44	38.9	23	20.4	17	15.0	7	6.2	8	7.1
12. Creative efforts are usually ignored here.	3	2.6	9	7.8	9	7.8	28	24.3	43	37.4	23	20.0
13. People here try new approaches to tasks, as well as tried and true ones.	9	7.8	52	45.2	32	27.8	14	12.2	6	5.2	2	1.7

(table continues)

Table 7 (continued)

Summary Table for Responses to Perceived Support for Innovation in the Organization Scale

Statements	Strongly Agree		Agree		Slightly Agree		Slightly Disagree		Disagree		Strongly Disagree	
	n	%	n	%	n	%	n	%	n	%	n	%
14. The way we do things seems to fit with what we're trying to do.	13	11.4	36	31.6	32	28.1	22	19.3	7	6.1	4	3.5

Note. Questions 6 and 12 were reverse-coded.

Note. Item numbers correspond with numbers on questionnaire.

Table 34

Open-ended Comments in Response to Demographic Item 16[a], Grouped by Themes

Comments Grouped by Themes	n
Administrative support	
A department head and dean with vision	1
A department head with a clear vision of where interior design education should be going	1
A different chair	1
Administrative support and understanding of (what's) an appropriate terminal degree for interior design studio instructors	1
More (administrative) support	1
More positive support from administration	3
More supportive and sympathetic administration	1
More support by the university for our college	1
More support from department and administration	1
More support from chair	1
More support from dean of college	1
Department head who values differences instead of devaluing	1
More active dean	1
A new dean	1
A new dean and a new chair	1
Financial support	
Increased budget	1
Increased institutional funding	1
Political support	
Increased support at the legislative level for higher education	1
Increased support by the governor for higher education	1
Staff support	
Better staff	1
Better staff support	3
More staff support	1
Need for part-time assistant	1
Need for personal assistant	1
Need for research assistants	3
With academic duties	1
With administrative duties	1

(table continues)

Table 34 (continued)

Open-ended Comments in Response to Demographic Item 16[a], Grouped by Themes

Comments Grouped by Themes	n
Teaching support	
Development of an advising center	1
Lower teaching load	1
Reasonable teaching load	1
Teaching design"	1
Teaching support	1
With grading	1
Other support	
More emphasis on professional development	1
More support for professional work	1
More support for creative work	1
Supportive attitudes and show of appreciation and recognition	1
Technical and computer support	
Attitude	
All design equally respected and valued	1
Colleagues more interested in humanistic concerns	1
For all interior design faculty to work hard toward mutual goals (and not wait for retirement)	1
Less bullshit	1
Less stress	1
Nothing	4
Environment	
Adequate building and spaces	1
Better office	2
Better studio facilities	1
Bigger office	2
Ergonomically sound seating	1
Flexible work surfaces	1
Improved physical environment	1
More storage	1
More work space	1
Table and chairs for meetings	1
Window in my office	1

(table continues)

Table 34 (continued)

Open-ended Comments in Response to Demographic Item 16[a], Grouped by Themes

Comments Grouped by Themes	n
Faculty	
Additional full-time members to help	2
Clarity of tenure issues	1
Immediate colleagues to work with	1
More diversity	1
Tenure	3
Promotion to full professor	1
Fit	
More autonomy	1
More clarity as to professional 'fit'	1
Increase in collegial communication	1
Interior design needs to be in a creative college; not Family Life	1
More synergistic relationships across campus with design practice	1
Mentorship	
More or improved	2
"Some solid ground rather than shifting sand in tenure and promotion mentor"	1
Miscellaneous and other	
ASID Chapter	1
Green card, I need one	1
Move to another university	1
Ph.D., I need to complete it	1
Publicity	2
Retirement	1
Professional recognition	
Acknowledgment of professional design activities as scholarship	1
More positive recognition (thanks for efforts)	2
National recognition	2

(table contiues)

Table 34 (continued)

Open-ended Comments in Response to Demographic Item 16[a], Grouped by Themes

Comments Grouped by Themes	n
Remuneration	
More	2
One-third increase in salary	1
Ten percent increase in pay	1
Salary equal to effort and quality of work produced, especially for teaching loads	1
Salary equal to males of equivalent rank and experience	1
Salary range improved	9
Research and scholarship	
Greater funding	2
Less scholarship required	1
More time and support for	1
No research requirement	1
Resources	
CADD software and new presentation technology	1
Change of expectation that I do more and more with less and less (60-80 hour work weeks aren't enough to get it all done)	1
Funds to travel to conferences	1
Financial support for research costs	1
Incentives to go after research dollars	1
Rewards	
Rewards for teaching	1
Rewards for related efforts	1
Schedules	
Balance between activities	1
Consistency in scheduling	1
Some input to work around childcare	1
Students	
Active graduate program	1
More serious and committed students	1

(table continues)

Table 34 (continued)

Open-ended Comments in Response to Demographic Item 16[a], Grouped by Themes

Comments Grouped by Themes	n
Time	
An ability to leave this place more often	1
Fewer hours teaching and grading	1
Time for teaching and design only	1
Less committee work	1
More time	5
More free time for research	6
More free time for professional development	1
Release time for special endeavors	1
Time for teaching and design only	1
Time to reflect on ideas	1
Workload	
Fewer undergraduate students	1
Lower teaching load	5
Lower workload	2
More faculty or fewer students	1
More realistic workload with adequate compensation	1
Reduce workload to two courses per semester	1
An appreciation of the hard work and number of hours required to complete a successful design assignment; not only professional work but student work, as well.	1

[a]Demographic item #16 was "What would you need in your current work environment to improve your sense of well being?"

Note. 157 interior design educators responded to Demographic item #16. Percentages of respondents providing comments in theme categories were as follows: Support (administrative, financial, political, staff, teaching and other) – 27.3% (n = 43); Attitude – 5.7% (n = 9); Environment – 8.3% (n = 13); Faculty – 5.7% (n = 9); Fit – 3.1% (n = 5); Mentorship – 1.9% (n = 3); Miscellaneous and other – 4.5% (n = 7); Professional recognition – 3.2% (n = 5); Remuneration – 9.6% (n = 15); Research and scholarship – 3.2% (n = 5); Resources – 3.2% (n = 5); Rewards – 1.3% (n = 2); Schedules – 1.9% (n = 3); Students – 1.3% (n = 2); Time – 12.1% (n = 19); Workload – 7.6% (n = 12).

APPENDIX C

E-MAIL NOTE, COVER LETTER, REMINDER POSTCARD, SECOND COVER LETTER, BOOKMARK GIFT, AND QUESTIONNAIRE

Sample 1. E-mail

Dear....

You may be wondering how interior design educators are coping with the changing world of academia. To help us understand this, we will be sending you a questionnaire in a few days. In it, you will be asked to assess your work-related needs and how they are being met.

We hope you agree that this will be a beneficial study for us all and that you will complete the questionnaire promptly. Your participation in completing the questionnaire will imply your understanding of the project and your participation in it. Your feedback is vital to our study and will be greatly appreciated.

Sincerely,

Connie Thibeau-Catsis and Shiretta Ownbey

Sample 2. Cover letter

OSU LETTERHEAD

DATE

Inside Address

DEAR .....,

How are you doing during these times of rapid change in academia? When we first began our careers, we probably held certain expectations of what our work life would be like. But because university life has experienced rapid change, our expectations may have changed as well.

How do you feel about your life as an interior design educator? Are your needs being met in your work environment? These aspects of your work life contribute to your overall well-being and deserve greater understanding.

The enclosed questionnaire will enable us to gain perspective regarding how well we are coping with change as interior design educators at the university level. Please keep the signed-and-numbered labyrinth bookmark as our gift to you for taking time to help us in this study.

The questionnaire takes only 15 minutes to complete. When you are done, return it in the enclosed self-addressed and stamped envelope. Your answers are completely confidential and will be released only as summaries in which no individual's answers can be identified. The number at the top left-hand corner of the return envelope is used only for tracking purposes, and allows your name to be removed from our mailing list, when the questionnaire is returned.

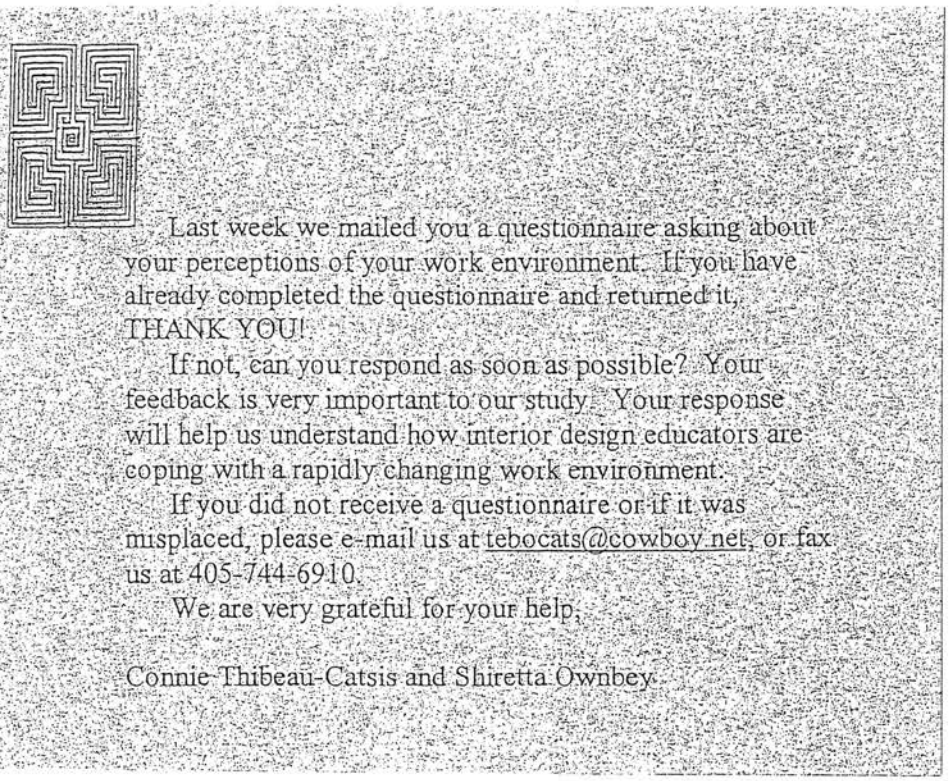
After May 10, 2001, you may access the results of the survey at our web site: www.creativityinstitute.org. If you have any questions or concerns, please contact us at 405-744-5035, tebocats@cowboy.net, or sownbey@okstate.edu. You may withdraw from this study at any time by calling collect Connie Thibeau-Catsis at 405-743-0999 or by e-mail. You may also contact the Oklahoma State University's Internal Review Board Office at 405-744-5700 to request withdrawal from the study.

Thank you for your help,

Connie Thibeau-Catsis
Doctoral Student
Design, Housing & Merchandising

Shiretta Ownbey, Ph.D.
Associate Professor

Sample 3. Reminder Post Card



Last week we mailed you a questionnaire asking about your perceptions of your work environment. If you have already completed the questionnaire and returned it, THANK YOU!

If not, can you respond as soon as possible? Your feedback is very important to our study. Your response will help us understand how interior design educators are coping with a rapidly changing work environment.

If you did not receive a questionnaire or if it was misplaced, please e-mail us at tebocats@cowboy.net, or fax us at 405-744-6910.

We are very grateful for your help;

Connie Thibeau-Catsis and Shiretta Ownbey

Sample 4. Second Mailing Cover letter

Date

Inside address

Dear Dr.....,

About three weeks ago, we sent you a questionnaire that asked about your work environment. Our records indicate that we have yet to receive your response.

For us to gain a greater understanding of interior design educators' creative traits in relationship to our work environment, we need your response.

Please help us out. We sincerely think this study will not only be of benefit to interior design educators in general, but to *you* specifically. That's because results will be posted on the Creativity Institute's web site (www.creativityinstitute.org). Results will be more valid and accurate if you answer and return the questionnaire today so that your information may be included in the results.

Be assured that all results are confidential. A questionnaire identification number is written on the front cover of the survey, but this is for tracking purposes only and allows your name to be removed from the mailing list when we receive your completed questionnaire. When your survey is returned, your name is checked off the mailing list and not referred to again. After the survey is completed, the numbered list is destroyed, protecting the confidentiality of everyone's answers.

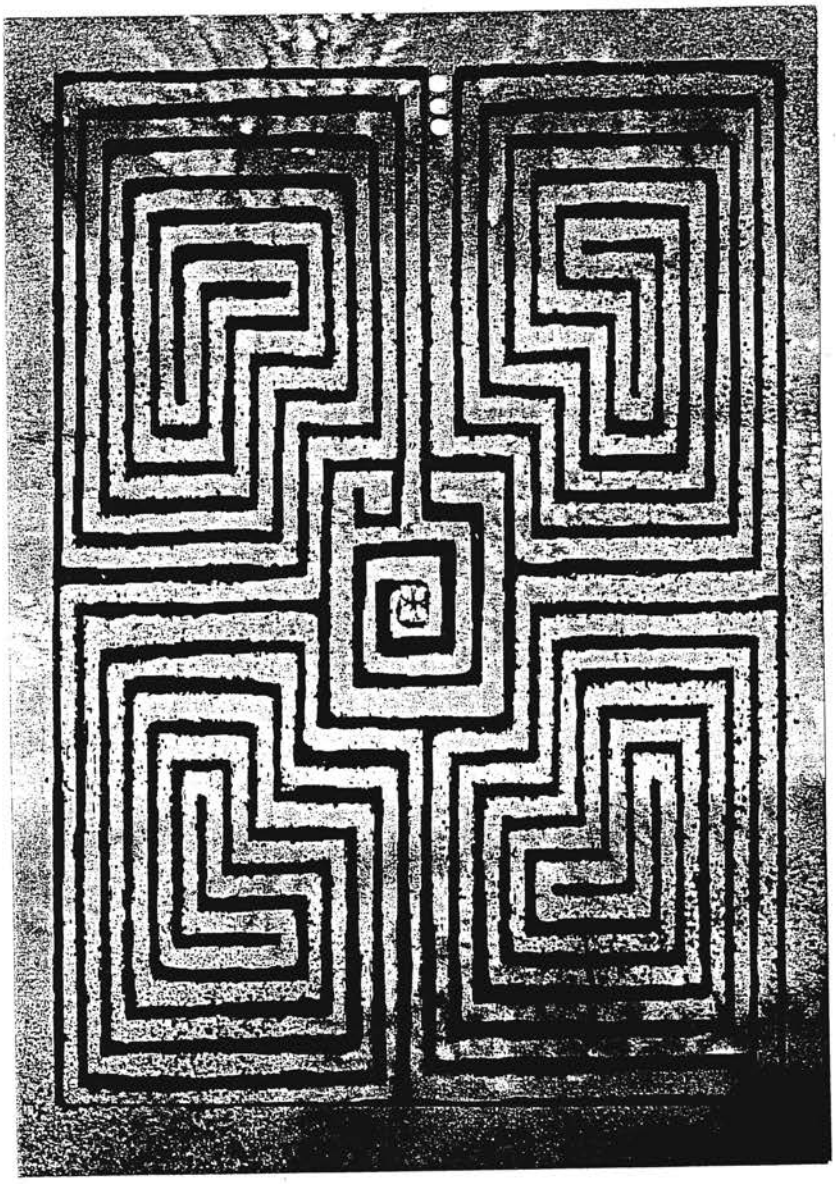
We hope that you will fill out and return the questionnaire as soon as possible. If for any reason you prefer not to answer it, please let us know by returning a note or the blank questionnaire in the enclosed postage-paid envelope. If you have any questions regarding the questionnaire, or if you wish to withdraw from the survey, contact Connie Thibeau-Catsis at tebocats@cowboy.net, or Shiretta Ownbey at sownbey@okstate.edu. You may also contact the Oklahoma State Institutional Review Board at 405-744-5700.

Sincerely,

Connie Thibeau-Catsis
Doctoral Student
Design, Housing, & Merchandising

Shiretta Ownbey, Ph.D
Associate Professor

Sample 5. Bookmark gift



Sample 5. Bookmark gift, backside

RELAX WITH THE LABYRINTH

A 3-Minute, 2 Step Exercise

First, in a relaxed manner, sit straight with your feet flat on the floor and the base of your spine aligned with the top of your head. Imagine a string gently pulling along this line.

As you breathe, let your belly be soft. Feel it expand and contract. Shift your consciousness inward, visualizing air slowly moving past your nostrils and flowing deeply into your lungs. As you exhale, be conscious of the air flowing past your lips.

Second, start the labyrinth by placing your finger at the white dots. While you are following the path inward, be conscious of your breath as you inhale and exhale slowly.

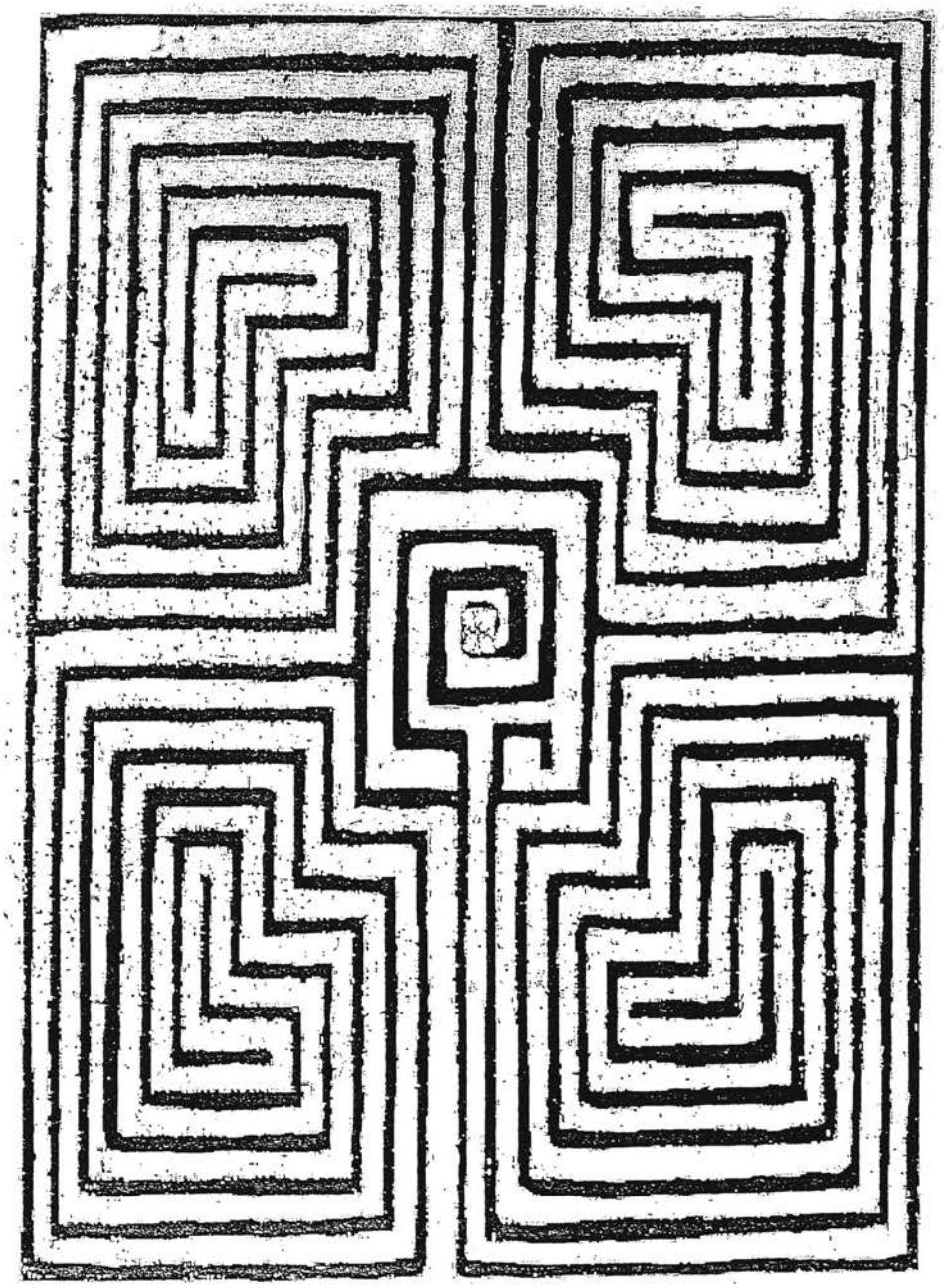
It takes about three minutes to journey to the center of the labyrinth pattern. The more conscious you are of the finger moving along the path and of your breath pattern, the greater the sense of relaxation.

Enjoy!

For further information contact Connie Thibeau Catsis at creativityinstitute.org. or tebocats@cowboy.net

Interior Design Educators Survey

This is a confidential survey. Its purpose is to aid the growth and development of interior design education at universities by enhancing the awareness of issues that may influence interior design educators' sense of well-being.



Section A: This section concerns your agreement with concepts of your experience of personal or professional transition and issues of change.

1. I know how to change specific things that I want to change in my life.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
2. I have a good sense of where I am headed in my life.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
3. If I want to change something in my life, I usually initiate the steps toward making a change.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
4. I can choose the role that I want to have in a group.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
5. I know what I need to do to get started toward reaching my goals.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
6. I have a specific action plan to help me reach my goals.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
7. I usually take charge of my life.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
8. I know what my unique contribution to the world might be.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
9. I have a plan for making my life more balanced.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
10. In most ways my life is close to ideal.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
11. The conditions of my life are excellent.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
12. I am satisfied with my life.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
13. So far I have gotten the important things I want in life.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
14. If I could live my life over, I would change nothing.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree

Please continue...

Section B: This section concerns issues related to job satisfaction.

Instructions: Circle the best answer for each question. Please consider only your present job when rating these items.

1. How satisfied are you with the balance between your **workload** and other activities?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
2. How satisfied are you with the **physical condition** of your office space?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
3. How satisfied are you with **resources** available to your department?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
4. How satisfied are you with your **feelings of security** with your current faculty position?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
How satisfied do you feel with the **support you receive** from your department regarding your duties						
5. **As a teacher**?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
6. **As a scholar**?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
7. **In service to the field**	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
How satisfied do you feel with your level of **competence**						
8. **As a teacher**?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
9. **As a scholar**?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
How satisfied are you with the **clarity of criteria used to evaluate** your						
10. **Teaching activities**?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
11. **Scholarship activities**?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
12. How satisfied are you with your opportunity to give **help to other people**?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
13. How satisfied are you with your opportunity for interaction with **colleagues** in your department?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
How satisfied are you with the **appreciation of your teaching efforts** you perceive from						
14. **Students**?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
15. **University**?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
16. **Society**?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied

Please continue...

Section B, continued: This section concerns issues related to job satisfaction.

Instructions: Circle the best answer for each question. Please consider only your present job when rating these items.

How satisfied are you with the **appreciation of your research efforts** you perceive from						
17. Students?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
18. University?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
19. Society?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
How satisfied do you feel with your opportunity for **independent thought** and action						
20. As a teacher?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
21. As a scholar?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
How satisfied do you feel with your opportunity for participation in the **setting of your goals** related to						
22. Teaching?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
23. Scholarship	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
24. How satisfied are you with being allowed to **determine your own work** activities?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
How satisfied do you feel with your opportunity for personal growth and development in your position as a						
25. Teacher?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
26. Scholar?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
How satisfied do you feel with your opportunity for **worthwhile accomplishment** in your position as a						
27. Teacher?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
28. Scholar?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
29. How satisfied are you with your opportunities for **working with creative ideas?**	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
30. How satisfied do you feel with your **level of income** from your academic position?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied
31. How satisfied do you feel with your opportunity for **staying informed** of what is happening in your field of interest?	Strongly Dissatisfied	Dissatisfied	Slightly Dissatisfied	Slightly Satisfied	Satisfied	Highly Satisfied

Please continue...

Section C: This section concerns issues related to your perception of Opportunities for innovation in your work environment.

Instructions: Circle the phrase under the statement that best indicates how much you agree or disagree with the statement.

1. This department is always moving toward **the development of new answers.**	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
2. Our ability to **function creatively is respected** by the leadership in this department.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
3. Around here people are allowed to try to solve the **same problem in different ways.**	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
4. **Creativity is encouraged** in this department.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
5. The role of the head (leader) of this department can best be described as **supportive.**	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
6. The head of this department (leadership) acts as if **we are not very creative.**	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
7. **Assistance** in developing new ideas is readily available.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
8. People in this department are encouraged to **develop their own interests**, even when they deviate from those of the department.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
9. Members of this department realize that in dealing with new problems and tasks, **frustration** is inevitable; therefore it is **handled constructively.**	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
10. This department is **open** and **responsive** to change.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
11. Individual **independence is encouraged** in this department.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
12. Creative **efforts** are usually **ignored** here.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
13. People here try **new approaches** to tasks, as well as tried and true ones.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
14. The way we do things seems to **fit** with what we're trying to do.	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree

Please continue...

Section D: This section concerns demographic information.

Instructions: Circle the letter that best represents your answer to the question, or fill in the appropriate information to answer the questions.

1. **How many years of experience do you have as a faculty member in higher education?**
   _____ number of years as part-time; _____number of years as full-time

2. **Highest degree held:**
   a. Bachelor's degree b. Master's degree c. Doctoral degree d. other_____

3. **Have you received certification from the National Council for Interior Design Qualification?** a. Yes b. No

4. **Age:** a. under 30 b. 31-40 c. 41-50 d. 51-60 e. 61 or older

5. **Do you have industry experience as an:** a. Interior designer b. Architect c. other _____

6. **Number of years in industry:** a. 0 b. 1-3 years c. 4-6 years d. 7- 9 years e. more than 10 years

7. **Have you had other higher education faculty positions?**
   a. no b. yes....specify number of other positions _____

8. **Employment status in academia**
   a. part-time, *not* tenure track
   b. full-time tenure track, not tenured
   c. full-time tenure track, tenured
   d. full-time, not tenure track
   e. other _____

9. **Current academic activities**
   a. On average, how many courses do you teach in an academic year?
      (a) 1 (b) 2 (c) 3 (d) 4 (e) 5 (f) other _____
   b. Number of current *undergraduate* advisees
      (a) none (b) 1-10 (c) 11-20 (d) 21-20 (e) 21 or more
   c. Number of current graduate advisees as major professor
      (a) none (b) 1-2 (c) 3-4 (d) 5-6 (e) 7 or more

10. **Membership in professional organizations: (circle all that apply)**
    a. IDEC b. ASID c. IIDA d. EDRA e. IESNA f. OTHER _____

11. **Number of items disseminated on behalf of creative or research scholarship in the last ten years:**
    a. juried exhibitions ___ b. non-juried exhibitions ___ c. research publications ___ d. trade publications ___
    e. consumer publications ___ f. client-centered projects ___ g. other: name of activity_____, quantity ___

12. **Sex:** a. Female b. Male

13. **Ethnic Identification:**
    a. American Indian b. Asian c. Black
    d. Hispanic e. White f. Other

14. **United States citizen:** a. yes b. no

15. **Present Marital Status:**
    a. Single b. Married c. Widowed
    d. Divorced e. Separated f. Other _____

16. **What would you need in your current work environment to improve your sense of well-being?**

    _____

Thank you very much. Please use the stamped envelope to return the survey.
You may withdraw from this study at any time by calling collect Connie Thibeau-Catsis at 405-743-0999 or email: tebocats@cowboy.com. You may also contact Dr. Shiretta Ownbey at 405-744-5035 or the Oklahoma State University's Internal Review Board office at 405-744-5700.

Oklahoma State University
Institutional Review Board

Protocol Expires: 3/5/02

Date : Tuesday, March 06, 2001 IRB Application No HE0144

Proposal Title: CREATIVE PROBLEM SOLVING PROFILE AND PERCEPTION OF SUPPORT FOR INNOVATION IN THE ORGANIZATIONAL CLIMATE AS AN INFLENCE ON SUBJECTIVE WELL-BEING OF INTERIOR DESIGN EDUCATORS AT MAJOR UNITED STATES UNIVERSITES WITH FIDER ACCREDITED PROGRAMS

Principal Investigator(s) :

Connie Thibeau Catsis
1701 W. 4th
Stillwater, OK 74074

Shiretta Ownbey
431 HES
Stillwater, OK 74078

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s) : Approved

Signature :

Carol Olson, Director of University Research Compliance

Tuesday, March 06, 2001
Date

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modifications to the research project approved by the IRB must be submitted for approval with the advisor's signature. The IRB office MUST be notified in writing when a project is complete. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

VITA

Connie Thibeau Catsis

Candidate for the Degree of

Doctor of Philosophy

Thesis: PERCEPTION OF OPPORTUNITY FOR INNOVATION AND PRODUCTIVITY IN RELATION TO SUBJECTIVE WELL BEING OF INTERIOR DESIGN EDUCATORS AT MAJOR UNIVERSITIES IN THE UNITED STATES

Major Field: Human Environmental Sciences

Biographical:

Personal Data: Born in Warrensburg, Missouri, May 5, 1945, the daughter of Roger R. and LaVera B. Thibeau.

Education: Graduated from Kubasaki High School, Ryukyu Islands, Japan, June 1963; Strayer Jr. College, Washington, DC, June 1965; Received Bachelor of Science degree from the University of Maryland, June 1969; Received Master of Science degree at Oklahoma State University in May 1993; completed requirements for Doctor of Philosophy degree at Oklahoma State University in August 2001.

Professional Experience: Commercial and residential interior designer in Houston, Texas; Vancouver, British Columbia; Farmington, Albuquerque, and Santa Fe, New Mexico; Portland, Maine, 1970-1990. Graduate teaching assistant, 1990-1993 and adjunct instructor, 1993-2001, both Oklahoma State University.