

ALUMNI ASSESSED OUTCOMES
OF AN
INTERIOR DESIGN PROGRAM

By

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Faculty of Graduate Studies
in Partial Fulfillment of the Requirements
for the Degree of

Master of Education

Department of Educational Administration and Foundations
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Abstract

The main intent of this study was to determine the extent to which graduates of the University of Manitoba Interior Design Program believe they were adequately prepared for employment in interior design. The second purpose of the study was to obtain research-based data which could be used by interior design educators and by the curriculum planning advisory committee to determine the degree to which the curriculum and course content are up-to-date and appropriate for the needs of the interior design profession today.

Three hundred and forty alumni who graduated between 1979 and 1981, and between 1987 and 1991 participated in the study. A 25 item survey questionnaire was mailed to each of 340 possible respondents. From the 307 possible responses, a total of 213 were returned for a return rate of 69%.

The results of the study indicated that 66% of the 213 respondents believe that the University of Manitoba Interior Design Program adequately prepared students for employment in the field. Many of these alumni (52%) contend, however, that the interior design profession is not as rewarding as they thought it might be. Reasons provided to account for the respondents' dissatisfaction include: low salaries; minimal rewards, benefits, and recognition; stressful project deadlines; and fierce competition for a limited number of jobs. The respondents also indicated that although the areas related to business skills and professional practice are important in interior design,

sufficient education in these two areas was not provided in the University of Manitoba Interior Design Program.

Realistic aspects of the interior design profession imply that changes might be required in certain operations within the interior design profession rather than in the operations of the University of Manitoba Interior Design Program. However, evidence indicates that Interior Design educators should consider making students more aware of a wider array of the professional aspects of interior design - both favorable and unfavorable.

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CHAPTER ONE

Introduction

The interior design profession is a complex one. A popular misconception is that interior designers are primarily experts in selecting furnishings, and in choosing appropriate colour schemes and decorative accessories. Actually, professional interior designers are, indeed, experts in choosing appropriate decorative elements; but they provide a much broader range of services as well. According to the Department of Interior Design (1991), interior designers "identify, research, and creatively solve problems pertaining to the function and quality of interior environments", including both residential and commercial interior spaces (no page). The Department of Interior Design also states that a primary concern for interior designers is to "enhance the quality of life and protect the health, safety, and welfare of the public" (no page). To perform these tasks in a professional manner interior designers require extensive education and training.

Interior designers are educated to perform services related to: programming, design analysis, space planning, aesthetics, inspection of on-site work, interior construction, building systems and components, building regulations, equipment, materials and furnishings. In addition, interior designers are skilled in the areas of preparing the drawings and the documents required for the completion of any designed space (Department of Interior Design, 1991).

The educational component of interior design is well established even though the Interior Design Profession itself is relatively young. In

fact, it was only during the 1960s that interior design began to gain recognition as a professional discipline (Harwood, 1989). During the 1970s, ten years following its initial establishment, pressure was mounting from within the profession for interior design to attain professional license granting privileges. Interior designers believed that the attainment of such privileges would raise the status of the interior design profession to equal the status which is enjoyed by the architecture profession. Consequently, interior designers, researchers, and authors began to emphasize the notion that professional licensure would result if interior design students could be provided with high quality education (Baker & Sondhi, 1989; Friedmann, 1986; Hernecheck, Rettig, & Sherman, 1983). The basis of such a notion was that a profession consisting of highly qualified interior designers would increase the quality of the interior design profession as a whole, thereby increasing the chances of being granted licensing privileges. By the 1980s, as a result of the joint efforts between interior design educators and professionals, the relationship between interior design education and the interior design profession was firmly established. Today, although professional licensure is still not in place, the relationship between education and professional practice remains an important concern in the field of interior design.

Interior design educators, administrators, professionals, and related organizations, including the Foundation for Interior Design Education Research (FIDER) and the National Council for Interior Design Education (NCIDQ), have worked together to establish and maintain high quality standards for interior design education and for interior design

professional practice (Rogers, Stumpe Brent, Veitch, & Hill, 1983). The results of ongoing evaluation of the curriculum, quality standards, and program objectives for interior design education have lead to phenomenal growth and development within the entire interior design profession (Friedmann, 1986). The standards for professional practice have, in turn, strongly influenced the curriculum for interior design education.

Despite the achievements made by highly dedicated and qualified people (educators, administrators, professionals in the field, and members of professional organizations) towards maintaining high quality interior design education, the interior design literature shows that, so far, most of the studies conducted seem to reflect the attitudes and opinions of everyone except alumni and students who are studying interior design. Consequently, the purpose of this study was to seek the opinions of alumni. The study was performed based on the belief that effective program and curriculum planning occur when information from all constituents involved with a program, including alumni, has been considered (Slimmer, 1983).

Program evaluation through outcomes assessment was the underlying theme of this study. Evaluations are used in many programs, institutions, faculties, and departments to assess the extent to which the stated objectives are being met, and to develop and maintain up-to-date standards. Assessments are particularly important in determining educational outcomes. Two of the most effective ways to perform program evaluations are: (a) to obtain information from those people

who employ graduates, and (b) to obtain information from the graduates themselves.

The importance of obtaining program evaluations by alumni has been recognized in fields outside of interior design. Studies by Crook, Woodward, and Feldman (1982) in the area of healthcare, and by McGovern and Carr (1989), and Quereshi (1988) in the area of psychology, have shown that program evaluations provided by alumni have generated extremely valuable information. Such information has been used to revise, improve, and update curricula and course content. Although interior design researchers (Hernecheck et al., 1983; Rogers et al., 1983) recognize the need for, and the importance of alumni feedback, such studies do not seem to have been undertaken to date.

Arguably, alumni opinions can contribute extensively toward the improvement of any interior design program. The focus of this study was the University of Manitoba Interior Design Program. This program was selected primarily because of its proximity to the researcher's location and professional interests. Of equal importance was the earnestness demonstrated by the local administrators of the University of Manitoba Interior Design Program to obtain results which would pertain specifically to the program they provide. The format and composition of the University of Manitoba Interior Design program are described in Chapter Two.

In summary then, research in interior design education has neglected to obtain the viewpoints of those people who are possibly its most important clients -interior design alumni. Alumni are particularly

important because their expertise reflects, to the interior design profession, the quality of education that they received. Based upon published works, theoretical statements, practical experience, and the results of this investigation, this researcher assumes that alumni opinions are vital for the development of up-to-date standards within the curriculum of the University of Manitoba Interior Design Program.

Statement of the Problem

The intent of this study was to determine, through an analysis of the professional activities and the opinions held by alumni, the extent to which graduates of the University of Manitoba Interior Design Program believe they were adequately prepared for employment in interior design. The second purpose of the study was to obtain research-based data which could be used for curriculum planning by interior design educators and by the curriculum planning advisory committee. The results obtained in this study will provide interior design curriculum planners with information which will enable them to determine the degree to which the curriculum and course content are up-to-date and appropriate for the needs of the interior design profession today. To extract the relevant information the study was designed to:

1. Establish the types of employment in which alumni are currently involved.
2. Determine the types of skills and knowledge that alumni use most frequently in their current jobs.
3. Determine which skills and areas of knowledge recent alumni believe are the most important ones in interior design practice.

4. Determine the particular skills and areas of knowledge which alumni believe are important in interior design but were not offered in the University of Manitoba Interior Design Program which those alumni completed.

Educational Significance

This study was conducted for the purpose of obtaining essential information about interior design education at the University of Manitoba. Consequently, the following reasons served as the basis for conducting the study:

1. The study provided interior design educators at the University of Manitoba with accurate information which can now be used to assess and up-date the Interior Design curriculum. The results of the study will be of particular importance to the advisory committee whose primary responsibility it is to examine the curriculum of the Interior Design Program.

2. The results of the study will contribute to the existing body of knowledge concerning interior design education.

3. The results of the study may lead, it is hoped, to subsequent investigations whereby alumni provide even further insight about the interior design program they have completed.

4. Since all interior design programs accredited by the Foundation for Interior Design Education Research (FIDER), including the University of Manitoba Interior Design Program, are required to keep records of alumni activities following graduation, the results of this study will help to fulfill accreditation requirements.

Assumptions

Prior to conducting this study, the following two assumptions were made:

1. That alumni would be willing to provide objective information that could help up-date and improve the interior design program.
2. That the information obtained from interior design alumni would assist interior design curriculum planners and administrators in making informed decisions concerning the University of Manitoba Interior Design Program.

Limitations

Certain limitations were associated with this study. These limitations included the following:

1. The study did not attempt to determine value outcomes of the Interior Design Program. Value outcomes are usually quite difficult to assess because little agreement seems to exist concerning the definition of educational values. In most cases, the results obtained from value outcome studies are dependent entirely on the subjective analysis and interpretations made by the researcher (Chandler, 1987; Dressel, 1976).
2. The results of the study are generalizable only to the University of Manitoba Interior Design Program, and to the study sample comprising the graduating classes of 1979 to 1981, and 1987 to 1991.
3. Questions such as the one concerning grade point average may have elicited false information. Consequently, the nature of the

evidence, which depends on such data, was weighed carefully prior to arriving at firm conclusions.

4. Participation in the study was voluntary. Some of the respondents may have provided biased positive feedback because they believe that the University of Manitoba Interior Design Program was exceptionally good. Conversely, other respondents may have responded with a negative bias as a reflection of their dissatisfaction with the program.

5. The investigator is a graduate of the University of Manitoba Interior Design Program. Therefore, cautions were taken to endeavour to eliminate all possible effects of experimenter bias. The results of the pilot test of the questionnaire identified signs of personal bias which were removed from the document prior to the general mailing.

Definitions

1. Anthropometrics: the study of human body measurements, especially on a comparative basis.

2. Ergonomics: of or relating to biotechnology which is the aspect of technology concerned with the application of biological and engineering data to problems relating to man and the machine.

3. Proxemics: a branch of study dealing with the personal and cultural spatial needs of man and his interaction with his environing space.

4. CADD: Computer aided drafting and design

5. HVAC: Heating, ventilation, and air conditioning

6. Related to Interior Design: architecture, landscape architecture, city planning, environmental design, graphic design, industrial design, product/furniture design, textile design, or any other form of design in which the basic principles of design are applicable. In addition, sales representatives for furniture, lighting, carpet, ceramic tile, plastic laminate, or any similar type of company which serves the interior design industry are considered to be related to interior design.

CHAPTER TWO

Literature Review

The scope of the study extends beyond the issues of interior design and alumni surveys. At the heart of this study is the concept of program evaluation. Program evaluation is one of the most heavily documented issues in higher education (based on the volume of literature available on the topic). The first portion of this review of related literature is devoted to the topic of program evaluation and its counterpart, outcomes assessment. Following this is a review of literature related to alumni surveys. The relevant literature in interior design is described third, while the nature and importance of the Foundation for Interior Design Education Research (FIDER) is explained fourth. The final section of this chapter pertains to the University of Manitoba Interior Design Program.

Program Evaluation and Outcomes Assessment

The concept of program evaluation is not new. Actually, program evaluation has played an important role in education since the early 1870s when the Powis Commission was established. The Powis Commission marked the beginning of the development of Royal Commissions on education, which continue to exist today. The primary responsibility of such commissions is to evaluate the effects of education (Madaus, Scriven, & Stufflebeam, 1983).

Evaluation literature shows that what authors in the past (Dressel, 1976; Miller, 1979) describe as program evaluation, some authors in the more recent eighties and nineties describe as outcomes assessment (Chandler, 1987; Miller, 1990). In some cases researchers (Allen,

Armstrong, & Gutierrez, 1990; Evers & Gilbert, 1990; Newton, 1981) even use the words "evaluation" and "assessment" interactively, implying that evaluation and assessment are one and the same process. More importantly, however, the characteristics of evaluation seem to differ imperceptibly from the characteristics of assessment as described in the literature.

In a broad sense, evaluation (or assessment) is an ongoing and systematic process in which information is obtained for the purpose of making informed decisions, usually toward the improvement of a program, policy, or procedure (Dressel, 1976; Slimmer, 1983). Beyond this general definition exists an extensive number of other definitions which are used to describe specific types of evaluation. Depending on what is being evaluated and why it is being evaluated, among other criteria, evaluation processes are categorized into a number of different types (Dressel, 1976; Rossi & Freeman, 1989).

Usually, program evaluations are undertaken to assess the quality of new programs, or to determine the effectiveness of existing ones (Dressel, 1976; Miller, 1979; Rossi & Freeman, 1989). Dressel wrote that processes for evaluating existing programs consist of four different types: (a) planning or developmental evaluation, (b) input evaluation, (c) process evaluation, and (d) output evaluation. Program evaluation usually encompasses all four types, yet each evaluation process serves a unique purpose.

In Dressel's (1976) view, output evaluation focuses on discrepancies between intended objectives and actual outcomes. Output evaluation

serves to: (a) identify discrepancies between original objectives and actual attainments; (b) identify unintended results and possible causation for such results; (c) provide information and suggestions for replacing or altering previous planning decisions; (d) provide quality control by revising programs to meet unmet objectives; and (e) provide information and suggestions for continuing, modifying, or terminating existing programs. More recently, Rossi and Freeman (1989) wrote that on-going studies of existing programs are performed in order to "fine-tune" or reappraise program objectives and outcomes, or to re-plan or re-design programs.

According to Dinham (1988), the assessment movement, popular in the late 1980s, emerged in response to four concerns: (a) constricting resources; (b) redefinitions of quality; (c) demands for institutional accountability; and (d) continuing need for program review, redefinition and reform. Dinham described three purposes of program assessment: (a) to provide information concerning student progress and performance; (b) to locate weaknesses in the institution and to strengthen those areas; and (c) to provide different, but useful, information to multiple audiences. Similarly, Hogarth (1987) described outcomes assessment as a process used to determine the success or the failure of an institution.

Outcomes assessment studies have been undertaken by a variety of institutions and departments within institutions. High schools, technical or vocational schools, colleges, and postsecondary institutions are the four educational organizations which seem to engage in the greatest number of studies of this nature. Moreover, within institutions of higher education, a

fairly extensive amount of research appears to have been initiated by various faculties, including business, psychology, and healthcare, and other professional programs (Crook et al., 1982; Dinham, 1988, 1989; Evers & Gilbert, 1990; Friedel & Papik, 1986; Korb, 1990; Lunneborg, 1985; Newton, 1981; Quereshi, 1988).

A number of reasons were provided by researchers and authors (Dinham, 1988; Friedel & Papik, 1986; Harris, 1987) to explain the importance of outcomes assessment. Friedel and Papik reported that outcomes assessment studies provide useful information to both internal and external organizations. Internally, the evaluation conducted by Friedel and Papik provided the Eastern Iowa Community College District (EICCD) with information pertaining to program development, maintenance, modification and elimination, and allocation and reallocation of resources. Externally, the same evaluation resulted in evidence which assured students, employers and the community that EICCD provided quality education which enabled individuals to become occupationally and socially competent.

Today, the importance of outcomes assessment is evident in the Report of the Commission of Inquiry on Canadian University Education by the Association of Universities and Colleges of Canada (AUCC, 1991). The AUCC report states that on-going evaluation of "performance indicators" (educational outcomes) is needed so that university authorities can measure the degree to which the universities are meeting their stated objectives, and are meeting the needs of their students. Miller (1990) stated that assessment serves to define or re-define what an institution is

doing and how satisfactorily its movement is toward its missions and goals. The AUCC, Miller, and other authors (Dinham, 1989; Newton, 1981) claim that accountability is the primary reason for performing outcomes assessments and program evaluations.

Outcomes have been assessed by using a variety of research methods. Such methods are usually selected on the basis of the type of information being sought by the researcher, and on the basis of who the "audience" is that the results will serve (Slimmer, 1983). In one program evaluation study, Slimmer used an evaluation model which consisted of six instruments. These instruments had been used in previous studies and included: (a) Currently Enrolled Student Satisfaction Survey (CESSS), (b) Graduate Satisfaction Survey (GSS), (c) Administrators Perception and Satisfaction Survey (APSS), (d) Transfer Reason Survey (TRS), (e) Program Perception and Visibility Questionnaire (PPVQ) and, (f) Self-Study Evaluation Form (SEE). According to Slimmer, the benefit of using these six instruments together in one study was that information could be obtained from all constituents of the program under evaluation. Slimmer claims that information from all constituents of a program result in more effective program planning than when programs are planned on the basis of information from only some constituents. In addition, Slimmer wrote that an organized, systematic, and objective evaluation process provided results which located the strengths and weaknesses of the program, and assisted in determining which components of the program should be improved, expanded, curtailed, or advocated. The study by Slimmer demonstrates that, within higher education, the evaluation process is a

complex one, but that the results which are obtained make the process valuable and worthwhile.

Outcomes assessment studies provide educators within specific programs and entire institutions of higher education with useful and important information. Educators and administrators use the empirical data, obtained from evaluation research, to make informed decisions concerning the successes and failures of their programs or institutions. Furthermore, the results of evaluative studies are extremely valuable to those curriculum planners who need to determine the appropriateness and relevance of curriculum content. In higher education, alumni surveys are considered to be so important that a special review of them is warranted. The forthcoming section of the literature review provided the theoretical and applied bases for the present study.

Surveys of Alumni

In 1976 Dressel wrote that alumni opinions were useful for evaluating curricula to determine the currency of the content, instructional techniques, and methodologies. In 1983, Slimmer established the importance of feedback from recent alumni. As a result of being in the work force, graduates are in a good position to identify components which were missing from the program they had completed. Furthermore, results of a study by Harris (1987) showed that alumni surveys are useful for the following reasons: locating students and recording their post-graduate activities, providing program quality checks, recognizing trend data, and obtaining empirical data that could be used for public relations. More recently, Korb (1990) concluded that

alumni follow-up studies are "an effective management tool" which help to determine whether or not the needs of students and the demands of employers are being met.

A variety of educational outcomes can be assessed by obtaining information from alumni. Value outcomes, such as the degree to which a program contributed to the overall development of the person, are more difficult to assess than quantitative outcomes. In fact, few instruments exist which can be used to determine how valuable an education was to alumni (Wantling & Barnard, 1984). Actually, the literature shows that most alumni surveys are conducted to obtain quantitative information on a few specific variables, usually in the areas of employment and the degree of satisfaction with the way in which the education has been obtained.

More specifically, Wantling and Barnard (1984) compiled the results of eighteen studies, and formulated a list of seventeen outcomes that were most frequently assessed. Of the seventeen outcomes, the researchers concluded that the five outcomes most frequently evaluated were: (a) employment/unemployment, (b) occupation related to training, (c) earnings/wages, (d) satisfaction with training, and (d) postsecondary education/training.

McGovern and Carr (1989) reported that standard questions included in outcomes assessment studies by alumni were: (a) present employment status, (b) job title, (c) salary level, (d) graduate or professional school, and (e) gender. Korb (1990) reported that the key purpose of outcomes assessment was to determine the effectiveness of a

program in preparing graduates for employment. Similarly, the AUCC (1991) recommended that:

An annual survey [should be conducted] at each university of graduates who left the university four years earlier and eight years earlier, in order to determine their degree of satisfaction with the education they received and the advice they would care to offer based on their subsequent experience. (p. 144)

Researchers involved with professional programs not related to interior design have launched many alumni follow-up studies. Quereshi (1988) studied the "occupational and personal benefits" available to alumni of an undergraduate psychology program and claimed that alumni evaluations provide data on "graduates' immediate and/or delayed personal satisfaction with the program." Another study, in the area of psychology, was conducted by McGovern and Carr (1989). They reported that alumni surveys are used to gather descriptive information concerning the activities of psychology graduates after graduation. The researchers stated that the results of such surveys provide data-based information which is useful for departmental public relations.

Administrators and researchers of professional programs are not the only ones who recognize the importance of alumni surveys. Several studies were conducted by researchers at technical and vocational institutions. Newton (1981) reported that alumni follow-up information gave program managers at Edison Community College a basis for assessing the impact of their programs. Similarly, the Wisconsin State Board of Vocational, Technical, and Adult Education (1991) reported that graduate

follow-up surveys are useful for identifying current activities of graduates, and determining if these activities are related to the graduates' program of study. In addition, alumni surveys provide empirical data for program planning, evaluation and development.

Wantling and Barnard (1984) pointed out that one of the difficulties encountered when alumni surveys are conducted is that many researchers tend to describe the assessed outcomes but do not explain the process used to select the outcomes. Such an omission is an unfortunate oversight and is one which the proposed study has endeavoured to avoid. The outcomes which the study assessed have been, in part, described in the literature already reviewed; however, the process for choosing these criteria (alumni employment activities since graduation, and alumni attitudes and opinions concerning the education they received) was actually very systematic. This process required a fairly thorough investigation into the type of information required by curriculum planners of the University of Manitoba Interior Design Program. As a result of several meetings with interior design educators and administrators at the University of Manitoba, a list of specific interests emerged which would be useful to the Department of Interior Design for the purposes of improving and updating the Interior Design Program. The nature of the proposed questionnaire resulted directly from this investigative process.

Despite the importance of alumni surveys, the interior design literature shows that, to date, few alumni studies seem to have been conducted. Instead, the interior design literature reveals that numerous

studies have been conducted whereby the opinions of almost everyone except alumni and students currently in the program, were researched. Of those studies which involved interior design education, the ones which relate to this study are considered next.

Interior Design Research

Most of the research on interior design education seems to have been based on the views and opinions of interior design educators, professionals, professional organizations such as the FIDER, and those people who employ interior designers. With respect to the views and opinions of employers of interior designers, a considerable number of studies have been conducted in order to determine the minimum entry-level competencies required by beginning interior designers for success in the professional field.

Douthitt and Hasell (1985) conducted a study to assess the interior design program at the College of Home Economics at the University of Saskatchewan. The primary objective of the study was to obtain information that could be used as a basis for curriculum revision. Mail survey procedures were used and questionnaires were sent to prospective employers in two cities in Saskatchewan - Regina and Saskatoon. Even with a response rate as low as 27.3%, Douthitt and Hasell claimed that the results of the study had a direct influence on changes made to the interior design curriculum at the University of Saskatchewan.

An unpublished Master of Fine Art degree thesis by Laman (1986) focused on a specific interior design program - the one at Southwest Texas State University. The primary purpose of this study was to determine

whether or not, in the opinion of professional interior designers, the interior design trainee received the training necessary for employment in the interior design profession. Laman used a mail survey design, and received 58 responses (a 30% return rate) from members of the American Society of Interior Designers (ASID), the target population of the study. The information obtained from the results of the study was used to revise and update the curriculum of the Interior Design Department of Home Economics at Southwest Texas State University.

In the early 1980s, studies by Myers (1982) and Hernecheck et al. (1983) were conducted to determine which competencies employers believed were the most important ones for beginning interior designers. A more recent study by Baker and Sondhi (1989) was conducted, in part, to expand upon the research of Myers and Hernecheck et al.. Baker and Sondhi used a sample of 200 interior design firms from across the United States. The researchers received 97 returns which constituted a response rate of 48.5%. From a list of 92 competencies, respondents ranked problem solving, oral communication skills, and design concept as the most important; while residential design, word processing, and labor and trade relations were seen as the least important competencies needed by entry-level interior designers. The results of the study were used by interior design educators in the United States to develop and modify program curricula, and to prepare students for the transition from university to the profession of interior design.

The results obtained in the studies by Douthitt and Hasell (1985), Laman (1986), Myers (1982), Hernecheck et al. (1983), and Baker and

Sondhi (1989) provided interior design educators with important information for planning interior design curricula and educational programs. Unfortunately, however, these studies did not take into consideration the opinions, attitudes, or concerns of recent interior design graduates. In fact, only one study (Hernecheck et al.) recommended that alumni feedback should be obtained. Based on the strength of the Hernecheck et al. conclusion and on the results obtained by researchers in other areas (Harris, 1987; Korb, 1990; McGovern & Carr, 1989; Quereshi, 1988, Slimmer, 1983), it seems that program quality and effectiveness in interior design should be determined not only by input from educators, administrators, professionals in the field, and FIDER, but by input from students and alumni as well.

The knowledgeable contributions of interior design educators, administrators, and professionals in the field have lead to significant developments within the interior design profession (Friedmann, 1986). Possibly, however, some of the most influential recommendations leading to the development of quality and minimum standards in interior design education have been provided by the FIDER. At this point an explanation of the role of the Foundation for Interior Design Education Research (FIDER) is warranted.

The Foundation for Interior Design Education Research (FIDER)

The Foundation for Interior Design Education Research was established in 1971. It is one of 39 specialized accreditation organizations recognized by both the Council on Postsecondary Education (COPA), and by

the United States Department of Education (ED). Akin to the purpose of other specialized accrediting bodies, the FIDER seeks to ensure quality education and minimum standards in interior design programs in both Canada and the United States. The purposes of the FIDER are to: (a) protect quality in education, (b) generate suggestions for improvement, (c) stimulate individual institutions to engage in self-examination and, (d) promote discussion about quality, standards, and performance in higher education (Foundation for Interior Design Education Research, 1989).

The 1988 FIDER guidelines and standards currently used to accredit interior design programs resulted from a long process of self-evaluation (Harwood, 1989). One of the significant studies in the review process was FIDER's Study of Two, Three, and Four-Year Interior Design Programs in the United States and Canada: Phase II (Rogers et al., 1983). The purpose of the study was to determine the degree to which the FIDER educational standards were appropriate to the needs of the interior design profession. Although the study did not result in any immediate changes to the FIDER standards and guidelines, the researchers did make several significant recommendations for further research. Rogers et al. discovered that many educators believed that the programs in which they taught offered a high quality interior design education. The researchers recommended that the opinions of other educators, students, graduates, and the professional community should be investigated to determine the degree to which they believed that each accredited interior design program offered a quality education.

One of the requirements included in the FIDER Standards and Guidelines (Foundation for Interior Design Education Research [FIDER], 1988) states that the administrators of each interior design program should maintain up-to-date records of the activities of graduates of their program. The requirement states that alumni records should include information concerning the number of graduates employed in the field, the types of positions graduates hold, salary ranges, and special individual achievements of graduates. The FIDER recommends that records be kept for alumni from the five most recent years. This study takes a step in that direction.

Prior to 1988, administrators of FIDER-accredited interior design programs were not required to maintain records of alumni activities. However, critics of accreditation organizations had criticized, for some time, the tendency for most accreditation organizations to overlook the students and alumni of accredited programs (Dinham, 1989; Hagerty & Stark, 1989; Young, Chambers, Kells, & Associates, 1983). The FIDER acknowledged these criticisms when it recognized the statement put forth by the Committee on Institutional Cooperation (1987): "Evaluation must place its emphasis on the outcome of the educational process" (no page). The new requirement for alumni records demonstrates the recognition by the FIDER of the important role that graduates can play in interior design education. Such a requirement suggests the need for studies like this one.

In summary, then, the FIDER has, over the years, made many important contributions to the development of goals and objectives for interior design education. Until recently, interior design literature showed

that interior design educators in general have neglected to consider input from graduates of interior design programs. Prior to the study by Shannon Tew (1992), a review of available interior design literature revealed only two other studies in the area of alumni surveys. One study by Lee (currently in progress) is attempting to discover the career expectations of interior design students at West Virginia University. The other study concerning alumni was conducted by the University of Manitoba Interior Design Department and is explained briefly.

The University of Manitoba Interior Design Program

Since its establishment in 1938, the University of Manitoba Interior Design Program has grown steadily, and with enhancement of quality. Today it is recognized by FIDER, and by interior design professionals and educators in both Canada and the United States as being one of the leading interior design programs in North America (Department of Interior Design, 1990). Incorporated as a department within the Faculty of Architecture, the program originally offered a three-year diploma in Interior Decoration. In 1948 the four-year baccalaureate program was established and replaced the diploma program.

Since the beginning the Department of Interior Design has been and continues to be deeply committed to maintaining high quality and up-to-date program standards. This commitment is made evident by the four program changes which were developed recently by the Department of Interior Design. These four developments were initiated in direct response to "emerging challenges and changes" within the interior design profession (University of Manitoba Alumni Association, 1992). To

comprehend the relatedness of this study to these recent developments, further clarification is warranted.

First, a proposal to increase the program length from four to five years has just been completed. As of September, 1992, the Interior Design Program now requires a minimum of five academic years. Within the new program structure, the first year serves as a qualifying year in which only liberal arts courses are studied. The following four years remain basically as they were. Only a few minor revisions have been implemented into the existing curriculum. The second change to the Interior Design Program concerns the addition of an interfaculty option program in Aging. The Department of Interior Design now offers three courses in this area.

Details of the third development are being considered. The purpose of this change is to create an interior design program which will lead to the degree of Master of Interior Design. Upon implementation, this program will be the first of its kind in Canada.

The fourth and final development is particularly relevant to the study reported here. As early as the 1970s, interior design educators at the University of Manitoba realized that, because of the complexity of the interior design profession, interior design students need both university education and practical training. Interior design educators believed then, as now, that a student internship program would provide students with the type of practical training deemed necessary for entry into the interior design profession. Consequently, in 1971 the first student internship program was put into place.

In 1983 the internship program, originally called "Work Experience", was changed to the current title of "Student Internship Program". The objectives of the program, however, did not change (Jackman, 1992). Originally, the internship program was designed to reduce the difficulties which seem to have been encountered by some graduates when they progressed from university to professional practice. Students involved in the program received on-the-job experience during the summer months between years three and four of their interior design education. The benefit of such a program was that it allowed students to practise realistic applications of interior design principles within a real working environment.

Since 1971 participation in the internship program has been voluntary; however, a proposal currently under consideration by the Department of Interior Design will allow students to receive university credit for participating in the internship program. Such an intended change is important because it demonstrates the value which interior design educators attribute to on-the-job training.

Despite any of the considered program changes, the overall program objectives will change very little. Presently, the objectives of the interior design program are to provide students with a rich interdisciplinary experience within a broad general education. At the same time, the program seeks to develop and foster both the technical skills and the creative abilities of students. Such objectives are achieved by providing instruction in the following areas: design, technology (i.e., drafting, lettering), communication, lighting, building materials, textiles,

colour, history of art and design, professional practice, and liberal arts (Department of Interior Design, 1991). With the institution of the proposed changes, courses in computer-aided design and drafting (CADD) will be added to the curriculum.

The developments described above demonstrate the concern of Interior Design administrators, educators, and curriculum planners to maintain an interior design program which is current and appropriate to the needs of the profession today. It is possible that the interior design staff may have been able to determine, on their own, the need for changes within the department; however, it may be argued that a contributing factor to the need for changes within the Interior Design Program was the results of an alumni study conducted by the Department of Interior Design.

The alumni study was conducted, in 1987, to obtain information from the University of Manitoba interior design graduates from 1942 through to 1987 (University of Manitoba Research Limited, Social Sciences Division, no date). The majority of the results obtained were related to the employment status of interior design alumni. Based on the information provided by alumni, interior design administrators, educators, and curriculum planners were able to assess the quality and aptness of the Interior Design Program. The results of such an assessment may have contributed to the developments described above. Unfortunately, however, the researchers seem to have encountered procedural difficulties of an undetermined nature. Consequently, a detailed report of the study is not available, and the extent to which the results of the study

may have contributed to changes within the Department of Interior Design cannot be determined precisely.

Fortunately, an interim report, based on data obtained in the study, is available from the Department of Interior Design (no date). The interim report provides a numerical summary of the data but does not explain the procedure, instrumentation, limitations, or recommendations of the study. This somewhat mysterious study does indicate, however, the concern that Interior Design administrators at the University of Manitoba had, at that time (1987) about obtaining information from alumni.

It is anticipated that the results of the study reported here will provide the Department of Interior Design with results which will be as valuable as those obtained in the undated and somewhat mysterious earlier study. In a step beyond those taken in the earlier University of Manitoba study, the present study takes into account the points of view of both senior (older) and more recent (younger) alumni.

Chapter Summary

The literature reviewed in this chapter reveals the nature and importance of program evaluations and outcomes assessment for existing programs within institutions of higher education. While a substantial portion of the literature in interior design education focuses on the points of view of employers and educators concerning interior design education, there appears to be little evidence that the opinions of interior design alumni have been investigated.

It seems clear that faculties, professional programs, and educational institutions outside of interior design are convinced that alumni surveys

do provide valid and useful information for evaluating the effectiveness of programs, institutions, faculties, and departments. Given the well-established importance of alumni surveys, it seems unfortunate that so few such surveys have been conducted in interior design. The present study attempts to move into this somewhat overlooked area of interior design research. What follows next is a description of the methods used, and the theoretical base followed, to begin to collect some of the rich information about interior design programs which exists in the minds of interior design alumni.

CHAPTER THREE

Methodology

Theoretical Framework

This study was designed according to techniques and methods appropriate for mail survey questionnaires. The literature concerning research methodologies has been reviewed from several thrusts. In particular, the literature from a particular set of authors was reviewed. The investigators of interest are: Ary, Jacobs, and Razavieh (1985); Best and Kahn (1986); Borg (1987); Converse and Presser (1986); Dillman (1978); McMillan and Schumacher (1989); and Tuckman (1988). These writers address the methodology used most frequently in the type of investigation reported here. Consequently, the methodology used was based upon their work. While telephone and face-to-face interviews have been used by some investigators to obtain information from alumni, the mail survey design is used most frequently in alumni surveys. As examples, surveys of alumni completed by Harris (1987), Korb (1990), Newton (1981), Quereshi (1988), Shannon Tew (1992), Slimmer (1983), and Wantling and Barnard (1984) used mail survey research designs.

Mail survey research techniques are ideal for studies in which the population sample is dispersed across several provinces, or within different countries. When the population sample is fairly large (more than 25), it is more feasible to contact study samples by mail than it is to contact them in person or by telephone (Dillman, 1978).

Population Sample

The required sample size for any research design depends upon a number of factors including: (a) the type of research being performed, (b) financial constraints, (c) the importance of the results, and (d) the degree of accuracy required. Many researchers claim that the larger the sample, the stronger the study (P. Madak, personal communication, January 30, 1992). The sample used in this study was a "blanket" or "census" sample which consisted of the entire population of eight graduating classes from a four year baccalaureate degree program. Specifically, the target population was comprised of the graduates of the Interior Design Program at the University of Manitoba over eight different academic years. Addresses for individual members of the selected population were provided by the University of Manitoba Alumni Association. It was intended that all interior design graduates from the graduating classes of 1979 to 1981 and from 1987 to 1991 would be contacted. The total number of graduates from these eight years (not counting the investigator who was one such graduate) was 390. Lost addresses, and deceased alumni brought the final sample population to 340.

Many of the alumni had moved since graduation and had not left forwarding addresses, either with the Alumni Association or with the Department of Interior Design. Through interpersonal communication however, it was possible to confirm the present address for most of the alumni. The close-knit nature and relatively small number of interior design graduates in each year facilitated the task of confirming addresses.

The identification of an individual class representative from each graduating class enabled addresses to be confirmed for one graduating class at a time.

Several reasons for selecting alumni from 1979 to 1981, and from 1987 to 1991, were apparent at the outset of the investigation. First, all 390 alumni from these eight years were selected for inclusion to ensure that each graduating class would be represented adequately. An inadequate response rate represents a serious threat to the validity of any study (Ary et al., 1985; Best & Kahn, 1986; McMillan & Schumacher, 1989).

Secondly, graduates from 12, 13, and 14 years ago, as well as those from two to six years ago, were selected for inclusion in the study so that comparisons could be made between recent alumni and older alumni. (In this study it was arbitrarily decided that recent alumni would be those who graduated from two to six years ago inclusively. Older alumni were those who graduated either 12, 13, or 14 years ago.) Such comparisons were considered necessary because of the possibility that some recent graduates might express negative attitudes due to the fact that they may have been unable to find permanent employment. Consequently, the opinions obtained from the alumni from between 1979 and 1981 acted as a set of benchmarks to which the opinions of recent alumni were compared. The third reason for selecting the chosen population was that data received from alumni from consecutive years allowed "patterns" and trends to be detected more easily than if alumni from every second year

(i.e., 2, 4, 6, 8) were questioned (Harris, 1987; P. Madak, personal communication, January 30, 1992).

Instrumentation

The Survey Questionnaire

Sometimes, researchers who conduct survey studies of this nature endeavour to use questionnaires created by others for other purposes. Usually, the validity and reliability for previously used survey instruments have been established beforehand. Unfortunately, however, existing questionnaires usually require major modification because the questions must be redesigned to pertain, specifically, to the area under investigation. For the present study a new questionnaire was developed (see Appendix A).

The survey questionnaire consisted of 25 items. Twenty-two items were closed and semi-closed format questions which are the quickest form of questions for respondents to answer. Furthermore, they are the easiest type of questions from which data can be tabulated (Dillman, 1978; McMillan & Schumacher, 1989). Checklist response categories were provided for each of the 22 items. For seven of the 22 questions (Items Six, Seven, Eleven, Twelve, Thirteen, Fourteen, and Sixteen), the response category "other" was included. Five questions (Items Seventeen, Eighteen, Nineteen, Twenty-one, and Twenty-three) included a response category called "don't know"; and one question (Item Twenty-two) contained a response category called "don't recall".

Two open-ended, or fill-in, questions were included in order to elicit non-forced responses. According to Dillman (1978), open-ended

questions are used to probe people's memories, clarify positions, solicit suggestions, and allow respondents to vent frustrations and strong opinions. The first fill-in question was Item Two which asked respondents to indicate the year they graduated from the Interior Design Program. The second open-ended or fill-in question, Item Eight, asked full-and part-time students what subject area they had studied. The item was open-ended because the range of possible responses to such a question is virtually limitless.

The third open-ended question, Item Twenty, was designed to probe responses to the question that preceded it. Item Nineteen asked respondents to respond to the following statement: "Based on your knowledge of the interior design profession, if you were to choose your university major again, would you choose interior design?" Item Twenty asked students to indicate briefly the reasons for their response to Item Nineteen. This item allowed respondents to state, in their own words, their reasons for selecting the response category they did in Item Nineteen.

The questionnaire was divided into three sections. In Part A, demographic questions were used to determine the characteristics of the respondents. In the data analysis, the demographic information was used to categorize responses. The information sought in this section included the following: (a) respondent's gender, (b) year of graduation, (c) grade point average, and (d) year of birth.

The second section, Part B, asked 11 questions related to the respondents' employment status. The first two items in Part B (Items

Five and Six) were intended for all respondents. Item Seven was intended for those respondents who chose, in Item Six, one of the following responses: (a) Employed in area not related to interior design; (b) Unemployed, seeking employment in interior design; (c) Unemployed, seeking employment not related to interior design; or (d) other. Item Eight was answered by those respondents who were either full- or part-time students.

Items Nine to Sixteen were designed to be answered by those respondents who were employed full-time, part-time, or on a contract basis in areas directly in, or related to, interior design. Full-, and part-time students who worked in areas directly in, or related to, interior design, also answered Items Nine to Sixteen. The purpose of including employment questions, targeted to a specific group of respondents, was to obtain detailed information concerning the types of employment and the types of responsibilities that alumni experienced in the fields in which they were working.

The third section of the questionnaire, Part C, contained specific questions related to interior design education within the University of Manitoba Interior Design Program. All respondents were asked to complete this section, regardless of their employment status. In items Seventeen to Twenty, respondents were asked to reflect on their interior design education, and to provide the reasons why, if provided with the opportunity to choose their university major again, they would or would not choose interior design. Items Twenty-one to Twenty-three were also related directly to the University of Manitoba Interior Design Program.

The focus of Item Twenty-one was the degree to which alumni believed that CADD courses ought to be compulsory in the program. Items Twenty-two and Twenty-three were related to the interior design Student Internship Program. These three questions were asked to obtain general data which might benefit interior design curriculum planners. In addition, Items Twenty-one to Twenty-three were included in the questionnaire as a way of obtaining data that could be used for future studies.

Items Twenty-four and Twenty-five were included to determine the areas of interior design which alumni believe are important. For these last two items, 82 response categories were provided. These categories were adapted from a list of 92 interior design competencies used in a study by Baker and Sondhi (1989). For the present study, the list from the Baker and Sondhi study was used so that comparisons, between the findings of the two studies could be made. The results of the comparisons are provided in Chapter Four.

The combination of semi-closed, closed, open-ended, and fill-in questions resulted in a questionnaire that maintained the respondents' interest, and required little time for them to complete (according to the pilot test subjects, approximately 16 minutes). Of decided benefit to the respondent was the organization of the survey instrument into the three sections described above. Along with explicit directions for completing the questionnaire, the clearly marked sections enabled respondents to follow, with ease, the various skip patterns employed (i.e., Items Six, Seven, and Eight).

Cover Letter

The cover letter for this study was designed according to the criteria suggested by several authors including Ary et al. (1985), Best and Kahn (1986), Dillman (1978), McMillan and Schumacher (1989), and Tuckman (1988). Accordingly, the cover letter was: (a) brief and concise, (b) identified the purpose and the importance of the study, (c) stated the importance of the recipient's response, (d) ensured confidentiality, (e) expressed appreciation to the recipient for participating, (f) requested the return of the questionnaire by the required date and, (g) offered to make available a brief report of the results of the study (see Appendix B). The letter was photocopied on the University of Manitoba Department of Interior Design letterhead. To add credibility and to promote face validity the signature of the investigator and the Head of the Department of Interior Design appeared on each covering letter.

Graphic Design of Survey Package

The graphic presentation of the questionnaire and the overall quality of the survey package can strongly influence response rates (Dillman, 1978). Consequently, ardent attempts were made to ensure that the entire survey package was neat and visually appealing. The questionnaire was a booklet format, made of folded 8 1/2" x 11" white bond paper. Such a format was the most cost effective method of reproduction, considering the relatively large number of questionnaires required (340 plus 200 follow-ups and extras). Using the word processing package Microsoft Word, and black ink on white paper, the questionnaire was neat, easy to read, and easy to complete. Although the booklet

format required a small typeface, special care was taken to ensure that the readability of the questionnaire was not sacrificed for the sake of cost. In order to minimize costs, the booklets, cover letters, and the follow-up letters were photocopied rather than printed.

An individual identification number was printed on the front cover of each survey booklet. Sometimes, identification numbers can cause lower response rates because respondents feel that they might be identified. Consequently, in this study respondents were assured (in the cover letter and again at the beginning of the questionnaire) that their responses would be kept confidential. Respondents were informed that the identification number was for the purposes of accurately recording the survey returns, and for identifying non-respondents for follow-up mailings.

Reliability and Validity of the Survey Questionnaire

In educational and scientific research, the instrument used to obtain data must be designed in such a way that the researcher can be confident that the results obtained are an accurate reflection of reality. The term "validity" refers to the degree to which the instrument measures what it is supposed to measure. Establishing validity is an important part of designing any instrument. However, when new survey questionnaires are constructed, only certain types of validity can be established beforehand.

For newly developed instruments, it is most important to establish content validity. Generally, the term "content validity" refers to the representation or the sampling adequacy of the content of the instrument.

Within content validity are three sub-groups: (a) item validity, (b) sampling validity, and (c) face validity. Item validity is the degree to which the individual item measures what it is supposed to measure. Sampling validity is an indication of whether or not a sufficient number of items have been included to obtain the information required. Face validity is established by making an assessment about whether or not the instrument appears to have the content required to obtain the necessary data.

In this case, item and face validity were established by using a panel of experts. The panel of experts included four interior design professors, two of whom are academic administrators at the University of Manitoba. These experts examined the wording of each item, as well as the response categories provided for each item. Professionals in the area of survey research (L. Armstrong from the University of Manitoba Statistical Advisory Service, T. Lussier from the University of Manitoba Office of Institutional Analysis, and P. Madak from the University of Manitoba Department of Educational Psychology) reviewed the survey instrument for sampling validity. As a result of their experience in survey research, these experts were able to indicate the type of data that could be expected from the items included in the survey.

Based upon the advice provided by experts in interior design and in survey research, the survey questionnaire was revised accordingly. The final draft of the survey document gained the assurance of the experts that satisfactory content validity had been established. Finally, a pilot test of the survey instrument was used to ensure that the instrument

would obtain the data required. The pilot test procedure is described in the next section, Design and Procedures.

Reliability for the survey questionnaire used in this study was not addressed because, according to research experts (L. Armstrong, personal communication, December 13, 1992; P. Madak, personal communication, December 04, 1992), opinions usually change over time. A survey questionnaire might be reliable for obtaining opinions in one study but not in another. In addition, McMillan and Schumacher (1989) claim that reliability for research instruments is established only after the instrument has been used in at least one study. Most research experts claim that sufficient validity for new instruments is attained by conducting a pilot test of the survey instrument prior to conducting the actual study.

Design and Procedures

Pilot Test Procedure

To ensure that a new questionnaire is well-constructed, clear, and precise, most researchers subject the questionnaire to a pilot test prior to administering the questionnaire to the actual study subjects (Dillman, 1978; McMillan & Schumacher, 1989). Pilot tests are usually administered to subjects who have characteristics similar to those of the target population. While Converse and Presser (1986) claim that between 10 and 25 people are required to participate in a pilot test, McMillan and Schumacher suggest that, in the event of budget constraints, 10 pilot test subjects "are better than none". In the case of a blanket study, such as the one here, a small number of subjects from the study population are

often "sacrificed" to participate in the pilot test (Converse & Presser, McMillan, & Schumacher). Usually, the data obtained from subjects who have been sacrificed to participate in the pilot test are not used in the actual study. However, in cases, where the revisions made to the instrument following the pilot test have been minor and when the data obtained have not been affected by the final revisions, the data obtained from the pilot test subjects may be used in the final study results. Such was the case here.

In this study, three subjects (who were readily available) were selected from the target population (one from each of the graduating years of 1981, 1987, and 1988) to participate in the pilot test. Five other volunteers were randomly chosen, from an interior design firm in Winnipeg, Manitoba, to pilot test the questionnaire. These five subjects had graduated from the University of Manitoba Interior Design Program, but had graduated in years that were not included in the present study (namely 1982, 1983, and 1984). Two other University of Manitoba interior design alumni (both of whom are working in interior design) participated in the pilot test. One graduated in 1955, and the other graduated in 1965. The individuals who participated in the pilot test were asked to complete the questionnaire and to record the length of time they took to complete the survey. In addition, they were asked to identify any ambiguous questions, and to indicate those questions which failed to provide adequate response choices. Finally, comments concerning the overall format and the clarity of instructions were elicited from pilot test subjects.

Even though all of the pilot test subjects were volunteers, a careful analysis of the responses they provided failed to reveal any indication that the responses were biased, either positively or negatively. Of particular importance to the investigator was the realization that researcher bias was minimal. Because the pilot test subjects were provided with the survey package only, and with no verbal instructions, it seemed clear that any possible researcher bias had been eliminated.

Based upon the responses, comments, and suggestions obtained from the pilot test, minor revisions were made to the prototype questionnaire. Because the revisions made to the instrument were minor and would not have affected the responses provided by the pilot test subjects, the three study subjects (who participated in the pilot study) were not eliminated from the study. In addition, because the revisions to the prototype questionnaire were minor, a second pilot test was considered unnecessary. With a satisfactorily rigorous and valid questionnaire having been created, the next step was to administer the instrument and collect the data. The administration process is described next.

Administration of the Survey

When the questionnaire package had been finalized, the data collection process began. The first package mailed went out on Tuesday, August 25th, 1992. Recipients were asked to complete the questionnaire and to return it within one week. In the first package mailed, each recipient received a cover letter, a questionnaire booklet, a form to request a summary of the results, and a stamped self-addressed return

envelope. Those recipients who wished to receive an executive summary of the results of the study were asked to complete the request form and to return it in an envelope separate from the one provided for returning the questionnaire. For the executive summary request form see Appendix D. In order to minimize the researcher's costs, subjects who wished to receive the executive summary were asked to provide a self-addressed, stamped, return envelope.

Response Rates

Best and Kahn (1986) claim that response rates are affected by several variables which include: (a) the perceived importance of the study, (b) the quality of the questionnaire, (c) the selection of the sample, and (d) the time of year that the survey is sent out. Usually, when steps have been taken to control each of these variables, high response rates are obtained.

For the present study, a large sample (340) was selected to maximize the probability of receiving a sufficient number of responses. According to research experts (L. Armstrong, T. Lussier, P. Madak), the higher the response rate, the higher the degree of confidence with which the results can be stated. With regards to the time of year when the present study was conducted, it was determined that the end of August would be the most appropriate time to conduct such a survey for those in the interior design industry. Such reasoning resulted from the fact that in interior design the summer months are usually quite busy. Consequently, the researcher believed that most of the study population would be employed and available to participate in the survey, rather than being on

holidays (which can occur in other professions where the summer months may be the "off" season).

Best and Kahn (1986) claim that a response rate of 50% is adequate; 60% is good; and 70% is very good. Similarly, McMillan and Schumacher (1989) write that most return rates are about 50-60%, but 75% is considered good. Experts at the University of Manitoba Office of Institutional Analysis, who conduct mail surveys on a regular basis, claim that response rates as low as 25% are significant. To achieve such high response rates (as the ones described by Best & Kahn and by McMillan & Schumacher), follow-up mailings are usually required. The follow-up procedures used in this study are described next.

Follow up Methods

In survey research, follow-up mailings are conducted for the purpose of increasing response rates. Unfortunately, it is often difficult to motivate people to return a mail survey. Two main reasons for non-responses are encountered. First, in today's society, where marketing has become a rather large industry, the number of mail surveys being used seems to have increased dramatically. Because of the increased number of researchers seeking information from potential respondents, many people simply do not respond to every survey they receive in the mail. Second, some people simply misplace survey questionnaires, particularly when the area being studied is not of particular interest to them.

To increase response rates researchers usually develop, prior to conducting the study, a method for follow-up mailings. Follow-up mailings can take several different forms. The simplest form of follow-up

consists of a postcard to remind the respondent to return the survey. A more elaborate form consists of an explanatory letter, another survey questionnaire, and sometimes another return envelope. The format selected and the number of follow-ups conducted usually depends on the amount of funding available.

Best and Kahn (1986), and Dillman (1978) suggest that three follow-ups are required. McMillan and Schumacher (1989), on the other hand, claim that only two follow-ups are necessary. According to Tuckman (1988), third and fourth follow-ups are conducted only if response rates of less than 80% are obtained. The purpose of follow-up mailings is to obtain information from non-respondents to determine their reasons for not responding. By contacting a random sample of 5 - 10% of the non-respondents, the researcher can determine whether or not there was a systematic or common reason for recipients to choose not to respond. Tuckman and others (Dillman; McMillan & Schumacher) write that if a response rate of less than 60% is obtained, then the non-respondents should be contacted. In this study, the decision was made to send a second follow-up only if a response rate of less than 25% was obtained.

For the present study, only one follow-up mailing was used. A second follow-up was not administered because the response rate obtained from the first mailing was over 39%. The follow-up mailing was initiated on Tuesday, September 15th, 1992, three weeks after the original mailout. Twenty-one days between mailings was deemed necessary in order to enable the questionnaires to be received, completed,

and returned, especially by those recipients living abroad, and by those recipients who had the survey questionnaire forwarded to them. The follow-up package included a follow-up letter, another questionnaire, and another self-addressed (but not stamped) return envelope.

In summary, careful planning was undertaken to ensure that the data from the survey questionnaire would provide results that were useful to interior design curriculum planners. Careful planning also ensured that the data obtained could be analyzed easily. The method whereby the data were analyzed is explained in Chapter Four. It is important to realize that the method of data analysis used in this study was determined prior to beginning the data collection. Such a determination establishes a strong a-priori model rather than a weaker a-posterior model.

CHAPTER FOUR

Results

The first portion of this chapter reports the results of the survey. The data obtained from the results of each item are presented in the same order as the items appeared in the survey questionnaire. Tables are used to show the results. The results obtained from each of the four research questions is discussed. To provide a clear understanding of the results, a somewhat extended analysis of the practical implications of the data is provided because practicality of the results was one of the main purposes of the study. The extended analysis consists of the following: (a) the analysis and discussion of Item Seventeen, (b) the analysis and discussion of item Twenty, and (c) a discussion of the assumptions set out in Chapter One of this report.

Method of Data Analysis

In developing the survey questionnaire professional assistance was obtained from the University of Manitoba Statistical Advisory Service and three other research experts: P. Madak, T. Lussier, and R. Veitch. Items and response categories were designed so that the data could be tabulated quickly and accurately. Simple statistical analyses were conducted using a computer program called SAS® System for Elementary Statistical Analysis (SAS Institute Incorporated, no date). For each survey question, frequency counts and percentages are illustrated by cross-tabulating each item with Item Two (year of graduation). The data were examined to determine whether or not trends or biases appeared in the results from any particular graduating year compared to the others. No outstanding

differences of responses between graduating years were detected in the data.

Because the sample population was a census one (which gave each member of each graduating year an equal opportunity to respond), tests of statistical significance were not conducted. In census surveys, any differences in the results are considered to be actual differences in the sample population thus eliminating the need for tests of significant differences (L. Armstrong, personal communication, December 13, 1992; P. Madak, personal communication, December 04, 1992).

As mentioned above, one of the reasons for selecting the most recent graduates, as well as a group of graduates from 12, 13, and 14 years earlier, was to enable comparisons to be made between responses of relatively recent alumni and more senior alumni concerning their opinions on the matter of the education they had received in Interior Design. An analysis of the results indicated that no observable trends (other than what might have been expected - i.e., older graduates held higher paying jobs, and had higher status job titles) appeared to exist between the two groups. Consequently, the results discussed below are considered primarily in terms of overall frequencies and percentages rather than by each graduating year. Cross-tabulations among Items One, Six, Nine, Fifteen, Seventeen, Eighteen, Nineteen, Twenty-one, and Twenty-two are presented for situations in which the results provide insights beyond percentages alone. Finally, all percentages reported are based on the total number of potential respondents - 213. The only exception is in Table 23

where the percentages provided are based on the total number of students who had participated in the Student Internship Program.

The survey questionnaire was organized into three sections: demographics, employment, and education. The results of each item presented in the following section correspond to the same order they appeared in the survey questionnaire. Following the presentation of the results for each item, the research questions for the study are addressed, and pertinent discussions of the results are provided.

Responses to Survey Items

Compared to the response rates suggested by Best and Kahn (1986), McMillan and Schumacher (1989), and the University of Manitoba Office of Institutional Analysis, the response rate for the present study (69%) was excellent. The final percentage was based on $n = 307$ because, according to research experts (L. Armstrong, T. Lussier, P. Madak), the final response rate is usually calculated according to the total number of surveys that were assumed to have been received by potential respondents. A total of 31 surveys were returned with no forwarding addresses, one was returned because the respondent refused to participate, and one was returned because the intended respondent had died recently. Table 1 provides a complete numerical description of the study population, including the total number of potential respondents, the total number of respondents whose addresses could not be obtained, and the total number of responses received.

Table 1

Returns From Mailed Surveys

	<u>n</u>
Number of potential respondents	390
Number of lost addresses	47
Number of deceased alumni	3
Surveys mailed out	340
Surveys returned with no forwarding address	31
Respondents deceased during data collection period	1
Respondents who refused to participate	1
Number of surveys received (potentially)	307
Surveys returned from first mailing	171
Surveys returned from second mailing	42
<u>Total returns</u>	<u>213</u>

Part A - Demographics

Frequencies by graduating year. The highest response rate per graduating year (17%), was received from the graduates of 1988. Conversely, the responses obtained from the graduates of both 1989 and 1990 constituted only 20% (10% each) of the overall response rate. Table 2 provides a breakdown of the possible and the potential number of alumni (from each year) who were given the opportunity to participate in the study. In addition, Table 2 shows the actual number of responses received, and the percentages that each graduating year contributed to the overall response rate.

Table 2

Cross-tabulation of Response Rates and Graduating Year N = 213

	Graduating Year								Totals
	79	80	81	87	88	89	90	91	
Class Total <u>n</u> =	51	48	52	48	64	47	37	43	390
Surveys Potentially Received <u>n</u> =	37	37	38	39	52	34	30	40	307
Surveys Actually Returned <u>n</u> =	27	26	31	26	37	21	22	23	213
Overall % ^a	13	12	15	12	17	10	10	11	100

Note. ^a Reflects the percentage that each graduating year contributed to the total percentage of responses actually received (213).

Gender differentiation. Of the 213 respondents, 85% were female, while the remaining 15% were male. These results reflect, almost exactly, the original number of female and male graduates in each year. Table 3 shows the relationship of the female and male respondents for each of the eight years.

Table 3

Cross-tabulation of Gender and Graduating Year N = 213

	Graduating Year										
	79	80	81	87	88	89	90	91	Total	<u>n</u>	%
Total Possible											
Female	40	44	46	43	58	36	28	33	328		84
Male	11	4	6	5	7	11	9	10	63		16
Totals	51	48	52	48	65	47	37	43	391		100
Actually Received											
Female	24	23	27	23	34	18	16	17	182		85
Male	3	3	4	3	3	3	6	6	31		15
Totals	27	26	31	26	37	21	22	23	213		100

Grade point average (GPA). A total of 204 respondents provided their GPAs in item number three ("What was your approximate grade point average [GPA] in your final year of the Interior Design Program? Please do not indicate your cumulative GPA."). Forty-eight percent had achieved a GPA between 3.00 and 3.49 (B - B+) in their final year of the Interior Design Program. Twenty-four percent reported a GPA of between 3.50 and 4.00 (B+ - A), and 23% reported GPAs between 2.50 and 2.99 (C+ - B). Only 1% of the respondents indicated a GPA between 2.00 and 2.49 (C - C+). Four percent of the respondents did not respond to the question (see Table 4).

Table 4

Responses By Grade Point Average (GPA) N = 213

	<u>n</u>	<u>%</u>
2.00 - 2.49 (C - C+)	2	1
2.50 - 2.99 (C+ - B)	49	23
3.00 - 3.49 (B - B+)	102	48
3.50 - 4.00 (B+ - A)	51	24
Did not respond	9	4
Totals	213	100

Age range of respondents. Item Four asked respondents their "Year of birth". Most of the respondents, 42%, were born in 1958 or earlier. In 1993, these respondents were 35 years of age or older. Seventeen percent were born between 1965 and 1966, making them (in 1993) between the ages of 27 and 28. The smallest portion of respondents, 2%, was born between 1969 and 1970. The respondents in this small group of five were 23 to 24 years old in 1993. It is difficult to determine the precise age of respondents because most respondents selected the first response category in this item which was "1958 or earlier". However, the average age of respondents was approximately 31 years. Table 5 provides the complete range of responses to Item Four.

Table 5

Responses By Year of Birth N = 213

	<u>n</u>	<u>%</u>
1958 or earlier	89	42
1959-1960	20	9
1961-1962	11	5
1963-1964	30	14
1965-1966	36	17
1967-1968	22	10
1969-1970	5	2
Totals	213	100

Note. Average age of respondent = 31 (or older)

Part B - Employment Related Questions

Items Five to Sixteen asked respondents a series of questions related to their current employment status. In this portion of the questionnaire, built-in skip patterns directed certain respondents to some, but not all, questions. Consequently, the response rates for Items Nine through to Sixteen are lower than the total response rate of 213. With the exception of Item Thirteen (in which 151 of the respondents answered the question), 152 respondents (71%) answered Items Nine to Sixteen.

Number of jobs held since graduation. Item Five was a two-part question. The first part asked how many full-time jobs graduates had held (directly in, or related to, interior design) since graduation from the Interior Design Program. Forty-six percent had held either one or two full-time jobs since graduation. Twenty-four percent held either three or four jobs, and only 5% held seven or more jobs. Eight percent of the respondents did not answer the question (see Table 6).

The second part of Item Five asked how many part-time jobs graduates had held (directly in, or related to, interior design) since graduation. Although a response category was provided for cases where no part-time jobs were held by graduates, a substantial portion of respondents, 40%, did not answer the question. Possibly, the rather high number of nonresponses to this item were from alumni who did not hold any part-time jobs. Of the 213 possible respondents, 34% had held one or two part-time jobs directly in, or related to, interior design. Thirteen percent of the respondents did not hold any part-time jobs, since graduation, either directly in, or related to, interior design. Only 2% of the

respondents had held seven or more part-time jobs since graduation.
Table 6 provides the complete responses to both parts of Item Five.

Table 6

Number of Full- and Part-time Jobs In Or Related to Interior DesignN = 213

	<u>n</u>	<u>%</u>
Number of full-time jobs		
None	13	6
1 - 2	99	46
3 - 4	52	24
5 - 6	21	10
7 or more	10	5
Did not respond	18	8
Totals	213	100
Number of part-time jobs		
None	28	13
1 - 2	73	34
3 - 4	17	8
5 - 6	5	2
7 or more	5	2
Did not respond	85	40
Totals	213	100

Employment Status. Item Six asked respondents to indicate their present employment status. The responses to Item Six answered the first research question which was designed to establish the types of employment alumni had been engaged in since graduating from the University of Manitoba Interior Design Program. (A complete discussion of this Research Question is provided in the second portion of this Chapter.)

By combining the first three response categories in this question, the results showed that 73% of the 213 respondents were employed either full-time, part-time, or on a contract basis in areas directly in, or related to, interior design. Only 9% of the respondents were employed in areas not related to interior design. Five percent of the other respondents were unemployed but were seeking employment in interior design. Only 1% were unemployed and were not seeking employment in interior design. Three percent of the respondents reported being full-time students, while another 1% reported that they were part-time students. The response differentiations to Item Six are presented in Table 7.

Item Six was the first question where the "other" response category was provided, and where respondents were asked to specify the "other" employment which best described their present employment status. Responses provided by the 7% of the respondents who selected this category included the following:

1. Raising children (\underline{n} = 6)
2. Maternity leave (\underline{n} = 2)
3. Owner of company (\underline{n} = 1)

Table 7

Cross-tabulation of Employment Status and Graduating Year N = 213

	Graduating Year											Total	n	%
	79	80	81	87	88	89	90	91						
Employed														
Full-time in ID or related	13	11	13	16	15	7	11	11				97	46	
Contract (self-employed)	7	5	9	4	9	7	5	6				52	24	
in ID or related														
Part-time in ID or related	1	1	0	1	1	1	0	1				6	3	
Totals	21	17	22	21	25	15	16	18				155	73	
Employed - not related to ID	3	3	1	2	4	2	3	1				19	9	
Unemployed														
Seeking within ID	0	0	2	0	4	1	1	3				11	5	
Student, full-time	0	0	1	0	1	2	2	1				7	3	
Seeking outside ID	0	1	0	1	0	0	0	0				2	1	
Student, part-time	0	0	0	1	1	1	0	0				3	1	
Totals	0	1	3	2	6	4	3	4				23	10	
Other														
Did not respond	3	5	4	1	2	0	0	0				15	7	
	0	0	1	0	0	0	0	0				1	.4	
Grand Totals	27	26	30	26	37	21	22	23				213	100	

4. Full-time interior design instructor (college) with own design business ($\underline{n} = 1$)

5. Design/construction ($\underline{n} = 1$)

6. Accept free-lance contracts and setting up own business (not interior design) ($\underline{n} = 1$)

Reasons for employment status. Table 8 shows the results of the responses to Item Seven. Item Seven asked respondents to select, from 12 options, the three best reasons to account for their employment status. A total of 22% of the respondents answered this question which was intended for those respondents who: (a) were employed in areas not related to interior design, (b) were unemployed but seeking employment in interior design, (c) were unemployed, and were not seeking employment related to interior design, or (d) had selected the "other" response in Item Six. Of the 12 response categories available, the top four reasons for respondent's current employment status were as follows:

1. Family commitments ($\underline{n} = 17$)
2. They had found better opportunities outside of interior design ($\underline{n} = 15$)
3. No work was available ($\underline{n} = 12$)
4. The salaries were too low ($\underline{n} = 12$)

Only one respondent was advised by a potential employer that he or she was not sufficiently qualified. Six percent of the respondents selected the "other" category and provided the following responses:

1. Wanted challenge of own company
2. Hard to schedule projects and daycare

3. Health
4. Retired to raise children
5. Maternity
6. Personal preference
7. Limited opportunity for advancement/growth
8. Located to another city
9. Relocated in search of better opportunities
10. Very short contracts in my field
11. In Quebec bilingualism is required for most positions

Subjects studied by full- and part-time students. Item Eight was an open-ended question which asked both full- and part-time students to indicate which subjects they were studying if they were presently students. Of the ten possible respondents, only six answered the question. Subjects of current study included: (a) exercise physiology, (b) education, (c) architecture, (d) drafting, (e) computer animation, and (f) science.

Table 8

Reasons for Employment Status n = 47

	<u>n</u>
Family commitments	17
Found better opportunity outside the interior design field	15
No work available	12
Salary too low	12
Amount of time required was too demanding	10
Lost interest in interior design	9
Didn't feel sufficiently qualified	5
Inadequate benefits	4
Poor working conditions	3
Unable to relocate	2
Advised by potential employer that you were insufficiently qualified	1
Other	13
Totals	103^a

Note. Did not respond n = 166^a Total possible if each respondent selected 3 categories n = 141

Length of time in current position. As mentioned earlier, Items Nine to Sixteen were addressed by 152 of the 213 respondents (71%). These alumni were employed full-time, part-time, or on a contract basis directly in, or related to, interior design. Full-time and part-time students who also worked directly in, or related to, interior design (while studying) also answered items Nine through Sixteen.

The purpose of Item Nine was to determine how long alumni had been employed in their current positions. Twenty-four percent had been in their current position for less than one year. Twenty-three percent had been employed in the same position for over one year but not more than three years. Thirteen percent had held the same position for over three years but not more than five years. Only 2% of the respondents had held the same position for over 11 years (see Table 9).

Size of Company. Item Ten sought to determine the number of employees employed by the company where the respondent worked. Employed by small companies, where there were between one and five employees, were 29% of the respondents. Seventeen percent worked for large companies which employed 36 or more people, and 13% worked in medium sized places where there were between 16 and 25 employees. Table 10 provides the response differentiation for Item Ten.

Table 9

Cross-tabulation of Length of Time in Current Position and Graduating Year N = 213

	Graduating Year											Total <u>n</u>	%
	79	80	81	87	88	89	90	91					
Less than 1 year	4	2	3	7	7	5	9	14				51	24
Over 1 but not more than 3 years	2	6	5	10	9	7	7	2				48	23
Over 3 but not more than 5 years	4	4	6	3	6	4	1	0				28	13
Over 5 but not more than 7 years	5	3	1	0	0	0	0	1				10	5
Over 9 but not more than 11 years	3	0	3	0	0	0	0	0				6	3
Over 7 but not more than 9 years	1	1	3	0	0	0	0	0				5	2
Over 11 years	2	1	1	0	0	0	0	0				4	2
Did not respond	6	9	9	6	15	5	5	6				61	29
Totals	27	26	31	26	37	21	22	23				213	100

Table 10

Number of Employees in Company With Which Respondent is EmployedN = 213

No. of Employees	<u>n</u>	%
1 - 5	62	29
6 - 15	28	13
16 - 25	23	11
26 - 35	3	1
36 or more	36	17
Did not respond	61	29
Totals	213	100

Type of company. The purpose of Item Eleven was to identify the type of company with which alumni were employed. Table 11 presents the results of this Item. Twenty-five percent were employed with interior design firms, 11% in combined interior design/architectural firms, 5% worked in retail establishments where there was an interior design department, and 5% were employed with the government. Three percent of the alumni were employed in architectural firms. Another 3% were employed in each of the following types of companies:

- (a) corporation/industry, (b) educational institute, and

(c) builders/developers/contractors. Two percent of the respondents worked in retail establishments where no interior design department existed, 1% worked in contract furniture design, while another 1% worked within the real estate department of a corporation. Only one respondent (.4%) worked as a manufacturer's representative. Another one was employed by an industrial design company. One worked in the area of facility management, and one in the medical/healthcare area. Although 17 respondents had selected the "other" category, only 10 respondents provided written responses. These responses included the following:

1. Non-profit organizations (n = 2)
2. Landscape architecture
3. Interior design/property management
4. Engineering
5. Self-employed in design and construction of sewn fabric ad banners and fibre art hangings
6. Crown corporation
7. Combination interior design/architecture/electrical, mechanical, and structural engineering
8. Residential furniture
9. In-house design staff for museum undergoing relocation

Table 11

Type of Company With Which Respondent is Employed N = 213

	n	%
Interior design	54	25
Combination interior design/architectural	23	11
Retail establishment with interior design department	10	5
Government	11	5
Architectural	6	3
Corporation/industry	6	3
Educational institute	7	3
Builders/developers/contractors	6	3
Retail establishment without interior design department	4	2
Contract furniture design	2	1
Real estate department within corporation	2	1
Showroom	0	0
Real estate	0	0
Historic preservation	0	0
Manufacturer's representative	1	.4
Industrial design	1	.4
Facility management	1	.4
Medical/healthcare	1	.4
Other	17	8
Did not respond	61	29
Totals	213	100

Type of work done by company. In Item Twelve respondents were asked to indicate the three categories that best described the type of work undertaken by the company for which they worked. Office design was selected 73 times, contract and residential design 47 times, and hospitality design 30 times. While product design and historic preservation were selected six times each, industrial design was chosen only four times. Provided in Table 12 are the complete responses to Item Twelve. Twenty-five respondents selected the "other" category, but only 17 respondents provided written responses. The responses specified in the "other" category included the following:

1. Indian cultural/information/referral center
2. Multi-family residential park design
3. Museum conservation design/displays
4. Variety of commercial design
5. Medical and dental design
6. Real estate development in residential, office, commercial
7. Engineering/planning
8. Project management
9. Strategic and facility planning
10. Management consulting/hospitality purchasing
11. Yacht design
12. Display, construction of banners/hangings
13. Communication
14. Technology transfer, outreach
15. Commercial sales
16. Lighting sales
17. Systems furniture sales

Table 12

Type of Work Done By Company With Which Respondent is Employedn = 152

	<u>n</u>
Office design	73
Combination contract and residential	47
Hospitality (i.e, hotel, restaurant)	30
Governmental	26
Healthcare	26
Retail design (i.e., store planning)	23
Facility Management	23
Retail sales	17
Institutional design	14
Residential design only	13
Educational (i.e., teaching)	12
Graphic design	10
Product design	6
Historic preservation	6
Industrial design	4
Other	25
Total	355^a

Note. Did not respond n = 61

^a Total possible if each respondent selected 3 categories n = 456

Job titles. The purpose of Item Thirteen ("From the categories listed below, circle the one [1] that best describes your job title.") was to determine the job titles held by alumni. Eighteen percent of the 213 respondents held the title of Intermediate Designer, 13% were Senior Designers, and 6% were Junior Designers. Another 6% of the alumni were Sales Representatives, and 6% were Directors. Three percent of the respondents were Senior Partners, and 3% were Educators. The titles of Junior Partner and Billable Support Staff were held by only 1% of the respondents respectively (see Table 13). Twenty-five respondents (12%) selected the "other" category where job titles included the following:

1. Landscape architect
2. Engineering aid
3. Draftsperson/technician
4. Development partner
5. Development administrator
6. Construction administration
7. Administrative
8. Facilities planner
9. Consultant
10. Owner/production manager
11. Co-owner of company
12. Self-employed
13. Sales clerk
14. Educator and senior designer

In addition, four of the job titles specified in Item Thirteen could have come under the response category of "project management". These four titles included the following:

1. Site/facility coordinator
2. Supervisory manager
3. Project coordinator
4. Managing director, project manager

Table 13

Respondents' Job Title N = 213

	<u>n</u>	<u>%</u>
Sales representative	12	6
Junior designer	13	6
Intermediate designer	38	18
Senior designer	28	13
Director	12	6
Junior partner	3	1
Senior partner	7	3
Billable support staff	3	1
Educator	6	3
Other	25	12
Did not respond	66	31
Totals	213	100

Job responsibilities. Item Fourteen asked respondents to "circle those areas which describe the responsibilities you have in your current position. Circle the five (5) responsibilities that take the majority of your time." Twenty-two response categories were provided. The six categories selected most frequently were:

1. Space planning ($\underline{n} = 90$)
2. Meeting clients ($\underline{n} = 77$)
3. Conceptual design ($\underline{n} = 59$)
4. Technical or working drawings ($\underline{n} = 58$)
5. Manual style drafting ($\underline{n} = 54$)
- Project management ($\underline{n} = 54$)

The six categories selected the least often included the following:

1. Preparation of budgets for tender ($\underline{n} = 18$)
2. Technical or specification writing ($\underline{n} = 15$)
- Furniture inventory ($\underline{n} = 15$)
3. Presentation perspectives or rendering ($\underline{n} = 14$)
4. Teaching ($\underline{n} = 12$)
5. Product design ($\underline{n} = 7$)

Table 14 provides a complete list of the responses to this item. The 24 responses specified in the "other" category included the following:

1. Administration ($\underline{n} = 2$)
2. Programming
3. Facility programming
4. Programming and administration
5. Contract negotiations

6. Needs assessment
7. Supervising tasks, scheduling, training staff
8. Supervise, oversee design and construction
9. Detail design director of projects
10. Scheduling, internal budgets, job reviews, accounting,
business plans, and general administration
11. Report writing, presentations, strategic planning
12. Review of contract documents, furniture orders, and
coordination with other corporate departments
13. Communicating client needs to service departments
14. Communications
15. Community development
16. Promotional planning
17. Accounting and financial management
18. Bookkeeping
19. Picking finishes and colors
20. Preparation of quotes/designing lighting layouts
21. Quotations
22. Graphics/text panels/exhibit design
23. Graphic designer on computer, construction of banners

Table 14

Type of Responsibilities in Current Position n =152

	<u>n</u>
Space planning	90
Meeting clients	77
Conceptual design	59
Technical or working drawings	58
Drafting (manual style)	54
Project management	54
General office duties (i.e., fax, phones)	35
Marketing	31
CADD operator	25
Preparation of presentation (i.e., labelling, material boards)	24
Sales	23
Site supervision	23
Public relations	21
Preparation of schedules (i.e., door, finish)	20
Research	19
Preparation of budgets for tender	18
Technical or specification writing	15
Furniture inventory	15
Presentations (i.e., perspectives, rendering)	14
Teaching	12
Product design	7
Other	28
Totals	722^a

Note. Did not respond n = 61^a Total possible if each respondent selected 5 categories n = 760

Annual salary range. Item Fifteen asked for the annual salary range of alumni. Twelve percent of the respondents reported earning between \$20,001 and \$25,000 per year, and 10% reported earning \$15,000 or less per year. Nine percent of the respondents claimed to earn between \$25,001 and \$30,000 annually, while another 9% reported that they earned between \$35,001 and \$40,000 per year. Only 7% of the 213 respondents reported earnings of \$50,001 or more a year. Table 15 shows a cross-tabulation of annual salary range by graduating year.

City of employment. The last question in Part B asked respondents to identify the city in which they were currently working. Presented in Table 16 is a summary of the responses to Item Sixteen. Twenty-eight percent of the respondents were employed in Winnipeg, Manitoba, 11% in Vancouver, British Columbia, and 7% in Toronto, Ontario. Five percent were employed in Calgary, Alberta. Employed in the cities of Victoria, British Columbia; Edmonton, Alberta; and Ottawa, Ontario were 3% of University of Manitoba interior design alumni. Two percent of the 213 respondents worked in Regina, Saskatchewan, while only one (.4%) was employed in Montreal, Quebec. Nineteen respondents selected the "other" category and provided responses including the following:

1. Kelowna, British Columbia
2. Brandon, Manitoba
3. London, Ontario
4. Sherbrooke, Quebec
5. Yellowknife, Northwest Territories
6. Miami, Florida

Table 15

Cross-tabulation of Annual Salary Range and Graduating Year N = 213

	Graduating Year											Total <u>n</u>	%
	79	80	81	87	88	89	90	91					
Under \$15,000	1	1	1	2	4	5	3	5			22	10	
\$15,001 - \$20,000	0	1	1	1	2	1	3	5			14	7	
\$20,001 - \$25,000	0	1	0	4	7	7	4	2			25	12	
\$25,001 - \$30,000	3	1	2	3	4	0	4	2			19	9	
\$30,001 - \$35,000	3	0	2	4	3	2	1	1			16	8	
\$35,001 - \$40,000	3	4	4	4	2	0	1	1			19	9	
\$40,001 - \$45,000	2	5	4	0	1	0	0	1			13	6	
\$45,001 - \$50,000	3	1	3	2	0	0	1	0			10	5	
\$50,001 or above	6	3	4	0	0	1	0	0			14	7	
Did not respond	6	9	10	6	14	5	5	6			61	29	
Totals	27	26	31	26	37	21	22	23			213	100	

7. Atlanta, Georgia
8. Berkshires, Massachusetts
9. Boston, Massachusetts
10. Seattle, Washington
11. Marshfield, Wisconsin
12. Auckland, New Zealand
13. Hong Kong

Table 16

City Where Respondent is Employed N = 213

	<u>n</u>	<u>%</u>
Victoria, BC	6	3
Vancouver, BC	23	11
Calgary, AB	11	5
Edmonton, AB	7	3
Regina, SK	4	2
Winnipeg, MB	60	28
Toronto, ON	14	7
Ottawa, ON	7	3
Montreal, PQ	1	.4
Other	19	9
Did not respond	61	29
Totals	213	100

Part C - Questions Related to Interior Design Education

Items Seventeen through to Twenty-five were related to interior design education, and in particular, to the University of Manitoba Interior Design Program. Items Seventeen, Eighteen, and Nineteen were written in the form of statements to which respondents circled the appropriate response. For each of the Items (17 to 19), five response options were provided as follows:

1. Disagree strongly
2. Disagree somewhat
3. Agree somewhat
4. Agree strongly
5. Don't know

Degree of preparedness for employment in interior design.

Respondents were asked, in Item Seventeen, to respond to the following statement: "The University of Manitoba Interior Design Program adequately prepares students for employment in the field of interior design." All 213 respondents (100%) answered the question. Almost half of the respondents (48%) selected the "agree somewhat" category, while 17% selected "agree strongly". Taken together, those respondents who selected "agree somewhat" or "agree strongly" accounted for 66% of the total responses. Conversely, the respondents who selected "disagree somewhat" or "disagree strongly" accounted for 33% of the total responses (27% chose "disagree somewhat", and 6% selected "disagree strongly"). Only three respondents opted for the "don't know" category (see Table 17).

Degree of preparedness for employment in areas related to interior design. Similar to Item Seventeen, Item Eighteen asked the respondents the extent to which they believed that the University of Manitoba Interior Design Program adequately prepared students for employment in areas related to interior design. The term "related to interior design" was defined (at the beginning of each questionnaire) as including architecture, landscape architecture, city planning, environmental design, graphic design, industrial design, product/furniture design, textile design, or any other form of design in which the basic principles of design are applicable. In addition, sales representatives for lighting, ceramics, carpet, plastic laminate companies, or any other company which serves the interior design industry were considered to be in fields related to interior design. Forty percent chose the "agree somewhat" category, and 14% selected the "agree strongly" option. Together, responses related to the term "agree" accounted for 54% of the total responses. Conversely, 37% of the total responses were related to the term "disagree" (30% claimed that they disagreed somewhat while 7% disagreed strongly). Only 7% did not know how they felt about the statement. Five respondents (2%) did not answer the question (see Table 18).

Table 17

Cross-tabulation of the Degree of Preparedness for Employment in Interior Design and Graduating Year
N = 213

	Graduating Year								Total <u>n</u>	%
	79	80	81	87	88	89	90	91		
Agree										
Somewhat	15	9	16	10	17	10	13	13	103	48
Strongly	4	6	7	7	4	3	3	3	37	17
Totals	19	15	23	17	21	13	16	16	140	66
Disagree										
Somewhat	5	7	5	8	13	8	6	5	57	27
Strongly	2	4	3	0	3	0	0	1	13	6
Totals	7	11	8	8	16	8	6	6	70	33
Don't know	1	0	0	1	0	0	0	1	3	1
Grand Totals	27	26	31	26	37	21	22	23	213	100

Table 18

Cross-tabulation of the Degree of Preparedness for Employment in Areas Related to Interior Design and
Graduating Year N = 213

	Graduating Year								Total <u>n</u>	%
	79	80	81	87	88	89	90	91		
Agree										
Somewhat	15	7	13	8	13	7	10	12	85	40
Strongly	1	8	7	2	5	4	2	0	29	14
Totals	16	15	20	10	18	11	12	12	114	54
Disagree										
Somewhat	8	6	5	9	14	8	6	8	64	30
Strongly	0	4	5	2	1	1	0	2	15	7
Totals	8	10	10	11	15	9	6	10	79	37
Don't know	2	0	1	4	3	1	3	1	15	7
Did not respond	1	1	0	1	1	0	1	0	5	2
Grand Totals	27	26	31	26	37	21	22	23	213	100

Degree to which respondents would major in interior design. Item Nineteen asked the alumni to respond to the following question: "Based on your knowledge of the interior design profession, if you were to choose your university major again, you would choose interior design." Twenty-three percent of the respondents agreed strongly, and 22% agreed somewhat. Together the respondents who agreed either "somewhat" or "strongly" accounted for 45% of the total responses. Conversely, 24% of the respondents disagreed somewhat, while 20% disagreed strongly. Together, the respondents who disagreed, either "somewhat" or "strongly" accounted for 45% of the total responses. Ten percent of the respondents did not know how they felt about the statement (see Table 19).

Item Twenty - reasons for response in Item Nineteen. Item Twenty was an open-ended question which asked alumni to indicate reasons for their responses in the Item Nineteen. Of the 213 possible respondents 199 (93%) answered the question. Content analysis was undertaken to determine the positive and negative aspects of the University of Manitoba Interior design Program. Positive references toward the University of Manitoba Interior Design Program were provided by 19 respondents, while negative comments towards the program were expressed by 29 respondents. Five responses contained both positive and negative comments.

Among the positive comments provided by respondents, the following three themes were apparent:

1. The University of Manitoba Program provides students with a "good design base" ($n = 7$).

2. The four year Interior Design Program provided students with an education that was "well-rounded" ($\underline{n} = 4$).

3. In the Interior Design profession, the University of Manitoba graduates are recognized for their excellent interior design education ($\underline{n} = 3$).

In the negative comments provided by alumni, the following five themes were apparent:

1. The program did not contain enough emphasis on real life application of interior design ($\underline{n} = 8$).

2. The program did not provide students with a realistic impression of the interior design profession ($\underline{n} = 5$).

3. The program was too specialized, and not broad enough in scope ($\underline{n} = 4$).

4. There was too much emphasis on presentations rather than on practical and business skills ($\underline{n} = 4$).

5. The program did not prepare graduates for employment in the field of interior design ($\underline{n} = 2$).

The themes found in the responses that contained both positive and negative comments concerning the Interior design Program were similar to the comments stated above. The implications of the comments concerning the University of Manitoba Interior Design Program, as well as responses representing other "trends" in Item Twenty, are discussed in more detail in the third portion of this Chapter.

Table 19

Cross-tabulation of Respondents Who Would Major in Interior Design and Graduating Year N = 213

	Graduating Year									
	79	80	81	87	88	89	90	91	Total <u>n</u>	%
Agree										
Somewhat	6	6	4	6	6	5	6	8	47	22
Strongly	6	5	8	7	8	5	4	6	49	23
Totals	12	11	12	13	14	10	10	14	96	45
Disagree										
Somewhat	9	4	10	3	13	2	4	7	52	24
Strongly	4	9	7	6	6	5	4	2	43	20
Totals	13	13	17	9	19	7	8	9	95	45
Don't know	2	2	2	4	4	4	4	0	22	10
Grand Totals	27	26	31	26	37	21	22	23	213	100

Degree to which CADD should be compulsory in the University of Manitoba Interior Design Program. In Item Twenty-one respondents were asked to indicate the degree to which they believed that computer-aided drafting and design (CADD) should be compulsory in the University of Manitoba Interior Design Program. The majority of respondents, 77%, agreed strongly, while 18% agreed somewhat. Together, those who agreed either "somewhat" or "strongly" account for 94% of the 213 responses. Six respondents (3%) did not know if CADD should be compulsory (see Table 20).

Student Internship Program. Item Twenty-two asked the following question: "While studying interior design at the University of Manitoba, did you participate in the Student Internship Program?". Almost three quarters of the respondents, 73%, had not participated in the program, while 22% did participate in the program. Five percent of the respondents did not recall whether or not they had participated. Table 21 provides the results of a cross-tabulation between Item Twenty-two and Item Two (year of graduation).

Degree of helpfulness of Student Internship Program. Item Twenty-three ("To what extent was the Student Internship Program helpful to you in the development of your career?") was answered by the 22% of the respondents who had participated in the Student Internship Program. This item asked respondents to indicate the degree to which they thought the Internship Program was helpful to them in the development of their career. For the purpose of presenting more meaningful results, the percentages shown in Table 22 are based on the

Table 20

Cross-tabulation of the Degree to Which CADD Should be Compulsory in The University of Manitoba
Interior Design Program and Graduating Year N = 213

	Graduating Year								Total <u>n</u>	%
	79	80	81	87	88	89	90	91		
Agree										
Somewhat	8	4	9	7	2	5	2	1	38	18
Strongly	18	20	18	17	34	15	19	22	163	77
Totals	26	24	27	24	36	20	21	23	201	94
Disagree										
Somewhat	0	1	2	0	0	0	0	0	3	1
Strongly	0	1	0	1	1	0	0	0	3	1
Totals	0	2	2	1	1	0	0	0	6	3
Don't know	1	0	2	1	0	1	1	0	6	3
Grand Totals	27	26	31	26	37	21	22	23	213	100

Table 21

Cross-tabulation Of Respondents Who Participated in The Student Internship Program and Graduating Year N = 213

	Graduating Year								Total <u>n</u>	%
	79	80	81	87	88	89	90	91		
No	25	24	23	19	28	9	16	12	156	73
Yes	1	1	3	7	8	10	5	11	46	22
Don't Recall	1	1	4	0	1	2	1	0	10	5
Did not respond	0	0	1	0	0	0	0	0	1	.4
Totals	27	26	31	26	37	21	22	23	213	100

total number of respondents who participated in the Student Internship program. The results show that 85% of the respondents claimed that the program was either "very helpful", or "somewhat helpful". Only 15% stated that the program was "not too helpful", or that it was "not helpful at all" (see Table 22).

Table 22

Degree of Helpfulness of Student Internship Program $n = 46$

	<u>n</u>	<u>%</u>
Helpful		
Very helpful	21	46
Somewhat helpful	18	39
Totals	39	85
Not Helpful		
Not at all helpful	4	9
Not too helpful	3	7
Totals	7	15
Don't know	0	0
Grand Totals	46	100

Note. Did not respond because they had not participated in the Student Internship Program $n = 167$

Areas that are important in interior design. Item Twenty-four asked respondents to select up to 10 items (from a list of 82) that they believed, overall, were the most important in interior design. Although most respondents selected ten categories, a number of respondents selected fewer than 10. Provided in Table 23 is a summary of the number of categories selected by the respondents. One respondent did not answer the question.

Table 23

Number of Categories Selected by Respondents in Item Twenty-fourn = 212

No. of categories selected	<u>n</u>	Totals
1	0	0
2	1	2
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	2	16
9	4	36
10	205	2050
Totals	212	2104^a

Note. Did not respond n = 1

^a Total possible if all respondents selected 10 categories n = 2120

A total of 13 categories (because of two ties; one tie was between two categories, and the other was a three-way tie) represent the top 10 most frequently selected categories. The rank order of the top 10 categories, along with the frequencies with which each was selected, are presented in Appendix E. The top 10 categories included the following:

1. Working drawings ($\underline{n} = 138$)
2. Space planning ($\underline{n} = 118$)
3. Design principles ($\underline{n} = 87$)
4. CADD ($\underline{n} = 81$)
Oral communication ($\underline{n} = 81$)
5. Drafting ($\underline{n} = 80$)
6. Interior architectural details ($\underline{n} = 70$)
7. Project management ($\underline{n} = 68$)
8. Materials and application ($\underline{n} = 67$)
9. Commercial design ($\underline{n} = 56$)
10. Structure and construction ($\underline{n} = 50$)
Building codes ($\underline{n} = 50$)
Design process ($\underline{n} = 50$).

Because several ties occurred (in the frequency with which the category was selected), 33 categories constituted the ten categories ranked the least important in interior design. These categories included the following:

1. Fire codes ($\underline{n} = 10$)
Site supervision ($\underline{n} = 10$)
2. Handicapped codes ($\underline{n} = 9$)
Public relations ($\underline{n} = 9$)

3. Electrical (n = 8)
 - Issues of the trade (n = 8)
4. Presentation boards (n = 7)
5. Perspective drawing (n = 6)
 - Design for disabled (n = 6)
 - Research methods (n = 6)
6. Furniture construction (n = 4)
 - Carpeting (n = 4)
7. Acoustics (n = 3)
 - Furniture selection (n = 3)
 - Rendering (n = 3)
 - Design for elderly (n = 3)
 - Labour and trade relations (n = 3)
 - Fabric (n = 3)
 - Furniture design (n = 3)
8. Energy conservation (n = 2)
9. HVAC (n = 1)
 - Model building (n = 1)
 - Historic preservation (n = 1)
 - Word processing (n = 1)
 - Lettering (n = 1)
 - Ceramics (n = 1)
 - Wood (n = 1)
10. Plumbing (n = 0)
 - Photography (n = 0)
 - Glass (n = 0)
 - Masonry (n = 0)
 - Metals (n = 0)
 - Plastics (n = 0)

Areas important in interior design but which were not studied in the University of Manitoba Interior Design Program. Item Twenty-five asked respondents to select 10 categories (from the same list of 82 categories used in Item Twenty-four) which they considered to be important in interior design, but which they did not study during their particular time in the University of Manitoba Interior Design Program. As in Item Twenty-four, most of the respondents selected ten categories. A number of respondents, however, did select fewer than 10 categories. Provided in Table 24 is a summary of the number of categories selected by the respondents.

Table 24

Number of Categories Selected by Respondents in Item Twenty-five
n = 207

No. of categories selected	<u>n</u>	Totals
1	1	1
2	2	4
3	1	3
4	1	4
5	4	20
6	5	30
7	6	42
8	6	48
9	6	54
10	174	1740
Totals	207	1946^a

Note. Did not respond n = 6

^a Total possible if each respondent selected 10 categories n = 2070

Appendix F provides a complete list of the 82 categories, ranked in order of the frequency each category was selected. In this item, the top 10 ranked categories included the following:

1. CADD ($\underline{n} = 149$)
2. Project management ($\underline{n} = 111$)
3. Budget management ($\underline{n} = 105$)
4. Building codes ($\underline{n} = 101$)
5. Tendering/bidding processes ($\underline{n} = 81$)
6. Client management ($\underline{n} = 76$)
7. Marketing ($\underline{n} = 74$)
8. Business practices ($\underline{n} = 68$)
9. Specification writing ($\underline{n} = 61$)
10. Laws and liabilities ($\underline{n} = 59$)

Because several ties occurred (in the frequency with which the category was selected), 36 categories constituted the ten categories ranked the least important in interior design. These categories included the following:

1. Furniture design ($\underline{n} = 11$)
2. Drafting ($\underline{n} = 10$)
History of interior design ($\underline{n} = 10$)
3. Adaptive use ($\underline{n} = 9$)
4. Cabinetry details ($\underline{n} = 7$)
Furniture construction ($\underline{n} = 7$)
Concept development ($\underline{n} = 7$)
5. Photography ($\underline{n} = 5$)
Anthropometrics ($\underline{n} = 5$)
Graphic communication ($\underline{n} = 5$)
Carpeting ($\underline{n} = 5$)

6. Furniture selection (n = 4)
 Sketching (n = 4)
 Presentation boards (n = 4)
7. Commercial design (n = 3)
 History of furniture (n = 3)
 Design process (n = 3)
8. Model building (n = 2)
 Rendering (n = 2)
 Lettering (n = 2)
 Textiles (n = 2)
 Metals (n = 2)
 Space planning (n = 2)
9. Perspective drawing (n = 1)
 Fabric (n = 1)
 Plastics (n = 1)
 Wood (n = 1)
 Color theory (n = 1)
 Design principles (n = 1)
 Design theory (n = 1)
10. Residential design (n = 0)
 History of art (n = 0)
 History of architecture (n = 0)
 Ceramics (n = 0)
 Glass (n = 0)
 Masonry (n = 0)

Items Twenty-four and Twenty-five provided a substantial portion of important information which is critical to the study research questions. A more detailed discussion and analysis of these two items is presented in the next section (see Research Questions Three and Four).

The results reported in the above portion of Chapter Four provide the data from which conclusions, implications, and recommendations have

been formulated. The next section focuses specifically on the analysis and discussion of the results presented so far. As stated at the beginning of this Chapter, the analysis and discussion portion of the results section begins with the discussion of Research Question One.

Analysis and Discussion of Research Questions

The data obtained from the questionnaire survey have been provided in the previous section. The intent of this section is to analyze and synthesize the results described in the previous section. By doing so, the best possible answers to the research questions stated below are provided. The discussion format for each research question begins with a brief statement of the data used in the analysis of the question, and then includes a discussion of the implications of such data. The analysis and discussion of each of the four Research Questions are useful for drawing conclusions about the two general purposes for conducting this investigation.

The problem statement provided at the outset of this report indicated that the purposes of the investigation were twofold: (a) to determine the extent to which graduates of the University of Manitoba Interior Design Program believe they were adequately prepared for employment in interior design, and (b) to provide research-based data which might be valuable to curriculum planners of the Interior Design Program. Part of such curriculum planning might include updating and possibly revising the interior design curriculum at the University of Manitoba. In order to achieve these two research goals, the following four research questions were formulated:

1. Establish the types of employment in which alumni are currently involved.
2. Determine the types of skills and knowledge that alumni use most frequently in their current jobs.
3. Determine which skills and areas of knowledge recent alumni believe are the most important ones in interior design.
4. Determine the particular skills and areas of knowledge which alumni believe are important in interior design but were not offered in the University of Manitoba Interior Design Program which those alumni completed.

Following the procedure described at the beginning of this section, the following discussion addresses Research Question One.

Research Question One

The purpose of the first research question is to determine the current employment status of interior design alumni. Of particular interest and importance is the need to identify, first, the number of graduates who are employed directly in interior design areas. The second most important variable is the number of graduates who are employed in areas only related to interior design. Such a distinction is necessary because it enables curriculum planners to determine the extent to which interior design education is applicable to those areas that are not directly related to interior design. In today's economic situation, where jobs (in any area, not just interior design) seem to be difficult to obtain, it is important that the skills learned in interior design are not limited strictly to interior design.

The results of Research Question One provide Interior Design administrators with a clear indication of how graduates of the program have fared since graduation. Such information is useful because, occasionally, administrators of professional programs are asked to provide statistics concerning graduates of their programs. In this study, the raw data of Item Six (employment status) has already provided interior design administrators at the University of Manitoba with information required for the upcoming accreditation by the Foundation for Interior Design Education Research (FIDER).

The results of Item Six showed that almost three quarters of the respondents (73%) are employed full-time, part-time, or on a contract basis in interior design or related fields. The results of Item Eleven showed that of the respondents who are working in interior design or related areas (either full-time, part-time, or on a contract basis), most (49%) are employed in areas related directly to interior design. Of the 18 types of companies listed in Item Eleven, the following six are considered to be related directly to interior design:

1. Interior design ($\underline{n} = 54$)
2. Combination interior design/architectural ($\underline{n} = 23$)
3. Government ($\underline{n} = 11$)
4. Retail establishment with interior design department ($\underline{n} = 10$)
5. Corporation/industry ($\underline{n} = 6$)
6. Facility management ($\underline{n} = 1$)

The respondents who selected any one of the above six categories accounted for almost half, 49%, of the total number of respondents in the

survey. The remaining 24% of alumni who are employed full-time, part-time, or on a contract basis, are employed in areas related to interior design (Table 11, p. 66 provides the response differentiation for Item Eleven).

The finding that 24% of the alumni are employed in areas related to interior design can be interpreted in at least two different ways. First, it is possible that these respondents deliberately chose to work in areas not directly in interior design. In this case, the fact that they were able to be employed in areas outside of, but related to, interior design implies that the education these respondents received was applicable to areas outside of interior design. For the Department of Interior Design, this interpretation might be viewed as positive because it implies that the Interior Design Program is fairly broad in scope.

The second interpretation possible is that the 24% of alumni employed in areas related to interior design did not have the skills necessary for employment directly in interior design. In this case, the results might be viewed as a negative reflection on the Department of Interior Design. In either interpretation, however, further investigation is required to determine the degree to which the multitude of interior design skills acquired during the time spent in the Interior Design Program is helpful in those areas considered to be related to interior design. Further investigation is also required to determine the reasons for which respondents are employed where they are.

It is difficult to assess, from Items Six and Eleven alone, whether or not alumni believe that they were prepared adequately for employment

in interior design or in related areas. Further investigation is required to determine whether or not a relationship exists between employment status and the degree to which respondents feel adequately prepared for employment in the field. Further investigation is required on the grounds that sometimes people can be employed in areas for which they feel they have not been adequately prepared.

Interior design curriculum planners and administrators can use the results of Research Question One to determine whether or not, out of 213 potential respondents, 24% is an appropriate number of graduates to be employed in areas only related to interior design. Such information will assist curriculum planners in assessing the suitability of the content of the present program. Provided in the next section are even more data which, undoubtedly, will assist interior design curriculum planners and administrators to assess, accurately, the quality of the University of Manitoba Interior Design Program.

Research Question Two

Research Question Two was designed to "determine the types of skills and knowledge that alumni use most frequently in their current jobs." The information obtained through the analysis of this research question is critical to determining the effectiveness and appropriateness of courses in the University of Manitoba Interior Design Program. In answering the second research question, the data from Item Fourteen are particularly relevant. Item Fourteen was stated as follows: "From the list provided, circle those areas which describe the responsibilities you have

in your current position. Circle the five responsibilities that take the majority of your time."

Determining the types of responsibilities graduates perform in their jobs provides interior design curriculum planners with a precise indication of which skills and knowledge are used most frequently in the interior design profession. Such information is important especially in assessing the relevancy, to the professional field, of the interior design program and the course content. With the results obtained in Item Fourteen, informed decisions can be made to determine which, if any, areas of the curriculum require upgrading or modification.

In the analysis of Item Fourteen strong evidence exists to support the notion that, in the graduating years of 1979, 80, 81, 87, 88, 89, 90, and 91, the course content in the University of Manitoba Interior Design Program was such that alumni believe they were provided with the education, knowledge, and skills necessary for a successful career in interior design. The evidence supporting this notion is presented in the following discussion of the results from Research Question Two.

In Item Fourteen, 22 response categories were provided. Results showed that the six responsibilities selected most frequently included the following:

1. Space planning (\underline{n} = 90)
2. Meeting clients (\underline{n} = 77)
3. Conceptual design (\underline{n} = 59)
4. Technical or working drawings (\underline{n} = 58)
5. Manual style drafting (\underline{n} = 54)
- Project management (\underline{n} = 54)

Considered alone, the six responsibilities listed above provide useful information not only for interior design curriculum planners, educators, and administrators, but for interior design students as well. If these results could be made available to students who are in their first year of the interior design program, the data might assist students to develop a realistic impression of the interior design profession. By knowing the specific types of responsibilities interior designers are expected to perform, upcoming interior design graduates might experience fewer difficulties in the transition from interior design school to the interior design profession.

The six responsibilities listed above are also important when compared to the categories selected most frequently by respondents in Item Twenty-five. (Item Twenty-five asked respondents to indicate the 10 areas that are important in interior design but that they did not study in the University of Manitoba Interior Design Program.) The results of this comparison are important because they demonstrate that, with the exception of "client management", the remaining top five responsibilities in Item Fourteen ranked 17th or lower in Item Twenty-five (see Table 25). A ranking high in Item Fourteen, but low in Item Twenty-five indicates that, for that particular category, respondents believe that they were prepared adequately to assume that responsibility. Had the respondents not felt this way, they probably would have ranked higher, in Item Twenty-five, the responsibilities that they performed most frequently.

Another valid explanation of the comparison between Items Fourteen and Twenty-five is that because the respondents perform certain tasks more frequently than others, they feel more competent at performing them. In this case, if the respondents feel comfortable with the responsibilities they have, then they would probably not indicate that those areas were not studied in the Interior Design Program. It might be assumed that, after having fulfilled certain responsibilities over an extended period of time, many respondents would forget the degree to which they felt competent at performing the responsibility the first time they were required to do so. Consequently, the results obtained in Item Twenty-five may have been influenced by the amount of time, or by the amount of experience, a particular respondent may have had in performing a particular responsibility.

Table 25

Comparison of the Five Top Ranked Categories in Item Fourteen and their Position in Item Twenty-five

Category	Rank in Item 14 ^a	Rank in Item 25 ^b
Space planning	1	4 2
Meeting clients	2	6
Conceptual design	3	3 8
Technical/working drawings	4	1 7
Drafting (manual style)	5	3 6
Project management	5	2

Note. ^a Total categories = 22

^b Total categories = 44

A comparison of the six responsibilities ranked the lowest in Item Fourteen with the same categories in Item Twenty-five also revealed some important information. The six responsibilities selected least frequently in Item Fourteen were as follows:

1. Preparation of budgets for tender ($\underline{n} = 18$)
2. Technical/specification writing ($\underline{n} = 15$)
Furniture inventory ($\underline{n} = 15$)
3. Presentation perspectives/rendering ($\underline{n} = 14$)
4. Teaching ($\underline{n} = 12$)
5. Product design ($\underline{n} = 7$)

The analysis of the comparison between the six least frequently selected responsibilities in Item Fourteen, and the same six categories in Item Twenty-five revealed the following: even though the respondents did not spend much time on, or have the responsibility for, preparing budgets or writing specifications, they ranked these two items as being important ones in interior design, and as ones that they did not study in the University of Manitoba Interior Design Program. Such a finding might be interpreted in two different ways.

Possibility one: if the respondents did not have the responsibility of preparing budgets or of writing specifications, then it is possible that they did not have the education necessary to take on such responsibilities. This interpretation is arguable because the results of Item Twenty-five showed that a large portion of all respondents ranked budgets and technical/specification writing as being third ($\underline{n} = 105$), and ninth ($\underline{n} = 61$) respectively.

Possibility two: the respondents simply were not required by their employers to perform such tasks. For both possibilities, however, further investigation would seem warranted to determine the precise reasons that certain responsibilities were selected more frequently than others.

The analysis of Item Fourteen is important to curriculum planners and to the Department of Interior Design because it indicates that graduates seem to believe they were prepared adequately for the responsibilities assigned to them in their current positions. In addition, the comparative analysis of Items Fourteen and Twenty-five implies that in 1979, 1980, 1981, and from 1987 to 1991, the courses in the University of Manitoba Interior Design Program were appropriate for the needs of the profession. Without discussion of Research Questions Three and Four, the results of Research Questions One and Two already suggest that graduates of the University of Manitoba Interior Design Program are prepared adequately for employment in the field of interior design. Further evidence to support this notion is presented in upcoming discussions.

Table 26

Comparison of the Five Bottom Ranked Categories in Item Fourteen and Their Position in Item Twenty-five

Category	Rank in Item 14 ^a	Rank in Item 25 ^b
Preparation of budgets for tender	1	3
Technical/specification writing	2	9
Furniture inventory	2	N/A ^c
Presentations	3	42
Teaching	4	N/A ^c
Product Design	5	N/A ^c

Note. ^a Total categories = 22

^b Total categories = 44

^c The comparison between these two Items was not planned beforehand. Consequently, the wording of the response categories provided in Items Fourteen and Twenty-five was not the same.

Research Question Three

The focus of Research Question Three was to "determine the skills and areas of knowledge interior design alumni believe are the most important ones in interior design." The results of Item Twenty-four answered this question directly. For the purposes of curriculum planning, the results of Item Twenty-four are important because they reflect what graduates believed, in September, 1992, were the most important aspects

of the interior design field. In a profession which is continuously changing in order to remain current, it is important that interior design curriculum planners remain knowledgeable on aspects of design which are being promoted in the field. Consequently, this investigation provides curriculum planners with up-to-date information from interior design alumni.

In Item Twenty-four, the 82 response categories were grouped into eight sections including the following:

1. Technical knowledge/skills
2. Design types
3. Human factors
4. History
5. Profession
6. Communication skills
7. Materials and textiles
8. Education and theory

The 10 top ranked categories from Item Twenty-four are presented in Table 27. Table 27 also provides the 10 top ranked categories found in a study conducted by Baker and Sondhi (1989). The results of the study by Baker and Sondhi are compared to the results of this investigation because of the similarities found to exist between the two studies. A comparison between the two studies is also warranted because the 82-item list used in this study is actually a revised version of the 92-item list used in the Baker and Sondhi study.

Table 27

Comparison of the 10 Top Ranked Categories in Item Twenty-four and in the Baker and Sondhi (1989) Study

Rank in Item 24 ^a	Rank in Baker & Sondhi (1989) ^b
1. Working drawings	1. Problem solving
2. Space planning	2. Oral communication skills
3. Design principles	3. Design concept
4. CADD	4. Spatial composition
5. Oral communication	5. Ethics
6. Drafting	6. Space planning
7. Interior Architectural details	7. Commercial design
8. Project management	8. Conceptualizing
9. Materials and application	9. Drafting
10. Commercial design	10. Design process
Structure and construction	
Building codes	
Design process	

Note. ^a Total categories = 82

^b Total categories = 92

Baker and Sondhi (1989) attempted to determine the top 10 competencies needed by entry-level interior designers. The researchers surveyed the administrators of the top interior design firms in the United States. This investigator surveyed both recent and more senior alumni of the University of Manitoba Interior Design Program. Unfortunately, Baker and Sondhi did not state the length of time the respondents in their study had been working in the interior design field, but a logical guess is that because the respondents are administrators, they have probably been working in the field for at least 15 years. Despite the different sample populations used in each study, the results of these two studies (Baker & Sondhi, and the current study) showed that five of the top 10 competencies were the same in each study. These five competencies included the following:

1. Oral communication
2. Space planning
3. Commercial design
4. Drafting
5. Design process

The realization that at least half of the top 10 professional competencies in interior design were found to be identified again in the current study is important. Such a finding demonstrates, with increasing certainty, the value of alumni studies.

Additional comparisons between this study and the Baker and Sondhi (1989) study reveal that, in the opinion of interior design alumni, CADD has become more important since 1989. In the Baker and Sondhi

study, CADD ranked 62nd out of 92 possible competencies. In the present study, alumni ranked CADD 4th out of 82 possible categories. This finding is not surprising because since 1989, the interest in computer technology has increased dramatically in all professions, not just interior design. In 1992, the University of Manitoba Interior Design Department recognized the increasing importance of CADD by requiring all second-year students to complete a course in computer-aided design and drafting.

Another comparison between this study and the Baker and Sondhi (1989) study reveals that interior design alumni rated "project management" in eighth position, while in the Baker and Sondhi study, interior design administrators ranked the same competency in 71st position. Possibly, competency in the area of project management was not ranked high by interior design administrators because it was perceived as being a skill that is not required for entry-level positions. Nonetheless, according to interior design alumni, project management is an important area in interior design (it was ranked the second highest of the 82 possible categories). Given this finding, interior design curriculum planners and educators have at least two options. First, they can assess the degree to which education in the area of project management is currently being provided. Following such an assessment, interior design educators may decide to modify the course content related to project management. The second option is to conduct further investigations to determine the point in one's interior design career at which project management becomes an important competency. Potentially, the results of such a study could show that project management skills are ones that

can be learned on the job. If this were the case, then interior design curriculum planners could be less concerned with finding ways to provide education in the area of project management.

The analysis of Research Question Three shows that both interior design alumni and interior design administrators have similar concerns regarding the competencies which are important in interior design. For interior design educators, curriculum planners, and administrators, the similarity of thought (between alumni and administrators) on the issue concerning what is important in interior design provides strong evidence that the top 10 categories in Item Twenty-four are, indeed, areas of the interior design curriculum that ought to be evaluated by the Department of Interior Design. Such an evaluation would enable interior design educators to assess whether or not, or to what degree, each competency indicated in the top 10 is included in the interior design curriculum. Other areas of the curriculum that ought to be evaluated and assessed to bring them up-to-date are found in the results of Item Twenty-five which are considered next.

Research Question Four

Item Twenty-five of the survey questionnaire answers, directly, Research Question Four. Item Twenty-five was stated as follows: "From the list provided on the following page, circle the ten (10) areas which you believe are important in interior design but did not study in your interior design education." The purpose of obtaining this information was to provide curriculum planners with a list of those areas that could be added, updated, or deleted from the present program. In addition,

information important for curriculum planners is obtained by comparing the results of Item Twenty-four with the results of Item Twenty-five. The analysis of such a comparison shows that, for the most part, the areas that alumni believe are the most important ones in interior design (Item 24), are areas that alumni believe were studied adequately in the University of Manitoba Interior Design Program. A more detailed explanation of this notion is presented shortly. First, however, the implications of the findings of Item Twenty-five are presented. Table 28 shows the 10 categories selected most frequently in Item Twenty-five.

Table 28

The 10 Top Ranked Categories in Item Twenty-five n = 207

	n
1. CADD	149
2. Project management	111
3. Budget management	105
4. Building codes	101
5. Tendering/bidding process	81
6. Client management	76
7. Marketing	74
8. Business practices	68
9. Specification writing	61
10. Laws and liability	59
Totals	885^a

Note. ^a Total possible if each respondent selected 10 categories $\underline{n} = 2070$

The analysis of these items revealed four important results. First, although alumni indicated that "CADD" was not studied in the University of Manitoba Interior Design Program, the Department of Interior Design at the University of Manitoba has since added CADD to the curriculum. CADD is now a required course for second-year students. The fact that alumni ranked CADD as the most important category (out of 82), supports the decision of the Department of Interior Design to include CADD in the program.

The second reason the comparison between Items Twenty-four and Twenty-five is important concerns a study conducted by Shannon Tew (1992). Results of this study showed that even though interior design and architecture graduates seem to desire more education in the area of business skills (which, in Item Twenty-five, are under the heading of "profession"), such an education is not significantly related to the employability of the graduates. In addition, with data from 312 interior design and architecture graduates from 1984 to 1986, Shannon Tew found that "When graduates rated their program's degree of focus on business skills as low, they compensated by learning needed skills on the job." (p. 51) For the University of Manitoba interior design curriculum planners, educators, and administrators, the results of the Shannon Tew study are important because they provide further data which they can use to assess the program curriculum.

In the present study, the results of Item Twenty-five pinpoint areas in the curriculum which, potentially, could be upgraded or revised; however, it was not the purpose of the study to investigate which of those

skills could be learned on the job. Consequently, evidence from the Shannon Tew (1992) study provides interior design curriculum planners with further information which will be useful for assessing whether or not, or to what degree, the professional practice or business skills components of the curriculum can be revised.

With the results obtained in the Shannon Tew (1992) study, interior design curriculum planners may decide that the current method of providing professional and business skills education is adequate and appropriate for the needs of the profession. However, one reason curriculum planners and educators may want to consider revising the way these competencies are taught is that a number of alumni seem to believe that the University of Manitoba Interior Design Program provides students with an inaccurate portrait of how the interior design profession operates. (This concept is discussed more thoroughly in the upcoming analysis of Item Twenty.) By receiving a more accurate vision of the business and professional aspects of the interior design profession, students would probably experience fewer difficulties in the transition from university to the work force. Interestingly, Shannon Tew recommended that internship or cooperative education programs might relieve some of the misconceptions that seem to develop while in school. Findings from the study reported here seem to support Shannon Tew's recommendation. Further discussion of internship and cooperative education programs is provided in Chapter Five.

The third important result of Item Twenty-five is apparent when the results of Item Twenty-five are compared to the results of the study

by Baker and Sondhi (1989). Table 29 shows the 10 categories selected most frequently in the present study, and how the same categories were ranked in the Baker and Sondhi study.

Table 29

Comparison of Item Twenty-five and the Baker and Sondhi (1989) Study

	Rank	
	Item 25 ^a	Baker & Sondhi (1989) ^b
CADD	1	62
Project management	2	71
Budget management	3	81
Building codes	4	41
Tendering/bidding process	5	89
Client management	6	64
Marketing	7	N/A ^c
Business practices	8	70
Specification writing	9	67
Laws/liability	10	65

Note. ^a Total categories possible = 44

^b Total categories possible = 92

^c Category with the same name was not available

Results of the comparison between the present study and the Baker and Sondhi (1989) study reveal the following: the 10 categories which alumni believe are important but were not studied in the University of Manitoba Interior Design Program are ranked, in the Baker and Sondhi study, in the lower half of the 92 possible categories (except building codes which was ranked 41st). Because the Baker and Sondhi (1989) study focused on entry-level competencies required by interior design graduates, however, the competencies related to professional practice and to business were probably not believed to be important ones for first-time interior design employees. In the present study, the professional practice and business areas of interior design were probably ranked higher because some of the respondents had been working in the field for over 11 years. Having been in the field for over 11 years, these respondents are probably more involved (than first-time employees) in the business aspects of interior design. Consequently, it is probably the older alumni who indicated that the professional and business aspects of design are important aspects of interior design that were not studied (to the extent necessary) in the Interior Design Program. Again, further investigation is required to determine the point in one's interior design career when professional practice and business skills become important. Such an investigation also raises the question of whether or not such skills should be learned in school or learned on the job.

The fourth and final observation concerning Research Question Four is related to Research Question Three. A comparison of the results of Items Twenty-four and Twenty-five shows that with the exception of

"CADD", "project management", and "working drawings", the other top 10 categories in Item Twenty-four were ranked much lower on the list in Item Twenty-five. Such a difference in ranking indicates that, except for those three areas (CADD, project management, and working drawings), many respondents believe that the issues that are important in interior design are areas that were actually studied in the University of Manitoba Interior Design Program. This finding is important because it implies that the interior design program (in 1979 to 1981, and 1987 to 1991) provided courses which are important in interior design. Furthermore, considering the unelicited comments provided in Item Twenty-five (discussed below), results indicate that the University of Manitoba Interior Design Program provides students with exposure to most of the topics that are important in interior design. This researcher believes that, within the four year limit for attaining a baccalaureate degree in interior design, certain limitations can be expected concerning how much education can be provided. It seems unrealistic to expect that interior design educators, within a four year period, would be able to provide their students with all of the knowledge necessary for a profession as complex as that of interior design. Possibly, the need exists for an after-degree program in which students could acquire even more skills and knowledge in interior design.

In addition to the analysis discussed so far, the results of item Twenty-five revealed an interesting and somewhat surprising number of unelicited written comments. The implications of these comments are considered next.

Unelicited comments in Item Twenty-five. In Item Twenty-five, 48 unelicited comments were provided by 23 respondents. Although the question did not direct respondents to provide any written information, a considerable portion of them (11%) voluntarily indicated areas that were studied but not to the degree that they believed was necessary. The notion that some areas of the interior design program were studied, but not to the extent that alumni believed was required, is important for curriculum planners. Such information points, clearly, to the areas of the curriculum that seem, in the opinion of some alumni, to require upgrading. The following areas were listed by alumni as being studied but not to the degree they believe is necessary:

Technical Knowledge/Skills

1. Working drawings ($\underline{n} = 5$)
2. Lighting ($\underline{n} = 3$)
3. Electrical ($\underline{n} = 2$)
4. Structure and construction ($\underline{n} = 2$)
5. Specification writing ($\underline{n} = 2$)
6. Building codes ($\underline{n} = 2$)
7. HVAC ($\underline{n} = 1$)
8. Building Systems ($\underline{n} = 1$)
9. Environmental concerns ($\underline{n} = 1$)
10. Cabinetry details ($\underline{n} = 1$)
11. Interior architectural details ($\underline{n} = 1$)
12. Fire codes ($\underline{n} = 1$)
13. Handicapped codes ($\underline{n} = 1$)
14. Furniture selection ($\underline{n} = 1$)

Design Types

15. Historic preservation ($\underline{n} = 2$)
16. Renovation ($\underline{n} = 1$)

Profession

17. Project budget management ($\underline{n} = 4$)
18. Project management ($\underline{n} = 3$)
19. Tendering/bidding process ($\underline{n} = 2$)
20. Schedules ($\underline{n} = 2$)
21. Site supervision ($\underline{n} = 2$)
22. Laws and liability ($\underline{n} = 1$)
23. Salesmanship ($\underline{n} = 1$)

Materials and Textiles

24. Materials and application ($\underline{n} = 1$)
25. Textiles (in general) ($\underline{n} = 1$)

Education and Theory

26. CADD ($\underline{n} = 4$)

Interestingly, most of these unelicited comments are in the section on technical skills and knowledge. This finding implies that although the Interior Design Program provided some education in these areas, some alumni believe that an insufficient amount of education was provided in certain aspects.

The analysis and discussion of each research question described above revealed a number of important results. These results can be used, profitably, by curriculum planners at the University of Manitoba to upgrade or to revise the Interior Design Program. The following section summarizes, in point form, the results found in the analysis of the four research questions.

Summary of Research Questions

1. Almost three-quarters of the respondents (73%) are employed full-time, part-time, or on a contract basis in interior design or related areas.

2. The majority of alumni (49%) working in interior design (full-time, part-time, or on a contract basis) are employed by companies which are directly involved in interior design. The remaining 24% of the respondents are employed in areas related to interior design.

3. For those respondents employed in interior design or in related areas (full-time, part-time, or on a contract basis), the six responsibilities that take the majority of their time include:

- a) Space planning ($\underline{n} = 90$)
- b) Meeting clients ($\underline{n} = 77$)
- c) Conceptual design ($\underline{n} = 59$)
- d) Technical or working drawings ($\underline{n} = 58$)
- e) Manual style drafting ($\underline{n} = 54$)
- f) Project management ($\underline{n} = 54$)

4. With the exception of "meeting clients", the six responsibilities listed in number three (above) are areas which alumni believe were covered adequately by the University of Manitoba Interior Design Program.

5. For those respondents employed in interior design or in related areas (full-time, part-time, or on a contract basis), the six responsibilities that take the least of their time include:

- a) Preparation of budgets for tender ($\underline{n} = 18$)
- b) Technical/specification writing ($\underline{n} = 15$)
- c) Furniture inventory ($\underline{n} = 15$)
- d) Presentations (i.e., perspectives, rendering) ($\underline{n} = 14$)
- e) Teaching ($\underline{n} = 12$)
- f) Product design ($\underline{n} = 7$)

6. A comparison of number five (above) and Item Twenty-five reveals that even though respondents did not spend much time (or have the responsibility for) preparing budgets or writing specifications, they ranked these two items as being important ones in interior design, and as ones that they did not study in the University of Manitoba Interior Design Program. In Item Twenty-five "preparation of budgets" ranked third, and "technical/specification writing" ranked ninth.

7. Alumni indicated that the following 13 categories are the most important areas in interior design:

- a) Working drawings (n = 138)
- b) Space planning (n = 118)
- c) Design principles (n = 87)
- d) CADD (n = 81)
- e) Oral communication (n = 81)
- f) Drafting (n = 80)
- g) Interior architectural details (n = 70)
- h) Project management (n = 68)
- i) Materials and application (n = 67)
- j) Commercial design (n = 56)
- k) Structure and construction (n = 50)
- l) Building codes (n = 50)
- m) Design process (n = 50)

8. Five of the categories listed in number seven (above) are the same five categories which constituted half of the top 10 competencies identified in a study by Baker and Sondhi (1989). The five categories

found in the results of this study and in the Baker and Sondhi study include the following:

- a) Oral communication
- b) Space planning
- c) Commercial design
- d) Drafting
- e) Design process

9. Compared to interior design administrators (who were surveyed in the Baker & Sondhi [1989] study), interior design alumni ranked "CADD" and "project management" much higher, indicating that they are two of the most important aspects of interior design. (It should be noted that in the Baker and Sondhi study, the respondents were asked which competencies were important for entry-level employees, as opposed to being asked what competencies, overall, are the most important in interior design.)

10. Alumni indicated that the following 10 categories are important in interior design, but are ones that were not studied in the University of Manitoba Interior Design Program:

- a) CADD ($\underline{n} = 149$)
- b) Project management ($\underline{n} = 111$)
- c) Budget management ($\underline{n} = 105$)
- d) Building codes ($\underline{n} = 101$)
- e) Tendering/bidding process ($\underline{n} = 81$)
- f) Client management ($\underline{n} = 76$)
- g) Marketing ($\underline{n} = 74$)
- h) Business practices ($\underline{n} = 68$)
- i) Specification writing ($\underline{n} = 61$)
- j) Laws and liability ($\underline{n} = 59$)

11. With the exception of "CADD", "building codes", and "specification writing", the remaining categories (listed above) are from the group "profession" (one of the eight groups within which the 82 responses categories were organized).

12. Even though alumni believe that education related to "business practices" was not provided in the University of Manitoba Interior Design, the results of a study by Shannon Tew (1992) showed that business skills can be learned on the job.

13. The 10 top ranked categories in this study (listed in number 10 above) ranked in the lower half of the results of the Baker and Sondhi (1989) study. (Again, Baker & Sondhi were studying the entry-level competencies required for employees.)

14. A comparison of the results of Items Twenty-four and Twenty-five shows that with the exception of "CADD", "project management", and "working drawings", the other top 10 categories in Item Twenty-four were ranked much lower on the list in Item Twenty-five. Such a difference in ranking indicates that, except for those three areas (CADD, project management, and working drawings), many respondents feel that the issues that are important in interior design are areas that were actually studied in the University of Manitoba Interior Design Program.

15. Unelicited comments found in Item Twenty-five reveal that 13 categories in the "technical knowledge/skills" group were studied at the University of Manitoba Interior Design Program, but not to the extent that 23 respondents feel was necessary. In addition, education was

provided in seven categories of the "profession" group, but not to the extent some alumni believe is necessary.

The information provided in the above summary provides interior design curriculum planners, educators, and administrators of the University of Manitoba Interior Design Program with information that can be used to determine the effectiveness of the program, and to assess the appropriateness of the current program. The task of obtaining research-based data for the purpose of making informed decisions concerning the Interior Design Program was one of the general purposes of conducting this study. The second purpose was to determine the extent to which interior design alumni believed that the University of Manitoba interior Design Program prepared them, adequately, for employment in interior design. In the analysis and discussion of the research questions, evidence exists to indicate that, in general, alumni believe that they were prepared adequately for employment in the field. Further evidence to support this notion is found in the analysis of Items Seventeen and Twenty.

Additional Analysis and Discussion

The study results and the analysis of Research Questions One to Four are particularly useful for addressing the second general purpose of this investigation. The data-based results in the first part of Chapter Four, and the discussion provided in the second portion of Chapter Four will enable interior design curriculum planners, educators, and administrators to make informed decisions concerning the Interior Design Program. In terms of the first general purpose of the study (to determine the extent to which alumni believe they were prepared adequately for employment in

interior design), a more detailed discussion of Items Seventeen and Twenty provides the necessary evidence for drawing conclusions. Consequently, the final portion of Chapter Four addresses this important area.

Analysis of Item Seventeen

Item Seventeen asked respondents to respond to the following statement: "The University of Manitoba Interior Design Program adequately prepares students for employment in the field of interior design." The five response categories provided for this item included: (a) disagree strongly, (b) disagree somewhat, (c) agree somewhat, (d) agree strongly, and (e) don't know. Table 17 (p. 79) shows the response differentiation for this item. All 213 respondents (100%) answered the Item. Together, the response categories "agree somewhat" and "agree strongly" accounted for almost two-thirds (66%) of the total number of responses. Those alumni who selected "disagree strongly" or "disagree somewhat" accounted for 33% of the total number of responses. Only three respondents (1%) selected the "don't know" category.

The implications of the findings described in the above paragraph are fairly obvious. The majority of respondents who participated in this study believe that the University of Manitoba Interior Design Program adequately prepares students for employment in interior design. It is difficult to make any inferences from the results of Item Seventeen alone. Fortunately, the written comments provided in Item Twenty provide further insight into why respondents may have responded the way they did. Selected results of Item Twenty are considered next.

Analysis of Item Twenty

The purpose of Item Twenty was to obtain further insight into reasons for which respondents selected the response category they did in Item Nineteen ("Based on your knowledge of the interior design profession, if you were to choose your university major again, you would choose interior design"). The results of Item Nineteen are explained in the first portion of Chapter Four. Interestingly, respondents seemed to use Item Twenty to express more than just their reasons for responding the way they did in Item Nineteen. Consequently, the data obtained in Item Twenty are useful for further discussion.

In the examination of the contents of Item Twenty, two noticeable trends are apparent. First, 25% of the comments made by respondents are related directly to the University of Manitoba Interior Design Program. Second, a rather high number of comments indicate that although some respondents enjoy interior design, the inadequacies of the profession cause a great deal of frustration. Each of these observations is reported below, beginning with the results related to the University of Manitoba Interior Design Program.

From a total of 53 responses, in which direct references are made to the University of Manitoba Interior Design Program, 19 comments are positive, 29 responses are negative, and five responses contain both positive and negative comments. The following statements were made by respondents who have positive feelings towards the program:

1. It's the best program available. My co-workers and employers are from other programs and are not as prepared as I to face

many of the challenges of the profession. University of Manitoba graduates are highly valued as employees.

2. Gave me a good design base to pursue further studies in Landscape Architecture.

3. Interior design proved to be a useful degree and a strong stepping stone to the Architecture program.

4. The interior design program provided a good design base from which one could enlarge.

5. Even though I don't work full-time in the field anymore, I am glad I have my bachelor's in interior design. It does affect many other areas and careers, and [it] does affect one's life and how one sees things.

6. I have learned a life skill. My studies enabled me to understand a variety of related subject areas.

7. The interior design program provided me with a solid foundation in the principles of design which will be of value for my future, no matter what type of job/career I end up doing.

8. The design principles and work ethic acquired in the professional program are valuable and can apply to a variety of related fields.

9. Glad I took the course. A lot of work though, and not many interior design jobs out there. However, [it] gave me an introduction to the design field. Don't regret taking it. And, if I were to do it over again, would do it all the same.

10. It gave me a sensitivity to my surroundings, and a basic sense of good design to be applied to all aspects of my life.

11. The University of Manitoba Interior Design Program provides a wide perspective and the necessary tools to practice [sic] interior design.

12. Excellent background for design theory, concept development, design process, and problem solving which can be applied to a wide range of related fields (and non-related areas to some extent).

13. The course provides a good base of design principles which can be carried over to numerous design related fields, opening up avenues for further study.

14. Even though I am not presently working in the design field, I value the time I spent and the knowledge I gained in the interior design program. I consider it to be a slice of the life experience and knowledge learned in my lifetime. It has given me an understanding of design and of art, which I draw upon constantly.

15. Employers recognize University of Manitoba graduates and respect their knowledge and talent.

16. Variety of exposure to a variety of design disciplines. Strong emphasis on professionalism. Intense course load contained information relevant to interior design and to other disciplines. Excellent preparation for master's when compared to colleagues who have a bachelor's degree in environmental studies.

17. Based on my knowledge and experience with graduates from other programs, the University of Manitoba Interior Design Program prepares students better than any.

18. It is a well rounded program, one of the best.

19. I very strongly value my education from Manitoba's Interior Design Program. I have no regrets.

The comments provided previously seem to indicate that a number of alumni believe the program is well-rounded and provided them with an education that is applicable to other areas of study, and to other areas of life. In addition, several comments suggest that the University of Manitoba Interior Design Program is one that, within the interior design profession, is well respected. Such comments are beneficial to the administrators of the Department of Interior Design because they indicate that alumni believe the program is a good one.

In reference to the University of Manitoba Interior Design Program, the following negative comments were made by 29 respondents:

1. At graduation I didn't feel like I was particularly skilled to jump into the interior design field. I feel we need an apprenticeship program to feel confident in the actual day to day work. Four years was too long with no (or little) practical experience. Summer work in the field (even at reduced wages) would have been excellent.

2. Business management education lacking.

3. The degree from the University of Manitoba is full of useless courses and redundant trivial information, and void of business practical info needed in the real world.

4. The interior design major does not prepare you to enter graduate studies in other fields. The courses are too specialized to enable admittance into other fields of study. Consequently, I believe a general year or two of arts would greatly benefit the interior design degree.

5. An unrealistic impression of the profession was given i.e., employment possibilities and salary expectations.

6. Programme is poorly structured, not emphasizing academics. Courses such as professional practice, materials of the interior, etc. are not worthy of being individual courses. The professors are prone to biases and choosing favorites rather than crediting students, all students, equally for their achievements and improvements. Not enough emphasis is put on actual and realistic projects. Too much emphasis is given on "pretty" presentations which, in the real world, isn't as important as good design solutions.

7. I'd choose architecture which has more depth and breadth - more scope. Also, I'd take business administration courses. Students are poorly prepared for the business world, and today, this is key to survival.

8. I didn't feel sufficiently qualified. Education was rather broad - touched on areas but didn't specialize.

9. The Interior Design Program is sadly lacking technical input and focuses far too much on the artsy stuff. I like the artsy stuff but I learned a lot more from a short course in house construction at NAIT [Northern Alberta Institute of Technology] than from 4 years of design. Now I think I would choose Commerce.

10. The Interior Design Program is somewhat idealistic and does not necessarily reflect the realities of the profession. Most of the time, budget is the bottom line and that was certainly glossed over in school. Also lacking was communication skills training.

11. Education did not adequately suit or reflect the needs of the profession.

12. To a large extent, the skills I use in performing my work were taught inadequately or not at all in the course. Experience would likely have been more valuable than the four years spent in the program.

13. The profession is too glorified during the course, but when you get into the real world and there isn't much work, everything isn't as great as it should be.

14. In many ways I felt that the Interior Design Program had too narrow a focus in terms of professional objectives and tended to impose a naive set of values upon its students. This seems to be manifested to some degree in the profession outside of the university as well.

15. I feel that the courses do not accurately and realistically prepare you for jobs in the design field.

16. Would like to know more about real work not just creative studies.

17. The University of Manitoba Interior Design Program did not prepare people for the real world. This is a service industry and rarely creative.

18. Needs more practical experience.

19. We're not taught to sell ourselves or our skills. We're not taught anything practical. Not enough drafting.

20. The university pumps out too many students, in a field saturated with designers. They push students through the program who should not graduate. If I were to advise someone who wished to take the

course, I would tell them to check out other universities than University of Manitoba.

21. Interior design is an important specialization but I find that a broader knowledge of the building industry would help.

22. I like the creative aspect but don't really know if I'd choose it again, knowing what I know now. Overall, I found a lot of my four years at University of Manitoba unpleasant.

23. The course does not teach practical aspects of running a business. Feel I should have coupled my design schooling with some business courses and possibly at a trade college.

24. Preparation to go into the field to work could be better.

25. Very little business preparation in the program.

26. There are many inadequacies in the University of Manitoba Interior Design Program. Not enough consideration is actually given to "making it" in the world.

27. In looking back, business courses and CAD would have been a significant benefit.

28. This is not a question I feel is important in this survey. What is important is why isn't the program adequate. I think more of the contract documents and business aspects of the profession should have been covered.

29. Autocad must become part of the program, and the business of interior design must become part of the program. That is the reality. Our grads are not prepared for the real world. But I wouldn't trade design for anything else.

The negative comments provided above seem to be directed toward specific aspects of the program or towards specific courses, as opposed to being general in nature. Possibly, the respondents who provided very focused comments may have experienced some negative encounters related to some particular situation. For interior design administrators and curriculum planners, the negative comments are just as beneficial as the positive ones. With such information, which in many cases is very specific, they can address certain areas of a course or of the program and assess whether or not revisions are required.

The following comments contained both positive and negative aspects concerning the University of Manitoba Interior Design Program:

1. Even if the school does not prepare you to for the real world, it gives you a good idea of what the field is about.
2. After five years as an interior designer, I chose to pursue other career opportunities. I have not regretted my decision to terminate my design career. On the other hand, I do not feel that the nine years I devoted to interior design (as a student and designer) were wasted.
3. The design principles and work ethic acquired in the professional program are valuable and can apply to a variety of related fields. However, the curriculum desperately needs to reflect the changing demand for design services, and the increasing number of home operated consulting businesses.
4. The creative aspect of the program and the history/theory was strong but practical skills (i.e. drafting, building code knowledge, detailing) were not emphasized.

5. Although university taught me to see and understand the world of design, it was greatly lacking in practical and realistic skills required in the profession. In the profession the need for creative, conceptual design is well back of the need for strong, aggressive business skills and technical/detailing/computer skills - all of which a four-year university major barely touched on! Hard to imagine in four years there wasn't enough "time" for these areas.

Overall, Item Twenty revealed more negative than positive comments concerning the University of Manitoba Interior Design Program. The negative comments, however, will enable curriculum planners to focus on the areas of the program that, according to some alumni, are the weakest. Using the negative comments, curriculum planners can assess specific areas of the program rather than assess areas of the program that already seem to be satisfactory.

The second trend apparent in the results of Item Twenty reveals that a fair portion of comments, mostly negative, are levelled against the interior design profession. These observations are worthy of discussion because they indicate that the majority of dissatisfaction with interior design is due to the way the interior design profession seems to function, rather than to graduates being prepared inadequately. Based on the thorough analysis of item Twenty, the following seven statements describe, in general, the opinions expressed by 52% of the interior design alumni:

1. Salaries are far too low, especially for the amount of time and the effort required. Salaries are also very low when compared to other professions for which a four-year baccalaureate degree is required ($\underline{n} = 61$).

2. In times of economic recession, interior design seems to be one of the first professions affected. Even when the economy seems to be stable, good interior design jobs are difficult to obtain. Interior design is an unstable and unpredictable profession ($\underline{n} = 31$).

3. Most employers do not provide their employees with enough rewards, benefits, or recognition for the amount of time spent obtaining a four-year interior design degree ($\underline{n} = 27$).

4. The general public does not seem to understand or appreciate what interior designers do. The general public does not seem to understand the difference between the terms "designer" and "decorator" ($\underline{n} = 18$). (For many interior designers, the term "decorator" is considered to be a derogatory one.)

5. The work load and project deadlines are very demanding and very stressful ($\underline{n} = 18$).

6. Interior designers are not respected by employees in related fields such as engineering and architecture ($\underline{n} = 15$).

7. The job market is saturated with too many designers. Competition is fierce and results in a general decrease in salaries, benefits, and employment opportunities ($\underline{n} = 6$).

The following comment, provided by a respondent who chose "agree somewhat" in Item Nineteen ("Based on your knowledge of the

interior design profession, if you were to choose your university major again, you would choose interior design."), may summarize a fair portion of the respondents' concerns:

My experience working eight years full-time in the field as a designer has been that the work is creative, challenging and interesting. However, the working conditions are usually poor, the benefits nonexistent, the pay very low, the hours very long, and the deadlines many. I feel designers are still viewed as 'decorators' by most people outside the profession, and there is often little recognition, in terms of status, for the time spent in training. Design is often viewed as a 'frill'. Hence, one's work is often trivialized. This is especially true in tough economic times.

For the most part, the seven statements listed above reflect the concerns of those respondents who, in Item Nineteen, selected "disagree strongly" and "disagree somewhat". The same seven concerns, however, were also expressed by numerous respondents who selected "agree strongly" and "agree somewhat" in Item Nineteen. In fact, the concern related to low salaries was mentioned consistently by all respondents, regardless of what response category they selected in Item Nineteen.

Considering the results of Item Seventeen (in which 66% of the respondents agreed strongly or agreed somewhat that the University of Manitoba Interior Design Program prepared them adequately for employment in the field) and considering the comments made in Item Twenty, a logical conclusion is that a fair portion of alumni enjoy interior design and feel that they were prepared adequately for employment in

the field, but find interior design to be a very stressful and often unrewarding career. The number of comments related to low salaries, few benefits, and little respect is very high. Such a finding indicates that even though most graduates like the field, they do not like the way they are treated by employers, clients, and other professionals within the field. Such a finding is one of the most important and interesting results of the study.

For years it seems that interior design educators have done almost everything possible to provide students with an interior design education that is suited to the needs of the profession. This notion is supported by the interior design literature. First, various articles (Friedmann, 1986; Hewlet, 1985) have promoted the importance of the relationship between interior design education and the profession. Second, the purpose of numerous research investigations (Baker & Sondhi, 1989; Douthitt & Hasell, 1985; Harwood, 1989; Hernecheck et al., 1983; Myers, 1982; Rogers et al., 1983; Shannon Tew, 1992) has been to assess various interior design programs, and to discover ways of improving interior design education in general. Unfortunately, few studies seem to have been conducted to determine whether or not changes ought to be made in the profession. Of course, it would be difficult to determine how a profession, as a whole, could improve the way it operates. Nevertheless, it is certainly an area worthy of investigation.

Based on the negative comments levelled against the interior design profession, a logical conclusion seems to be that, in the interior design profession, major changes are required. This researcher believes it is

timely for interior design professionals to examine their own methods and procedures for operating their businesses. Furthermore, interior design professionals ought to consider reducing the demands they put on interior design educators to produce graduates who, upon first-time entry into the profession, are expected to be competent in almost every aspect of the interior design profession. As mentioned earlier, within the time frame of a four-year bachelor's program, only a finite amount of quality education can be provided. Interior design professionals should be willing to take on the challenge of providing on-the-job training for interior design graduates. Because interior design is a complex and rapidly changing profession, interior design educators should not be expected to assume responsibility for providing all of the necessary professional insights and skills which might be required of students during their entire interior design career.

The results of the study have been analyzed and discussed. The Research Questions have been considered in the light of the results of the study. Only one area remains to be explained - that of two important assumptions made at the outset of this report. In the next section final consideration is given to the two assumptions which were described near the end of Chapter Three - Methodology.

Discussion of Assumptions. At the beginning of the study two assumptions were made. The researcher believed that possibly, the academic grade point average (GPA) of the respondent, and the respondent's current employment status might possibly have an effect upon their responses. After consideration of the cross-tabulations of GPA

(Item Three) and the respondent's employment status (Item Six) with Items Seventeen, Eighteen, Nineteen, and Twenty-five, it now seems reasonable to conclude that neither the respondent's GPA nor their employment status affected their responses in any noticeable way.

Because the respondents' GPA and employment status had no noticeable affect upon the responses provided in the questionnaire, it seems reasonable to conclude that the alumni answered the questionnaire objectively. Even respondents with relatively low GPAs did not provide overly negative feedback. Those respondents who are employed in areas outside of interior design provided information that is similar in nature to the information provided by those alumni who are employed within the design field. Such a finding is important because it indicates that the results obtained are an unbiased and true reflection of the opinions of interior design alumni.

Chapter Summary

This study of interior design alumni was conducted for two reasons. First, the study was designed to obtain research-based data intended for use by interior design curriculum planners, educators, and administrators at the University of Manitoba to assess and evaluate the interior design program. The first part of Chapter Four provides the results for each item in the survey questionnaire. A clear description of the results of each item has been provided through the use of descriptive text supported as necessary by relevant tables. This information, it is hoped, provides interior design curriculum planners with useful insights which can be used to assess the interior design program.

In the second portion of Chapter Four, each of the four Research Questions was analyzed and discussed. Various interpretations of the data and possible explanations to account for the results are provided. A point form summary of the discussion of the Research Questions provides the reader, especially interior design curriculum planners, with a list of the most important results of the study.

The second purpose for conducting this investigation was to determine the extent to which interior design alumni believe that the University of Manitoba Interior Design Program adequately prepared the student for employment in interior design. The results of Item Seventeen and the content analysis of Item Twenty show that the majority of respondents (66%) believe that they were, indeed, adequately prepared for employment in interior design.

Further analysis of Item Twenty revealed that a substantial portion (52%) of interior design graduates are dissatisfied with certain aspects of the interior design profession (low salaries, few benefits, little recognition). In this analysis seven general statements emerged. All seven statements reflect negative aspects of the interior design profession. The implications of these negative comments, combined with the fact that most graduates believe that they were adequately prepared for employment in interior design, suggest that interior design professionals ought to consider developing some method of improving both employee/employer relationships and working conditions. However, consideration for change might be considered by the Interior Design staff as well.

Based upon the analysis of the results as presented in this chapter, several recommendations can be made concerning the University of Manitoba Interior Design Program. These recommendations are considered next, in Chapter Five.

CHAPTER FIVE

Implications and Recommendations

Implications for the University of Manitoba

Interior Design Program

One of the primary purposes of this study was to obtain research-based data which could be used by the staff of the University of Manitoba Interior Design Program to assess the quality of the program. This general objective is satisfied by the results which have been presented in Chapter Four. In Chapter Four, the discussion of each of the four Research Questions provided several interpretations and possible explanations of the results which were obtained from the respondents. One final set of interpretations of the results is presented in this chapter.

The statements indicated below are put forth in the effort to provide the interior design staff with a number of possible recommendations concerning the Interior Design Program. These recommendations, based on the analysis and discussion presented in Chapter Four, reflect some of the most important findings obtained in this study. In light of the results of this study, it is intended that the following recommendations be given serious consideration:

1. Interior design curriculum planners, educators, and administrators ought to consider, seriously, the results of Item Twenty-five (the question which asked respondents to identify the 10 areas which are important in interior design but which were not studied in the University of Manitoba Interior Design Program). The results of this item pinpoint specific areas of the program that alumni believe were not

studied sufficiently to enable them to practise competently in the interior design profession. In particular, an assessment might be made to determine whether or not, or to what degree, education in the areas of business skills and professional courses can be upgraded. Possibly, alternative methods of teaching these skills are required.

2. Although CADD has already been added to the second-year course requirements, some consideration might be given to incorporating CADD into the curriculum for third and fourth year students. The importance of CADD in interior design was identified by the overwhelming number of respondents (149) who selected CADD as the top ranked area not studied in the University of Manitoba Interior Design Program.

3. Consideration might be given to expanding the Student Internship Program so that it is accessible to a larger number of students. The combined effect of the practical skills learned in the internship program, and the opportunity to practise interior design in a realistic setting, provides students with a more accurate view of ways in which the interior design profession operates.

4. One alternative to expanding the Student Internship Program is to consider cooperative education in interior design. Admittedly, providing interior design education using the methods consistent with other cooperative education programs (such as business or science) would require extensive restructuring of the current program. Such restructuring, however, might prove to be a viable process whereby students could attain, simultaneously, both theoretical knowledge and practical skills.

5. Consideration might be given to developing projects in which realistic applications of interior design skills could be practised. Thought might be given to developing other means of enabling students to obtain accurate impressions of the interior design profession. Special one-day projects in which students and professionals work together on an interior design project would allow students to discover many of the expectations which might be required of them once they begin working in an interior design firm. (See "A Design Charette: An Opportunity for Students and Practitioners to Interact", Chew & Matthews, 1984)

6. Opportunities should be created to make available to students information from studies such as this one so that realistic images of the interior design profession can be developed. Possibly, class discussions of the results of this study might resolve a number of the concerns which interior design students may have.

Although these recommendations may help the Department of Interior Design at the University of Manitoba to up-date and improve the interior design program, this researcher believes that strong evidence exists to support the notion that a great deal of development is needed within the interior design profession, rather than within the Department of Interior Design. Even though, to date, the profession has worked in cooperation with interior design programs at the University of Manitoba (and elsewhere) to ensure that graduates are prepared adequately for employment upon graduation, the results of this study indicate that, overall, most graduates thought they were prepared adequately for employment in the field, and that the problems and

frustrations in interior design are the result of the way the profession, rather than the Department of Interior Design, operates.

This study focused on the opinions of interior design alumni and was conducted for the purpose of obtaining information related to interior design education. Surprisingly, however, the study concluded with the researcher's realization that the area of the interior design profession seems to require some degree of investigation. Presented next is a list of possible areas for further study.

Recommendations for Further Study

Throughout the section on the discussion of the Research Questions, several recommendations emerged which seem worthy of further investigation. Provided below is a list of recommendations for needed, further study:

1. Alumni studies ought to be conducted on a continuous and regular basis because they provide useful, objective information which is critical for maintaining up-to-date interior design programs.
2. It is necessary to determine the degree to which interior design education is applicable to those areas which are considered as being related to interior design, rather than being directly within interior design.
3. Further investigation is required to determine the point in one's interior design career when professional practice and business skills become most relevant to one's career. Such an investigation would, undoubtedly, raise the question of whether or not such skills should be learned in school, or on the job, or in some combination.

4. Few studies seem to have been conducted to determine whether or not changes ought to be made in the profession. Admittedly, it would be difficult to determine ways in which a profession, as a whole, could improve in the way it operates. Nevertheless, it is certainly an area worthy of consideration for investigation. One particular area of the profession worth investigating are the ways in which interior design employers might enable their employees to achieve a greater degree of job satisfaction.

5. Finally, further investigation is required to determine whether or not a relationship exists between one's employment status and the degree to which that person feels she or he has been adequately prepared for employment in the field. Further investigation in this area is required because, sometimes, people find themselves employed in professions for which they do not feel adequately prepared.

Chapter Summary

The results of this study were obtained for the purpose of satisfying two primary objectives. The first objective was to determine the degree to which interior design alumni believe that the University of Manitoba Interior Design Program prepared them adequately for employment in the interior design field. The second objective was to obtain research-based data which can be used by interior design administrators, educators, and curriculum planners to assess the aptness of the Interior Design Program. The second objective was attained by the substantial amount of important results which were obtained from each of the 25 survey items. These results will provide interior design

curriculum planners, educators, and administrators with important research-based data necessary for making informed decisions concerning the University of Manitoba Interior Design Program.

In addition to the results presented in Chapter Four, possibly the most revealing results of the entire study surfaced from Item Twenty. Item Twenty elicited 111 written responses from alumni who believe that certain aspects of the interior design profession are not as rewarding as they had anticipated they would be. Consequently, it seems logical to suggest that educators within the University of Manitoba Interior Design Program and professionals in the field might consider working together to provide students with a realistic vision of the interior design profession. Such a vision should extend beyond providing students with the skills and knowledge needed for employment in the field. Indeed, such a vision ought to inform students of the often unfortunate but realistic aspects of the interior design profession.

Since the early 1960s the interior design profession has undergone a tremendous amount of growth and development. As the profession continues to develop, it will probably continue to refine its methods of operation. Consequently, although many interior design alumni reported that they are currently dissatisfied with certain aspects of the profession, it seems possible that with time the working conditions for interior design employees will improve. For interior design professionals and educators alike, the results of this study indicate areas which, according to interior design alumni, might be worthy of serious consideration. It is hoped that the results provided in this report will contribute to the overall

development of interior design education and to the continuing growth and development of the interior design profession.

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Appendix A
Survey Questionnaire

INTERIOR DESIGN ALUMNI SURVEY

INTERIOR DESIGN ALUMNI SURVEY

The purpose of this survey is to obtain information from graduates of the University of Manitoba Interior Design Program which will be used to assess the Interior Design Program. As a graduate of this program, your participation in this survey is important.

All responses will be reported in statistical form with no reference to the names of individual respondents. The number on the front of this booklet is to monitor survey returns.

If you wish to receive a summary of the results of this study, please complete the request form enclosed with this package. Do not mark your name on any part of the questionnaire.

DIRECTIONS FOR ANSWERING THE QUESTIONNAIRE

Please answer the following questions by circling the number of the applicable response. Circle one response only, unless specified. When a written response is required, a blank space has been provided.

PLEASE NOTE

The term "Related to Interior Design" could include architecture, landscape architecture, city planning, environmental design, graphic design, industrial design, product/furniture design, textiles design, or any other form of design in which the basic principles of design are applied.

For the purposes of this study those people who are sales representatives for furniture, lighting, carpet, ceramic tile, plastic laminate, or any similar type of company which serves the interior design profession, can consider themselves to be in the field related to interior design.

Definitions For Questions 24 and 25

Anthropometrics: The study of human body measurements especially on a comparative basis.

Ergonomics: Of or relating to biotechnology which is the aspect of technology concerned with the application of biological and engineering data to problems relating to man and the machine.

Proxemics: A branch of study dealing with the personal and cultural spatial needs of man and his interaction with his environing spaces.

Source: Webster's New Collegiate Dictionary (1981)

PART A

Circle the appropriate response

1. Gender:

- 1 Female
- 2 Male

2. Date of graduation from the University of Manitoba Interior Design Program: _____

3. What was your approximate grade point average (G.P.A.) in your FINAL YEAR of the interior design program? Please DO NOT indicate your cumulative G.P.A..

- 1 2.00 - 2.49
- 2 2.50 - 2.99
- 3 3.00 - 3.49
- 4 3.50 - 4.00

4. Year of birth

- 1 1958 or earlier
- 2 1959-1960
- 3 1961-1962
- 4 1963-1964
- 5 1965-1966
- 6 1967-1968
- 7 1969-1970

PART B
Circle the appropriate response/s

5. Since you graduated from the Interior Design Program, how many FULL AND PART-TIME JOBS, COMBINED, have you held that were IN OR RELATED TO Interior Design? (see the note at the beginning of the questionnaire)

- | | |
|------------------------------|--------------------------------------|
| A) <u>IN</u> Interior Design | B) <u>RELATED TO</u> Interior Design |
| 1 None | 1 None |
| 2 1-2 | 2 1-2 |
| 3 3-4 | 3 3-4 |
| 4 5-6 | 4 5-6 |
| 5 7 or more | 5 7 or more |

6. From the categories listed below, circle the ONE (1) category that best describes your PRESENT EMPLOYMENT STATUS?

- 1 Employed, FULL-TIME in interior design or related area
(please proceed to question 9)
- 2 Employed, PART-TIME in interior design or related area
(please proceed to question 9)
- 3 Employed on CONTRACT BASIS (INCLUDES SELF-EMPLOYED) in interior design or related area
(please proceed to question 9)
- 4 Employed in area NOT RELATED to interior design
(Please proceed to question 7)
- 5 Unemployed, seeking employment IN INTERIOR DESIGN
(Please proceed to question 7)
- 6 Unemployed, seeking employment NOT RELATED to interior design
(please proceed to question 7)
- 7 Student, FULL-TIME (please proceed to question 8)
- 8 Student, PART-TIME (please proceed to question 8)
- 9 Other (specify) _____
(please proceed to question 7)

7. What is the reason for your present employment status?
CIRCLE THE THREE (3) MOST IMPORTANT REASONS.

- 1 No work available
- 2 Unable to relocate
- 3 Lost interest in interior design
- 4 Family commitments
- 5 Salary too low
- 6 Didn't feel sufficiently qualified
- 7 Advised by potential employer that you
were insufficiently qualified
- 8 Found better opportunity outside the interior design field
- 9 Inadequate benefits
- 10 Poor working conditions
- 11 Amount of time required was too demanding
- 12 Other (specify) _____

PLEASE PROCEED TO QUESTION 17 - PART C - PAGE 7

8. If you are a student, what subject area are you studying?
- _____

PLEASE NOTE:

1. If you HAVE A PART-TIME JOB, related to interior design, please complete the remainder of the questionnaire.
2. If you DO NOT HAVE A PART-TIME JOB, please proceed to QUESTION 17 - PART C - PAGE 7.

9. How long have you been employed in your CURRENT position?

- 1 Less than 1 year
- 2 Over 1 but not more than 3 years
- 3 Over 3 but not more than 5 years
- 4 Over 5 but not more than 7 years
- 5 Over 7 but not more than 9 years
- 6 Over 9 but not more than 11 years
- 7 Over 11 years

10. How many people, including designers and support staff (technicians, secretaries, accountants, lawyers, engineers, etc.), are employed (full-time or part-time) in the company where you are currently working?

- 1 1-5
- 2 6-15
- 3 16-25
- 4 26-35
- 5 36 or more

11. From the categories listed below, circle the ONE (1) that best describes the TYPE OF COMPANY where you are currently employed.

- 1 Interior Design
- 2 Architectural
- 3 Combination Interior Design/Architectural
- 4 Retail establishment with interior design department
- 5 Retail establishment without interior design department
- 6 Contract furniture design
- 7 Manufacturers representative
- 8 Showroom
- 9 Industrial design
- 10 Facility management
- 11 Real estate
- 12 Real estate department within corporation
- 13 Corporation/industry
- 14 Government
- 15 Medical/healthcare
- 16 Educational institution (i.e. college, university, school)
- 17 Builders/developers/contractors
- 18 Historic preservation
- 19 Other (specify) _____

12. From the categories listed below, circle the THREE (3) that best describes the TYPE OF WORK which your firm primarily does.

- 1 Combination contract and residential
- 2 Residential design only
- 3 Office design
- 4 Facility management
- 5 Retail sales
- 6 Retail design (i.e. store planning)
- 7 Hospitality (i.e. hotel, restaurant)
- 8 Industrial design
- 9 Product design
- 10 Graphic design
- 11 Institutional design
- 12 Governmental
- 13 Healthcare
- 14 Educational (i.e. teaching)
- 15 Historic preservation
- 16 Other (specify) _____

13. From the categories listed below, circle the ONE (1) that best describes your JOB TITLE. STUDENTS AND THOSE PEOPLE WHO ARE EMPLOYED ON A CONTRACT BASIS (SELF-EMPLOYED) PLEASE CIRCLE TWO (2) RESPONSES.

- 1 Student, full-time (circle applicable category below)
- 2 Student, part-time (circle applicable category below)
- 3 Employed on contract basis (circle applicable category below)
- 4 Sales representative
- 5 Junior designer
- 6 Intermediate designer
- 7 Senior designer
- 8 Director
- 9 Junior partner
- 10 Senior partner
- 11 Billable support staff
- 12 Educator
- 13 Other (specify) _____

14. From the list provided, circle those areas which describe the responsibilities you have in your current position. CIRCLE THE FIVE (5) RESPONSIBILITIES THAT TAKE THE MAJORITY OF YOUR TIME.

- 1 Sales
- 2 Public relations
- 3 Marketing
- 4 Meeting clients
- 5 Teaching
- 6 General office duties (i.e. fax, phones)
- 7 Preparation of presentations
(i.e. labelling, material boards)
- 8 Presentations (i.e. perspectives, rendering)
- 9 Space planning
- 10 Conceptual design
- 11 Product design
- 12 Drafting (manual style)
- 13 Technical or working drawings
- 14 CADD operator
- 15 Technical or specification writing
- 16 Preparation of schedules (i.e. door, finish)
- 17 Preparation of project budgets for tender
- 18 Furniture inventory
- 19 Project management
- 20 Site supervision
- 21 Research
- 22 Other (specify) _____

15. What is your annual salary range?

- 1 Under \$15,000
- 2 \$15,001 - \$20,000
- 3 \$20,001 - \$25,000
- 4 \$25,001 - \$30,000
- 5 \$30,001 - \$35,000
- 6 \$35,001 - \$40,000
- 7 \$40,001 - \$45,000
- 8 \$45,001 - \$50,000
- 9 \$50,001 or above

16. In which city are you working?

- 1 Victoria, British Columbia
 - 2 Vancouver, British Columbia
 - 3 Calgary, Alberta
 - 4 Edmonton, Alberta
 - 5 Regina, Saskatchewan
 - 6 Saskatoon, Saskatchewan
 - 7 Winnipeg, Manitoba
 - 8 Toronto, Ontario
 - 9 Ottawa, Ontario
 - 10 Montreal, Quebec
 - 11 Quebec City, Quebec
 - 12 Prince Edward Island, New Brunswick
 - 13 Saint John, New Brunswick
 - 14 Halifax, Nova Scotia
 - 15 St. John's, Newfoundland
 - 16 Other (please specify city and country if outside of Canada)
-

PART C
Circle the appropriate response/s

17. The University of Manitoba Interior Design Program adequately prepares students for employment IN THE FIELD of interior design.

- 1 Disagree strongly
- 2 Disagree somewhat
- 3 Agree somewhat
- 4 Agree strongly
- 5 Don't know

18. The University of Manitoba Interior design Program adequately prepares students for employment in fields RELATED TO interior design (see the note at the beginning of the questionnaire).

1 Disagree strongly
2 Disagree somewhat
3 Agree somewhat
4 Agree strongly
5 Don't know

19. Based on your knowledge of the interior design profession, if you were to choose your university major again, you would choose interior design.

1 Disagree strongly
2 Disagree somewhat
3 Agree somewhat
4 Agree strongly
5 Don't know (proceed to question 20)

20. BRIEFLY indicate reasons for your response in question 19.

21. Courses in computer aided design (CADD) should be COMPULSORY in the University of Manitoba Interior Design Program.
- 1 Disagree strongly
 - 2 Disagree somewhat
 - 3 Agree somewhat
 - 4 Agree strongly
 - 5 Don't know
22. While studying interior design at the University of Manitoba, did you participate in the STUDENT INTERNSHIP PROGRAM?
- 1 Yes
 - 2 No (please proceed to QUESTION 24)
 - 3 Don't recall (please proceed to QUESTION 24)
23. To what extent was the Student Internship Program helpful to you in the development of your career?
- 1 Not at all helpful
 - 2 Not too helpful
 - 3 Somewhat helpful
 - 4 Very helpful
 - 5 Don't know
24. From the list provided on the following page, circle the areas that you believe, OVERALL, ARE MOST IMPORTANT in interior design. CIRCLE THE TEN (10) MOST IMPORTANT CATEGORIES ONLY.

PLEASE NOTE:

For definitions of ANTHROPOMETRICS, ERGONOMICS, and PROXEMICS see the definitions at the beginning of the questionnaire.

TECHNICAL KNOWLEDGE/SKILLS

- 1 HVAC
- 2 Lighting
- 3 Plumbing
- 4 Electrical
- 5 Acoustics
- 6 Building systems
- 7 Structure and construction
- 8 Energy conservation
- 9 Environmental concerns
- 10 Cabinetry details
- 11 Interior architectural details
- 12 Furniture construction
- 13 Specification writing
- 14 Working drawings
- 15 Building codes
- 16 Fire codes
- 17 Handicapped codes
- 18 Drafting
- 19 Furniture selection
- 20 Model building
- 21 Perspective drawing
- 22 Photography
- 23 Rendering
- 24 Sketching
- 25 Programming
- 26 Presentation boards

DESIGN TYPES

- 27 Adaptive use
- 28 Historic preservation
- 29 Renovation
- 30 Commercial design
- 31 Residential design
- 32 Designing for disabled
- 33 Designing for the elderly

HUMAN FACTORS

- 34 Anthropometrics
- 35 Ergonomics
- 36 Human behavior
- 37 Proxemics

HISTORY

- 38 History of art
- 39 History of architecture
- 40 History of interior design
- 41 History of furniture

PROFESSION

- 42 Tendering/bidding process
- 43 Project budget management
- 44 Project management
- 45 Marketing
- 46 Business practices
- 47 Document preparation
- 48 Schedules (i.e. door, finish)
- 49 Ethics
- 50 Issues of the profession
- 51 Labour and trade relations
- 52 Laws and liability
- 53 Public relations
- 54 Salesmanship
- 55 Site supervision
- 56 Client management
- 57 Problem solving

COMMUNICATION SKILLS

- 58 Writing skills
- 59 Word processing
- 60 Oral communication
- 61 Graphic communication
- 62 Lettering

MATERIALS AND TEXTILES

- 63 Materials application
- 64 Surface & structural materials
- 65 Textiles (in general)
- 66 Fabric
- 67 Carpeting
- 68 Ceramics
- 69 Glass
- 70 Masonry
- 71 Metals
- 72 Plastics
- 73 Wood

EDUCATION AND THEORY

- 74 Color theory
- 75 Principles of design
- 76 Concept development
- 77 Space planning
- 78 Design process
- 79 Design theory
- 80 Furniture design
- 81 Research methods
- 82 CADD

25. From the list provided on the following page, circle the areas which you believe ARE IMPORTANT IN INTERIOR DESIGN BUT DID NOT STUDY in your interior design education. CIRCLE THE TEN (10) MOST IMPORTANT CATEGORIES ONLY.

TECHNICAL KNOWLEDGE/SKILLS

- 1 HVAC
- 2 Lighting
- 3 Plumbing
- 4 Electrical
- 5 Acoustics
- 6 Building systems
- 7 Structure and construction
- 8 Energy conservation
- 9 Environmental concerns
- 10 Cabinetry details
- 11 Interior architectural details
- 12 Furniture construction
- 13 Specification writing
- 14 Working drawings
- 15 Building codes
- 16 Fire codes
- 17 Handicapped codes
- 18 Drafting
- 19 Furniture selection
- 20 Model building
- 21 Perspective drawing
- 22 Photography
- 23 Rendering
- 24 Sketching
- 25 Programming
- 26 Presentation boards

DESIGN TYPES

- 27 Adaptive use
- 28 Historic preservation
- 29 Renovation
- 30 Commercial design
- 31 Residential design
- 32 Designing for disabled
- 33 Designing for the elderly

HUMAN FACTORS

- 34 Anthropometrics
- 35 Ergonomics
- 36 Human behavior
- 37 Proxemics

HISTORY

- 38 History of art
- 39 History of architecture
- 40 History of interior design
- 41 History of furniture

PROFESSION

- 42 Tendering/bidding process
- 43 Project budget management
- 44 Project management
- 45 Marketing
- 46 Business practices
- 47 Document preparation
- 48 Schedules (i.e. door, finish)
- 49 Ethics
- 50 Issues of the profession
- 51 Labour and trade relations
- 52 Laws and liability
- 53 Public relations
- 54 Salesmanship
- 55 Site supervision
- 56 Client management
- 57 Problem solving

COMMUNICATION SKILLS

- 58 Writing skills
- 59 Word processing
- 60 Oral communication
- 61 Graphic communication
- 62 Lettering

MATERIALS AND TEXTILES

- 63 Materials application
- 64 Surface & structural materials
- 65 Textiles (in general)
- 66 Fabric
- 67 Carpeting
- 68 Ceramics
- 69 Glass
- 70 Masonry
- 71 Metals
- 72 Plastics
- 73 Wood


EDUCATION AND THEORY

- 74 Color theory
- 75 Principles of design
- 76 Concept development
- 77 Space planning
- 78 Design process
- 79 Design theory
- 80 Furniture design
- 81 Research methods
- 82 CADD



Thank you for your participation in this study!

Please fold the questionnaire along the vertical line indicated
and return it in the envelope provided.



Appendix B
Cover Letter



August 25, 1992

Dear Interior Design Graduate:

To help in planning for program updates it is important to determine the effectiveness of the program completed by graduates of the University of Manitoba Interior Design Program. You are being asked for your opinions about the employment situations you have experienced since graduation, and about the education you received in the Interior Design Program. The information you provide will be useful to the advisory committee responsible for curriculum planning. This survey is being conducted as part of my Master of Education degree, and it is recognized and supported by the Department of Interior Design.

Your help is requested through the enclosed questionnaire which will take about 20 minutes to complete. The questionnaire has three parts: (1) demographic information which will be used to categorize results; (2) employment questions to trace career development; and (3) opinion questions regarding the courses studied. Please return the questionnaire within one week. A return envelope is provided for your convenience.

Please be assured that the survey returns will be kept CONFIDENTIAL. The identification number at the top of the questionnaire booklet is for the purpose of monitoring returns. The surveys will be received by a mediator, Dr. Clare Pangman, at the Faculty of Education.

We wish to thank you in advance for your participation in this study. It is anticipated that the results of the survey will enable the Interior Design Program to continue to develop in practical and productive directions.

Sincerely,

Cynthia Karpan, B.I.D. (1988)

Grant Marshall, Head of Interior Design

Appendix C
Follow-up Letter



September 15, 1992

Dear Interior Design Graduate;

Recently, I mailed to you a copy of the **INTERIOR DESIGN ALUMNI SURVEY**. The questionnaire was designed to obtain alumni perceptions for the purpose of assessing the University of Manitoba Interior Design Program. The results of the study are important to the Department of Interior Design for maintaining and improving the quality of the interior design program.

My records show that I have not yet received your reply. You were selected to participate in this study because you graduated either between 1979 and 1981, or between 1987 and 1991, the target years of this study. Responses from graduates of these eight years are important in order to obtain valid results. Please take 20 minutes to complete the questionnaire and return it in the envelope provided.

Once again, I would like to thank you for your participation in this study.

Sincerely,

Cynthia Karpan, B.I.D. (1988)

Appendix D
Request for Study Results

If you wish to receive an executive summary of the results of this study, complete this section and return in a separate envelope addressed to:

Cynthia Karpan
c/o Dr. C. Pangman
Faculty of Education
Department of Educational Administrations
and Foundations
The University of Manitoba
Winnipeg, MB.
R3T 2N2

To ensure prompt delivery, please enclose a stamped, self-addressed return envelope.

Name: _____

Address: _____

Appendix E
Responses to Item Twenty-four
Table 30

Table 30

Areas Which Alumni Believe Are The Most Important in Interior Designn = 212

	<u>n</u>
1. Working drawings	138
2. Space planning	118
3. Design principles	87
4. CADD	81
Oral communication	81
5. Drafting	80
6. Interior Architectural Details	70
7. Project management	68
8. Materials and application	67
9. Commercial design	56
10. Structure and construction	50
Building codes	50
Design process	50
11. Graphic communication	49
12. Business practices	47
13. History of architecture	45
Budget management	45
14. Concept development	41
15. Specification writing	40
16. Problem solving	38
Anthropometrics	38
17. Programming	37
18. Lighting	35
Proxemics	35
19. Ergonomics	31
Color Theory	31
20. Building systems	30
Marketing	30
Writing skills	30
21. Client management	29
22. History of art	27

Table 30 continued

	<u>n</u>
22. Tendering/bidding	27
23. Human behavior	26
24. Document preparation	24
25. Cabinetry details	23
Sketching	23
History of interior design	23
26. Surface/structural materials	22
27. Renovation design	20
28. Residential design	18
Ethics	18
Design theory	18
29. Adaptive use	14
History of furniture	14
Schedules	14
Salesmanship	14
30. Environmental concerns	12
Laws/liabilities	12
31. Textiles	11
32. Fire codes	10
Site supervision	10
33. Handicapped codes	9
Public relations	9
34. Electrical	8
Issues of the trade	8
35. Presentation boards	7
36. Perspective drawing	6
Design for disabled	6
Research methods	6
37. Furniture construction	4
Carpeting	4
38. Acoustics	3
Furniture selection	3
Rendering	3
Design for elderly	3

Table 30 continued

	<u>n</u>
38. Labour and trade relations	3
Fabric	3
Furniture design	3
39. Energy conservation	2
40. HVAC	1
Model building	1
Historic preservation	1
Word processing	1
Lettering	1
Ceramics	1
Wood	1
41. Plumbing	0
Photography	0
Glass	0
Masonry	0
Metals	0
Plastics	0
Total	2104^a

Note. Did not respond n = 1

^a Total possible if each respondent selected 10 categories n = 2120

Appendix F
Responses to Item Twenty-five
Table 31

Table 31

Areas Which Alumni Believe Are Important in Interior Design But Which
Were Not Studied in The University of Manitoba Interior Design Program
n = 207

	<u>n</u>
1. CADD	149
2. Project management	111
3. Budget management	105
4. Building codes	101
5. Tendering/bidding	81
6. Client Management	76
7. Marketing	74
8. Business practices	68
9. Specification writing	61
10. Laws/liabilities	59
11. Site supervision	58
12. Environmental concerns	54
13. Structure and construction	49
Document preparation	49
14. Salesmanship	43
15. Fire codes	37
16. Building systems	35
17. Working drawings	34
18. Historic preservation	30
Writing skills	30
19. Renovation design	28
20. Lighting	27
21. Handicapped codes	26
Proxemics	26
Public relations	26
22. Energy conservation	25
Oral communication	25
23. Design for elderly	24
24. Interior architectural details	23

Table 31 continued

	<u>n</u>
24. Design for disabled	23
25. HVAC	22
Word processing	22
26. Material and application	21
27. Electrical	20
Issues of interior design	20
28. Problem solving	19
29. Ergonomics	18
Human behavior	18
30. Labour and trade relations	16
31. Programming	15
32. Ethics	14
Research methods	14
33. Acoustics	13
34. Plumbing	12
Schedules	12
Surface/Structural materials	12
35. Furniture design	11
36. Drafting	10
History of interior design	10
37. Adaptive use	9
38. Cabinetry details	7
Furniture construction	7
Concept development	7
39. Photography	5
Anthropometrics	5
Graphic communication	5
Carpeting	5
40. Furniture selection	4
Sketching	4
Presentation boards	4
41. Commercial design	3
History of furniture	3

Table 31 continued

	<u>n</u>
41. Design process	3
42. Model building	2
Rendering	2
Lettering	2
Textiles	2
Metals	2
Space planning	2
43. Perspective drawing	1
Fabric	1
Plastics	1
Wood	1
Color theory	1
Design principles	1
Design theory	1
44. Residential design	0
History of art	0
History of architecture	0
Ceramics	0
Glass	0
Masonry	0
Total	1946^a

Note. Did not respond n = 6

^a Total possible if each respondent selected 10 categories n = 2070