

ADVANCED STUDY IN KITCHEN AND BATH DESIGN AND BUSINESS

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Abstract

The purpose of this research was to identify the need for advanced study in kitchen and bath design and business among segments of the kitchen and bath industry. The study also investigated both advanced level competencies impacting the career paths of professional kitchen and bath designers and Web-based distance education to achieve educational goals. A quantitative analysis of a survey of the voting membership of the National Kitchen and Bath Association found a majority demand for advanced study in kitchen and bath design and business by all segments of the industry responding to the survey (498 usable responses). The findings revealed 13 areas of expertise expected of an employee with advanced study and 20 topics of interest to the industry for continuing education and/or master's degree program. A majority of respondents perceived that continuing education units would be more attractive if they could count toward a master's degree and that their respective firms would approve of employees pursuing advanced study completed on-line while continuing their present employment. The findings supported the need for advanced study in key areas of kitchen and bath design as well as business management.

Introduction

Preparing students who are specializing in kitchen and bath design to fulfill the needs of the industry has been an important goal for design educators. The National Kitchen and Bath Association (NKBA) was founded in 1963 to support the beginning of this new and exciting industry. Working with educators the industry introduced Endorsed College Program in the early 1980s (NKBAb). The original focus of NKBA was the kitchen and bathroom dealer. Within 20 years the organization has expanded to a representation of the entire industry including more

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than 10,000 voting members that represent 50 states and seven Canadian provinces. The industry expansion included 11 segments that represent builders/remodelers, dealers, designers, manufacturers, retailers, and wholesale distributors.

Realizing the importance of education, NKBA developed three levels of certification with a current total of 1,581 members holding single or dual certification (J. Fish, NKBA database supervisor, personal communication, March 2005). According to Sefrin (2002a), the kitchen and bath industry has gone through a wide range of key developments over the years that include a robust economy, dazzling product innovation, burgeoning consumer demand, favorable demographics, an evolving retail landscape, manufacturing milestones, and technological breakthroughs.

The earliest of studies concerning design in relation to space needs in kitchens and bathrooms were conducted at Cornell University (Ridder, 1952; Kira, 1966; Northeast Farm Housing Technical Committee, 1959). Other early explorations in the field were published as bulletins by the Small Homes Council at the University of Illinois on *Kitchen Cabinet Spaces* (1949), *Counter Surfaces* (1958), *Kitchen Planning Standards* (1965), and *Bathroom Equipment* (1978).

High on the present day list of challenges for the kitchen and bath industry is the changing consumer. According to Sefrin (2004a), today's market is made up of a diverse mix of multi-generational, single-parent, senior citizen, and minority households. In other words, the market for kitchens and baths is no longer considered the static, homogenous market of predictable buyers that it was in the past. In a later editorial, Sefrin (2004c) explained that the largest consumer group, young homeowners aged 25–34, is different in many ways from the Baby Boomer generation that has served for years as the foundation for the kitchen and bath industry's growth. Known as Generation X, these young homeowners offer tremendous opportunity for the industry.

In an address to a fall 2004 conference of kitchen and bath dealers and product suppliers, Kleber stressed the importance of understanding the lifestyles, attitudes, and buying preferences of Generation X. This new generation has been more willing to make tradeoffs to achieve a higher quality of life and customized personalized living spaces. They place a high priority on autonomy and personal identity. Kleber (2004) based these conclusions on several focus groups of homeowners 21–35 years of age that were conducted by his Dallas and Atlanta firms during 2004.

From almost the beginning, NKBA strongly supported higher education. For example, in recent years the organization has sponsored both a student design competition and a student essay competition. In their essays from 2001 and 2002 students showed enthusiasm, honesty, creativity, responsibility, professionalism, flexibility, and the desire to make a difference in their future work with clients (Sefrin, 2002b).

Student essays in 2004 illustrated how rewarding their interactions with clients had been. They viewed working with the industry as an opportunity to transform products and ideas into creative designs to meet the needs of those clients. In addition, students realized how good design really has made a difference in the lives of individuals and families. Through their insights, wisdom, and vision, students entering the industry have provided assurance that the future of NKBA is bright (Sefrin, 2004b).

In an editorial on leadership and learning, Costa (2003, p. 7), Editor of *Kitchen and Bath Design News*, emphasized with a quote from John F. Kennedy that “leadership and learning are indispensable to each other.” She explained that change is one of life’s constants, so the best leaders never stop learning, growing, and preparing for the future.

The latest records showed 44 colleges and universities offering programs in higher education that are endorsed or supported by NKBA (S. Doyle, NKBA Director of Professional Programs, personal communication, March 2005). This number of endorsed programs has more than doubled since 1999. A majority of the endorsed programs have been housed in interior design education that leads to either an associate’s or bachelor’s degree. According to a projection for the years 2002 to 2012, the demand for interior designers (an occupation requiring a bachelor’s degree or higher) is expected to increase by 22% (*America’s Career InfoNet Index*, 2005).

In a recent article in the *Journal of Interior Design*, categories of study determined as major knowledge areas for educational programs in interior design included universal design, professional practice, interior building construction, codes, theory/philosophy, computer technology, human factors, sustainable design, and post-occupancy evaluation (Clemons & Eckman, 2004). In a paper presented at the Interior Design Educators South Regional Conference in 2004, Harwood (2004) emphasized the need for additional education in technology as it continues to impact the complexity and individualization of design instruction and processes. According to Blossom (2004), an advanced degree is intended for persons who are well-versed and professionally advanced in a design profession, and who seek to make collaborative, original contributions to their fields. She suggested that students undertake critical assessments and syntheses of their fields and the ecological, cultural, and physical contexts in which they function.

As a result of an interest by both industry and educators to further advance the knowledge of designers, NKBA in cooperation with East Carolina University implemented a survey of the voting members of the association to ascertain their needs. The survey was designed to determine whether the offering of a master’s degree in interior design would satisfy the needs of designers, manufacturers, and executives in the kitchen and bath industry. For several years professional designers maintaining certification in the industry have been required to complete

continuing education units (CEUs) each year. It was of interest to NKBA to learn whether those designers and other segments of the industry would support the option of their educational requirements being accepted as part of a track towards the master's degree.

Objectives

One objective of this study was to identify the need for advanced study in kitchen and bath design and business management. A second objective was to identify specific areas of study and methods of educational delivery. It is beneficial for segments of the kitchen and bath industry, including retail stores, manufacturers, suppliers, and design firms, to have a workforce with advanced knowledge and skills. However, it is not clear what value industry places upon advanced education and the specific knowledge and skills in greatest demand by industry.

Method

With the assistance of NKBA, a survey of the voting membership was conducted to meet the objectives of the study. A questionnaire was developed to assess whether members would be interested in either pursuing for themselves or supporting as employers advanced study in kitchen and bath design and business. The questionnaire consisted of four areas: (a) general information about the firm and position held by the respondent, (b) expectations for performance areas of expertise modeled after the requirements for NKBA Endorsed College Programs, (c) interest in Web-based distance education, and (d) advanced knowledge, skills and abilities beneficial to industry. Data were collected electronically by hyperlink to a questionnaire posted on the NKBA Web site January 10 – February 4, 2005. An invitation to participate in the survey was sent January 10, 2005, via electronic mail to a listserv of approximately 8,600 voting members. One follow-up was sent via electronic mail January 29, 2005, to increase the response rate.

Results

Description of Respondents

The survey targeted the manufacturer, supplier, small retailer, large chain retailer, and design firm, representing 5 of the 11 industry segments of the kitchen and bath industry that totaled 8,600 of the 10,738 voting members of NKBA in the U.S. and Canada. The response generated a return of 498 (6%) usable questionnaires.

Of the 498 respondents, 49% described their company's operation as a design firm, followed in descending order by small retailer, manufacturer, large chain retailer, and supplier. These industry segments and combinations of segments are shown in Figure 1. The majority of respondents (55%) described their position with their firm as designer, followed in descending order by executive, management,

sales representative, buyer, and other. These company positions and combinations of positions are shown in Figure 2.

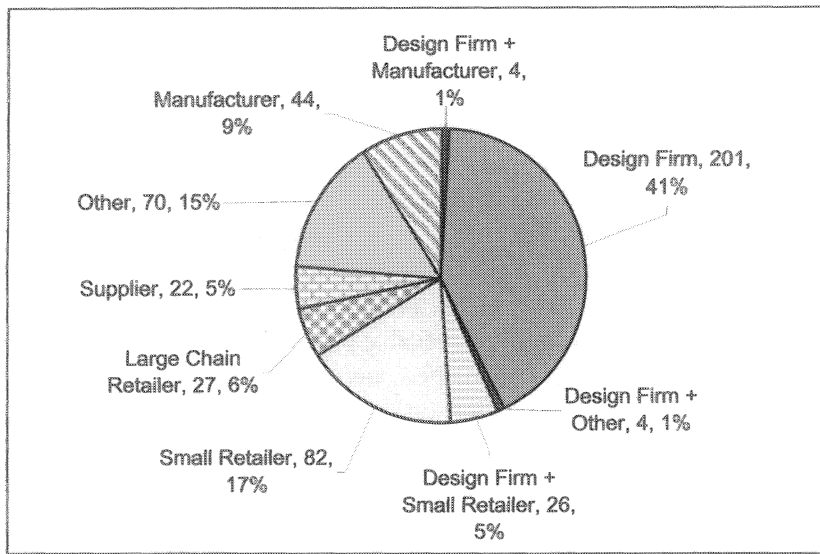


Figure 1. Companies' Operations in NKBA Membership by Frequencies and Percentages ($n = 480$; categories with fewer than two respondents were omitted)

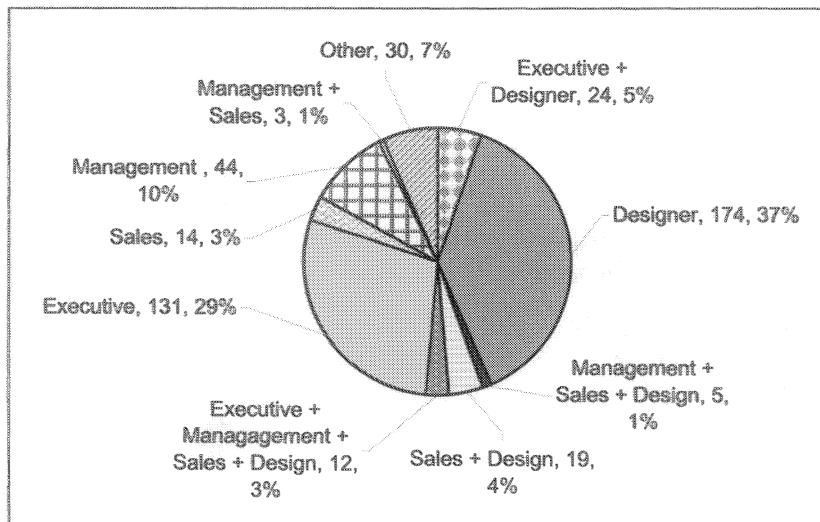


Figure 2. NKBA Respondents' Positions with Companies by Frequencies and Percentages ($n = 456$; categories with fewer than three respondents were omitted)

Expectation for Performance Areas

Every five years NKBA conducts a role delineation study led by Castle Worldwide, Inc., to evaluate the skills and knowledge required of a certified kitchen or bath designer. The results of that study form the blueprint for the academic and practical certification exams. The NKBA Role Delineation Study Panel met January 8–9, 2005, in Princeton, New Jersey, to identify major performance domains capturing all tasks, knowledge, and skills thought to be essential to the practice of kitchen and bath design over the next five years (National Kitchen and Bath Association, 2005a). Three domains identified in the 2000 Role Delineation Study and carried forward for the next five-year period were *Planning and Design*, *Construction and Mechanical Systems*, and *Business Practices*. A fourth domain—*Products and Materials*—was added in the 2005 study to encompass such considerations as rapid expansion of available products, handling of unfamiliar and hazardous materials, changing technologies, and environmental concerns.

The survey included a question on areas of expertise respondents would expect an employee with advanced study in kitchen and bath design to have. Approximately one-half or more of survey respondents identified 13 areas of expertise expected of an employee with advanced study in kitchen and bath design falling within four performance domains (Table 1). Responses ranged from a low of 48% for installation skills and quality control to a high of 94% for innovative design abilities.

Table 1. Areas of Expertise Expected of an Employee with Advanced Study in Kitchen and Bath Design ($n = 498$)

NKBA Domain	Frequency	Percent
I. Planning and Design		
• Innovative design abilities	471	94
• Computer design	445	89
• Interior design	404	81
II. Construction and Mechanical Systems		
• Knowledge of construction techniques	453	91
• Lighting and wiring	368	74
• Mechanical systems	333	67
• Installation skills	239	48
III. Business Practices		
• Marketing and selling techniques	416	84
• Consumer behavior	370	74
• Business management	304	61
IV. Products and Materials		
• Product knowledge	456	92
• Appliances and fixtures	417	84
• Quality control	239	48

Respondents could have selected more than one area of expertise

In responding to the question about their business needs that could be satisfied by the employment of an interior design graduate that has received a master's degree, most respondents identified a wide range of existing industry needs based on the nature of their business operations. Only a small percentage of respondents felt that their business operation did not need an employee with a master's degree. The business needs identified by the respondents were quite diverse, from being general (e.g., problem solving skills) to being very specific (e.g., cabinet construction and installation skills). Table 2 shows that the business needs that could be satisfied by the employment of an interior design graduate with a master's degree were people skills (19%), professionalism (17%), comprehensive knowledge (15%), innovative design (11%), business knowledge and skills (10%), and field experience (10%).

Table 2. Business Needs that Could Be Satisfied by the Employment of an Interior Design Graduate with a Master's Degree

Business Need	<i>n</i>	%	Theme Description
People skills	64	19	Understanding consumer trends, interpreting customer needs, and effective and efficient marketing and selling
Professionalism	57	17	Improving market competitiveness and business performance
Comprehensive knowledge	50	15	Knowing everything from design to project finishing, including project management such as construction, installation, and budget
Innovative design	38	11	Excellent design skills, and be able to think out of the box and solve problems; some of the skills are drafting, lighting, space planning, and CAD
Business knowledge and skills	34	10	Having solid business management knowledge and skill, such as accounting; be able to manage a project and budget and make a profit for the company
Field experience	34	10	Having knowledge gained from real world working experience should be a critical part of the master's degree program

The descriptions of business needs provided detailed information about the skills or expertise needed in the industry. Further examination of the needs revealed that the overall objective of the industry operation, small or big, is to be able to market and sell projects or products effectively to satisfy consumer needs. This suggests that a candidate with a master's degree should not only have specific knowledge about design and products, but also have the ability to identify and solve problems to satisfy consumer needs.

Web-based Distance Education

The survey also included a question that presented the possibility of earning credits for an advanced degree using distance on-line education. This method of educational delivery was highly approved by the respondents. Slightly over 80% of the 477 responses to this question were favorable to this type of arrangement for employees to earn advanced degrees. When responding to this question, a higher percentage of large retailers (82%) approved on-line education than small retailers (76%). Meanwhile, 84% of the designers and 82% of the executives favored this method of educational delivery. These results are shown in Figure 3. Earning credit on-line would provide employees the opportunity of pursuing a degree while maintaining their employment. Topics strongly suggested to be included in an on-line master’s degree program were management of projects, time, and people.

Advanced Knowledge and Skills

Several questions on the industry survey dealt with specifics on the advancement of education among NKBA members. When asked whether a master’s degree in interior design or a master’s degree in business would be most beneficial, 66% of the 474 persons answering the question reported that a degree in interior design would be the most beneficial. The only industry segment that perceived an employee with a master’s of business degree to be more beneficial to their respective firm than a master’s degree in interior design was the manufacturer segment of the respondents.

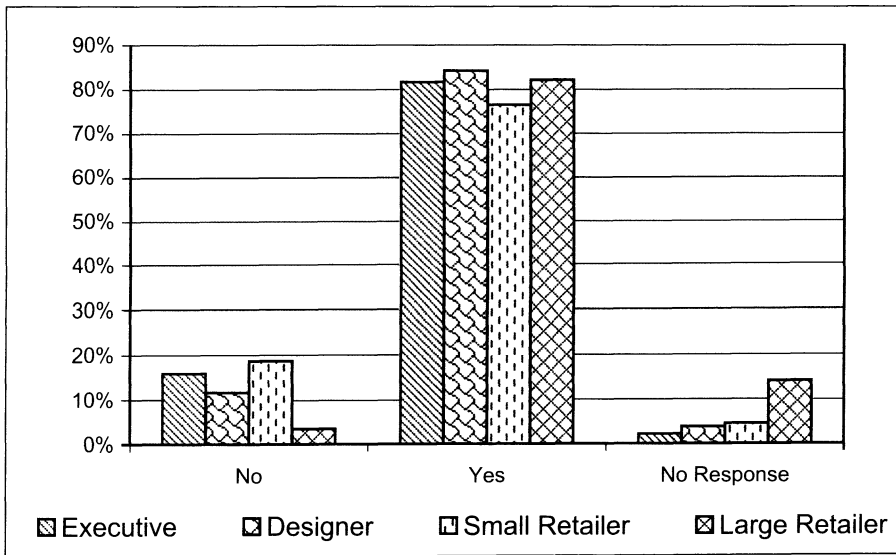


Figure 3. Firms’ Approval of On-line Education for Employees by Percentages (n = 477)

It should be noted that all members of the NKBA industry are not required to earn CEUs in order to continue their membership. However, at the present time all certified members of NKBA are required to earn a specific number of CEUs every two years. When questioned on the survey about the possibility of graduate courses being counted as CEUs, 87% of the 469 persons answering the question reported that this would be most beneficial if it would eventually lead toward a master's degree.

On the comment section that followed the above two questions, 145 respondents added their ideas and thoughts. The majority of respondents felt a master's degree in interior design would be more beneficial to their profession than a master's degree in business. The few respondents that felt a master's degree in business would be beneficial all agreed that the undergraduate degree should be in interior design. The majority of respondents emphasized the importance of employees pursuing a master's degree be given the opportunity of submitting course credit for CEU credits. In addition, it was suggested that undergraduate courses should count for CEU credit if an employee was pursuing a bachelor's degree.

Negative concerns about employees achieving their master's degree were very few. The primary concerns were an expected raise in salary level which might not be feasible for the design firm, the loss of an executive's position to a person with a higher degree, and the age of the respondent was realistically past that of pursuing the higher degree.

In a comparison between large and small retailers, only 25% of large retailers felt that an employee with a master's degree in business would be more beneficial to the company. However, 41% of small retailers favored the master's degree in business. When responding if it would benefit a firm to have one or more employees complete an advanced degree, either in interior design or business, a higher percentage of large retailers (82%) were in favor than smaller retailers (69%). In order to benefit their firms, respondents were asked to identify specific topics/concentrations that they would recommend for CEUs and/or a master's degree program. As shown in Table 3, approximately one-half or more of survey respondents recommended 20 topics/concentrations for continuing education units and/or a master's degree program that fell within the four NKBA performance domains. The percentages of topics/concentrations that were recommended ranged from a low of 47% for product development to a high of 90% for advanced design skills.

In the survey respondents were asked to identify any additional knowledge and skills that would benefit their firms. Only 112 answered this open-ended question. The knowledge/skill areas cited by the respondents included leadership skills development, time management, ergonomic engineering, cost estimating, productivity, cabinet and appliance manufacturing process, networking, geometry and mathematics, advanced design philosophy, psychology, and practical experience in the field.

Table 3. Topics/Concentrations for CEUs and/or Master's Degree Programs (*n* = 495)

NKBA Domain	Frequency	Percent
I. Planning and Design		
• Advanced design skills	443	90
• Codes and standards	379	77
• Computer applications	358	72
• Showroom design	337	68
• Barrier-free design issues	329	67
II. Construction and Mechanical Systems		
• Cabinet construction	349	71
• Plumbing and mechanical issues	345	70
III. Business Practices		
• Organizational skills	389	79
• Customer service issues	359	73
• Market trends and analysis	359	73
• Consumer behavior	355	72
• Customer profile and follow-up	353	71
• Professional ethics issues	337	68
• Contracts, warranties, and business forms	329	67
• Purchasing (buying and sourcing)	265	54
• Legal issues	239	48
IV. Products and Materials		
• Appliance and cabinet installation, care and maintenance	299	60
• Quality control and analysis	248	50
• Environmental issues	245	50
• Product development	232	47

Respondents could have selected more than one topic/concentration

Finally, respondents were asked if their firms would benefit from having at least one employee complete an advanced degree. Responses were very positive. Over 83% of the 461 respondents who answered this question agreed that their firm would benefit from having at least one employee with an advanced degree.

Discussion

The survey questionnaire for this study included four areas: (a) general information about the firm and position held by the respondent, (b) expectations for performance areas of expertise modeled after the requirements for NKBA Endorsed College Programs, (c) interest in Web-based distance education, and (d) advanced knowledge, skills, and abilities beneficial to the industry.

In the editorial section in *Kitchen and Bath Design News*, Sefrin (2003) alluded to an initial fear of the demise of the independent kitchen and bath dealers as a result of the rise of the big box retailers. This turns out to be both a challenge

and an opportunity in that the small design firm/retailer is challenged to become better at what they were uniquely suited to provide the consumer. Encouraging employees for advanced study in kitchen and bath design and business is one way in which the small design firm/retailer can strategically expand their services to remain competitive in an increasingly fragmented and specialized field.

When the expected topics/concentrations from CEUs and/or a master's degree program are compared to the requirements of NKBA for student competencies in order to endorse an interior design program, a number of the topics/concentrations are included in a typical college four-year program. Those topics which are infrequently found in interior design programs but were suggested by respondents of the study as beneficial additions to the education of employees in those firms are advertising skills, market trends and analysis, accounting, retail finances, product development, quality control and analysis, showroom design, supply chain management, inventory management, and international trade. It is obvious that this wide range of topics and concentrations cannot be included in one or two dedicated courses but should encompass several courses as the transparent layers of a structure supporting each other within the content of a master's program. In addition, the respondents mentioned the importance of practical experience in the field in their comments to one of the open-ended questions on the survey. These findings support the work of both Blossom (2004) as well as Clemons and Eckman (2004) in their research studies that emphasized major knowledge areas needed in interior design programs for both undergraduate and graduate students.

Overall results from this joint study by NKBA and East Carolina University revealed that the majority of persons answering the survey would be favorable toward the opportunity for employees in the industry to pursue master's degree work in kitchen and bath design. For persons without a bachelor's degree there will always be the need for CEUs as many of the members of NKBA do not have formal college degrees. At the present time, the typical CEU does not have the depth of study that would be required for a master's degree course. Thus, members of NKBA who want to pursue a master's degree should be permitted to substitute approved master's level courses for their required CEUs.

Conclusions

This research supports the philosophy of both Sefrin (2004c) and Kleber (2004) in their conclusion that today's young homeowners (Generation X) are different in many ways from the Baby Boomer generation. It is important for the success of kitchen and bath designers that they understand the lifestyles, attitudes, and buying preferences of this new generation that desires autonomy and a higher quality of life. The results of this survey revealed that expertise is needed in the marketing and selling of products in design to satisfy a wide variety of consumer needs. In addition, Sefrin (2004a) reminded designers that it is important to note

that the traditional kitchen and bath consumer consisting of a married couple with children makes up less than one-third of all U.S. households. Today's households also include a diverse mix of multi-generational groups, single-parents with children, senior citizens, and minorities, all of whom have different needs and wants. This study further supports Costa (2003) in her emphasis of the fact that change is one of life's constants, so the best leaders never stop learning, growing, and preparing for the future.

There were some limitations to this research. The study targeted voting members of NKBA and survey findings cannot be generalized to the interior design profession. No data were collected from members of NKBA on their level of professional education from two- and four- year degree granting colleges and universities. Additionally, no data were collected from colleges or universities on their level of interest in offering a master's degree or offering advanced study in kitchen and bath design and business either on campus or through distance education.

Implications

Findings of this study suggest there is a demand among the NKBA voting membership for two types of professional credentials: (a) master's level professional training via advanced certification and (b) master's level degree from a graduate degree granting academic institution. The former supports continuing professional development to expand breadth of knowledge for certified kitchen and bath designers. The latter offers the baccalaureate degree student opportunity for an advanced university degree and in-depth study in a specialty area of kitchen and bath design and business. Consideration should be given to the interdisciplinary nature of the profession in the development of a graduate level program of study that encompasses subject matter domains delineated by the kitchen and bath industry. Graduate level curriculum should integrate applications of theory in field experience. Consideration should be given to development of advanced training and graduate level courses through a distance education venue.

There also exist implications for research. Areas of future research include: (a) further delineation of specialization of study needed in the cited subject matter domains specific to kitchen and bath design and business; (b) identification of NKBA Endorsed Programs willing and equipped to offer advanced training and graduate level degrees in kitchen and bath design and business and in the distance education venue; (c) identification of university programs from multiple disciplines with the scope of knowledge identified in the survey responses; (d) exploration of interdisciplinary models for graduate level education that incorporate professional field placement in an in-depth program of study; and (e) exploration of collaborative partnerships between university and industry to provide opportunities for applying classroom theory to real world problems associated with professional practice.

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