

KITCHEN REMODELING: EXPLORING THE DREAM KITCHEN PROJECTS

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Abstract

The faculty of the Center for Real Life Kitchen Design at Virginia Tech responded to a growing interest in kitchen remodeling with the Explore Your Dream Kitchen workshop to educate the consumer on working with a designer and comparing the multitude of products available to the consumer planning a new kitchen. This article reported on a survey of 192 participants in 13 of the workshops who actually remodeled or built a home with a new kitchen (N = 72). Descriptive findings included project cost, reasons for remodeling, professional assistance, choice of design features and products, and satisfaction with the remodeling process and product choices. Analysis of the reasons for product choice showed appearance to be an important factor, while durability and cost were less important.

Introduction

The early years of the 21st Century brought a great amount of activity in the home construction and remodeling industries. A strong U.S. economy resulted in growing wealth for many households and a rapid increase in home values. This increase in home price appreciation surged ahead of general price inflation and outstripped income growth by more than six times from 2000 to 2005. The 2005 home price increase was the fastest growth pace since 1978 (Joint Center for Housing Studies of Harvard University, 2006).

Rapidly appreciating property values coupled with low interest rates sparked consumer confidence about spending. Many saw this as an excellent time to invest in their home. Those not interested in a new home turned to remodeling to add the desired home features they had been doing without, especially in the kitchen. Between 2001 and 2005 home improvements rose

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almost 24% (Joint Center for Housing Studies of Harvard University, 2006), and many used the equity of their home to finance the improvements. In addition to the available equity, consumers were enticed with a palate of new product choices and technologies. People were also gathering information about new products and design ideas from HGTV and other home related programs. Furthermore, the Internet brought every product virtually into their home. At the same time there was growing interest in the environment and green products which motivated some households to add more environmentally friendly materials to their home, as well as more energy efficient appliances and technologies. The public was thirsty for information and extensively researched the products for their new project.

There are many reasons why the kitchen is among the most popular home improvement projects. Not only do kitchens quickly become outdated with respect to technologies and materials, but the kitchen now serves as the hub of home activity. Kitchens of the past are being expanded to not only include more storage, but to also incorporate many of the most popular features in today's modern kitchens such as islands, workstations, secondary eating areas, and integration with the living spaces of the home. Consumers see the kitchen as a place to converse with people and incorporate entertainment options while still carrying on the typical household tasks in the kitchen.

In 2000 the faculty of the Center for Real Life Kitchen Design at Virginia Tech responded to this growing interest in kitchen remodeling by developing what turned out to be a much needed and desired workshop titled *Explore Your Dream Kitchen*. It was evident that these consumers were serious enough about their kitchen projects that they were willing to pay for a workshop that would help them achieve the results they were seeking. The intent of the workshop was not to replace professional kitchen designers, but to educate the consumer on how to work with a designer, the right questions to ask the designer, and how to compare the multitude of products on the market.

The purpose of this study was to provide information on product choices and decisions as well as satisfaction with the design and remodeling process, and to gain insights into kitchen remodeling trends. The focus was on a survey of participants in the *Explore Your Dream Kitchen* workshops, between 2000 and 2004, who remodeled or built a home with a new kitchen.

Research questions for the study were:

1. What were the main reasons for remodeling the kitchen?
2. What products were selected for the project?
3. What were the main reasons for selecting certain products?
4. How satisfied were they with their choices and the process?
5. How did the reasons for remodeling impact the reasons for selection?

Literature Review

Trends in Kitchen Design

By 2005 the national average price of a minor remodeled kitchen was \$14,913, a midrange major remodeled kitchen was \$43,862, and an upscale remodeled kitchen was \$81,552. The return of investment for these kitchens ranged from 84.8% for the upscale kitchen to 98.5% for the minor remodeled kitchen (Alfano, 2005).

The trends in kitchen design often reflect the introduction and acceptance of new ideas. Emmel, Beamish, and Parrott (2001) conducted a content analysis of 104 kitchen design articles in shelter publications to identify the features in new kitchens at that time. They found islands were popular in 63% of the designs and these islands included a second sink and an eating area. Along with traditional wall and base cabinets, the designs included pantries (44%) and open shelves (21%). Over a quarter of the kitchens included two sinks.

Since the *Explore Your Dream Kitchen* workshop participants were likely to have made their remodeling and building decisions between 2001 and 2005, a review of popular product selections from these years was undertaken. The National Association of Home Builders Research Center (2003) reported on the materials and products used during 2002 for the residential construction market. The most frequently used countertop material was laminate (58%), followed by solid surface (15%) and granite (14%). The most common flooring was sheet vinyl (44%), followed by ceramic tile (32%) and hardwood (16%). Use of materials in kitchen remodeling was different: vinyl tile (25%), ceramic tile (24%), sheet vinyl (19%), and laminate (14%). Olah, Smith, and Hansen (2003) examined the use of wood by cabinet manufacturers, looking at both large and smaller companies. Red oak was the highest used wood (44%), followed by hard maple (24%) and cherry (10%), with soft maple, ash, hickory, poplar, white oak, alder, and birch each being used 5% or less.

Remodeling as a Housing Adjustment

In the Theory of Housing Adjustment (Morris & Winter, 1978), a household would have inadequate housing if there are cultural and family normative deficits, producing housing dissatisfaction and resulting in a need to adjust the housing situation. One adjustment would be to move and another would be to make alterations or additions to the house. Building a new house with a new kitchen would be considered a housing adjustment that gives the household the opportunity to remove any normative deficits that had been prominent in the kitchen of their old house. Remodeling would be an opportunity to respond to normative deficits related to space and quality. According to the theory, households are more likely to make changes if there has been a change in their family lifecycle or socioeconomic status.

Parrott (1988) examined the relationship of household characteristics and the remodeling process and found that people in the younger stages of the lifecycle were more likely to undertake do-it-yourself remodeling projects. More educated homeowners were more likely to use professional advice when remodeling. Parrott (1993) also examined the role of housing characteristics on remodeling and found that the value of the house, length of residence, age of the structure, and equity were related to the remodeling process. Older homes were more likely to be remodeled and were especially likely to have the kitchen and bath remodeled.

At the time the Theory of Housing Adjustment was developed, most housing space norms were focused on crowding and the number of bedrooms meeting the size of the household. In the kitchen, inadequate counter space, cabinet storage, and floor space could be considered space norms that needed to be met. In early work, housing quality norms involved adequate plumbing and the overall condition of the house. In the kitchen, this could indicate old or outdated cabinets, appliances, and decorations.

In today's housing market, households that remodel kitchens or build new housing are making changes to address specific space and quality deficits and make choices to fit their current and future lifestyles. Beamish, Goss, and Emmel (2006) presented a framework that suggested that lifestyle factors might have filtered the perception of norms resulting in a less clear-cut identification of what the family norms are in today's society. Although a kitchen may meet design guidelines, the preference for higher quality or more expensive products and finishes may trigger a kitchen remodeling project. Thus, there is a considerable supply of housing built in the 1960s, 1970s, and 1980s that may be adequate, but perceived as in need of renovating and updating.

Kitchen Remodeling Process

A recognized model of consumer purchase decision-making behavior was summarized by Engel, Blackwell, and Miniard (1995) as involving five stages: (a) problem recognition, (b) information search, (c) alternative evaluation, (d) purchase decision, and (e) post-purchase behavior. The kitchen remodeling process from the consumer's perspective usually involves similar stages of decision making in order for the project to be completed.

Problem Recognition

First, homeowners realize they have a problem with their kitchen and they are dissatisfied. In the Theory of Housing Adjustment, dissatisfaction is viewed as a predictive measure that determines if a household will make a housing change and is at the start of the decision-making process. Their dissatisfaction would be due to normative deficits in space and quality. Harrison (1998) reported that people remodeled their kitchen because they had insufficient counter space, inefficient or

outdated appliances, inefficient layout, inadequate or inaccessible cabinet volume, deteriorating decoration, poor lighting, and poor ventilation. Wilsonart Laminates ("Most homeowners want a remodeled kitchen," 2004) conducted a survey of women homeowners and found that 97% of their sample would change something about their kitchen. The features they wished to change most frequently were the cabinets (30%), size (26%), flooring (18%), counters (16%), appliances (13%), layout (10%), entire kitchen (6%), and lighting (4%). Sixty-eight percent of the respondents planned to remodel within the next five years, while 15% planned to renovate their kitchen within six months.

Information Seeking

Second, homeowners undergo steps to explore possibilities of design and products, and then seek help in the process. They seek information from friends/family, contractors, architects/designers, magazines, catalogs, home shows, and other events (Laquatra & Ichimune, 1993). In the Laquatra and Ichimune study, respondents attended a workshop to obtain information to guide their choices. More recently, the Internet and cable home shows have also provided information.

Evaluation of Choices

The third stage involves the evaluation of alternatives. Consumers may look for recommendations, check authoritative sources, and consider performance data if it is available. The *Explore Your Dream Kitchen* workshop provided information to participants on criteria to use in evaluating choices. Often in kitchen remodeling, this is the point where the consumer may talk to various design services and select a designer to provide information on alternatives. The kitchen designer's knowledge about pertinent information is needed to make decisions in the next stage.

Design and Product Selection

The fourth stage is more involved than the typical purchase decision because multiple decisions are being made simultaneously and these decisions can impact and influence each other. Decisions about the design and plan of the layout of the actual space must be made. Understanding and analyzing the users and their activities and lifestyles is important in this step. Emmel, Beamish, and Parrott (2005) reported on a national survey that sought information about the activities performed in the kitchen. The respondents prepared meals five or more times a week (72%), most often preparing dinner and using a variety of cooking techniques and equipment. The respondents also reported frequently conducting several non-food activities in the kitchen, such as talking on the phone, taking medicines, having conversations, planning meals, eating in the kitchen, and recycling, among others. Most kitchen designers use an extensive interview schedule to determine the activities of the client.

Also during this stage, decisions about the selection of cabinets, finishes, fixtures, appliances, and lighting are undertaken. There are a number of decisions at this point in the process and they are often interrelated. Finally, the installation of selected products is undertaken.

Evaluation

The last stage in consumer purchase decision-making behaviors is post-purchase behavior. In the kitchen remodeling process, using the kitchen to perform the identified activities would be the typical post-purchase behavior. Often satisfaction is used by researchers to measure consumers' pleasure with a decision or purchase. Satisfaction can also be used as a way to evaluate a design solution. Consumers who are dissatisfied may seek to make changes to the design or to replace different products based on the degree of dissatisfaction and the ease of making changes. A national telephone survey by Emmel et al. (2001) asked people about the adequacy of their kitchen and examined respondents who had remodeled their kitchen or had input into the design of their kitchen. Respondents who had input into the design reported that their kitchens had adequate pantry storage (93%), wall cabinets (87%), counter space (87%), and base cabinets (84%). Those who had remodeled their kitchen, but did not have input, had a similar pattern, except for counter space: adequate pantry (90%), wall cabinets (84%), base cabinets (83%), and counter space (71%).

Method

Explore Your Dream Kitchen is a continuing education workshop offered to consumers on a regular basis at the Center for Real Life Kitchen Design at Virginia Tech since 2000. The two-day workshop included information on cabinetry, appliances, countertop and flooring materials, sinks and faucets, lighting, and kitchen and universal design guidelines and principles. Participants also prepared their first night's dinner in the five kitchens in the Center for Real Life Kitchen Design and received a 45 minute consultation with Certified Kitchen Educators (CKEs). Evaluations were conducted at the close of the sessions and the ratings were generally very high for the value of the information and the quality of the presentations. However, little was known about how the participants used the information once they left the workshop.

A survey of participants from 13 *Explore Your Dream Kitchen* workshops was conducted in 2005. Records indicated that 227 had participated, but because some couples had attended, 192 households were sent the questionnaire. The questionnaire contained three sections that asked about their workshop experience, whether they had remodeled or built a new kitchen since the workshop, and information about their house and household. If they had remodeled or built they were asked to complete a third pull-out section that asked about product and

material selection, and the design features they included in their new kitchen. Several questionnaires were returned undelivered and 112 questionnaires were useable for analysis. Fifty-five (76%) respondents had remodeled or were in the process of remodeling their kitchen, 15 (21%) had built a new home or were in the process, and 2 (3%) had done both. Therefore, data from 72 respondents were analyzed to investigate decisions related to designing and installing a new kitchen.

Description of the Sample

The sample for this study was a subset of the respondents to the *Explore Your Dream Kitchen* survey and were the respondents ($N = 72$) who had actually engaged in a building or remodeling project since participating in the workshop. The study sample was predominantly female (83%) and middle aged, with 43% being aged 35 to 54 and 49% being age 55 or older (Table 1). The majority lived in couple households (92%), with only 33% having children living at home. Not surprisingly this was an economically well-off sample with 76% reporting household incomes over \$100,000.

Table 1. Demographic Characteristics

Characteristic	Frequency	Percent
Gender ($n = 69$)		
Female	57	83
Male	12	17
Age ($n = 67$)		
34 or younger	5	7
35 – 44	12	18
45 – 54	17	25
55 – 64	27	40
65+	6	9
Household Type ($n = 69$)		
Single	5	7
Couple	41	59
Couple with children at home	23	33
Household Income ($n = 63$)		
Less than \$50,000	2	3
\$50,000 to \$100,000	13	21
\$100,001 to \$150,000	20	32
\$150,001 to \$200,000	12	19
\$200,001 to \$250,000	6	9
More than \$250,000	10	16

Over half of the study's participants lived in suburban communities (Table 2). Many participants had experienced a relatively short tenure in their homes, with 32% having lived in their homes five years or less, and 51% having lived in their homes 10 years or less. The age of the homes was widely distributed, although 43% of the homes were built between 1970 and 1989. Most likely reflective of the economic status of the participants, 69% of the homes had a self-reported market value of \$400,000 or more at the time of the survey.

Table 2. Housing Characteristics

Characteristic	Frequency	Percent
Neighborhood/Community (<i>n</i> = 71)		
Suburban community	42	59
Large city/urban area	12	17
Small town	11	15
Rural area	6	8
Residency Length at Current Home (<i>n</i> = 68)		
Less than 1 year	3	4
1 – 5 years	19	28
6 – 10 years	13	19
11 – 15 years	7	10
16 – 20 years	8	12
21 – 25 years	5	7
26 – 30 years	8	12
31 – 35 years	4	6
More than 35 years	1	1
Year Home Built (<i>n</i> = 70)		
Before 1960	19	27
1960 – 1969	8	11
1970 – 1979	17	24
1980 – 1989	13	19
1990 – 1999	5	7
2000 or later	8	11
Market Value of Home (<i>n</i> = 68)		
\$100,000 to \$149,999	1	1
\$150,000 to \$199,999	3	4
\$200,000 to \$249,999	4	6
\$250,000 to \$299,999	3	4
\$300,000 to \$349,999	6	9
\$350,000 to \$399,999	4	6
\$400,000 and over	47	69

Findings: The Remodeling Process

Respondents to the survey who were remodeling or building were asked to estimate the cost of their specific kitchen project, and 60 were able to provide an estimate (Table 3). The most common price range was \$40,000 - \$49,999 (25%), but 29% spent \$50,000 or more.

Problem Recognition

Respondents expressed many reasons for remodeling, with outdated cabinets (76%) and appliances (69%) being the most popular (Table 4). Other frequently expressed reasons were related to poor layout of their existing kitchens (64%) or lack of space, especially countertops (64%) and storage (54%). Reasons related to changing family situation or lifestyle (16%) or household activities (9%) were less frequently cited. The reasons given for building were varied, with retirement (40%) the most frequent.

Table 3. Estimated Cost of Kitchen Project ($n = 63$)

Estimated Cost	Frequency	Percent
Less than \$10,000	4	6
\$10,000 to \$19,999	6	10
\$20,000 to \$29,999	6	10
\$30,000 to \$39,999	10	16
\$40,000 to \$49,999	16	25
\$50,000 to \$69,999	13	21
\$70,000 and over	5	8
Do not know/cannot estimate	3	5

Table 4. Reasons to Remodel or Build

Reason to Remodel ($n = 55$)	Frequency	Percent
Outdated-style cabinets	42	76
Outdated appliances	38	69
Poor appliances	36	65
Ineffective layout	35	64
Need for more counter space	35	64
Need for more storage	30	54
Too small a kitchen	27	49
Other	10	18
As a part of restoration	9	16
Changes in family situation or lifestyle	9	16
Family size changed	9	16
Household activities changed	5	9
Interest in cooking changed	4	7
Retirement	3	5
Other family situation or lifestyle changes	2	4
Reason to Build ($n = 15$)		
Home for retirement	6	40
Other	5	33
Relocation	4	27
Need for larger home	2	13
Downsize home	1	7

Note: Respondents could select more than one answer.

Professional and Product Choices

Survey respondents consulted with a variety of professionals to assist in their projects, in addition to attending the *Explore Your Dream Kitchen* workshop. Contractors and/or builders (54%) and kitchen designers (44%) were the most frequently consulted (Table 5).

The kitchen projects of the respondents included a wide variety of different features (Table 6). Given that the driving reasons for the new kitchens for many homeowners were outdated cabinets, poor layout of their existing kitchens, and lack of space (Table 4), it is not surprising to see that many of the most frequent features included in the new kitchens were related to cabinets and storage.

Table 5. Project Professionals Consulted (*N* = 72)

Project Professional	Frequency	Percent
Contractor and/or builder	39	54
Kitchen designer	32	44
Architect	15	21
Other	13	18
Interior designer	7	10

Note: Respondents could select more than one answer.

Table 6. Design Features in Kitchen Projects (*N* = 72)

Design Feature	Frequency	Percent
Large drawers in base cabinet	56	78
Pantry storage	56	78
Pull-out shelves in base cabinet	53	74
Controls located at the front or side of cooktop	49	68
Rounded edges on countertop	49	68
Place to sit and work in kitchen	46	64
Corner cabinets have a lazy-susan	44	61
42" to 48" work aisle	38	53
Back splash or under cabinet storage	35	49
Heat-resistant countertop next to cooking unit	35	49
Multiple countertop heights	23	32
6" toekick on some cabinets	20	28
Microwave controls no more than 48" from the floor	20	28
Other design features	17	24
Dishwasher raised 6" or more from floor	14	19
Sink no more than 6½" deep	13	18
Non-slip flooring	7	10
Cart planned into design	5	7
Contrasting countertop edge	4	6
Pull-down shelves in wall cabinet	2	3

Note: Respondents could select more than one answer.

Also, with the sample skewed toward middle aged cooks, it is not surprising to see many convenience and universal design ideas among the most frequently used design features. A summary of the products selected by respondents for their new kitchens can give some insight to the current popularity and trends in kitchen products on the market (Table 7).

Cabinets. With a relatively affluent sample, it is not surprising that 42% chose semi-custom and 35% chose custom cabinetry. Raised panel doors were the most popular (43%), and it is a trend worth noting that a third (35%) had at least some glass doors. Wood was the overwhelming (86%) material choice.

Countertops. Granite (43%) and solid surface (26%) were the most popular counter top choices, reflecting popular trends as well as the affluence of the sample.

Primary sinks and faucets. The most popular sink choices were a two-bowl sink (64%), stainless steel (67%), and under counter mounted (63%) that would fit with the most popular choices in countertop materials. A single control faucet was chosen by 75% of the respondents, and was made of chrome (28%), nickel (28%), or stainless steel (25%).

Flooring. Flooring choices were more diverse. Hardwood was the choice of 38% while 17% chose ceramic tile.

Lighting. Respondents installed a variety of light sources, including incandescent (56%), halogen (44%), and fluorescent (31%). These were installed in multiple locations, with the most popular being recessed in the ceiling (74%) and under the cabinet (67%).

Satisfaction

When queried about their satisfaction with the remodeling process, respondents gave varied answers (Table 8). Their highest satisfaction was given to the quality of their finished project including materials ($M = 4.58$), design ($M = 4.47$), and value ($M = 4.47$). Their satisfaction with the remodeling process, including time ($M = 3.37$) and mess ($M = 3.11$), was lower.

When asked about satisfaction with product choice, respondents reported a high and consistent level of satisfaction, with mean values from 4.43 to 4.59 (Table 9). This confirms their satisfaction with the remodeling process (Table 8), where quality of materials was the highest satisfaction reported.

Findings: Understanding Product Choices

Respondents (both those who remodeled and those who built) were asked to explain why they made their particular product choices. Their options included cost, durability, appearance, ease of installation, and factors unique to the product, such as color, pattern, availability, and function. Although their satisfaction appears to be linked to the quality and value of the products and materials in their projects

Table 7. Product Selection ($N = 72$)

Product	<i>n</i>	%	Product	<i>n</i>	%
Cabinets			Countertop		
<u>Type:</u>			<u>Material:</u>		
Semi-custom	30	42	Granite	31	43
Custom	25	35	Solid surface	19	26
Stock	13	18	Engineered stone (quartz)	11	15
Framed	20	28	Laminate	9	13
Frameless	14	19	Ceramic tile	6	8
<u>Door Style:</u>			Marble, slate, or		
Raised panel	31	43	other natural stone	2	3
Glass	25	35	Stainless steel	2	3
Flat panel	20	28	Wood	1	1
Full overlay	19	26			
Inset	12	17			
<u>Material:</u>					
Wood	62	86			
Laminate	5	7			
Primary Sink			Primary Sink Faucet		
<u>Type:</u>			<u>Type:</u>		
Two-bowl	46	64	Single handle control	54	75
One-bowl	19	26	Goose neck	28	39
Three-bowl	1	1	Two handle control	10	14
<u>Installation:</u>			<u>Finish:</u>		
Under counter mount	45	63	Chrome	20	28
Self riming	13	18	Nickel	20	28
Integral	6	8	Stainless steel	18	25
<u>Material:</u>			Solid color		
Stainless steel	48	67	Polished brass	4	6
Solid surface	8	11	Hand-rubbed bronze	1	1
Enameled cast iron	6	8	or brass		
Enameled steel	1	1			
Other proprietary material	3	4			
Flooring			Lighting		
<u>Material:</u>			<u>Lamp Type:</u>		
Solid hardwood	27	38	Incandescent	40	56
Ceramic tile	12	17	Halogen	32	44
Laminated	4	6	Fluorescent	22	31
Bamboo	4	6	Xenon	15	21
Engineered hardwood	3	4	<u>Fixture type:</u>		
Cork	3	4	Recessed	53	74
Vinyl sheet	3	4	Under cabinet	48	67
Vinyl tile	3	4	General overhead	14	19
Slate	2	3	Track	10	14
Linoleum	1	1			

Note: Only specific product choices reported. Appliance selection information is being reported in another manuscript currently in preparation. Respondents could select more than one answer.

(Tables 8 and 9), their product choices were strongly influenced by the appearance of the products (Table 10). A large majority of the sample consistently cited appearance as a reason for product choice (76% to 90%), more frequently than cost (23% to 39%), durability (34% to 79%), or other reasons. However, referring to Table 4, outdated cabinets and appliances were the top reasons for remodeling, and this might suggest that style and being current in appearance were important to the respondents.

Table 8. Satisfaction with Kitchen Remodeling Process

Satisfaction	<i>n</i>	<i>M</i>	<i>SD</i>
Quality of materials used	57	4.58	.63
Layout and arrangement of work centers	59	4.47	.68
Cost of kitchen in relation to benefits gained	57	4.47	.66
Quality of workmanship	57	4.39	.73
Process of financing the kitchen project	34	4.09	1.03
Finding and hiring contractor or designer	44	3.77	1.24
Amount of time required to complete the project	52	3.37	1.23
Living with the "mess" while remodeling	46	3.11	1.22

Note: Scale ranged from 1 = very dissatisfied to 5 = very satisfied.

Table 9. Satisfaction with Product Choice

Satisfaction	<i>n</i>	<i>M</i>	<i>SD</i>
Flooring	56	4.59	.63
Sink	56	4.55	.60
Countertop	57	4.53	.63
Lighting	57	4.53	.63
Faucet	57	4.47	.76
Cabinet	54	4.43	.77

Note: Scale ranged from 1 = very dissatisfied to 5 = very satisfied.

Table 10. Reasons for Product Choice

Product Choice	Cost		Durability		Appearance	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Cabinets	28	39	30	42	62	87
Countertop	18	25	56	79	60	85
Primary sink	22	31	43	61	54	77
Primary sink faucet	22	31	24	34	56	80
Lighting	17	25	*	*	51	76
Flooring	16	23	34	49	62	90

* Durability was not measured in lighting choice. The alternative measure was "function," which was selected by 55 (82%) of respondents.

Note: Respondents could select more than one answer.

To further explore an understanding of the respondents' product choice, cross tabulations and chi-square analyses were conducted. First, demographic variables were analyzed with the reasons given for product choice, limited to the top three reasons of appearance, durability, and cost. An association was found with gender ($\chi^2(1, n = 52) = 3.861, p < .05$), with women more concerned about durability in their choice of countertops. However, all other demographic data analyses did not yield meaningful associations with product choice reasons due to the limited sample size.

Additional insight can also be gained by examining the relationships between the most frequent reasons for remodeling (Table 4) and the explanations for product choice (Table 10). The remodeling reasons related to appliances were removed for reporting in a separate manuscript. Therefore, the five top reasons for remodeling analyzed were: outdated-style cabinets, ineffective layout, need for more counter space, need for more storage, and too small a kitchen. These reasons were examined together with the top three reasons given for product choice: appearance, durability, and cost. For lighting, function was included in the place of durability.

The results of the chi-square analyses showed eight significant relationships with adequate cell sizes, seven of which appear to fit a consistent pattern. The seven chi-square results revealed that the criteria (appearance, durability, and cost) in product selection were more or less related to kitchen remodeling reasons.

- Those who remodeled because they *needed more storage* were less likely to select *cost* as reason for choosing a countertop.
($\chi^2(1, n = 54) = 6.106, p < .05$)
- Those who remodeled because they *needed more storage* were more likely to select *appearance* as reason for choosing a sink.
($\chi^2(1, n = 53) = 6.119, p < .05$)
- Those who remodeled because they *needed more storage* were more likely to select *appearance* as reason for choosing lighting.
($\chi^2(1, n = 52) = 7.998, p < .05$)
- Those who remodeled because they *needed more counter space* were less likely to select *cost* as reason for choosing a faucet.
($\chi^2(1, n = 53) = 5.123, p < .05$)
- Those who remodeled because they *needed more counter space* were less likely to select *cost* as reason for choosing a countertop.
($\chi^2(1, n = 54) = 4.903, p < .05$)
- Those who remodeled because they had *too small a kitchen* were less likely to select *durability* as reason for choosing a faucet.
($\chi^2(1, n = 53) = 3.865, p < .05$)
- Those who remodeled because they had *an ineffective layout* were more likely to select *appearance* as reason for choosing cabinets.
($\chi^2(1, n = 54) = 6.862, p < .05$)

Several observations can be made from these chi-square analyses. A brief summary indicates that those who remodeled because *need for more storage*, *need for more counter space*, or *too small a kitchen* would more likely consider *appearance* when choosing a sink, lighting, countertop, or cabinets, but less likely consider *cost* or *durability* when selecting a faucet. Note that six of the seven chi-square results were from remodeling reasons indicating a need for more space. Second, the results appear to emphasize the importance of *appearance* as a choice factor in product selection. Four of the seven chi-square results showed *appearance* as a significant choice factor. In addition, two significant results showed *cost* to be less a factor, and one significant result showed *durability* to be less a factor in product choice. This suggests that other factors, such as *appearance*, could be more important.

In addition to the above seven relationships, a significant relationship was shown between remodeling because of a *need for more storage* and choosing countertops for *durability* ($\chi^2(1, n = 54) = 5.113, p < .05$). A possible explanation for this finding was that when storage is inadequate in a kitchen, the countertop becomes an overflow storage area (Parrott, Beamish, & Emmel, 2005). Items such as small appliances, cooking implements, spices, foods, and cookbooks are left on countertops for lack of space to store them elsewhere. This can lead to wear and tear on countertops, and may create an awareness of a need for durable countertop materials.

Discussion and Conclusion

The participants in this study can generally be classified as high-end consumers, given the value of their homes, the amount spent on their kitchen remodeling projects, and the quality and value of the products selected. The emphasis on remodeling because of the perception that their existing kitchens were outdated, ineffective, or lacking in space was coupled with an emphasis on the importance of appearance in many of the product choices they made. Following their remodeling, a high level of satisfaction with the quality of their new kitchen and its contents was reported.

The findings of this research clearly support the Housing Adjustment Model developed by Morris and Winter (1978). About one third of the study's participants were relatively recent home buyers who appear to have discovered early on that they were dissatisfied and wanted to make adjustments in their housing that would solve perceived problems. These problems were most commonly related to housing deficits, and not family or normative deficits such as retirement or a change in family size. The most frequently stated reasons for the kitchen remodeling decision included outdated appliances and cabinets, a lack of space and storage, and an inefficient layout. For these households, adjustments were made through remodeling rather than moving.

Decision-Making Model

The five stages of the consumer purchase decision-making behavior model of Engel et al. (1995) also provided a framework for examining the results of this study. The problem recognition stage was the identification of, and reason for, the perceived need for a remodeled kitchen. To establish confidence in the decisions about their project, these remodelers were willing to spend money to attend an *Explore Your Dream Kitchen* workshop (information search stage). The workshop attendees felt a need to be knowledgeable about their choices (alternative evaluation stage). Even those working with kitchen designers appeared to be very involved with all the remodeling decisions, as evidenced by their presence at the workshop. A large number of these consumers were also working with contractors or builders on their project and thus these professionals most likely served as major influences on decisions during the project.

One factor clearly evident in the study was the importance of appearance. These households desired a very attractive space, often stating it as more important than many other factors. Appearance was an important criterion in product choice as well (purchase decision stage). Interestingly, cost and durability were found to be significantly less important in the selection of some products. Overall, the participants in this study were very satisfied with the quality of the products they selected (post-purchase behavior stage). They were less satisfied with the overall remodeling process.

The study participants had chosen to attend an extensive workshop on kitchen design in preparation for their remodeling/building project. Therefore, they may have been atypical decision makers who were more thorough in their decision process (e.g., the information search and alternative evaluation stages). Alternatively, they may have been more knowledgeable about kitchen design and products, and thus perceived more problems with their existing kitchens.

Future Research and Workshops

It would be valuable to expand this study to a larger and more diverse sample. Other factors that affect decision making in kitchen design should be investigated such as budget, family size, and food preparation styles and choices. Focus groups would offer an alternative methodology to gather information in more detail about product choice decisions.

The knowledge gained from this study has provided valuable insight for future workshops and facility design. We now know that a majority of the consumers interested in this type of workshop for remodeling a kitchen are more interested in appearance and features rather than cost. From their responses, it is evident we need to focus on materials, quality of products, and design layout of the kitchen space. Professionals wishing to offer a similar workshop should think about and explore who will be attending their workshops to better meet the needs of the participants.

Despite the growing interest in environmental and green products suggested in the introduction to this article, little evidence was found that this was a concern or influence on workshop participants. Increased energy efficiency, sustainability, environmental concerns, or related issues were not cited as reasons to build or remodel (Table 4) and were not volunteered as factors influencing product choice (Table 10). In addition, materials that have a reputation as being green products, such as bamboo, cork, or fluorescent lighting, were selected considerably less frequently than other products (Table 7). This appears to confirm the lesser importance of function and durability in product choice decisions expressed by participants. However, it indicates the importance of marketing green products on factors such as appearance, style, and design, as well as sustainability. Further, it suggests a need for considerable education on green building issues in kitchen design.

Based on the feedback of workshop participants, a 2006 remodeling and upgrade of the *Center for Real Life Kitchen Design* incorporated more of the higher quality and higher price point materials and products desired by the consumers. Having the ability to interact with high quality products, materials, and appliances, which is now possible in the Center for Real Life Kitchen Design, will be a valuable part of future workshop experiences.

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