EMPLOYER PREFERRED COMPETENCIES

AND ATTRIBUTES IN INTERIOR

DESIGN GRADUATES

By

REKHA ASTHANA

Bachelor Of Science

Lucknow University

Lucknow, India

1974

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
MASTER OF SCIENCE
May, 1997

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AND ATTRIBUTES IN INTERIOR

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Thesis Approved:

Carol Bormann

Thesis Adviser

Donna H. Branson

Rick P. Bartholomew

Thomas C. Collins

Dean of the Graduate College

ACKNOWLEDGEMENTS

I am deeply grateful to my major thesis adviser, Carol Bormann for enlightening me with her incredible enthusiasm, encouragement and guidance. Appreciation is also extended to my committee members, Dr. Donna Branson and Rick Bartholomew for their precious support and assistance with the culmination of my thesis. A note of thanks is extended to Dr. Larry Claypool for his assistance with the statistical analysis for this study.

Special thanks go to the members of : American Society of Interior Design, American Institute of Architects and International Facility Management Association, for their valuable time by participating in the study.

Special gratitude is expressed to my family for their love and encouragement across the miles. Most of all I extend my deepest gratitude to my husband for sustaining me with his belief in my abilities and encouraging me to have the vision to see, faith to believe and the courage to aspire and achieve a new academic horizon.

TABLE OF CONTENTS

Chapter   Page

LIST OF TABLES

CHAPTER I

INTRODUCTION

A new millennium is dawning. The changing nature of today's workplace is creating new challenges for interior design practitioners and recent interior design graduates. To survive the economic challenge of succeeding in a very competitive world market, a new set of priority skills needed by employees has emerged on the forefront. Said priority skills identified in this thesis as competencies and attributes are sought by employers for employability of interior design graduates. Thus, the focus of this study is to ascertain those competencies and attributes currently sought by employers when employing interior design graduates.

Silver Platter Information Retrieval System [SPIRS] defines competencies as "the individual's demonstrated capacity to perform, i.e the possession of knowledge, skills and personal characteristics needed, to satisfy the special demands or requirements of a particular situation" (SPIRS, 1979, p. 1). Webster's New World Dictionary (1973) defined attributes as characteristics or qualities of a person or thing.

Background

The hiring of interior design graduates by employers generally follows a basic pattern. The prospective employee first attends four years of college from an interior design

1

program. Upon graduation, the graduate traditionally finds employment in a variety of design firms including residential design, contract design, and facilities management. The employees are trained to develop competencies and skills pertinent to each firm. The trained graduates are then integrated into the mainstream (Davis, 1990). The American Society of Interior Designers, commonly referred to as ASID, has classified the Interior Design industry in eight segments. The eight segments consist of: (1)Hospitality, (2) Residential, (3) Health Care, (4) General Services Administration, (5) Research, (6) Store Planning, (7) Office Design and (8) Facilities Management.

Decisions rest on interior design practitioners commonly referred to as employers to hire suitable interior design graduates. To hire the graduates and integrate them into the work force, the employers focus on key competencies and attributes. Preliminary interviews with practitioners indicating a pivotal cause for concern, regarding competencies and attributes of interior design graduates pertinent to their employability, prompted this research.

Findings from the literature review of diverse disciplines with an analogous problem such as our proposed study, indicate that a skills gap exists between employer needs and the competencies and attributes required for employability of new graduates (Vasu and Frazier, 1989). Studies conducted by Cappelli (1992) reached similar conclusions that graduates did not possess many of the skills and attributes most relevant to jobs contributing to the widening skills gap. The problem pervades not only the interior design industry, but encompasses an entire spectrum of diverse disciplines (Harvey, 1993). The prevalence of the problem is confirmed by the 1984 summary of survey of

employer concerns, conducted by the Research and Policy Committee of the Committee on Economic Development (Buck, Barrick and Kirby, 1987).

When graduates lack competencies and attributes sought by employers for employability, it has far reaching consequences for both employers and graduates. (1) Graduates encounter difficulties in finding a job. (2) Employers have to expend valuable time and resources training the graduates so that the graduates can be productive and contribute to the business objectives.

Traditionally, interior design graduates could be hired, trained and eventually integrated into the main work force. However, the pervasive influence of technology has significantly impacted the business and economic climate forcing business to change it's very culture. Observing the incessant changes in the society, Seligson (1990) compares the categorizing of curricula and careers to a snapshot from a moving picture. A need for graduates that are technically competent, with a broad range of skills for employability has become imminent.

<p align="center">Statement Of Problem</p>

To retain a competitive edge, the employers increasingly have to design for the clients with greater speed and precision. To fulfill the clients' needs and meet the business objectives, the employers have to hire interior design graduates having competencies and attributes congruent with the needs of the employers' business objectives. Hiring the right graduates will enable the employers to maintain a competitive edge.

If a link could be established between academia and industry, it could have far reaching effects. By understanding from the research findings, what competencies and

<p align="center">3</p>

attributes employers seek in hiring recent interior design graduates, the proposed study will have a twofold effect: (1) from the industry perspective, business efficiency can be increased by hiring graduates who would be pretrained, thereby contributing to the business objectives immediately and effectively, and (2) from an academic perspective, faculty could develop curricula, inculcating the competencies and attributes identified in the findings in the students. Thereby, graduates from interior design programs would have the competencies and attributes that are compatible with the needs of the employers. Possession of the skills sought by employers will greatly contribute to the employability of graduates and enhance the likelihood of retaining a job by the graduates (Kalamas and Warmbrod, 1987).

Justification for Study

Sparse availability of a body of literature relating specifically to the interior design industry prompted this research to be undertaken. The generalization in the review by Loustau (1988) is probably accurate by stating that "in the field of interior design, no theory has been developed uniquely for interior design" (p. 3). Dickson and White (1993) referring to the Fider newsletter (1992, Fall) indicated that the limited body of literature relating to the field of interior design, could be due to the focus on the successfulness of the profession of interior design as a commercial enterprise and the scant attention to the development of the knowledge base from within the interior design profession.

4

Moreover, discussions with practitioners comprised of interior designers and facility managers from Tulsa and Oklahoma City revealed the need for research relevant to the proposed study. I anticipate that in due course of time, theory generated specifically from interior design experiences will be available. Inspiration and/ or methodology from other disciplines will be used to enhance understanding of the proposed research problem.

Due to changes in the work environment and infusion of technology, expectations and needs of employers have changed relating to the possession of competencies and attributes in interior design graduates. A study of the factors. relating to the employability of graduates would be beneficial to practitioners and students of interior design. At the same time, the findings from this research would be a good resource for present knowledge and future studies, adding to the limited availability of knowledge pertaining to the field of interior design. Through the research we can begin to determine the kinds of graduates employers want from higher education.

The concept of 'design for the client' has been an important part of the instruction that interior design educators impart to the students, and it is equally relevant to interior design practitioners. Contemporary trends indicate a marked departure from the traditional way of conducting business. The prime objective of practitioners is to fulfill the needs of their clients. To sustain and maintain a competitive edge, the practitioner must seek graduates with requisite skills that are harmonious with the demands of the business environment. In the 1995 interview, ASID National President Penny Bonda succinctly states, "The marketplace is so competitive these days that however you can

5

differentiate yourself is a real *plus*. Our clients are dealing with the issues of technology, business, etc. - and that means we need to as well" (Jablinske, 1995, p. 5).

Increasing demands to accomplish more output with less input has prompted consideration of changing work patterns and changing client needs. Awareness of trends, enhanced by the findings from the proposed study, would be mutually beneficial for the industry and academia.

Research Purpose And Objective

The researcher's primary objective of this study was to identify the factors that affect the employability of graduates of baccalaureate interior design programs.

To attain the research objective the key research question was:

What are the key competencies and attributes that employers seek, when hiring recent interior design graduates?

Assumption

It is assumed that the interior design practitioners to be sampled, will answer the testing instrument candidly.

Limitations

The following limitations were identified:

1. The sample was limited to interior design practitioners practicing in (a) Tulsa, Oklahoma, (b) Oklahoma City, Oklahoma,(c) Dallas, Texas, (c) Wichita, Kansas.

2. The sample is not representative of the interior design industry covering the entire United States.

Definition of Terms

The definitions of terms used in the study are listed as follows:

Skills: Complex mental and/or physical behaviors that require practice to be performed proficiently (SPIRS, 1966).

Employability skills: skills that enable an individual to acquire and keep a job (Saterfiel, Thomas, and McLarty, 1995, p. 1).

Employer: one who employs others for wages or salary (Webster's New World Dictionary, 1973).

CHAPTER II

LITERATURE REVIEW

The Research Problem

The prime objective of this research focuses on investigating what competencies and attributes are desired by interior design practitioners relating to the employability of interior design graduates. The focus of this study evolved from the pivotal cause of concern expressed by the interior design practitioners indicating that 'skills gap exists between the employers needs and competencies and attributes required for employability of new graduates' (Vasu and Frazier, 1989).

Skills Gap

Closely related to the skills gap, the pivotal cause of concern expressed by the interior design practitioners, was the survey conducted in 1984 by the Research and Policy Committee of the Committee on Economic Development. Pertaining to diverse disciplines the survey reiterated employer concerns relating to the skills gap. Buck, Barrick and Kirby (1987) summarizing the findings of the survey concluded:

1 Employers are looking for employees who demonstrate a sense of responsibility, self-discipline, pride teamwork, and enthusiasm.

2. Employers strongly value employee's ability to learn and solve problems.

3. Employers think that schools are doing a poor job of developing these much

needed attributes, attitudes, abilities, and skills. (p. 4).

Supplementing the findings, the survey sponsored by the National Association of

Manufacturers in 1989 found:

that employers want schools to take more responsibility for students'

employability skill development. Employers said that they want schools to

teach both general and specific employability skills. The consensus of

employers in these and other similar studies remains consistent--- employability

skills are important on the job and must be taught in the schools. (Barton and

Kirsch, 1990, p. 2).

Samuelson (1987) concluded the same findings as Barton and Kirsch.

Skills Gap Reduction

Lankard (1990) surmises that:

the skills gap can be reduced if the basic skills needed by entry-level

employees are taught in schools in the context of the interest of the student.

The best results seem to be achieved when employability skill training is

integrated with academic and vocational skill training. In this way, when the

interrelated skills are taught as basic to job market success—something in which

9

the learner has a level of interest the graduates enhance their likelihood of finding and retaining a job.

Origin of the Research Problem

The new challenges faced by employers relating to emphasis on competencies and attributes in employees could have been triggered by a number of factors. In a recent study by Imel (1994) possible causes for the new priority skills identified as competencies and attributes needed by employers in employees was investigated. Attributing the recession of 1990 as one of the possible causes for the origin of the research problem, Imel observed that the most recent recession, that began in 1990 and officially ended in March 1991, was mild compared to previous recessions, but it harshly affected the U.S. workforce

Hanigan (1993) found the following:

> Until the 1980s, corporate America was on a hiring binge. They basically soaked
> up everybody that graduate schools turned out without a lot of thought as to what
> they were going to do with these people, or what impact these people were going
> to have on their organizations. In the 1990s, corporate America changed its
> approach to hiring (p. 5).

Finding from the studies by Waterman and Collard (1994) found:

> Global demands are forcing business to change its very culture. At the same
> time, instant availability of technological knowledge and the pressure to retain
> a competitive edge are causing corporate hierarchy to decentralize.

10

Hardened by downsizings, delayerings, right-sizings, layoffs and restructuring, employers are developing a new perspective on hiring graduates thereby changing the nature of today's employment picture (p. 87).

Priority of Employability Skills

Relating to what corporate America wants regarding competencies and attributes for employability of new graduates, Saterfiel, Thomas, and McLarty (1995), observed that in the new emerging workplace, most companies are focusing on employability skills identified as competencies and attributes. According to Saterfiel, Thomas, and McLarty employability skills are skills that enable an individual to acquire and keep a job. Lankard (1987) also reached a similar conclusion that many employers believed that employability skills were of primary importance.

When employers refer to employability skills they refer to competencies beyond the basic skills. Greenburg, Canzoneri, and Straker (1994) observed that in recent years an ever-growing number of employers are emphasizing not only foundational academic skills but also a variety of attitudes and habits prior to hiring. Greenburg, Canzoneri and Straker clarified employability skills as the combination of foundational skills and attitudes and habits.

Research indicated by industry surveys such as the 1984 survey conducted by Research and Policy Committee of the Committee on Economic Development (Buck Barrick, and Kirby, 1987) reveals that entry level employees , similar to recent interior design graduates, are being asked to possess a broad set of skills previously required only of

managers and supervisors. While the depth may be declining, the range of skills required is expanding.

Lankard (1990) assesses employability skills as being more valued in recent years because they apply to many jobs and so can support common preparation to meet the needs of many different occupations.

Waterman and Collard (1994) observed that the changing culture and decentralization has caused an upscaling of skills relating to employability. Commenting on the new trends in hiring recent graduates Waterman and Collard found:

> Technology has driven workers towards increasing autonomy. Under the old workplace covenant, the workers refrained from major decisions and primarily performed repetitive tasks. The result was a dependent employee and a relatively static workforce with a set of static skills. Under the new covenant, workers are less supervised but frequently involved in identifying problems and making critical decisions. Business strategies like collaboration and emphasis on quality demand teamwork, listening skills, the ability to set goals, and develop and implement strategies for achieving goals. The result is a need for self reliant workers, and a company in which the skills needed to remain competitive are changing at a dizzying pace (p. 88).

Reaching similar conclusion as Waterman and Collard, Vasu and Frazier (1989) noted.

> Employers need workers who have the essential basic skills to adapt to different tasks (labeled transferable skills) and who have the ability to learn quickly. If

12

employees display deficiencies in basic skills an employer will have problems in rapidly adapting to new technologies and processes which in turn threaten the employer's competitive position. The key to an employer's competitive edge in today's world market is rapidly becoming dependent upon the skills possessed by his employees and how quickly those employees can integrate with new technology (p. 6).

Categories of Skills

Waterman and Collard observed that the changing culture and decentralization caused an upscaling of skills relating to employability. Commenting on the new trends in hiring recent graduates Waterman and Collard also found:

Technology has driven workers towards increasing autonomy. Under the old workplace covenant, the workers refrained from major decisions and primarily performed repetitive tasks. The result was a dependent employee and a relatively static workforce with a set of static skills. Under the new covenant, workers are less supervised but frequently involved in identifying problems and making critical decisions. Business strategies like collaboration and emphasis on quality demand teamwork, listening skills, the ability to set goals, and develop and implement strategies for achieving goals. The result is a need for self reliant workers, and a company in which the skills needed to remain competitive are changing at a dizzying pace (p. 88).

Based on the findings by Waterman and Collard various views were expressed expanding on the categories of skills needed by employers for employability of the graduates. One such viewpoint expressed by Carnevale, Gainer and Meltzer (1988) relating to the findings by the American Society for Training and Development was:

> employers need employees who can think on their feet (critical thinking skills to solve problems) and who are able to come up with innovative solutions (creative thinking). They need employees who have the ability to conceptualize (personal management), organize (leadership), verbalize thoughts (oral communications), resolve conflicts (interpersonal skills), and work in teams. But the foundation for all these skills requires an employee to have the ability to 'know how to learn': to have the basic skills that will allow the individual to learn new tasks to keep the company competitive.

To facilitate the understanding of the competencies and attributes required by the employers the skills are subdivided into five skill categories: personal development, language and information, social and cultural, work related, and science and technology. Most of the categories focus on personal image, attitudes, habits, behaviors, techniques of communication, problem solving, decision making and management and organizational processes (Lankard 1990). A grouping of categories relating to employability skills that employers seek are summarized by Gainer (1988) as follows:

> 1) Individual Competence: Communication skills, comprehension, computation and culture.

14

2) Personal Reliability skills: personal management, ethics and vocational maturity.

3) Economic adaptability skills: problem solving, learning, employability and career development.

4) Group and Organizational Effectiveness Skills: interpersonal skills: organizational skills, and skills in negotiation, creativity and leadership (p. 4).

The categories of employability skills identified above could be synonymous with the needs of the employers within the interior design industry.

Strategies for Skills Development

To identify and foster the development of employability skills desired by employers, ideas could be derived from strategies suggested by Buck, Barrick and Kirby (1987) to include:

a) Identification of the desired skills

b) Defining terms to identify characteristics and habits

c) Devising a way to measure traits, attitudes or habits

d) Giving frequent feedback on the development of traits

e) Concentrating on improving the desired traits

f) Employing a meaningful monitoring, evaluation and reward system

Linking Academy and Industry

Identifying the competencies and attributes desired by employers, addressing the employability skills and fostering the identified competencies and attributes concurrently with the curriculum, could provide the link between academe and industry.

15

The students can develop the desired competencies and attributes by :

addressing the development of the desired competencies and attributes in an

educational context, and following industry practices. When the students practice

daily the desired skills and demonstrate competencies and attributes desired by

the industry, that will enhance their job performance and retention (Lankard,

1994, p. 4).

CHAPTER III

METHODOLOGY

The major purpose of this study was to identify and profile key competencies and attributes of interior design graduates sought by interior design practitioners for employability of interior design graduates. The findings from the data collected via the survey was made available to educators for making recommendations for interior design curricula.

Data Collection

Data collection technique involved investigative analysis via mailing questionnaires. To further the present body of knowledge an original instrument was developed. (Refer to Description of Instrument).. The proposed research used a mail survey with SICQ questionnaires for data collection. SICQ is known as,

> summable item closed questions. SICQ questionnaires have items of an identical metric that are readily combined through summation to yield a composite score. The responses are structured so that the subject selects an alternative from a list of suggested answers; checks either yes or no, true or false; marks a point on a scale (e.g., 1 to 5 as on a Likert Scale); or ranks statements in terms of importance (Touliatos and Compton, 1989, p. 160).

17

The SICQ questionnaire was chosen for ease of response coding, analysis and the relatively limited time required to complete the items.

The survey was mailed or faxed to the sample identified in the sample description.(Refer to Description of Sample). Two weeks later, a second follow-up notice was mailed by the researcher to the randomly selected sample reminding the respondents to return or fax the survey instrument upon completion.

The original mailing included a form letter, a survey instrument and a self addressed, postage-paid envelope and fax number for respondent's convenience. The cover letter described the study and its importance to the respondents.

On the carrier envelope was a request that any mail that could not be delivered as addressed was to be returned guaranteeing return postage. This achieved the purpose of excluding all undeliverable surveys.

Realizing that the original form letter (Refer to Appendix) could be addressed to personnel other than people with authority to hire recent graduates, the letter had instructions, "If you do not hire recent interior design graduates please forward it to the appropriate person within your company who hires prospective interior design graduates". This was done to enhance the response rate. Upon receipt of the completed survey by the investigator, the data was coded and scored. The proposed instrument was self explanatory; therefore, no need was envisioned for training the subjects.

Description of Sample

"The entire group of people in a category is called a population. The smaller group selected for testing is called a sample. The sample is then used to make generalizations about the population from which it is drawn " (Touliatos and Compton, 1989, p. 55).

For the purpose of the study, the population consisted of approximately 700 names of interior design practitioners, from the south-central region of United States comprising of Tulsa, Oklahoma; Oklahoma City, Oklahoma; Dallas, Texas; and Wichita, Kansas. The names were obtained from the business directory, professional organizations membership lists and on-line services. The practitioners belonged to the professional organizations of: (1)American Society of Interior Designers (ASID), (2) American Institute of Architects (AIA), and (3) International Facility Management Association (IFMA). The 700 names obtained were subsequently merged. Using a statistical random table, a sample of 150 interior design practitioners was randomly selected, from the population of interior design practitioners from the south-central region of the U.S.

Description of Instrument

The survey instrument was designed after conducting employer consultations and a systematic literature review During the summer of 1996, selected interior design practitioners from Oklahoma were interviewed by telephone to ascertain their views of industry and curricula relating to competencies and attributes required for the interior design industry. Information culled from the interviews was used to form a preliminary survey instrument.

This new instrument was used to interview additional interior design practitioners for their views and suggestions. A revised survey instrument was evaluated by interior design practitioners to judge the efficacy and relevance to the objective of the study. Revisions were made and additional guidance from interior design practitioners from Oklahoma was obtained before drafting the final version of the instrument.

The final instrument was structured into four sections. In the survey, the employers were asked to identify what competencies and skills were desired by the employers when hiring recent interior design graduates.

The first section addressed the identification of competencies and attributes relating to the categories of : computer skills, personal characteristics, technology, communication and abilities. Using a Likert scale of 5 to 1, with 5 being the most important and 1 as very unimportant , the employers were asked to indicate the magnitude of importance or unimportance of the desired competencies and attributes by circling the appropriate number.

The second section related to employer demographics: the employers' company backgrounds: pertaining to the type of firm, job classification, length of time the company has been in business, number of employees in the firm, and type of training programs offered by the company.

The third section sought any additional information or comments from the employers, relevant to the proposed study.

The survey concluded with an expression of appreciation for participation. Specific instructions for mailing or faxing the completed survey were indicated.

Data Analysis

The study was conducted to produce a list of employability skills identified as competencies and attributes deemed important by interior design practitioners. The analysis procedure consisted of calculating and interpreting descriptive statistics. From the analysis, data was documented in a final format (e.g.; table, graphs etc.). Statistical methods such as t-test with 95% confidence interval was conducted on the four categories of competencies and skills identified in the instrument.

CHAPTER IV

MANUSCRIPT

Rekha Asthana

Department of Design, Housing and Merchandising

Oklahoma State University

Stillwater, Oklahoma 74078-6142, U S A.

Abstract

The changing nature of today's workplace is creating new challenges for interior design professionals relating to the employability of recent interior design graduates. A new set of priority in skills has emerged on the forefront, due to the profound impact of technology on business changing its core culture.

The task of identifying the priority skills identified as competencies and attributes sought by employers for employability of interior design graduates was the focus of this study. The key research question was "What are the key skills identified as competencies and attributes that employers seek when employing new interior design graduates"? The relevancy of the research evolved from discussions with interior designers and facility managers. A limited body of literature pertaining to interior design further supported the need for this study. Findings were aimed at benefiting the industry and prospective employees.

A random sample of 150 interior design practitioners practicing in the south-central region of the U. S were drawn from 700 names. Data collection involved investigative analysis of responses to mailed questionnaires developed for this study. Data analysis consisted of using a 2 sided t-test for significance set at 0.05 level to identify competencies and attributes deemed important by the responding interior design practitioners. Any variable having mean of 3.00 or higher indicated that the respondents considered the variable important in the four categories of competencies and attributes, as identified in the instrument.

BACKGROUND

In the dawn of a new millennium, new challenges have emerged for interior design

practitioners relating to the employability of interior design graduates. The profound

impact of technology has altered the core culture of business. Services rendered with

great speed and precision are becoming the norm of the day. To fulfill the clients' needs

and succeed in a competitive world market, the employers have to hire interior design

graduates having competencies and attributes congruent with the needs of the employers'

business objectives

In a 1995 interview, the American Society of Interior Designers (ASID) National

President, Penny Bonda, succinctly states, "The marketplace is so competitive these days

that however you can differentiate yourself is a real plus Our clients are dealing with the

issues of technology, business etc. - and that means we need to as well," (Jablinske,

1995, p 5) A new set of priority skills, identified as competencies and attributes, has

emerged on the forefront for recent interior design graduates. The task of identifying the

competencies and attributes sought by employers for the employability of recent interior

design graduates formed the focus of this study

Silver Platter Information Retrieval System [SPIRS] defined competencies as "the

individual's demonstrated capacity to perform, i.e the possession of knowledge, skills

and personal characteristics needed, to satisfy the special demands or requirements of a

24

particular situation" (SPIRS, 1979, p.1). Webster's New World Dictionary (1973) defined attributes as 'characteristics or qualities of a person or thing'.

Summarizing the studies of Buck, Barrick and Kirby (1987), Carnevale, Gainer and Meltzer (1988), and Waterman and Collard(1994), their findings indicated that graduates need a broad set of skills previously required only of managers and supervisors. Under the new covenant, employers need employees who are ethical, flexible, organized, logical thinkers, problem-solvers, teamplayers, and have good oral and written communication skills.

Supplementing these findings, Greenburg, Canzoneri and Straker (1994) reiterated that in recent years prior to hiring graduates, an ever-growing numbers of employers place great emphasis on variety of attitudes and habits also apart from basic foundational skills

Lee and Hagerty (1996) summarized previous studies by Baker and Sondhi, 1989, Douthitt and Haskell, 1985, Hernecheck, Rettig and Aherman 1983, and Meyers 1982 noting that problem solving, communication skills, design concepts, and professional ethics were consistently ranked high by practitioners The studies mentioned above focussed on different competencies preferred by employers in the U.S. However this study focuses on competencies and attributes considered important by practitioners in the south-central region of U.S. only, differentiating this study from the previously mentioned studies

ASID classified the Interior Design industry into eight segments. These segments include: (1) Hospitality, (2) Residential, (3) Health Care, (4) General Services

25

Administration, (5) Research, (6) Store Planning, (7) Office Design and (8) Facilities Management.

Traditionally, upon graduation the graduates found employment in a variety of design firms falling within the ASID classifications. The employees were trained by the new employers to develop competencies and skills pertinent to each firm. The trained graduates were then integrated into the mainstream (Davis, 1990).

However, the profound impact of technology on business is causing employers to develop a new perspective on hiring suitable interior graduates. Precipitated by the changing culture in business, the employers focus on key competencies and attributes regarding their decisions to hire suitable interior design graduates, thereby changing the nature of today's employment picture (Lankard, 1990).

Preliminary interviews with practitioners indicated the existence of a skills gap between employer needs and competencies and attributes of interior design graduates prompting this research. Since the literature review specifically relating to interior design was limited, literature from other disciplines with analogous problems were studied. Findings from this literature indicate that "the problem of the skills gap existing between the needs of the employers and the competencies and attributes possessed by graduates pervades not only the interior design industry, but encompasses an entire spectrum of diverse disciplines" (Harvey, 1993). The prevalence of the problem of the skills gap was confirmed by the 1984 summary of survey of employer concerns, conducted by the Research and Policy Committee of the Committee on Economic Development (Buck, Barrick and Kirby, 1987).

By understanding what competencies and attributes are desired by employers, a twofold benefit could be achieved for the academy and industry. From the industry perspective, business efficiency could be enhanced by having pretrained graduates. From an academic perspective, faculty could structure the curricula to be congruent with the needs of the industry and enhance graduates' employability. Seligson (1990) states that we live in a dynamic society and the categorizing of curricula and careers is like a snapshot from a moving picture. A need for graduates that are technically competent, with a broad range of skills for employability has become imminent. Possession of the competencies and attributes sought by employers will greatly contribute to the employability and job retention of the graduates (Kalamas and Warmbrod, 1987).

<div align="center">Significance of the Study</div>

Limited availability of a body of literature relating specifically to the interior design industry prompted the research to be undertaken. Moreover, discussions with practitioners in Tulsa and Oklahoma City, revealed the need for research relevant to the proposed study. The practitioners consulted were interior designers and facility managers.

Due to changes in the work environment and infusion of technology, expectations and needs of employers have changed. In the new emerging workplace, most companies are focusing on employability skills identified as competencies and attributes. According to Saterfiel, Thomas. and McLarty (1995), 'employability skills are skills that enable an individual to acquire and keep a job'. A study of these factors would be beneficial to practitioners and students of interior design. At the same time, the research would be a

good resource for present knowledge and future studies. Through the research we can begin to determine the kinds of graduates employers want from higher education.

Research Purpose

The purpose of this study was to determine the key competencies and personal characteristics sought by interior design practitioners when employing recent interior design graduates.

Definition of Terms

The definitions of terms used in the study are listed as follows:

Skills: Complex mental and/or physical behaviors that require practice to be performed proficiently (SPIRS, 1966).

Employability skills: Skills that enable an individual to acquire and keep a job (Saterfiel, Thomas, and McLarty, 1995, p. 1).

Employer: One who employs others for wages or salary (Webster's New World Dictionary, 1973).

METHODOLOGY

To identify and profile key competencies and attributes of interior design graduates sought by interior design practitioners for employability of interior design graduates, methodology used by Vasu and Frazier(1989) and Harvey (1993) from other disciplines such as education research was used to enhance understanding of the research problem.

28

Description of Sample

The population consisted of interior design practitioners practicing in the geographic regions of Tulsa, Oklahoma; Oklahoma City, Oklahoma; Dallas, Texas; and Wichita, Kansas who were members of the following professional organizations: American Society of Interior Designers (ASID)- all eight segments specified by ASID, American Institute of Architects (AIA), and International Facility Management Association (IFMA). Lists from each organization was obtained and merged yielding a list of 700 interior design practitioners from the south-central region. A sample of 150 interior design practitioners was randomly selected from the merged list using a statistical random table.

Description of Instrument

During the summer of 1996, selected interior design practitioners from Oklahoma were interviewed by telephone to ascertain their views of the industry and curricula relating to competencies and attributes required for the interior design industry. Information culled from the interviews were used to form a preliminary survey instrument.

This instrument was used to interview additional interior design practitioners for their views and suggestions resulting in a revised survey instrument that was subsequently evaluated by additional interior design practitioners. Revisions were made to obtain the final version of the instrument.

The final instrument was structured into four sections. The first section addressed the identification of competencies and attributes relating to the categories of computer skills, personal characteristics, technology, and communication. Using a Likert scale of 5 to 1, with 5 being very important and 1 being very unimportant, employers were asked to indicate their perception of the importance or unimportance of the preferred competencies and attributes by circling the appropriate number. The second section focused on respondents' demographics: the respondents' titles, the firms' areas of specialization, the firms' length of time in business, number of employees in the firms, and type of training program offered by the firms.

The third section included an open-ended question that allowed respondents to make comments relevant to the proposed study. The survey concluded with an expression of appreciation for participation. Specific instructions for mailing or faxing the completed survey were indicated.

Data Collection

Data were collected by mailing or faxing a package to the 150 respondents identified as the sample. The original package included a cover letter, a survey instrument and a self addressed, postage-paid envelope and fax number for the respondents' convenience. The cover letter described the study and its importance to the respondents. On the carrier envelope was a request that any mail that could not be delivered as addressed was to be returned to the researcher. This achieved the purpose of excluding all undeliverable surveys.

Realizing that the cover letter (Refer to Appendix) could be addressed to personnel other than those with authority to hire recent graduates, the letter stated, "If you do not hire recent interior design graduates, please forward the survey package to the appropriate person within your company who hires prospective interior design graduates". This was done to enhance the response rate. Upon receipt of the completed surveys by the investigator, the data were coded and scored.

Two weeks after the initial mailing a follow-up notice was mailed reminding the respondents to return or fax the survey instrument upon completion. This was also done to enhance the response rate.

Response Rate

Out of the randomly selected 150 interior design practitioners who were contacted from the south-central region of U.S., usable responses were received from 55 employers for a response rate of (36%) which formed the basis for this study. Six additional respondents returned the survey indicating their preference of not participating in the study. For future studies precontacting the employers might enhance the response rate.

Harvey (1993) noted that typically it is difficult to get a high response rate involving employers. Moreover, mailing questionnaires to employers without any prior contact is an inappropriate technique as it secures very few responses for the time and energy invested.

Data Analysis

All data collected were tabulated and analyzed using desriptive statistics.

FINDINGS

Findings of this study are presented in the following order: demographic information, and desired competencies and attributes of new hires. To illustrate the findings of this study at a quick glance the data are presented in Table 1- Table 9.

Demographic Information of Respondents

Job Classification

Of the selected 150 interior design practitioners, usable responses were received from 55 employers for a response rate of 36 % which form the basis for this study. The respondents were asked to indicate their titles by responding to four alternatives of : (1) Principal Owner/CEO, (2) Business Manager, (3) Project Manager and (4) Other category. The responses of the interior design practitioners are summarized in Table 1. The largest percent of respondents, 45 percent, were Principal Owner/CEO, 24 percent were Project Managers, 9 percent were Business Managers, and 22 percent specified other. These included Facility Managers, Regional Directors and Store Managers, Contract Consultants and Museum Directors. The data indicates that almost half the respondents were Owner or CEO

Table 1

Respondents' Titles Title	N	%
Principal Owner/CEO	25	45
Business Manager	5	9
Project Manager	13	24
Other	12	22

Firms' Areas of Specialization

To determine the respondents' firms' areas of specialization from the eight segments of ASID, four alternatives were provided including: Facility Management, Office Design, Hospitality, and Healthcare. The fifth option was Other, and the respondents choosing this option were asked to specify. Responses appear in Table 2. Twenty-nine percent of the respondents specialized in Office Design, 14 percent specialized in Healthcare, 13 percent specialized in Facilities Management, and 8 percent specialized in Hospitality.

Thirty-six percent of the respondents listed other as their area of specialization. This included various areas of design, and facilities management. In the design field, the areas of specialization included: residential, institutional, churches, retail, public places and historic preservation. In the facilities management field, area of specialization included: banking, communications, telecommunications, insurance and relocation management.

Table 2

Specialization	N	%
Facility Management	10	13
Office Design	22	29
Hospitality	6	8
Healthcare	11	14
Other	28	36

Firms' Length Of Time In Business

Responses to the number of years that the firm was in business are summarized and presented in Table 3. Fifty-five percent of the firms were in business over 20 years, 16 percent were in business for 11 to 15 years, 15 percent were in business for five to ten years, and nine percent were in business for 16 to 20 years. Five percent of the firms have been in business less than 4 years. The findings indicate that the sample contains primarily firms that were in business for a fairly long period.

Table 3

Firm's Length of Time in Business	N	%
01-04 Years	3	5
05-10 Years	8	15
11-15 Years	9	16
16-20 Years	5	9
Over-20 Years	30	55

Data on the number of employees in the firm appear in Table 4. Forty-four percent

of the firms have less than 25 employees. 29 percent of the firms have over 200

employees, while 27 percent have 25 to 200 employees. The findings indicate that

slightly less than half could be characterized as small firms but almost 30% are quite

large.

Table 4

Number of Employees in the Firm	N	%
Under 25	24	44
25-200	15	27
Over 200	16	29

Type of Employee Training Program

Data on the type of training programs firms use for their employees appear in Table 5.

Fifty- six percent of the firms had an informal training program. 18 percent had a formal

training program, while 25 percent had no form of training program for the employees.

It is interesting to note that the majority of the firms (almost 74 %) have some form of

training program.

Table 5

Type of Employee Training Program	N	%
Formal	10	18
Informal	31	56
None	14	25

Demographic Summary

The data indicated that the larger firm, the more focused their area of specialization. Only one firm out of the 24 firms with less than 25 employees indicated three areas of specialization. Two firms out of the 24 firms with less than 25 employees listed two or more as their areas of specialization. Midsize firms with 25-200 employees appeared to be more diversified with four firms out of the 15 firms specializing in three or more areas. Twenty-two firms out of the 30 firms who were in business over 20 years appeared to be more focused listing only one area as their primary area of specialization.

A formal training program appeared to be prevalent in larger firms with 200 or more employees. Eight of the ten firms with formal training program, had over 200 employees, and two firms had 25-200 employees. Four medium sized firms with 25-200 employees had no training program.

Competencies and Attributes

The findings from this research are based on the identification of competencies and attributes preferred by interior design practitioners for employability of recent interior design graduates. To make the data easier to understand a 5 point scale was chosen from 1 to 5, with 1 representing very unimportant, 5 very important and 3 a neutral midpoint between very important and very unimportant

The researcher tested the statistical hypothesis H_o: $\mu = 3.00$ -Vs- H_1: $\mu \neq 3.00$. The competencies and attributes preferred by interior design practitioners were listed under four headings which included: (1) Computer Skills (2) Characteristics, (3) Technology, and (4) Communication.

The respondents' preferences of competencies and attributes appear in Table 6 to Table 9. Findings for the analysis are graphically illustrated via the 3-D bar charts (Reference Graph 6 - Graph 9) supplemented in the Appendix.

The statistical results indicated that the only mean score among the desired competencies below 3.00 was Internet. Mean scores for all the other variables were above 3.00. indicating that the respondents considered the identified competencies and attributes to be important.

Computer Skills

Mean scores for the six competencies within the computer skills area are as follows, expressed in a descending order of importance: (1) CAD, (2) Macintosh or PC, (3) Word Processing, (4) Spreadsheet, (5) Computer Graphics, and (6) Internet.

The responses appear in Table 6. Since five of mean scores for these six variables in the computer skills category had scores above 3.00, respondents perceived these skills as important.

It is interesting to note that CAD (Computer Aided Drafting) received the highest mean of 4.33, in the Computer Skills category, followed by PC. It cannot be denied that we live in an age of technology. By ranking CAD as important, the data appear to agree with the comment by 'Philip Salembir stating that the computer has ushered in increased productivity potential for the design community. To solve the designers' common dilemma, the marketplace dictates the use of programs like CAD, Archillustrator, Accurender and other similar applications. Utilizing computer skills, designers can now conquer any task of magnitude with ease, in less time with dazzling outcome' (Eng. Rick, 1992).

Supporting the view expressed by Philip Salembir, Barbara Knox (1988) in summing the advantages of the alliance of technology and design businesses found that

leading software like Autocad brings breakthrough features to the everyday task of 2D drafting. 3-D models can be built dynamically, viewed with multiple scenarios for exploring design possibilities in minutes.

Revisions and changes can be made in any mode. Photorealistic images complete with animation. light, shadows and special effects can be rendered in designated surroundings with greater dimensioning and accuracy. With Photorealistic images of the space in front of them, so many clients who have so much difficulty in visualizing the finished interior, can accurately consider the

design. When situations demand a cutting edge on competitive bids, designers can quickly revise estimates and bid job costs with profit producing proposal to the client. Thus, the design is submitted on time, on or under budget and satisfies the client's needs compatible with the design concept (p. 193).

One practitioner reiterated the importance of computer skills by indicating that "the graduates need to be well rounded, willing to embrace technological and other changes".

The skill perceived to be the least important was the Internet. The reason could possibly be attributed to the Internet being relatively new and not widely used by the respondents.

Table 6

Employer Preferred Computer Competencies

Computer Skills	n	Mean	Std Dev	t	Prob > | t |
CAD	55	4.33	0.9241	10.6523	0.0001
Macintosh or PC	55	4.05	0.9892	7.9064	0.0001
Word Processing	55	3.75	0.8214	6.7303	0.0001
Spreadsheet	55	3.53	0.8575	4.5600	0.0001
Computer Graphics	55	3.49	0.9403	3.8718	0.0003
Internet	55	2.80	0.7303	-2.0310	0.0472

Characteristics.

The perceived importance of nine personal characteristics were obtained with this section of the questionnaire. The mean scores appear in Table 7. The characteristics

were as follows based on ordering the mean scores in descending order of importance:
(1) Ethical, (2) Organized, (3) Self Motivated, (4) Team Player, (5) Resourceful,
(6) Flexible, (7) Decision Making, (8) Self Confident, and (9) Leadership.

As shown in Table 7 the means of all of the nine personal characteristics were above
4.00. These results demonstrate that this sample of employers strongly and uniformly
considered these characteristics to be very important and desirable in new hires. The
findings parallel the emphasis on characteristics by employers from diverse disciplines as
observed by Gainer (1988).

Gainer found that the study conducted by the American Society for Training and
Development concluded that 'employers need employees who are flexible, resourceful,
organized, can work in teams, think critically, and creatively solve problems'.

Table 7

Employer Preferred Characteristics

Characteristics	n	Mean	Std Dev	t	Prob >	t	
Ethical	55	4.93	0.2621	54.5366	0.0001
Organized	55	4.82	0.3892	34.6410	0.0001
Self Motivated	55	4.80	0.4037	33.0681	0.0001
Team Player	55	4.76	0.4700	27.8302	0.0001
Resourceful	55	4.64	0.5222	23.2379	0.0001
Flexible	55	4.62	0.5267	22.7836	0.0001
Decision Making	55	4.45	0.6890	15.6559	0.0001
Self Confident	55	4.44	0.6601	16.1383	0.0001
Leadership	55	4.11	0.7858	10.4671	0.0001

An interesting perspective appears to be that regardless of disciplines or diverse area of specialization of the respondents, all the employers unanimously place high emphasis on these identified personal characteristics.

Technology

Ten competencies related to technology were specified including: (1) Design Vocabulary, (2) Construction Knowledge, (3) Resource Knowledge, (4) Code Knowledge, (5)Work Experience, (6) Business Practices (7) Math Skills, (8) Internship Experience, (9) Lighting Knowledge, and (10) Marketing Knowledge. The data are summarized in Table 8.

In the changing workplace, technology is of prime importance as affirmed by the response of the interior design practitioners. Reflecting on the needs of the interior design industry one respondent indicated that, "if basic skills were acquired in school technology related skills can be learnt on the job".

The study by Barton and Kirsch (1990) concluded that the employers want schools to teach both general and specific employability skills. Greenburg, Canzoneri, and Straker (1994) further emphasized that "growing number of employers are emphasizing foundational skills, primarily in reading and mathematics, prior to hiring. This could be caused by the increasing demand for these skills on the job and the employer dissatisfaction with the levels of those skills demonstrated by the graduates" (p. 135).

Notice that all of the technology skills have a mean of above 3.00 as shown in Table 8. However, these means indicate a wider variation in the respondents perceived degree of importance placed on each. The range varied somewhat from 3.25 to 4.24. The varying degree of importance by the respondents could possibly be attributed to the diversity of the profession.

Table 8

Employer Preferred Competencies

Technology Skills	n	Mean	Std Dev	t	Prob > | t |
Design Vocabulary	55	4.24	0.7445	12.3166	0.0001
Construction Knowledge	55	4.20	0.6777	13.1321	0.0001
Resource Knowledge	55	4.07	0.7163	11.1060	0.0001
Code Knowledge	55	4.02	0.8049	9.3817	0.0001
Work Experience	55	3.93	0.6341	10.8459	0.0001
Business Practices	55	3.89	0.7619	8.6721	0.0001
Math Skills	55	3.85	0.7060	8.9898	0.0001
Internship Experience	55	3.64	0.7543	6.2564	0.0001
Lighting Knowledge	55	3.44	0.7641	4.2353	0.0001
Marketing Knowledge	55	3.25	0.6727	2.8062	0.0070

Communication.

Four communication attributes were specified. The responses are given in Table 9. These included: (1) Listening and Retention. (2) Oral. (3) Written, and (4) Visual

42

Presentation. As given in Table 9, all the attributes in the category of Communication skills have a mean above 4.00 indicating the identified skills were considered to be of considerable importance to the respondents. Similar to personal characteristics, the employers strongly placed a high degree of importance on communication skills and desired them in new hires irrespective of the diverse areas of specialization of the respondents. The results are analogous to the recent study by Baker and Sondhi (1989) indicating that oral communication skills were considered most important skills by design practitioners .

The data clearly indicate that communication is deemed essential by the respondents as all four variables have means ranging from 4.36 to 4.89. As one respondent succinctly sums up, "communication is vital. Designers must be able to communicate their ideas very quickly to a client". Another respondent stressed the importance of communication by indicating that "graduates must be able to write a coherent concise paragraph legibly". Reverberations of the same theme appeared in another respondent's response indicating that they "did not mind graduates if they had less design ability, as long as they had excellent communication abilities".

Table 9

Employer Preferred Competencies

Communication Skills	n	Mean	Std Dev	t	Prob > | t |
Listening & Retention	55	4.89	0.3146	44.5714	0.0001
Oral	55	4.62	0.5267	22.7836	0.0001
Written	55	4.51	0.0545	22.1827	0.0001
Visual Presentation	55	4.36	0.6487	15.5885	0.0001

Additional Preferences Of Employers

In addition to the competencies and attributes identified in the survey questionnaire, the respondents preferred other competencies and attributes in new graduates by responding to the open-ended questions. The other preferences indicated by the respondents are broken down by categories:

Computer Skills

AutoCad, scheduling knowledge, Microstation were the additional preferences desired by the respondents relating to computer skills.

Personal Characteristics.

The respondents desired new graduates to have : personality, character, enthusiasm. positive attitude, courteous and polite attitude, understanding of group dynamics, and political/sociological impact, good memorizing ability to remember names of furniture/fabric lines, showrooms procedures etc., commitment to life-long learning, problem solving abilities, common sense, awareness of technological and other changes, sincere desire and eagerness to learn, good people skills, and responsible attitude.

Technology

The respondents desired new graduates to have: excellent hand drafting and sketching skills to convey ideas quickly to a client, general knowledge of fabrics, furniture and millwork, general knowledge of materials and finishes, cost estimating, general office skills, business and financial management, furniture specifying ability, specifically Systems Furniture and Casegood application, basic knowledge of electrical and cabling systems.

Emphasizing the importance of communication the respondents desired new graduates to have: the ability to write concisely, spell accurately, think logically, understand and convey good design process skills and design ideas succinctly, understand cultural diversity and language variations.

CONCLUSIONS

After analyzing the data, an interesting pattern emerged. An overwhelming majority of practitioners identified personal characteristics as very important as evident by the range of mean scores for these items from 4.11 to 4.93 on a 5-point response scale. The findings from the data analysis parallel the emphatic significance of personal characteristics by employers from non-design professions. Dillon (1992) concluded that regardless of the discipline or area of specialization, employers need and want employees who are ethical, flexible, resourceful, organized, can communicate, think critically and creatively solve problems.

The results from this study point out that degree of importance of communication skills and characteristics appear to be the same. Good communication skills are vitally important as the design profession involves conveying ideas quickly and succinctly through technical layouts and graphic presentations to clientele without design training. The importance of good communication skills are supported by the findings in the study by Lee and Hagerty (1996) reporting that the findings of Baker and Sondhi (1989) and

Hernecheck, Rettig and Sherman (1983) also stated that communication skills were consistently ranked high by the practitioners.

Among the communication skills, Listening and Retention with a mean of 4.89 was perceived as very important. The respondents reiterated the importance of communication. This was exemplified by their responses by expressing that "they did not mind graduates if they had less design ability, as long as they had excellent communication skills". Although characteristics such as being ethical and being a good listener are inherent traits or learned as a part of family values or behavior, the study found that the employers want to hire graduates with these traits.

The data suggests that the two categories of personal characteristics and communication skills are clearly seen as very important by the majority of the respondents, irrespective of the demographics for the individual or firm. The findings from diverse disciplines in the literature review support the findings of this study conveying that the emphasis on personal characteristics and communication skills was commonly shared by employers irrespective of the demographics or discipline.

Saterfiel, Thomas, and McLarty (1995) expounded the same theme by observing that the identified characteristics and communication skills are more valued by employers from diverse disciplines because they apply to many jobs and can support common preparation to meet the needs of many diverse and different occupations.

Saterfiel, Thomas, and McLarty (1995) further reiterated and supported the findings of this study. by observing that relating to employability, current thinking has been broadened by emphasizing not only foundational academic skills, but also including a

variety of attitudes and characteristics. The findings enunciate that employers emphasized personal characteristics and communication skills more than computer and technical skills in recent interior design graduates. Although technical skills were also considered important by the practitioners, the responses were not as consistent The emphasis on computer and technical skills varied somewhat. In the computer skills category the mean ranged from 2.80 to 4.33. In the technology skills the mean ranged from 3.25 to 4.24. Perhaps the reason for the difference could possibly be attributed to the diverse areas of specialization in the interior design profession..

Some practitioners had more than one area as their focus of specialization. Without specific data describing the type of businesses that the sample of employers represented, and the relationship of business type to the degree of importance placed on these items, an analysis could not be made relating the type of firm to the skills desired. For example Design Vocabulary with a mean of 4.23 appears to be more important to the sampled respondents than marketing knowledge with a mean of 3.25. Though all of the skills in this survey had a mean above 3.00, the degree of importance placed on these various items varies.

At the inception of the study, it was anticipated that the firms' area of specialization might influence respondents' responses, thus suggesting that analysis could be done to analyze if significant differences occurred in firms' by areas of specialization for desired characteristics and skills. However, the respondents typically marked more than one and as many as four or more as their area of specialization on the questionnaire making categorizing firms by specialization very difficult.

The data show that trainable skills were important for employability of new graduates. Interestingly, the essence of the person that is, personal characteristics that are not easy to teach in a college classroom, emerged as being of more importance than training in skills.

IMPLICATIONS

Since the survey was distributed to a random sample of members of ASID, AIA and IFMA in the south central region of the U. S., the responses are representative of the interior design practitioner population in the south-central region of the U.S, belonging to these professional organizations. It is not appropriate to generalize these findings beyond the south-central region of U.S. Due to the diverse areas of specialization of the respondents and the differing geographic locations, the perceptions of the respondents may differ.

As the respondents marked as many as one to four as their area of specialization, conclusions could not be drawn as to what specific personal characteristics and skills were desirable relating to a specific area of specialization. This could be a limitation of this study. Future studies could be performed by analyzing various segments based on product/service output of the firm.

The results of this study indicated the sampled employers place serious importance on the identified characteristics and communication skills when hiring recent graduates. Based on the results, the imminent need appeared to be the development of the desired personal characteristics and skills identified in the findings.

Employers considered personal characteristics and communication skills to be very important, whereas it could have been a possible assumption by the respondents based on the data the graduates acquired basic computer and technical skills in the educational context. Maybe the graduates should enhance the desired competencies.

Based on the findings from this study, an imminent need appears to make the graduates become more aware of competencies and attributes preferred by interior design practitioners. Personal characteristics such as organized, self-motivation, ethical, resourceful and good decision maker could be further enhanced by the graduates in the context of the curricula. As suggested by Lankard (1994), addressing the desired competencies and skills and teaching it concurrently with the curriculum could provide the link between the academe and industry. To illustrate, the graduates could enhance communication skills through opportunities in the curricula, such as writing a thesis, a proposal , an executive summary, a concept statement and making oral and visual presentations. Another avenue for students to enhance their skills and develop the desired characteristics and skills while gaining actual work experience could be achieved through business partnering, co-ops and internship programs for interior design graduates

Programs such as internships, business partnering and co-ops, now part of the curriculum in many universities have been effective alternatives. Martin (1993) noted that "actual work experience was found to be very important for development of many of these personality traits and for building on technical skills. Internships are becoming more and more portant. That's when students learn the soft skills of working in a corporate environment" (p. 14).

To implement additional experiences within a 4- year college, existing curriculum might have to be compromised or the timeline of the degree might have to be extended. With the added expense of an expanded curriculum, the employers of recent graduates may have to review the current practice of paying apprenticeship level salaries. Enhanced attributes and increased skill levels should provide added value to graduates competing for entry level interior design positions.

Educators, employers and employees in the interior design field can use this study to help understand the characteristics and skills currently desired by employers of interior design graduates. Integration of the findings into interior design curricula will require a continued dialog between university level faculty and the principals in the interior design, architectural and facility management firms who hire their graduates. The findings of this study support the study of Dickson and White (1993) advocating that discussions must be held between leaders in interior design education, practice and industry.

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CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The main purpose of this study was to ascertain the key competencies and personal characteristics desired by interior design practitioners when hiring recent interior design graduates of baccalaureate interior design programs

Description of Subjects

A random sample of 150 members were drawn from lists of 700 members of ASID, AIA and IFMA practicing in Tulsa, Oklahoma; Oklahoma City, Oklahoma; Wichita, Kansas; and Dallas, Texas. Of the selected 150 interior design practitioners who were contacted by mailing a survey package, usable responses were received from 55 employers for a response rate of (36 %).

Forty-five percent of respondents were Principal Owner/CEO , 24 percent were Project Managers, 9 percent were Business Managers, and 22 percent were Facility Managers, Regional Directors and Store Managers.

The respondents were employed by firms specializing in the eight segments classified by ASID. The area of specialization of the respondents were as follows: (29 percent)

Office Design, (14 percent) Healthcare, (13 percent) Facilities Management , (8 percent) Hospitality and 36 percent Other. The category of Other marked by respondents included Residential, and Store Planning.

The majority of the respondents (74 percent) had formal or informal training in their firms. Slightly more than half (55 %) of the respondents' firms have been in business for over 20 years.

Summary of Findings

For the purpose of the study a total of 29 competencies and attributes were incorporated into four main categories: (1) Computer Skills, which included six skills with software and hardware. (2) Personal Characteristics, which included nine identified attributes. (3)Technology, which included ten technology related knowledge and experiences and (4) Communication, which included four communication skills.

Respondents were asked to indicate their perception of the importance or non-importance of each on a 5 point Likert scale from very important to very unimportant by circling the appropriate number. 5 represented as being very unimportant, 1 represented as very unimportant, and 3 a neutral midpoint between very important and very unimportant. Data collected were classified, tabulated and statistically analyzed using a 2 sided t-test with significance set at the 0.05 level.

Findings indicated that twenty-eight variables of the 29 variables (97 percent) were considered important by the respondents based on means of 3.00 or higher. The only competency with a mean below 3.00 was Internet. The reason could possibly be due to the Internet being relatively new and not being widely used by the respondents.

The focus on competencies and attributes placed by the respondents parallel the emphasis on competencies and attributes identified as employability skills by employers as summarized by Gainer (1988) in the literature review.

For employability of recent interior design graduates, the findings identified the competencies and attributes desired by the interior design practitioners

In the Computer Skills category it was interesting to note that CAD (Computer Aided Drafting) received the highest mean of 4.33, in the Computer Skills category, followed by PC. It reaffirmed the findings by Eng Rick (1992) 'that we live in an age of technology'. By ranking CAD as important, the respondents affirm the comment by 'Philip Salembir stating that "the computer has ushered in increased productivity potential for the design community. To solve the designers' common dilemma, the marketplace dictates the use of programs like CAD, Archillustrator, Accurender and other similar applications. Utilizing computer skills, designers can now conquer any task of magnitude with ease, in less time with dazzling outcome" (Eng Rick, p. 62).

Barbara Knox (1988) supporting the view expressed by Philip Salembir, summed the advantages of the alliance of technology and design business and found that "leading software like Autocad brings could bring breakthrough features to design business, permitting exploration of design possibilities, and multiple revisions enhancing greater dimensioning and accuracy" (p. 193).

One practitioner reiterated the importance of computer skills by indicating that 'the graduates need to be well rounded, willing to embrace technological and other changes'.

Within the computer skills competencies. Internet was the only variable receiving a mean of below 3.00. This low score could be partly due to the use of Internet being relatively new. Perhaps many of the respondents do not widely use the Internet for their business at this time.

Study conducted by American Society for Training and Development concluded that "employers need employees who are flexible, resourceful, organized, can work in teams, think critically, and creatively solve problems" (Gainer, 1988). The characteristics rated significantly important by interior design practitioners are similar to the findings of the study by American Society for Training and Development. An interesting perspective appears to be that regardless of disciplines or diverse area of specialization of the respondents, all the employers unanimously place high emphasis on identified characteristics.

Other characteristics suggested by respondents which they preferred in interior design graduates consisted of: problem thinker, commitment to life-long learning, having common sense, sincere desire to learn and work.

In the changing workplace technology is of prime importance as affirmed by the response of the interior design practitioners. Reflecting on the need of the interior design industry one respondent indicated that, 'if basic skills were learnt in school technology related skills can be learnt on the job'. Supplementing the need another respondent indicated that 'very few schools teach materials- when, which to use, and why?' The study by Barton and Kirsch (1990) concluded on the same thought that 'the employers want schools to teach both general and specific employability skills'. Greenburg.

Canzoneri, and Straker (1994) further emphasized that 'growing number of employers are emphasizing foundational skills, primarily in reading and mathematics, prior to hiring. This could be caused by the increasing demand for these skills on the job and the employer dissatisfaction with the levels of those skills demonstrated by the graduates'.

Among other competencies related to technology, respondents indicated that they preferred graduates to possess: Business and Financial Management Skills, Good design process and understanding skills, Furniture Specification, specifically Systems Furniture / Casegood application knowledge, and Basic electrical and cabling systems knowledge.

The category of communication was deemed essential by the respondents. All the four variables received means ranging from 4.36 to 4.89. As one respondent succinctly sums up by indicating that 'communication is vital. Designers must be able to communicate their ideas very quickly to a client'. Another respondent stressed the importance of communication by indicating that 'graduates must be able to write a coherent concise paragraph legibly'. Reverberations of the same theme appeared in another respondent's response indicating that they "did not mind graduates if they had less design ability, as long as they had excellent communication abilities".

Conclusions

The findings from the data are congruent with the observations of Greenburg, Canzoneri, and Straker (1994) emphasizing that 'growing numbers of employers are focusing on foundational skills, primarily in reading and mathematics, prior to hiring'. The findings

58

of this study indicated that twenty-eight of the 29 variables relating to competencies and attributes were considered important by the respondents based on means of 3.00 or higher.

By identifying the competencies and attributes the respondents indicated their magnitude of importance of each attribute or skill.

By testing the hypothesis and using a t-test to analyze the competencies and attributes, the conclusion from the findings was that the identified competencies and attributes attaining a mean of above 3.00 were desired in graduates of interior design programs, as they were perceived to be of importance by responding interior design practitioners. The findings based on the statistical results indicated that the overall consensus of respondents was that the characteristics constituting the essence of the person and not merely the skill training was of greater importance and desired in recent interior design graduates.

The findings of this study indicated the existence of the paradoxical "skills gap" between the employer needs and competencies and attributes required for employability of new graduates. Summarizing their needs the respondents indicated that they need "employees who are: proficient, flexible, resourceful, organized, team workers, can communicate, work in teams, think critically, and creatively solve problems". The respondents eloquently expressed that "if the basic competencies and attributes were present, the employees could acquire job related competencies and experience on the job".

The findings based on the respondents' preferences is consistent with findings of Samuelson (1987) stating that " the consensus of the employers was that employability skills are important on the job and must be taught in schools". This again shows that employers and professionals regardless of their background or discipline, felt that the new graduates should have competencies and attributes congruent with their business objective.

If the graduates could inculcate and develop the competencies and attributes preferred by the employers by learning them, the far reaching consequences would benefit the industry and enhance the employability of future graduates ..... prospective employees!

Recommendations

Based on the findings from this study, a need exists to make graduates become more aware of competencies and attributes preferred by interior design practitioners. Personal characteristics such as organized, self-motivation, ethical, resourceful and good decision maker could be further enhanced by the graduates in the context of the curricula. To illustrate, the graduates could enhance communication skills through opportunities in the curricula, such as writing a thesis, a proposal , an executive summary, a concept statement and making oral and visual presentations. Another avenue for enhancing the desired characteristics and skills could be achieved through business partnering, co-ops and internship programs for interior design graduates. As suggested by Lankard (1994),

60

'addressing the desired competencies and skills and teaching it concurrently with the curriculum could provide the link between the academe and industry'.

On the basis of the findings and conclusions of the study the following recommendations are made:

1. Future studies should incorporate the additional preferences indicated by the interior design practitioners in the instrument.

2. Using the revised instrument, the study could be replicated using a larger sample.

3. The territorial boundaries of the sample could be expanded to include different states and to enable comparisons by region.

4. A study could be performed by analyzing the various segments of the interior design industry as classified by ASID based on the product/service output of the firm.

Concluding Statement

It is hoped that the findings from this study would benefit the industry, academe and future students who become prospective employees. Incorporation of the findings into the interior design curricula could enhance employability skills of future interior design graduates. Perceiving the prospective advantages, future research is advocated relating to the field of interior design to keep pace with the changing workplace. The tangible and intangible rewards would be mutually beneficial to the interior design industry and academy!

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APPENDIXES

APPENDIX A

IRB APPROVAL

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: 12-04-96   **IRB#:**   HE-97-029

Proposal Title: EMPLOYER PREFERRED COMPETENCIES AND ATTRIBUTES IN INTERIOR DESIGN GRADUATES

Principal Investigator(s): Carol Bormann, Rekha Asthana

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s):   Approved

ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT NEXT MEETING, AS WELL AS ARE SUBJECT TO MONITORING AT ANY TIME DURING THE APPROVAL PERIOD.
APPROVAL STATUS PERIOD VALID FOR ONE CALENDAR YEAR AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD APPROVAL.
ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

Comments, Modifications/Conditions for Approval or Reasons for Deferral or Disapproval are as follows:

Signature: _John H. Wykoff_   Date: December 5, 1996
Chair of Institutional Review Board

cc: Rekha Asthana

APPENDIX B

COVER LETTER

⦿OSU

College of Human Environmental Sciences
Department of Design, Housing and Merchandising
431 Human Environmental Sciences
Stillwater, Oklahoma 74078-6142
405-744-5035

Dear Design Practitioner:

Your assistance with a research study related to competencies and attributes preferred by Employers in Interior Design graduates would be immensely appreciated. If you do not hire recent graduates, please forward it to the appropriate person within your company who hires prospective interior design graduates. Data analysis from the study will be used to provide the linkage between curricula and compatible industry competencies. Therefore, a few moments of your valuable time to complete the survey would be extremely important and helpful.

Please answer the questions by circling the number which best matches your answer. There are no right or wrong answers. Your responses will remain confidential. Anytime you wish to withdraw you may do so. No individual's responses will be used. Data will be given as an aggregate. All forms will be retained in the researcher's files for one year under lock and key.

After completion please mail or fax your response by January 26th 1997. If you have any questions related to the survey, you can contact me at (Telephone or Fax: 918-495-3862: Address 8615 E 74 PL, Tulsa, OK 74133-3139) or Gay Clarkson at (405-744-5700: Institutional Review Board Executive Secretary, OSU, 305 Whitehurst Hall, Stillwater, OK - 74078)

Thank you in advance for your valuable time and assistance.

Sincerely yours,

Rekha Asthana

Rekha Asthana
Graduate Student

Carol Bormann

Carol Bormann
Graduate Faculty Advisor

Bringing Dreams to Life

The Campaign for OSU

APPENDIX C

SURVEY INSTRUMENT

EMPLOYER PREFERRED COMPETENCIES AND ATTRIBUTES
IN INTERIOR DESIGN GRADUATES

Name: _____ Date: _____ Phone No _____

Firm. Name: _____ Address:_____

Please **circle** the number which best matches your answer.

	VERY IMPORTANT 5	IMPORTANT 4	NEUTRAL 3	UNIMPORTANT 2	VERY UNIMPORTANT 1
CATEGORY					
COMPUTER SKILLS					
(1-1) Autocad	5	4	3	2	1
(1-2) Computer Graphics	5	4	3	2	1
(1-3) Macintosh or PC	5	4	3	2	1
(1-4) Word Processing	5	4	3	2	1
(1-5) Spreadsheet	5	4	3	2	1
(1-6) Internet	5	4	3	2	1
(1-7) Other	5	4	3	2	1
CHARACTERISTICS					
(2-1) Team Player	5	4	3	2	1
(2-2) Organized	5	4	3	2	1
(2-3) Self Motivated	5	4	3	2	1
(2-4) Leadership	5	4	3	2	1
(2-5) Decision Making	5	4	3	2	1
(2-6) Ethical	5	4	3	2	1
(2-7) Flexible	5	4	3	2	1
(2-8) Self Confident	5	4	3	2	1
(2-9) Resourceful	5	4	3	2	1
(2-10) Other	5	4	3	2	1
TECHNOLOGY					
(3-1) Construction Knowledge	5	4	3	2	1
(3-2) Design Vocabulary	5	4	3	2	1
(3-3) Code Knowledge	5	4	3	2	1
(3-4) Resource Knowledge	5	4	3	2	1
(3-5) Business Practices	5	4	3	2	1
(3-6) Work Experience	5	4	3	2	1
(3-7) Internship	5	4	3	2	1
(3-8) Lighting Knowledge	5	4	3	2	1
(3-9) Marketing Knowledge	5	4	3	2	1
(3-10) Math Skill	5	4	3	2	1
(3-11) Other	5	4	3	2	1

COMMUNICATION

	5	4	3	2	1
(4-1) Listening & Retention	5	4	3	2	1
(4-2) Oral	5	4	3	2	1
(4-3) Written	5	4	3	2	1
(4-4) Visual Presentation	5	4	3	2	1
(4-5) Other	5	4	3	2	1

Which best describes your job classification?(Please check one only)

(5-1) Principal Owner/CEO ___
(5-2) Business Manager ___
(5-3) Project Manager ___
(5-4) Other ___ (Specify)_____

Which best describes your firm's area of specialization?.

	5	4	3	2	1
(6-1) Facility Management	5				
(6-2) Office Design		4			
(6-3) Hospitality			3		
(6-4) Healthcare				2	
(6-5) Other (Specify) _____					1

How long has the firm been in business?.

	5	4	3	2	1
(7-1) 01-04 Years	5				
(7-2) 05-10 Years		4			
(7-3) 11-15 Years			3		
(7-4) 16 -20 Years				2	
(7-5) Over 20 Years					1

About how many employees are in your firm?

	5	4	3
(8-1) Under 25	5		
(8-2) 25-200		4	
(8-3) Over 200			3

Does the firm have a training program

	5	4	3
(9-1) Formal	5		
(9-2) Informal		4	
(9-3) None			3

COMMENTS

Is there anything else that you would like to add or see included in this survey?

THANK YOU FOR YOUR TIME IN COMPLETING THIS SURVEY .

MAILING/FAXING INSTRUCTIONS: Please return the completed form in the enclosed postage paid envelope, or fax to 918-254-9334 by January 26th 1997.

Rekha Asthana   8615 E 74th PL   Tulsa, OK 74133-3139

Please enclose your business card, if you would like a summary of the survey results.

VITA

Rekha Asthana

Candidate for the Degree of

Master of Science

Thesis: **EMPLOYER PREFERRED COMPETENCIES AND ATTRIBUTES IN INTERIOR DESIGN GRADUATES**

Major: Design, Housing, & Merchandising

Education: Graduated from Lucknow University, India; received Master of Arts Degree in Linguistics/English Literature. Completed requirements for the Mater of Science Degree in Design, Housing and Merchandising, (Emphasis on Environmental Design), Oklahoma State University, Stillwater, Oklahoma, in May 1997.

Honors: Omicron Nu National Honor Society.
IFMA Graduate Scholarship recepient, 1995-1996.
President's Honor Roll and Dean's Honor Roll 1994.
National Merit Scholarship winner from High School to M.A.
Mary Andrew award recepient for Linguistics.