To the Graduate Council:

I am submitting herewith a thesis written by Susanne Barton Cooper entitled "Kitchen Carpeting: Longitudinal Study of Consumer Satisfaction." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Textiles and Clothing.

Anna Jean Treece

Anna Jean Treece, Major Professor

We have read this thesis
and recommend its acceptance:

Ravena Dorlen

Helen M. Reed

Accepted for the Council:

Hilton A. Smith

Vice Chancellor
Graduate Studies and Research

KITCHEN CARPETING: LONGITUDINAL STUDY OF CONSUMER SATISFACTION

A Thesis

Presented for the

Master of Science

Degree

The University of Tennessee

Susanne Barton Cooper

December 1974

ACKNOWLEDGMENTS

The author is indebted to the following for their contributions to this study:

Dr. Anna Jean Treece, Professor and Head, Department of Textiles and Clothing, whose patience, inspiration, and criticism guided this study through its many stages and drafts.

Miss Rowena Dowlen, Supervising Home Economist, U.S.D.A., and Mrs. Helen Reed, Assistant Professor, Department of Home Management, Equipment, and Family Economics, for their suggestions and constructive criticisms.

The University of Tennessee for making assistantships available for students. Had it not been for an assistantship, enrollment in graduate school would not have been possible.

The author's parents, Mr. and Mrs. Clare A. Barton, for their understanding, support, financial aid, and babysitting services during the time the thesis was being written;

Lenora and Forrest Cooper, the author's children, for serving as inspiration; and

Mrs. Judi East, who willingly took time from her own school work to offer help and encouragement.

1175999

ABSTRACT

Fifty-five homemakers who had owned kitchen carpeting for at least six months were interviewed at their convenience to determine their relative satisfactions with their kitchen carpeting. After an interval of one and one-half years, 29 of the original respondents were re-interviewed.

The initial schedule was based upon an instrument devised by Strum. Types of questions used were: open response, checklist, and a Likert-type scale. These related to: factors involved in choosing carpeting for kitchens, sources of carpeting information, care, aesthetics, comfort, personal values, economics, wear, and stains. The follow-up schedule sought to determine if the homemakers had changed their feelings about their kitchen carpeting and to try to gain further information as to the care needed for the carpeting, its wear, its colorfastness, problems with static electricity, burns and spot removal. The Likert-type scale for stains was repeated.

On the whole, the homemakers were satisfied with their kitchen carpeting in that 90 percent reported that if they were to choose again between carpeting and hard surface floor covering, they would choose carpeting. Most dissatisfactions pertained to ease of stain removal. The stains found most difficult to remove were eggs, vomit, gravy and mayonnaise.

TABLE OF CONTENTS

CHAPTER		PAGE
I.	INTRODUCTION	1
	Purpose	
	Hypotheses	
	Limitations	
	Assumptions	
II.	REVIEW OF RELATED LITERATURE	5
	Values	
	Fiber Properties	
	Properties of Carpeting	
	Problems with Carpeting	
III.	METHODOLOGY	21
	Development of the Interview Schedules	
	Selection of the Samples	
	Collection of the Data	
	Analysis of the Data	
IV.	PRESENTATION OF DATA	26
	Responses to Checklist Questions	
	Open Response Questions	
	Likert-Type Rating of Satisfactions	
	Additional Open Response Questions	
	Choice Between Carpeting and Hard Surface Floor Covering	
V.	SUMMARY AND CONCLUSIONS	76
	As Related to Hypotheses	
	Conclusions	
BIBLIOGRAPHY		84
APPENDICES		88
Appendix A		
Appendix B		
VITA		97

LIST OF TABLES

TABLE		PAGE
1.	Construction, Design and Fiber Content of Carpeting	27
2.	Family Composition	29
3.	Features Liked When Choosing Carpet	32
4.	Features Not Liked When Choosing Carpet	34
5.	Reasons Why Carpeting Was Chosen Over Hard Surface Floor Covering	35
6.	Features Liked About Hard Surface Floor Covering	37
7.	Reasons for Not Considering Hard Surface Floor Covering	38
8.	Features About Carpet Liked After Purchase But Not Considered Before Purchase	40
9.	Features About Carpeting Not Considered Before Purchase But Not Liked After Purchase	42
10.	Features Retailer Led Homemaker to Expect That Have Held True	43
11.	Features About Carpet That Retailer Led Homemaker to Expect That Have Not Held True	45
12.	Prepurchase Sources of Information About Carpet for Kitchens	46
13.	Methods Used in the Care of Carpeting	47
14.	Carpeting Maintenance	49
15.	Methods Used for Removing Spots	51
16.	Aesthetic Value Ratings	53
17.	Comfort Value Ratings	55
18.	Ratings of Economic Factors	57
19.	Ratings of Wear Features	58
20.	Ratings of Carpet Care Properties	60

TABLE PAGE

21. Ratings of Ease of Removing Nongreasy Stains, Initial Homemakers 63

22. Ratings of Ease of Removing Nongreasy Stains, Follow-Up Homemakers 64

23. Ratings of Ease of Removing Combination Stains, Initial Homemakers 68

24. Ratings of Ease of Removing Combination Stains, Follow-Up Homemakers 69

25. Reasons for Choosing Hard Surface Floor Covering or Carpeting 74

CHAPTER I

INTRODUCTION

Floorcoverings, both hard and soft, have been traditionally assigned to specific uses and traffic areas for many years. Only recently have designers considered that innovations were in order. The change in thinking has been the result, mainly, of new fibers and processes which make possible floor coverings possessing characteristics not previously available. The introduction of polypropylene carpets in January 1962, at the Chicago Home Furnishings Market, was instrumental in beginning a revolution in the carpet industry as to the areas in which carpeting could be used advantageously. By June 1966, at the same market, twenty-one leading mills were selling more than seventy lines of carpeting made of Herculon (the brand name for the polypropylene fiber made by the Herculese Company) (10).

Use of polypropylene fibers meant that for the first time carpeting could be installed in areas where there was a great deal of exposure to sunlight and water without danger of rapid deterioration. Consequently, carpeting could be used around swimming pools, in bathrooms and on patios--places where carpeting had previously been out of the question.

It would seem that the growing use of carpets made of polypropylene fibers had served as an incentive to other fiber producers to further improve and modify their fibers to make them more readily adaptable to this new concept in carpeting. Modifications have been made in nylon and acrylic fibers to enable them to be used in some of these newer areas.

Development of carpeting for special purposes led to the production of kitchen carpeting which was claimed to be more acceptable than was previously available. The first kitchen carpeting was made from polypropylene fiber in a needlepunch construction; the finished product looked something like a very heavy felt. However, much of this type of carpeting was of such low-quality construction that it was found to be undesirable for the heavy traffic encountered in the kitchen. More recently, tufted carpets made of nylon, acrylic, or polypropylene fibers were marketed for kitchen areas. Some retailers dispute which fibers create the best carpeting for use in kitchens; some retailers promote nylon as the superior fibers and others acrylic fibers.

The advantages cited of having carpeting in the kitchen area were that noise was diminished considerably; the floors were warmer, the homemaker was not so apt to become as weary upon standing for prolonged periods of time; upkeep was much easier; and an entirely new concept in aesthetics of floors would be accomplished as well as completely new ideas concerning home decoration (16).

I. PURPOSE

The use of carpeting in kitchens is relatively new. Consequently, not many homemakers are aware of the prospective wearability or ultimate satisfaction or dissatisfaction of others owning these carpets.

The intention was to compile information regarding consumer satisfactions with kitchen carpeting. Little unbiased information on the selection, performance and care of kitchen carpeting is available. Most of the available information is produced by the manufacturers of

of the fibers or the carpets, and therefore, may paint an overly optimistic picture.

II. HYPOTHESES

1. Homemakers' satisfaction with kitchen carpets will not be equal to that expected from the claims of manufacturers.
2. The most prevalent dissatisfactions expressed will be:
   a. Difficulty in removing spots.
   b. Difficulty in cleaning the carpet.
   c. The carpet's inability to recover from denting
   d. Excessive wear in areas of heavy traffic.
3. The most prevalent satisfactions expressed will be:
   a. Less noise than before the carpet was installed.
   b. The homemaker will be less weary upon standing for long periods of time in meal preparation and clean up.
   c. Aesthetics.
   d. New concepts in interior decoration are now feasible.
4. Households with kitchen carpeting will be households where there are few children or where the children are of school age.
5. After one and one-half years, more homemakers will express fewer satisfactions with their carpeting than was the case at the time of the original interview.

III. LIMITATIONS

The study was limited to 55 residents of the Johnson City, Tennessee, area who had had kitchen carpeting in their homes for a period

of six months or longer for the initial interview and to 29 residents who were willing to cooperate and were still living in the same residence at the time of the follow-up interview.

The study was limited to kitchen carpeting which, according to a market survey as available in local stores, was manufactured from nylon, acrylic or polypropylene fibers.

III. ASSUMPTIONS

It was assumed that (a) the characteristics of the fibers now being incorporated into the carpets produce practical kitchen carpeting; (b) an adequate number of homemakers will cooperate in the study; (c) the homemakers will have had more experience in removing stains and cleaning their carpeting after one and one half years.

CHAPTER II

REVIEW OF RELATED LITERATURE

What makes people behave in certain ways under given circumstances? What would cause one homemaker to choose carpeting for her kitchen while another might choose some form of hard surface floor covering? The decision to buy carpeting for kitchens involves the consideration of many factors, some of which are: values, fiber properties, properties of carpeting, and problems with carpeting. This will be discussed as follows.

I. VALUES

Values are said to motivate human behavior by providing a basis for judgment, discrimination and analysis: that values grow out of human interests and goals; that values are the products of interaction between an individual and some object or situation in his environment; that as we make choices, values serve as a determinant of worth; that values determine in part the choices one makes (29).

If one accepts the proposition that values do influence human behavior, the next consideration is to find out what values are. One source states that values are deep-seated beliefs and desires that give direction to our life, and that choices are made on the basis of a hierarchy of values (12).

Williams (41) stated:

> Human values are things in which people are interested--things they want, desire to be or become, feel as obligatory, worship,

> enjoy. Values are modes of organizing conduct--meaningful, effective, interested pattern principles that guide human actions [p. 375].

Vander Zanden (38) defined values as criteria or conceptions used in judging things such as objects, ideas, acts, feelings, and events. He tells that values determine what is good, beautiful, moral or worthwhile.

Values, like beauty, are difficult to pinpoint. There are many different ideas on what areas comprise specific values or how they are categorized.

Parker (30) established nine categories for values as follows:

> 1. Comfort. The interest in making life as pleasant and agreeable as possible, actively seeking satisfaction of senses.
> 2. Health. The interest in physical and mental well-being with readiness to make this possible.
> 3. Ambition. The interest or desire for success in personal life, for responsibility in social order, and victorious achievement.
> 4. Love. The interest and satisfaction in relationship with people in its broadest sense and various forms of giving and receiving, expressed as sexual love, paternal love, friendship, generic love (love for the individual for its kind--mankind), community love (loyalty to a second group) and ideal love (love of the ascetic for his cause).
> 5. Desire for Knowledge. The interest in truth in all of its ramifications and the satisfaction in its use in all aspects of living.
> 6. Technological Satisfaction. The interest arising from making means and ends objects, from skillful workmanship, and from the fair arrangement of means-ends according to one's system of values.
> 7. Play. The interest in creative, imaginative activities in fantasy or in reality, in words, or in conversation.
> 8. Art. The interest in beauty in all forms of expression such as painting, music, writing, or in objects themselves.
> 9. Religion. The interest in goodness and rightness in all aims and purposes in living together with objects made to secure satisfaction of this kind--altars, images, churches [p. 46].

Vander Zanden (38) set forth seven major value configurations for American people:

1. Materialism. American evaluate things in material or monetary terms.
2. Success. Importance put on personal achievement.
3. Work and Activity. Americans feel that they must be working or busy doing something.
4. Progress. Americans feel that new things are the best.
5. Rationality. Faith in a reasonable approach to life.
6. Democracy. Fair government for all.
7. Humanitarianism. Determination to help others [pp. 67-69].

The values presented thus far have been on a very general plane. Specific values which appear to influence consumer decisions have also been identified by different individuals.

In studying the choice of a home, Cutler (7) used the following values: hobbies, friendship, convenience, comfort, privacy, location, beauty, health, economy, and safety.

Van Syckle (39), investigating large expenditures for home furnishings, used these values as related to the decision process: durability, easy and inexpensive upkeep, efficient, economical or satisfactory performance, personal preference, appearance and suitable to situation.

In developing an instrument to elicit information from consumers about value-concepts or quality-satisfaction they considered when buying carpeting for the living room, Strum (35) used the following values: appearance, comfort, durability, economy, maintenance and personal values.

According to a study conducted by National Family Opinion, Inc., concerning the most important factors considered when buying rugs and carpeting, families with incomes of $4,000 or more per year were primarily interested in wearability followed by the carpet's ability to maintain a good appearance with the least amount of effort. The retailers felt, though, that price and value plus the reputation of the company which

made the carpet, plus the style of the carpet dominated when the consumer actually bought (18).

II. FIBER PROPERTIES

Advantages claimed for synthetic fibers (acrylic, nylon, polyester, and polypropylene) are: resistant to mildew, aging, sunlight and abrasion--all qualities which are important for use in kitchen carpeting (25).

Acrylic

The Federal Trade Commission (37) defines acrylic fibers as those fibers made from a long chain synthetic polymer composed of at least 85 percent by weight of acrylovitrile units.

Duffin (9) described desirable qualities of acrylic fibers used for carpeting as: resistance to abrasion, withstands prolonged wear, good dyeing properties, good resistance to soiling, easily cleaned, resiliency (resistant to crushing and matting).

Nylon

The Federal Trade Commission (37) definition of nylon is: a fiber-forming substance created by any long chain synthetic polyamide having recurring amide groups as an integral part of the polymer chain.

Duffin (9) listed the qualities of nylon which contribute to its usefulness in carpeting: durability, high resistance to abrasion, crush resistance, dyeability, easily cleaned, asborbs little moisture and consequently water borne stains are not absorbed. Nylon has rapid recovery, high strength, stability to light and heat, durability of

texture, and durability of style (32).

Soiling is the first factor which affects nylon in that nylon can look soiled before the carpet is "worn out" (27). Burnett noted that when comparing fibers under similar conditions, nylon has a deficiency in the area of static electricity (2).

Polyester

A definition given by the Federal Trade Commission (37) for polyester is a fiber with a long chain synthetic polymer composed of at least 85 percent by weight of an ester of dihydric alcohol and terephthalic acid.

The following properties pertain to the use of polyester in carpeting: strong, easy to dye, abrasion resistant, easily cleaned, resistant to most chemicals (24). However, polyester is reported to be prone to permanent distortion when walked upon a great deal in the same area. Also, polyester is susceptible to oil-born stains which are difficult to remove, a big disadvantage in using polyester carpeting in kitchens (27).

Polypropylene

The Federal Trade Commission (37) gives the following definition of polypropylene, a fiber with a long chain synthetic polymer composed of at least 85 percent by weight of ethylene, propylene or other olefin units.

When polypropylene was first developed, dyeing was one of the most difficult problems to overcome, but a dyeable olefin (polypropylene) fiber in both staple and bulked continuous filament form was developed.

Properties of polypropylene advantageous for use in carpeting are: outstanding wear, low moisture absorbency, excellent stain resistance, easy cleaning, as well as low static buildup (10); however, polypropylene is one of the poorest of the carpet fibers in its resistance to crushing and recovery (27).

III. PROPERTIES OF CARPETING

The choice of carpeting or soft floor covering for a kitchen as opposed to some form of hard surface floor covering relates to properties each type of covering offers the homemaker.

Lynn (23) enumerated some of the desirable properties of carpeting which have led to its use in places where it has not previously been used. These properties include: sound deadening, warmth, luxurious feel, ease of cleaning, and good appearance.

The Kodaras Acoustical Laboratories in Elmhurst, New York, performed extensive tests on the acoustical properties of carpeting and identified three types of noise in buildings that may be effectively reduced by carpeting. The three types are: air-borne sounds, impact noise transmitted to rooms below, and floor surface noise. Michael J. Kodaras said:

> No other acoustical material or flooring approaches carpet's ability to prevent surface noise radiation (footsteps, dropped objects, moving furniture, etc.) within a room.
>
> Surface-noise radiation of various floor measurements showed that bare tile floors have surface noise ratings roughly 7-12 times higher than carpets with or without pads.
>
> It is clear that carpets on pads can insulate impact sound transmission so effectively that there is virtually no competitive alternative [28, pp. 29, 30].

From a hygenic and safety viewpoint, carpets reduce noise and

cause fewer falls and when falls happen less injury occurs. There was no evidence of greater soil transportation of bacteria in carpeted areas as opposed to those areas not carpeted (31). Lynn (23) also stated that research showed that carpets are more antiseptic than other floor coverings. The ability of a carpet to be cleaned is important to health since this is related to sanitation. Wolfe (43) noted that a floor covering should not cause an obnoxious odor or endanger health by holding pathogenic organisms, mildew or fungus. Nor should a floor covering add to air pollution by shedding dirt, dust or lint or by having undesirable fumes or odors.

Another viewpoint is that carpets help hold dirt in limited areas because of the tendency to brush soil from shoes. Besides, the flexing action of carpet helps hide soil by holding it high in the pile so that vacuuming can remove it easily. An additional asset is that maintenance of carpeting costs as much as 40 percent less than that of hard surface flooring (6) (41).

IV. PROBLEMS WITH CARPETING

Static electricity, flammability, and soils and stains are some of the most pertinent problems with carpeting.

Static Electricity

Gusak (13) stated that in most cases static electricity problems may be eliminated by the proper amount of humidity in the air; however, most carpet is installed in buildings without the necessary means to control humidity. He goes on to relate that relative humidity below

40 percent is considered a problem in relation to static electricity and carpeting.

Berry (1) categorized the variables and components which would affect the amount of static produced:

Human	Physiological makeup, Weight, Method of walking
Rubbing Surface	Type of material
Carpet	Type of construction, Weight
Face Fibers	Polyamide, Polyester, Wool, Acrylic, Polypropylene
Backing	Jute, Polpypropylene, Foam Rubber
Underlay	Hair, Jute, Rubber
Ground	Wood, Concrete, Tile

Gusak (14) outlined and evaluated three early methods of static protection as:

1. "Antistatic" products sprayed on the carpet pile. These were felt to be unsatisfactory below 30 percent relative humidity, attract soil, need reapplication because they were not durable.
2. Selection of carpet pile fibers or blends with characteristics close to leather in the triboelectric series. This did not work with all humidity levels or with all shoe sole materials.
3. Incorporation of a humectant within nylon carpet fiber. This offered some reduction of static buildup compared to regular nylon carpets.

One of several means devised to deal with the problem of static electricity in carpets is the incorporation of metallic yarns into the face yarns. The metal acts as a conductor (14). One company successfully modified 100 percent nylon in such a way that it had the

same properties as fibers with the metallic yarns incorporated into them (1).

Flammability

April 16, 1972, was the date set for the Flammability Standard for "large" carpets and rugs to go into effect. "Large" carpets and rugs are described as those being larger than 24 square feet (4).

The standard requires that eight nine-inch square samples of each carpet or rug be tested. At least seven of the eight samples must pass the test for that carpet or rug to be designated resistant to flammability. The test consists of placing a methenamine pill on the surface of the sample while the sample is held with a flattening frame which has an eight inch hole in its center, in a draft free area. If the ignited pill causes any sample to ignite and the charred area extends to within one inch of the edge of the hole in the frame, the sample fails the test. If combustion stops without producing a charred area closer than one inch from the edge of the frame, the sample passes the test (4).

Many variables influence the flammability of carpets. They include (36):

1. The raw material from which it is made. Greater problems of flammability have been noted from carpets made from polyester, polypropylene, and some acrylics than from carpets made from nylon and wool.
2. Carpet construction. Shag carpets are more readily combustible than other types of carpets.

3. Dyeing and finishing of carpet. Chemicals (finishes, surfactants, softeners, antifoam agents, and dye assists) left on the carpets may increase flammability.
4. Carpet installation. Foam-backed carpets or carpets installed over good thermally insulated pads can help increase flammability (36).

Flammability might be reduced by (36):

1. Increasing the quantity of char in relation to the amount of combustible gases. This is part of the physical makeup of the fibers. Char is formed when an organic material is heated.
2. Addition of agents which would interfere with the reaction of the fuel and oxygen in the gas phase.
3. Incorporation of fire retardant additives in some phase in the carpet production process.

Various types of fire-retardant materials may be added to the carpet at different stages (36):

monomer
. . . . . fire retardant comonomer
polymer
. . . . . polymer additives
fiber . . . fiber treatments
. . . . . fiber blends
fire retardant components
carpet . . . additives

Wolfe (43) summarized the necessity for having carpeting meet safety needs in regards to flammability:

> It is important that a floor covering not be a source of or catch fire easily; but should it catch fire, the fire should not spread out of control. It should not contribute more than necessary to the fuel available for the fire; and it should not develop noxious fumes or dense smoke which might hamper escape or rescue efforts.

Soil and Stains

Hess (17) defined soil as materials (on a fabric) foreign to the fabric in its pure state. Feinauer, Billie and Ruttiger (11) grouped soil into the following two categories: liquid components which are usually fats or oils, and solid components which are usually pigment particles.

Linton and Pizzuto (21) defined a stain as a discoloration caused by the presence or action of some type of foreign matter on a fabric. An example of a discoloration caused by the presence of a foreign matter would be a grease stain which once dissolved will disappear. However, for example, acid may change the appearance of the fabric and be difficult to remove.

There are several classifications for spots and stains. McLendon (26) classified spots and stains in the following categories: greasy, nongreasy, and combination stains. Hess (17) used these classifications of spots and stains: (1) animal which include perspiration, body excretions, meat juices, blood, and eggs; (2) organic stains which include vegetable stains (vegetables, fruits, and grass) and food stains (albumin, sugar, and fat); (3) inorganic stains which include medicine, dyes, ink, metals and paint.

Linton (20) divided stains into the following two groups: "built up" and "absorbed." A built-up stain is mainly on the surface

of the fabric and an example of this would be gum, food, or blood. An absorbed stain penetrates into the fabric between the yarns and into the yarns themselves. He noted that built-up stains are easier to remove than absorbed stains because the second type must first be loosened from the fabric and then removed.

Wingate (42) reported that spot removal is complicated because two variables are concerned: (1) the nature of the foreign agent causing the stains, and (2) the nature of the fabric to which it adheres. Labarthe (19) wrote that stain removal depends upon the previously mentioned chemical characteristics as well as finishing agents and dyes used on the fabric. Stout (33) stated that soiling and staining vary with the type of fibers and fabrics, the finishes used, whether soils or stains are air-borne, water-borne, or a combination of both, and whether the soils or stains are lightly attached to the surface of the fabric or have been ground in.

McLendon (26) compiled the following types of stain removers:

1. Absorbents. These include: cornstarch, cornmeal, talc, or powdered chalk. These remove some fresh stains such as grease.
2. Detergents. Soaps and synthetic detergents will remove many nongreasy stains and some greasy stains by acting as lubricants and coating the staining agent with a smooth, slippery film which in turn may be rinsed out.
3. Solvents. Some of those mentioned were: water, acetone, rubbing alcohol, amyl acetate, turpentine, carbon tetrachloride, perchloroethylene, trichlorethane,

trichloroethylene, petroleum, naptha. Some of these are flammable and some are toxic so care must be taken in using them. Also, some are better for greasy stains than non-greasy stains and vice versa.

4. Bleaches and other chemical stain removers. Examples are: chlorine bleaches, peroxygen bleaches, sodium perborate, potassium monopersulfate, hydrogen peroxide, color removers, ammonia, iodine, oxalic acid, and sodium thiosulfate.

Hall (15) pointed out that textile fabrics made from synthetic fibers have a great tendency to pick up air-borne soil. This is correlated with the strong hydropobocity of synthetic fibers which causes them to accumulate static electricity so that the electrically charged dirt is attracted to the fibers. This can be remedied, partially, by the use of anti-static agents, but care must be taken to choose the correct ones because some may cause the soil to cling more tightly to the fibers, especially in the case of agents which are soft and/or greasy. Tufted carpets made from synthetic fibers tend to pick up dirt more readily than wool due to oil in the fibers from previous processing and the tendency of the fibers to soil easily. Treatments for carpet fibers to prevent their easy soiling have been developed. Treatments that block the pores and superficial roughness of the fibers have been the most effective because the open spaces are already filled and foreign particles cannot settle in.

Feinauer, Billie, and Ruttiger (11) enumerated four possible methods to use for the problem of soil:

1. The development of more effective detergent and cleaning agents and the methods of their use;

2. The chemical modification of natural and synthetic fibers;
3. The development of finishing agents which impart easier removal characteristics (soil release); and
4. The development of soil-repellent finishes (anti-soil, soil repellent).

The basic types of these finishes were classified as (11):

1. Dry-Soil Repellent Finish--intended to reduce dry soil. Colorless "presoiling" with metal oxides form a barrier between the fiber and the soil or fills up spaces in the fabric to keep dirt from clinging.
2. Antistatic Finish--intended to reduce electricity and hence, the attraction for air-borne soil.
3. Wet-Soil Repellent Finish--(a) From dry textile fabrics by water repellent finish so soil may be shaken off with the water or if the water evaporates the soil will be attached lightly; (b) From wet textile fabrics by anti-soil redeposition in the laundry process.
4. Oil- and Grease-Repellent Finish (Stain Repellent)--usually used with water repellent finish to prevent greasy soil from attaching securely to the fabric.

In determining if soil was the only factor causing a change in optical reflectance of pile floor coverings, Lynn (23) used 11 types of carpeting, representing differences in fiber content and construction. The carpets were exposed to wear in a college cafeteria. Measurements were made for change in thickness and in reflectance. The change in reflectance corresponding to the

compaction was used to calculate the resulting change in reflectance due to soiling. This value was found to correlate well with the reflectance of the original carpet samples and indications were obtained of small differences in soilability.

Drackley (8) used carpets made from nylon, acrylic, olefin, and polyester constructed into carpets of two types. The purpose of the study was to determine the efficiency of two rug cleaners and one home laundry detergent in removing water borne, oil borne, and combination stains. The major conclusions were:

1. All of the cleaning agents used were efficient in removing the visible parts of the stains, but not enough of the stain to prevent rapid resoiling when the specimens were tumbled with vacuum cleaner sweepings.

2. The type of stain did affect the degree of soiling of the carpets after the visible portion of the stain had been removed. Oil-borne stains caused the most soiling, while water-borne stains caused the least.

3. The length of time the stained specimens were aged had no effect on the stain retention or soil pick up after the stain was removed.

4. The temperature at which the stains were applied did not affect the ease of removing the stain or the rate at which it picked up soil to a great degree.

5. Carpet construction seemed to have little effect on stain removal and soiling except for one shag carpet which had higher soiling tendencies after staining.

6. The fiber contents of the carpets had no significant effects on the degree of staining, ease of stain removal, or subsequent soiling of the carpets.

CHAPTER III

METHODOLOGY

A two-part study was conducted to determine the homemakers' basic satisfactions and dissatisfactions with carpeting that had been installed and used in their kitchens (1) for a period of six months or longer and then (2) one and one-half years later.

The discussion is presented under the following headings: Development of Interview Schedules, Selection of the Samples, Collection of the Data, and Analysis of the Data.

I. DEVELOPMENT OF THE INTERVIEW SCHEDULES

A modification of an instrument developed by Strum (35) was used to obtain data. The final form of the initial interview schedule may be found in Appendix A, whereas the form used for the follow-up schedule is in Appendix B.

Checklist Questions

General carpet information. The first part of both schedules consisted of a general checklist to ascertain selected basic features about carpeting, such as fiber content, whether it was tweed, patterned or plain, and the type of construction that had gone into its making--tufting or needlepunch.

Family composition. One section in both schedules consists of general information concerning family composition, such as the number

of people living in the household, the number of children of school age and the number of children under school age. Only the initial schedule inquired as to whether or not there was a pet (or pets) spending part of the time inside the home.

Prepurchase sources of information. Questions were asked in the initial study to find the sources from which the homemakers had received information about kitchen carpet prior to their purchase. The checklist included the following categories: friends, newspapers and magazines, television, manufacturers' printed information, salespeople, home economists and others.

Type of vacuum cleaner used. The homemakers were asked to indicate whether they used a canister or upright vacuum cleaner or both.

Open Response Questions

Likes, dislikes, expectations. A series of open response questions was used in the initial schedule to determine (1) features the homemaker liked when she purchased the carpet, (2) features that she did not care for when she purchased the carpet, (3) reasons for choosing carpeting over hard surface floor covering, (4) features of hard surface floor covering that the homemaker did like, (5) reasons for or for not considering hard surface floor covering when purchasing the kitchen carpet, (6) features about the carpet that were not considered before the purchase of the carpet which the homemaker had found that she did like, (7) features about the carpet not considered

at the time of purchase that she did not like at the time of the interview, (8) features about the carpet that the retailer had led her to expect that had held true, and (9) features about the carpet that the retailer had led the homemaker to expect which had not held true.

Spot removal. Since cleaning and spot removal of carpeting was of concern, especially in a kitchen where more things are apt to be spilled than in other rooms, in the initial interview the homemakers were asked how they cared for the carpet and what kind of spotting techniques they used.

Follow-up schedule questions. The follow-up schedule sought to determine in greater detail than was found in the initial interview performance of the carpet as to wear and care. Open response questions asked the homemakers to tell: (1) how often the carpet needed to be vacuumed, (2) how often the carpet needed to be thoroughly cleaned, (3) how often the carpet needed professional cleaning, (4) how it had seemed to wear, (5) if walking/standing areas were in evidence because of soil, design wearing off, or because the pile had flattened, (6) had it been colorfast to light, (7) had it been colorfast when cleaned, (8) had it produced undesirable amounts of static electricity, (9) had burns been experienced and if so what kind and what damage had been done, (10) methods used for spot removal.

The final question on the follow-up schedule dealt with overall satisfaction or dissatisfaction with the kitchen carpet in that the homemakers were asked if they were to choose again between carpet and hard surface floor covering which they would choose and why.

Likert-Type Scale

A Likert-type scale was used to determine the amount of satisfaction or dissatisfaction expressed by the homemaker in regard to kitchen carpet. The categories were as follows: very satisfactory, satisfactory, undecided, unsatisfactory, very unsatisfactory, and does not apply. Those areas used only in the initial study included: aesthetics (5 questions), comfort (6 questions), personal values (2 questions) and economics (3 questions). The questions regarding stains were used in both studies and were divided in the following way: general stains (2 questions), greasy stains (1 question), nongreasy stains (14 questions), and combination stains (4 questions).

II. SELECTION OF THE SAMPLES

Initial Group

At the time the study was initiated, the use of carpeting in the kitchen area was somewhat limited, so finding a sample to interview presented a problem. Fortunately, retailers who had sold the carpeting and people who installed the carpeting cooperated in furnishing a list of homemakers' names.

Each of 120 names were obtained and typed on a 3x5 index card along with the homemaker's address and telephone number. The homemaker was then called to determine her willingness to cooperate and to make an appointment at her convenience. The time and date of the appointment was written on the card and later transferred to an appointment book. From the initial list 55 homemakers agreed to

participate. After each interview a note was made on each card to indicate that the interview had been completed. After several interviews had been conducted it was found very useful to write the last name of the homemaker on the front of the schedule form.

Follow-Up Group

The sample for the follow-up phase included only homemakers from the original sample who still qualified (had not moved from the residence where the initial interview had taken place) and were willing to take time for a second interview.

III. COLLECTION OF THE DATA

Initially 55 homemakers were interviewed in their homes during the winter of 1970, and their responses were recorded on the schedule forms. One and one-half years later 29 homemakers were re-interviewed.

IV. ANALYSIS OF THE DATA

Data were treated arithmetically using frequency distributions and percentages. In some cases calculations were rounded and do not always equal 100 percent.

CHAPTER IV

PRESENTATION OF DATA

Data are based on responses from the two groups of homemakers, initial and follow-up, and are presented in the sequence as that used in the interview schedules. The initial group of respondents consisted of 55 homemakers of whom 29 were interviewed one and one-half years later.

I. RESPONSES TO CHECKLIST QUESTIONS

Carpet Construction, Design, Fiber Content

More than two-thirds of all homemakers interviewed had tufted carpeting in a tweed design. The fiber contents reported most frequently were nylon and polypropylene. These findings are summarized in Table 1.

Construction. The percentage of homemakers who owned tufted carpeting was very similar at the time of both interviews. Eighty-nine percent of the 55 homemakers owned tufted carpet, while 90 percent of the second group had tufted carpeting. The same similarity was evident in the ownership of needlepunch carpet: 11 percent of the initial group and 10 percent of the follow-up group owned needlepunch carpet.

Design. The same relationships were observed as to design of carpet. Seventy-one percent of the first group owned carpet which was tweed, compared with 69 percent of the latter group. Twenty-five

Table 1. Construction, Design and Fiber Content of Carpeting

	Percent	
	Initial Homemakers*	Follow-Up Homemakers**
Construction		
Tufted	89	90
Needlepunch	11	10
Total	100	100
Design		
Tweed	71	69
Pattern	25	24
Plain	4	7
Total	100	100
Fiber Content		
Nylon	42	31
Polypropylene	31	34
Acrylic	5	3
Polyester	2	0
Unknown	20	31
Total	100	99***

*Number = 55.

**Number = 29.

***Error due to rounding

percent of the initial homemakers and 24 percent of the follow-up homemakers had carpeting with an all-over pattern. Four percent of the 55 homemakers' carpeting was plain or all one color compared with 7 percent of the 29 homemakers.

Fiber content. An accurate indication of fiber in the carpeting was difficult to determine because some homemakers were not positive of the fiber content. Twenty percent of the 55 homemakers did not know the fiber content of their carpets whereas 31 percent of the follow-up group did not know (some of the homemakers had forgotten between the two interviews). Forty-two percent of the initial group had carpeting of nylon which dropped to 31 percent for the follow-up group. Polypropylene carpet was owned by 31 percent of the first group and 34 percent of the second group. Five percent of the initial group and 3 percent of the follow-up group had acrylic carpet.

Family Composition

The largest percentages of total family members were represented in the two, three, and four family member categories. One and two children families predominated. After one and one-half years the number of children under school age had decreased. These findings are in Table 2.

Number of household members. At the time of the initial interview 2 percent of the households had one family member while at the later interview this percentage had increased to 7. Initially 38 percent of the families had two family members and this rose slightly

Table 2. Family Composition

Information Requested	Percent	
	Initial Homemakers*	Follow-Up Homemakers**
Number in Family		
1	2	7
2	38	41
3	24	21
4	18	21
5	9	0
6	4	7
7	2	0
8	4	3
Total	101***	100
Number of Children of School Age		
0	52	59
1	18	17
2	22	21
3	4	0
4	0	0
5	0	0
6	4	3
Total	100	100
Number of Children Under School Age		
0	80	94
1	7	3
2	13	0
3	0	3
Total	100	100

*Number = 55.

**Number = 29.

***Error due to rounding.

to 41 percent by the time of the second interview. The percentage of families with three members was very similar in both cases, 24 percent initially and 21 percent later. Eighteen percent of the 55 families had four members, compared with 21 percent at the later interview. While 17 percent of the initial group had five, six, or seven members, none of the follow-up group fell into these categories. Families of eight family members comprised 4 and 3 percent of the initial and follow-up sample, respectively.

Number of school age children. The next area of consideration was the number of children of school age in these families. Eighteen percent of the initial group had one child of school age compared with 17 percent of the following group. Twenty-two percent of the first group had two school age children, while 21 percent of the later group had two school age children. Four percent of the initial group and none of the follow-up group had three children of school age. Four percent of the initial group had six children of school age while 3 percent of the follow-up group fell into this category.

Number of children under school age. Of the 55 families 7 percent had one child under school age, but this dropped to 3 percent at the time of the follow-up interview. Two or more children under school age were reported by 13 percent of the initial group and 3 percent of the follow-up group.

Pets in the family. For the initial homemakers interviewed, approximately 40 percent had dogs as household pets which could be a

potential problem in maintenance. However, slightly over 10 percent had cats which would constitute a minor problem.

II. OPEN RESPONSE QUESTIONS

Features Liked When Choosing Carpet

The respondents were asked to give the features about kitchen carpeting that they especially liked when they were choosing their carpeting. Since features was used in the plural form, more than one response was given by many of the homemakers. Care was the feature receiving the largest percentage of responses (38 percent), followed by durability with 24 percent of the responses. The responses then dropped to 16 percent for both warmth and appearance, followed by 12 percent for ease of removing spots and price of carpet. Nine percent liked the features of quietness, texture, and pattern. Seven percent of the homemakers liked the concepts of no waxing, standing comfort, and carpeting the kitchen because the remainder of the house was carpeted. Those features receiving 5 percent or less of the responses were: water would not penetrate backing, color, quality, padding, tight weave, did not show dirt, can mop with sponge, does not need to be vacuumed as often, husband liked idea, made kitchen more pleasant to work in, looked cleaner, wanted certain fiber, and protected small children from bumps. The information concerning carpet features preferred at the time of purchase is found in Table 3.

Features Not Liked When Choosing Carpet

The initial respondents were asked what features about kitchen carpeting they were not especially pleased with at the time they chose

Table 3. Features Liked When Choosing Carpet

Feature	Initial Homemakers*	
	Number	Percent**
Ease of care	21	38
Durability	15	24
Warmth	9	16
Appearance	9	16
Ease of removing spots	7	12
Price	7	12
Quietness	5	9
Texture	5	9
Pattern	5	9
No waxing	4	7
Standing comfort	4	7
Remainder of house is carpeted	4	7
Water would not penetrate backing	3	5
Color	2	4
Quality	2	4
Padding	2	4
Tight weave	2	4
Does not show dirt	1	2
Can mop with sponge	1	2
Does not need to be vacuumed as often	1	2
Husband liked idea	1	2
Makes kitchen more pleasing to work in	1	2
Looks cleaner	1	2
Wanted certain fiber	1	2
Protect small children from bumps	1	2
No response	2	4

*Number = 55.

**Total exceeds 100 percent due to reporting of more than one feature liked.

their carpeting. The features mentioned are listed in the order of frequency in which they were reported to the interviewer. Only 20 percent of the homemakers indicated features not liked. With the exception of price, all other features received under 5 percent responses and include: concern about spills, burns, not "tweedy" enough looking, color would show crumbs, too much pattern, preference for loop rather than loop and cut loop construction, general construction, too short nap. Table 4 presents a summary of the aspects that the homemakers were not especially pleased about at the time of purchase.

Had a Form of Hard Surface Floor Covering Been Considered When Choosing Carpeting?

The initial homemakers were asked whether or not they had considered any type of hard surface floor covering when they selected their carpeting. Forty-four percent had considered a form of hard surface floor covering; 56 percent had not.

Reasons Why Carpeting Was Chosen Over Hard Surface Floor Covering

The interviewees who had considered hard surface floor covering were asked to indicate the reason why they chose the carpet over hard surface floor covering. Since this question applied only to those who responded "yes" on the previous question, the percentages were figured with 24 respondents as the base. Table 5 gives a summary of the following answers. Easy care was a reason why 42 percent of the homemakers chose carpeting over hard surface floor covering. Warmth was a reason for 25 percent. Twenty percent of the homemakers made the

Table 4. Features Not Liked When Choosing Carpeting

Feature	Initial Homemakers*	
	Number	Percent**
Price	4	7
Concern about spills	2	4
Burns	2	4
Not "tweedy" enough looking	1	2
Color would show crumbs	1	2
Too much pattern	1	2
Preference for loop rather than loop and cut loop construction	1	2
General construction	1	2
Too short nap	1	2
No response	44	80

*Number = 55.

**Total exceeds 100 percent due to some reporting more than one feature not liked.

Table 5. Reasons Why Carpeting Was Chosen Over Hard Surface Floor Covering

Reason	Initial Homemakers*	
	Number	Percent**
Easy care	10	42
Warmth	6	25
Ease of walking and standing	5	20
Absorbs sound	5	20
Beauty or appearance	4	16
Durability	3	12
Friends' recommendation	3	12
Less dish breakage	2	8
Cost	2	8
Expense of subflooring necessary for hard surface floor covering	1	4
Husband wanted it	1	4
Continuity in decorating	1	4
Trend in decorating	1	4
Warm appearance	1	4
General practicality	1	4
No response	0	0

*Number = 24.

**Total exceeds 100 percent due to some reporting more than one feature liked.

choice because of ease of walking and standing and sound absorption. Beauty or appearance was desired by 16 percent. Twelve percent of the responses were given for durability and friends' recommendations. The choice was made by 8 percent because of cost and less dish breakage. The reasons given less than 5 percent of the time were: expense of subflooring necessary for hard surface flooring, husband wanted it, continuity in decor, trend in decorating, warm appearance, and general practicality.

Features Liked About Hard Surface Floor Covering

The homemakers in the initial sample were also asked to give the features of hard surface floor covering that they liked. Eleven percent of the homemakers liked hard surface floor covering because they felt that it was more sanitary and that it could be mopped, plus it made the kitchen look brighter because of light reflecting on the shiny floor. Nine percent liked hard surface floor covering because it was easy to wipe off. Those features liked by fewer than 5 percent of the homemakers were: bad spills easier to clean, beautiful patterns now available, padding on cushioned vinyl, vinyl that needs no waxing, grain, and longer wear. These results are found in Table 6.

Reasons For Not Considering Hard Surface Floor Covering

One question pertained to the reasons why homemakers did not consider hard surface floor covering when they purchased their kitchen carpet. Thirty-one was used as a basis for figuring percentages, because this number stated that they did not consider hard surface floor covering. A summary of these results is found in Table 7. Thirty-six percent

Table 6. Features Liked About Hard Surface Floor Covering

Feature	Initial Homemakers*	
	Number	Percent**
More sanitary	6	11
Can be mopped	6	11
Made kitchen look brighter	6	11
Easy to wipe off	5	9
Bad spills easier to clean	2	4
Beautiful patterns now available	2	4
Padding on cushioned vinyl	1	2
Vinyl that needs no waxing	1	2
Grain of wood	1	2
Longer wear	1	2
No response	34	60

*Number = 55.

**Total exceeds 100 percent due to some reporting more than one feature liked.

Table 7. Reasons for Not Considering Hard Surface Floor Covering

Reason	Initial Homemakers*	
	Number	Percent**
Easier maintenance desired	11	36
Disliked cold floors	5	16
Seams	2	6
Old floor was hard to maintain	2	6
Wanted to eliminate waxing	2	6
Denting of vinyl	1	3
Cigarette burns	1	3
Cannot be "plugged"	1	3
Old one was still good	1	3
Appearance	1	3
Expense of installation	1	3
Did not choose floor covering	13	24

*Number = 31.

**Total exceeds 100 percent due to reporting of more than one reason.

wanted easier maintenance while 16 percent did not like the cold floors. The reasons given 6 percent or less of the time included the following: seams, old floor was hard to maintain, wanted to eliminate waxing, denting of vinyl, cigarette burns, cannot be "plugged" as carpeting can, old floor was still good, appearance, expense of installation. Twenty-four percent of the 31 respondents did not choose the floor covering initially; consequently, no reasons were given.

Features About Carpet Liked After Purchase But Not Considered Before Purchase

The respondents were then asked to think about positive features concerning their carpeting that they had not considered before purchasing their carpet and that they later found they liked. Twenty-three percent liked the ease of cleaning while 16 percent found that it was easier to stand on. Thirteen percent discovered that it was warmer. Nine percent were pleased that spills could be blotted up, that its appearance was more attractive than expected, and that there was less noise. Seven percent liked that it camouflaged dirt. Five percent or fewer liked these features: no waxing, not slippery (people were less apt to fall on it), stays cleaner longer than expected, preferred to hi-low pile, looks better on the floor than in the sample, easy to install, stain resistant, keeps color well, dries quickly, less breakage of dishes and glassware, did not mat, could "plug" holes, cheaper upkeep, design, durability, continuity of decor, and no odor. Tabulations of these responses are found in Table 8.

Table 8. Features About Carpet Liked After Purchase But Not Considered Before Purchase

Feature	Initial Homemakers*	
	Number	Percent**
Ease of cleaning	13	23
Easy to stand on	9	16
Warmer	7	13
Spills blot up	7	9
Appearance better than expected	7	9
Less noise	5	9
Camouflages dirt	4	7
No waxing	3	5
Not slippery (no falls)	2	4
Stays cleaner longer than expected	2	4
Preferred to hi-low pile	1	2
Looks better on floor than in sample	1	2
Easy to install	1	2
Stain resistant	1	2
Keeps color well	1	2
Dries quickly	1	2
Less breakage	1	2
Does not mat	1	2
Can "plug" holes	1	2
Cheaper upkeep	1	2
Design	1	2
Durability	1	2
Continuity of decor	1	2
No odor	1	2
No response	23	42

*Number = 55.

**Total exceeds 100 percent due to reporting of more than one feature liked.

Features About Carpeting Not Considered Before Purchase But Not Liked After Purchase

Homemakers were also asked to think about features of the carpeting that they did not consider before purchase of the carpet that they did not like after having used the carpet. The findings are summarized in Table 9. Static electricity was a feature not liked by 9 percent of the homemakers, and burns by 7 percent. Those features not liked by 5 percent or fewer of the homemakers were: color, spotted easily, showed crumbs, difficulty in cleaning corners, difficult to vacuum, milk hard to clean up, light dirt and lint showed up, pilling, seams showed, did not recover after moving something, high heels pulled tufts, background color too light, needed more pattern, short nap, did not stay clean long enough, hot grease melted it, cut pile did not bounce back, took too long to dry, absorbed liquids, pattern matching was difficult in an older house, needed to clip snags, and streaks in the design (an optical illusion rather than a flaw in the printing).

Features Retailer Led Homemaker to Expect That Have Held True

The homemakers were asked to give the features about the carpeting that the retailer had led them to expect which did hold true. Results are listed in Table 10. Ease of cleaning received the largest number of responses, 33 percent. Next was the ease of removing spots, with 20 percent responses. Fourteen percent of the responses were given for durability. Those features receiving 5 percent or fewer responses were: would soak up water, colorfastness, did not show dirt, less dish breakage, could "plug" holes, recovered after moving objects, loops stayed up, comfort, seams were hard to see, repelled grease and stains.

Table 9. Features About Carpeting Not Considered Before Purchase But Not Liked After Purchase

Feature	Initial Homemakers*	
	Number	Percent**
Static electricity	5	9
Burns	4	7
Color	3	5
Spots easily	2	4
Shows crumbs	2	4
Difficult to clean corners	2	4
Difficult to vacuum	2	4
Milk hard to clean up	2	4
Light dirt and lint show up	2	4
Pilling	1	2
Seams show	1	2
Does not recover after moving something	1	2
High heels pull tufts	1	2
Background color too light	1	2
Needs more pattern	1	2
Short nap	1	2
Does not stay clean long enough	1	2
Hot grease melts it	1	2
Cut pile does not bounce back	1	2
Takes too long to dry	1	2
Absorbs liquids	1	2
Pattern matching is difficult in an older house	1	2
Need to clip snags	1	2
Streaks in design	1	2
No response	30	54

*Number = 55.

**Total exceeds 100 percent due to reporting of more than one feature liked.

Table 10. Features Retailer Led Homemaker to Expect That Have Held True

Feature	Initial Homemakers*	
	Number	Percent**
Ease of cleaning	18	33
Ease of removing spots	11	20
Durable	8	14
Would not soak up water	3	5
Colorfastness	2	4
Does not show dirt	2	4
Less dish breakage	1	2
Can "plug" holes	1	2
Recovers after moving objects	1	2
Loops stay up	1	2
Comfort	1	2
Seams hard to see	1	2
Repels grease and stains	1	2
No response	21	38

*Number = 55.

**Total exceeds 100 percent due to reporting of more than one feature that held true.

Features About Carpet That Retailer Led Homemaker to Expect That Have Not Held True

The homemakers were questioned about the features of the carpet that the retailer had led them to expect that have not held true. Each dissatisfaction mentioned received 2 percent response. These include: seams would not show, some spots did need more blotting, did snag, must vacuum to pick up lint, packing of pile in heavy traffic areas, needed more cleaning than expected. A summary is found in Table 11.

Prepurchase Sources of Information About Carpet for Kitchens

It was deemed pertinent to determine where the homemakers received information about kitchen carpeting before they purchased it. The most mentioned source was friends, reported by 45 percent of the initial sample. Thirty-four percent had read about kitchen carpet in newspapers and magazines and 14 percent had heard about it on television. Twenty-nine percent received information from manufacturers' printed publications, while 38 percent learned about it from home economists. Those sources of information mentioned less than 5 percent of the time were: interior designers, books, sold it herself, retailers, builders. A composite of this information is found in Table 12.

Methods Used in the Care of Carpeting

Since kitchen carpeting is subjected to considerable use and the possibility of soil, its care is of interest to potential consumers. An attempt was made to find out how the homemakers care for their carpeting. Answers are in Table 13. Over one-half (51 percent) of the initial homemakers interviewed vacuumed their carpet one to two times per week. Almost the same proportion (46 percent) vacuumed three or

Table 11. Features About Carpet That Retailer Led Homemaker to Expect That Have Not Held True

Feature	Initial Homemakers*	
	Number	Percent**
Seams would not show	1	2
Some spots needed more blotting	1	2
Does snag	1	2
Must vacuum to pick up lint	1	2
Packing of pile in heavy traffic areas	1	2
Needs more cleaning than expected	1	2
No response	50	91

*Number = 55.

**Total exceeds 100 percent due to the reporting of more than one feature that has not held true.

Table 12. Prepurchase Sources of Information About Carpet for Kitchens

Source	Initial Homemakers*	
	Number	Percent**
Friends	25	45
Salespeople	21	38
Newspapers and magazines	19	34
Manufacturers' printed information	16	29
Television	8	14
Home Economists	4	7
Interior Designers	2	4
Books	1	2
Sells it herself	1	2
Relative	1	2
Builder	1	2
No response	9	16

*Number = 55.

**Total exceeds 100 percent due to reporting of more than one source.

Table 13. Methods Used in the Care of Carpeting

Method	Initial Homemakers*	
	Number	Percent**
Vacuum one or two times per week	28	51
Vacuum daily	13	23
Vacuum three times per week	11	20
Vacuum four times per week	1	2
Use carpet sweeper between vacuumings	2	4
Electric broom	2	4
Cleaned professionally once per year	1	2
Cleaned professionally once per month	1	2
No response	0	0

*Number = 55.

**Total exceeds 100 percent due to reporting of more than one method.

more times per week. Two percent had their carpet cleaned professionally once per year or once per month because of small children.

At the time of the follow-up interview, it was hoped to find out in greater detail than in the original schedule the care that was necessary to maintain the kitchen carpeting. This phase of the questioning was divided into three parts, inquiring into how frequently it was necessary to: vacuum, thoroughly clean, and professionally clean the carpet. This information is summarized in Table 14.

Vacuuming. The 29 homemakers were asked the frequency with which they felt they needed to vacuum or sweep (with an electric broom) their carpets. Vacuuming was needed once or twice per week by 41 percent of the homemakers and three times or more per week by 58 percent of the homemakers.

Thorough cleaning. Since thorough cleaning (scrubbing) is necessary quite often on hard surface floor coverings, it was of concern to determine how often the carpets needed to be thoroughly cleaned. Thorough cleaning was needed twice per year by 24 percent of the homemakers, once per year by 17 percent, four times per year by 17 percent. Ten percent of the responses were for the need to thoroughly clean the carpet every 18 months and the same for every four years. Once per month and every six weeks were the responses for 7 percent of the homemakers. Three percent of the carpets had needed thorough cleaning once in five years, while the same number had never needed it.

Professional cleaning. Some homemakers reported that it was necessary to have a professional carpet cleaner come into the home to

Table 14. Carpeting Maintenance

Frequency	Follow-Up Homemakers* Number	Percent
Vacuuming		
Once per week	10	34
Twice per week	9	31
Three times per week	9	31
Daily	7	24
Two times per week	2	7
Five times per day	1	3
Total	29	99**
Thorough Cleaning		
Two times per year	7	24
Once per year	5	17
Four times per year	5	17
Every 18 months	3	10
Every 4 years	3	10
Once per month	2	7
Every 6 weeks	2	7
Once in five years	1	3
Never needed	1	3
Total	29	98**
Professional Cleaning		
Never	19	66
Once per year	4	14
Every 5 years	2	7
Every 2 years	1	3
Every 6 weeks	1	3
Total	29	100

*Number = 29.

**Error due to rounding.

clean their carpets, while some did not. Sixty-six percent of the carpets did not need to be commercially cleaned because the homemakers cleaned the carpet themselves or else felt the carpet did not need thorough cleaning. Fourteen percent needed it once per year, 7 percent twice per year as well as every five years. Commercial cleaning was needed every two years as well as every six weeks by 3 percent of the homemakers.

Methods used for removing spots. The methods used by the homemakers in removing spills on the carpet was of interest in that the procedure could vary from the procedure used on hard surface floor coverings. Fifty-five homemakers were asked to explain the methods they used in removing spills from their carpets. Forty percent used a damp sponge to wipe up spills, while 25 percent used detergent and water. Carpet shampoo was used by 20 percent of the homemakers and paper towels by 11 percent. Under 5 percent used ammonia and water, lighter fluid, and a brush plus water and detergent. At the time of the follow-up interview, this question was repeated to determine whether or not the homemakers were using the same methods. Of the 29 homemakers, 26 percent used dilute rug shampoo. Twenty-one percent used cold water; 10 percent used warm water with detergent and 10 percent used hot water. Seven percent of the responses were given for the following products: aerosol spray (carpet cleaner), concentrated detergent, and a spot remover. Under 5 percent of the responses included: concentrated rug shampoo, a wall cleaner, and dilute dish soap. Three percent of the homemakers had experienced no spots. These results are found in Table 15.

Table 15. Methods Used for Removing Spots

Method	Percent***	
	Initial Homemakers*	Follow-Up Homemakers**
Damp sponge	40	0
Detergent plus water	25	10
Dilute carpet shampoo	20	26
Cold water	0	21
Paper towels	11	0
Hot water	0	10
Aerosol spray	0	7
Concentrated detergent	0	7
Spot remover	0	7
Ammonia and water	4	0
Concentrated carpet shampoo	0	3
Wall cleaner	0	3
Dilute dish soap	0	3
Brush plus water plus detergent	2	0
No spots	0	3

*Number 55.

**Number = 29.

***Total exceeds 100 percent due to reporting of more than one method.

Type of vacuum cleaner used on carpet. The type of vacuum cleaner used could be a factor in the amount of satisfaction derived from a carpet. In the initial interview the respondents indicated they used more than one type of vacuum cleaner on their carpeting. Sixty percent used a canister vacuum cleaner, while 47 percent used an upright cleaner. Four percent used electric brooms.

III. LIKERT-TYPE RATING OF SATISFACTIONS

The final part of the schedule dealt with general degrees of satisfaction with various aspects of the kitchen carpeting. A Likert-type scale was used in determining the amount of satisfaction. These are reported under the general headings listed on the schedule. For convenience, those features indicated to be either very satisfactory or satisfactory are combined as satisfactory. Likewise, those features cited to be unsatisfactory and very unsatisfactory are reported as unsatisfactory. The tables summarizing the responses will indicate the breakdown for each group, i.e., very satisfactory, satisfactory, undecided, unsatisfactory, very unsatisfactory, and did not apply.

Aesthetics

The first general category in the Likert-type scale was aesthetic values and results are found in Table 16. Aesthetic values were divided under the following headings: texture, construction, design, color, and look of quality. All features were rated as satisfactory by over 80 percent of the homemakers. Eleven percent of the homemakers were dissatisfied with the color--the highest rate of dissatisfaction found

Table 16. Aesthetic Value Ratings*

Feature	Percent						
	Very Satisfactory	Satisfactory	Undecided	Unsatisfactory	Very Unsatisfactory	Does Not Apply	Total
Texture	58	40	0	0	2	0	100
Construction	60	36	4	0	0	0	100
Design	63	34	2	2	0	0	100
Color	63	24	2	7	4	0	100
Look of Quality	60	31	2	5	2	0	100

*Number = 55.

in the aesthetic value quality. Seven percent were dissatisfied with the look of quality.

Comfort

Table 17 depicts the results obtained from the questions regarding comfort. They were as follows: (1) how the carpet made the room feel warmer, (2) the feeling of warmth the carpet gave when one looked at it, (3) noise reduction when cooking utensils were used, (4) quietness from walking, (5) quietness from talking, and (6) comfort when standing.

Responses to questions 1, 3, 4, and 6 all indicated that over 90 percent of the homemakers were satisfied. Eight-two percent were satisfied with noise reduction when cooking utensils were used. The lowest amount of satisfaction was expressed concerning the question relating to quietness from talking, when 62 percent of the homemakers were satisfied. This question also received the most undecided responses, 22 percent. Sixteen percent of the homemakers' responses were given in the does not apply category for the question pertaining to quietness from talking--the largest percentage in this category as all others were 5 percent or less. Only two questions received responses showing dissatisfaction and these were only 2 percent each.

Personal Values

The two questions based on personal values were: what impression the carpet gives to guests and how the carpet compares to the floor covering of friends. In both cases 89 percent of the 55 homemakers were satisfied. Two percent of the homemakers were dissatisfied with the first aspect, while 7 percent were dissatisfied

Table 17. Comfort Ratings*

Feature	Percent						
	Very Satisfactory	Satisfactory	Undecided	Unsatisfactory	Very Unsatisfactory	Does Not Apply	Total
Makes room feel warmer (temperature)	71	24	2	0	2	2	101**
Feeling of warmth when looked at	58	35	4	2	0	2	101**
Noise reduction when cooking utensils are used	58	24	13	0	0	5	100
Quietness from walking	82	16	2	0	0	0	100
Quietness from talking	35	27	22	0	0	16	100
Comfort from standing	74	22	4	0	0	0	100

*Number = 55.

**Error due to rounding.

with the second. The question did not apply in less than 5 percent of the cases.

Economics

The responses to the questions related to the economics concerned with having kitchen carpeting are found in Table 18. These questions included: amount of wear to date of interview, price, and amount of reduction of breakage of dishes and glassware. Ninety-two percent of the homemakers were satisfied with the wear experienced. The other questions rated 80 to 85 percent satisfactory. Wear also received the largest percent in the dissatisfied category, 6 percent. Two percent of the homemakers were dissatisfied with the price. Thirteen homemakers did not purchase their carpeting initially, so the question pertaining to price did not apply for them.

Wear

A general category of wear was included to find out how the carpet had held up from the time of purchase. The questions used were: (1) degree of fading from sunlight, (2) colorfastness when cleaned, (3) amount of static electricity produced, (4) amount that pile had worn down, (5) amount of lint shed, (6) ability to withstand burns, (7) degree to which carpet shows footprints, (8) degree to which daily soil shows, (9) degree to which carpet "camouflages" dirt, and (10) the way the carpet recovered after having heavy object moved. Results of these questions are provided in Table 19. The percentage of initial homemakers satisfied with these features was lower than in the previous areas. With the exception of burns, 65 to 89 percent of the initial

Table 18. Ratings of Economic Factors*

Feature	Percent						
	Very Satisfactory	Satisfactory	Undecided	Unsatisfatory	Very Unsatisfactory	Does Not Apply	Total
Amount of wear	74	18	2	4	2	0	100
Price paid	53	27	5	2	0	13	100
Reduction in breakage of dishes and glassware	67	18	7	0	0	7	99**

*Number = 55.

**Error due to rounding.

Table 19. Ratings of Wear Features*

Feature	Percent						
	Very Satisfactory	Satisfactory	Undecided	Unsatisfactory	Very Unsatisfactory	Does Not Apply	Total
Fading from sunlight	55	20	2	0	0	24	101**
Colorfastness when cleaned	65	24	5	0	0	0	99**
Amount of static electricity produced	31	34	7	13	11	4	100
Amount pile has worn	69	20	9	0	0	2	100
Amount of lint shed	55	33	5	5	0	2	100
Ability to withstand burns	16	13	4	9	13	45	100
Degree to which footprints show	56	31	5	4	4	0	100
Degree to which daily soil shows	49	31	2	5	13	0	100
Ability to camouflage dirt	47	33	4	5	11	0	100
Recovery after moving large object	53	27	5	4	5	5	99**

*Number = 55.

**Error due to rounding.

homemakers were satisfied with wear features. Sixty-five percent of the homemakers were satisfied with the amount of static electricity produced by their carpets, while 24 percent expressed dissatisfaction with this aspect. The largest percentage of satisfactory responses pertained to the features of colorfastness when cleaning (89 percent), amount of lint shed (88 percent), and amount pile has worn down (89 percent). Fading from sunlight was satisfactory in 75 percent of the cases. In 24 percent of the instances this question did not apply. Eighteen percent of the homemakers were dissatisfied with the degree to which daily soil showed, and 16 percent were dissatisfied with the carpet's ability to "camouflage" dirt. Nine percent were dissatisfied with the carpet's ability to "camouflage" dirt. Nine percent were dissatisfied with the carpet's ability to recover after having a heavy object moved and 8 percent were dissatisfied with the degree to which the carpet showed footprints.

The question which had to do with burns received nearly the same number of responses in the satisfied and dissatisfied columns. Twenty-nine percent of the homemakers were satisfied with the carpet's ability to withstand burns while 22 percent were dissatisfied. Forty-five percent of the homemakers had no experience with burns so the question did not apply to them.

Care

After wear, general care was rated by the 55 homemakers. A summary of the ratings is represented in Table 20. The questions were: ease of cleaning compared with previous floor coverings, ease of care,

Table 20. Ratings of Carpet Care Properties*

Property	Percent						
	Very Satisfactory	Satisfactory	Undecided	Unsatisfactory	Very Unsatisfactory	Does Not Apply	Total
Ease of cleaning compared with previous floor covering	80	14	0	4	2	0	100
Ease of care	74	20	0	4	2	0	100
Amount of commercial cleaning needed	53	20	5	2	2	18	100

*Number = 55.

and amount of commercial cleaning needed. Ninety-four percent of the homemakers were satisfied with the ease of cleaning compared with their previous floor covering and with the ease of care. Eighty-three percent were satisfied with the amount of commercial cleaning needed and in 18 percent of the cases the homemakers' responses indicated that this question did not apply as they had not had their carpet commercially cleaned. The highest percentages of dissatisfaction referred to the questions of ease of cleaning compared with previous floor covering (6 percent dissatisfied) and ease of care (6 percent dissatisfied).

Stains

General stains. First, general stains were considered. The following information was obtained about general stains, stains which have dried and paint.

Stains which have dried. Seventy-six percent of the 55 homemakers questioned were satisfied with the ease of removal of stains which had dried, but at the time of the second interview, this had changed to 69 percent. At the time of the initial interview, 6 percent were dissatisfied with removal of dried stains while dissatisfaction increased to 14 percent at the time of the second interview. When the 55 homemakers were interviewed, the questions did not apply for 13 percent of them but increased to 17 percent for the second interview.

Paint. Nineteen percent of the 55 homemakers were satisfied with the removal of paint whereas 10 percent of the 29 homemakers were.

There was a large difference in the percentage of homemakers who had had no experience with paint--64 percent of the initial interview and 83 percent for the second interview. Dissatisfaction decreased from 7 to 3 percent.

Greasy stains. Satisfactions for the removal of grease stains were fairly similar--71 percent initially and 65 percent at the follow-up interview. The percentage of dissatisfied responses rose from 7 percent to 17 percent. A larger percentage of homemakers had experienced grease stains in that the percentage of does not apply responses decreased from 18 percent to 7 percent.

Nongreasy stains. Results of the ratings involving nongreasy stains for the 55 initial homemakers are found in Table 21. The ratings involving the 29 follow-up homemakers are in Table 22. The homemakers were asked to rate the ease of removal of catsup, blood, coffee, vegetables, fruit juices, fruit, eggs, milk, mud, mustard, soft drinks, pet stains, medicine, and vomit.

Catsup. The satisfactory ratings were similar in both instances, with 49 percent of the 55 homemakers and 45 percent of the follow-up group satisfied. Also, dissatisfactions were similar with 5 percent of the initial group and 6 percent of the 29 homemakers dissatisfied.

Blood. Satisfactions were higher initially (31 percent) than during the second interview (20 percent) as to the removal of blood stains. Four percent of the 55 homemakers were dissatisfied while none of the 29 homemakers were. The follow-up homemakers showed

Table 21. Ratings of Ease of Removing Nongreasy Stains, Initial Homemakers*

Stain	Percent						
	Very Satisfactory	Satisfactory	Undecided	Unsatisfactory	Very Unsatisfactory	Does Not Apply	Total
Catsup	36	13	4	5	0	42	100
Blood	18	13	5	2	2	60	100
Coffee	40	22	0	2	0	27	100
Vegetables	38	25	4	2	0	31	100
Fruit Juice	40	24	4	4	0	29	101**
Fruit	31	13	5	5	2	43	99**
Eggs	40	16	7	5	2	29	99**
Milk	49	20	5	9	2	15	100
Mud	51	34	0	4	2	9	100
Mustard	18	13	5	2	2	60	100
Soft Drinks	42	22	4	2	0	31	101**
Pet Stains	16	11	4	2	0	67	100
Medicines	9	7	7	2	0	41	100
Vomit	18	7	9	2	0	64	100

*Number = 55.

**Error due to rounding.

Table 22. Ratings of Ease of Removing Nongreasy Stains, Follow-Up Homemakers*

Stain	Percent						
	Very Satisfactory	Satisfactory	Undecided	Unsatisfactory	Very Unsatisfactory	Does Not Apply	Total
Catsup	31	14	3	3	3	45	99**
Blood	10	10	0	0	0	79	99**
Coffee	28	28	0	3	3	38	100
Vegetables	41	24	3	0	3	28	99**
Fruit Juice	41	24	7	3	3	21	99**
Fruit	40	17	3	3	3	34	100
Eggs	28	17	10	3	14	28	100
Milk	34	24	3	14	7	17	99**
Mud	55	24	0	7	7	14	100
Mustard	28	3	3	7	3	55	99**
Soft Drinks	31	21	7	7	3	31	100
Pet Stains	14	7	0	0	3	76	100
Medicines	3	3	0	3	7	83	99**
Vomit	10	3	3	0	10	76	102**

*Number = 29.

**Error due to rounding.

approximately a 20 percent increase over the initial homemakers, 79 and 60 percent respectively, for a no response to the question.

Coffee. Sixty-two percent of the initial group was satisfied with the removal of coffee stains whereas 56 percent of the follow-up group were. More of the 29 homemakers were dissatisfied in that 6 percent were dissatisfied and only 2 percent had been dissatisfied initially.

Vegetables. Ratings for the removal of vegetable stains were very similar for both groups. Sixty-three percent of the 55 homemakers were satisfied compared with 65 percent of the second group. Two percent of the initial group and 3 percent of the follow-up group were dissatisfied. There were only three percentage points difference in the number of cases where the questions did not apply.

Fruit juices. Also very similar was the rating by the two groups for the removal of fruit juices. Sixty-four percent of the 55 homemakers were satisfied while 65 percent of the follow-up group was satisfied. Four percent of the initial group was dissatisfied and 6 percent of the second group was dissatisfied. There was a drop from 29 percent to 21 percent in the number of instances where the question did not apply.

Fruit. Satisfaction as to the removal of fruits increased from 44 percent to 57 percent by the time of the second interview. Dissatisfactions were very similar--7 percent initially and 6 percent for the follow-up. The number of instances where the question did not apply dropped from 43 to 34 percent.

Eggs. More of the initial homemakers were satisfied (56 percent) than the follow-up group (45 percent) with the removal of eggs. Seven percent of the initial group was dissatisfied and this increased to 17 percent for the 29 homemakers. There was only one percentage point difference in the does not apply column.

Milk. Sixty-nine percent of the 55 homemakers were satisfied with the removal of milk; however, satisfaction dropped to 58 percent for the second group. Dissatisfactions climbed from 11 percent to 21 percent between the two interview times. Initially 15 percent of the homemakers' responses indicated that the question did not apply while 17 percent of the cases did not apply during the follow-up.

Mud. Eight-five percent of the 55 homemakers and 79 percent of the follow-up group were satisfied with removal of mud. There was only one percentage point difference in dissatisfactions. The first groups' responses indicated that the question did not apply in 9 percent of the cases but at the time of the follow-up this had increased to 14 percent.

Mustard. Large percentages of the homemakers had had no experience in removing mustard from their carpets--60 percent initially and 55 percent in the follow-up interview. Thirty-one percent of the homemakers were satisfied with the removal of mustard at both interviews. Dissatisfactions changed, however, from 4 percent initially to 10 percent at the follow-up interview.

Soft drinks. Initially the homemakers were more satisfied

(64 percent) with the removal of soft drinks than at the follow-up interview (52 percent). Dissatisfactions increased between the two interviews from 2 percent to 10 percent. In both instances the question did not apply for 31 percent of the homemakers.

Pet stains. Removal of pet stains was somewhat more satisfactory (27 percent) initially than at the follow-up interview (21 percent). Dissatisfactions were very similar with only one percentage point difference. For 67 percent of the initial homemakers the question did not apply, but for 76 percent of the 29 homemakers the question did not apply.

Medicines. Since some medicines contain substances which stain, ease of removing these stains was asked of the homemakers. Sixteen percent of the initial group and 6 percent of the follow-up group were satisfied. Two percent of the 55 homemakers were dissatisfied whereas 10 percent of the 29 homemakers were. The instances where the question did not apply changed from 75 percent initially to 83 percent in the follow-up.

Vomit. More homemakers were satisfied with the removal of vomit initially (25 percent) than at the second interview (12 percent). Only 2 percent of the 55 homemakers were dissatisfied, while 10 percent were dissatisfied later. Initially the question did not apply for 64 percent of the homemakers but this changed to 69 percent at the second interview.

Combination stains. The results for the responses for combination stains for the initial and follow-up schedule are on Tables 23 and 24,

Table 23. Ratings of Ease of Removing Combination Stains, Initial Homemakers*

Stain	Percent						
	Very Satisfactory	Satisfactory	Undecided	Unsatisfactory	Very Unsatisfactory	Does Not Apply	Total
Gravy	22	7	7	4	4	56	100
Sauces and creamed soups	36	17	9	2	2	28	100
Mayonnaise	34	13	7	2	2	42	100
Chocolate	27	11	7	0	5	49	99**

*Number = 55.

**Error due to rounding.

Table 24. Ratings of Ease of Removing Combination Stains, Follow-Up Homemakers*

Stain	Percent						
	Very Satisfactory	Satisfactory	Undecided	Unsatisfactory	Very Unsatisfactory	Does Not Apply	Total
Gravy	17	7	7	3	10	55	99**
Sauces and creamed soups	31	14	3	0	7	45	100
Mayonnaise	21	17	0	10	10	41	99**
Chocolate	24	3	0	0	7	66	100

*Number = 29.

**Error due to rounding.

respectively. The following four stains were asked about: gravy, sauces and creamed soups, mayonnaise, and chocolate.

Gravy. Twenty-nine percent of the initial group were satisfied with the removal of gravy compared with 24 percent of the follow-up group. Dissatisfaction was expressed by 8 percent of the 55 homemakers and 13 percent of the 29 homemakers. There was only one percentage point difference between the number of homemakers for which the question did not apply.

Sauces and creamed soups. Forty-nine percent of the 55 homemakers were satisfied with the removal of sauces and soups, while this applied to 45 percent of the second group. Dissatisfactions increased from 4 percent to 7 percent between the two interviews. The percentage of homemakers for which the question did not apply increased from 38 percent to 45 percent.

Mayonnaise. Percentages of satisfactions dropped from 47 percent to 38 percent between the two interviews. Conversely, dissatisfactions increased from 4 percent to 10 percent. There was only one percentage point difference between the two groups in the does not apply column.

Chocolate. The ease of removing chocolate was rated as satisfactory by 38 percent of the 55 homemakers and by 27 percent of the 29 homemakers. Five percent of the initial group was dissatisfied while 7 percent of the follow-up group expressed dissatisfaction. The rate of instances where the question did not apply increased from 49 percent to 66 percent.

IV. ADDITIONAL OPEN RESPONSE QUESTIONS

Some questions repeated in the follow-up schedule were used in a different form from that of the original schedule. In the original schedule the questions concerning wear, evidence of walking/standing areas, static electricity, colorfastness, and burns were incorporated into a Likert-type scale, whereas in the follow-up study open response questions were used. All data for open response questions are based on responses from the 29 follow-up homemakers.

Wear

General wear. Homemakers were asked to evaluate how their carpet had worn. Responses indicated that 93 percent of the carpet had worn very well, while 7 percent had not worn well at all.

Evidence of walking/standing areas. The homemakers were next asked if standing and walking areas showed markedly. This question was divided into three parts as follow:

Because pile had flattened. The first part inquired if walking areas showed because the pile had flattened. In 17 percent of the cases the pile had flattened, while in 83 percent the pile on the carpet had not flattened.

Because of soil. The second part inquired as to whether walking/standing areas were in evidence because of soil. Twenty-one percent of the time the standing/walking areas were in evidence because of soil and 79 percent of the time they were not.

Because of design wearing off. The third part asked if the areas were in evidence because of the design wearing off. In 3 percent of the instances the design was wearing off (this is the needlepunch carpet which had developed holes), while in 97 percent of the cases the design was not wearing off the carpets.

Colorfastness

Some dyes are more colorfast than others. Cleaning and sunlight are two factors that might conceivably cause the carpet to fade. The homemakers were asked to tell if their carpets had been colorfast to these agents.

Colorfastness in cleaning. In responding to whether the carpet had been colorfast to cleaning 97 percent of the homemakers' carpets were reported as being colorfast, while 3 percent had faded.

Colorfastness to light. When asked if their carpets had been colorfast to light, 97 percent of the carpets were colorfast to light, while 3 percent were not.

Static Electricity

Homemakers were asked if their carpets produced undesirable amounts of static electricity. Seven percent of the responses were yes, while 93 percent were no. It should be noted that 14 percent of the homemakers had humidifiers which would help in the control of static electricity.

Burns

Sixty-nine percent of the homemakers had had no burns, while 31 percent had. Types of burns cited were: cigarettes 14 percent of the time and fireplace popping 7 percent of the time. Three percent of the respondents had experienced burns caused by: acid, hot iron, and friction from a moving chair. None of the burns were felt to have caused major damage and none were reported to have supported combustion.

V. CHOICE BETWEEN CARPETING AND HARD SURFACE FLOOR COVERING

Responses of the 29 homemakers to the question if they were to choose again between carpeting and hard surface floor covering, which they would choose and why are tallied in Table 25.

Only 10 percent of the responses indicated that the 29 homemakers would choose hard surface floor covering, their reasons being: ease of cleaning, 7 percent; more dirt tracked into the house when one lives in the country, 3 percent; and bad experience with present carpet, 3 percent.

The remaining 90 percent of the homemakers would choose carpeting again. More than one reason was given by many of the homemakers. The reasons in order of frequency were: easier to keep, 48 percent; easier on feet when standing and walking, 41 percent; no waxing, 28 percent; appearance, 21 percent; quieter, 17 percent; less breakage of dishes, 10 percent; less danger of slipping on wet surface, 3 percent; warmer in winter, 3 percent; and camouflages dirt, 3 percent.

This interview was conducted during the summer months when several of the homemakers had recently had their small grandchildren

Table 25. Reasons for Choosing Hard Surface Floor Covering or Carpeting

Reason	Follow-Up Homemakers*	
	Number	Percent**
Hard Surface Floor Covering		
Ease of cleaning	2	7
Dirt tracked into house in country	1	3
Bad experience with carpeting	1	3
Carpet		
Ease of cleaning	14	48
Ease on feet when walking and standing	12	41
No waxing	8	28
Appearance	6	21
Quieter	5	17
Less breakage of dishes	3	10
Less danger of slipping	1	3
Warmer in winter	1	3
Camouflages dirt	1	3
No response	0	0

*Number = 29.

**Total exceeds 100 percent due to some reporting more than one reason.

in the home for a visit. The homemakers noted that the carpet was more difficult to care for during the time the small children were present and felt that it would be unsatisfactory for families with small children. Some quotes from the homemakers are:

> I would not recommend it for families with very small children.
>
> Carpeting is great for adults, not so good with children. When my daughter built her house, I advised her not to have carpeting in the kitchen area because of her small children.
>
> I would not have it if I had children.
>
> I do not feel that it is as sanitary as hard surface floor covering, and if I had a baby, I would not have carpeting in my kitchen.

CHAPTER V

SUMMARY AND CONCLUSIONS

I. AS RELATED TO HYPOTHESES

The purpose was to determine the satisfactions and dissatisfactions (through an interviewing technique) felt by homemakers who had had carpeting in their kitchens for a period of at least six months and then, again, one and one-half years later. The conclusions will be discussed using each hypothesis as a guide.

1. Homemakers' satisfaction with kitchen carpets will not be equal to that expected from the claims of the manufacturers.

The responses given during the interview would not support this statement. Of the 55 homemakers who responded, only 6 related features about the carpeting that the retailers led them to expect that did not hold true. Hypothesis 1 was rejected.

2. The most prevalent dissatisfactions expressed will be:

a. Difficulty in removing spots. Those spots which were rated as most difficult to remove were eggs, vomit, gravy, and mayonnaise; however when 29 homemakers were interviewed the highest degree of dissatisfaction expressed in any of these areas was 20 percent. Many more homemakers were very satisfied with the ease with which they removed these stains than homemakers who were dissatisfied with their removal. Hypothesis 2a was rejected.

b. Difficulty in cleaning the carpet. Ninety-four percent of the 55 homemakers were satisfied with the ease of care of their carpeting.

Forty-eight percent of the 29 homemakers would choose carpeting again because carpeting was easier to clean. However, 7 percent of the 29 homemakers felt that if they were to choose again between carpeting and hard surface floor covering they would choose the hard surface floor covering because they felt that it was easier to clean. Hypothesis 2b was rejected.

c. The carpet's inability to recover from denting. When 55 homemakers were interviewed, only 5 percent of the homemakers were very dissatisfied with this characteristic of the carpet as opposed to 53 percent who were very satisfied. Hypothesis 2c was rejected.

d. Excessive wear in areas of heavy traffic. After questioning 29 homemakers, 93 percent of the carpets had worn very well. In 17 percent of the cases walking areas were in evidence because the pile had flattened, 21 percent of the time traffic areas showed because of soil, while in 3 percent the design was wearing off (this is the carpet which had begun to have holes in it). Hypothesis 2d was rejected.

3. The most prevalent satisfaction expressed will be:

a. Less noise than before the carpet was installed. None of the homemakers were dissatisfied with the noise level in their kitchens since installing carpeting. When 55 homemakers were interviewed, less noise was one of the features about the carpet that 9 percent liked which they had not considered when they purchased the carpet and for 20 percent one reason why they chose carpeting over hard surface floor covering when they chose the carpeting initially was because of the absorption of sound. Hypothesis 3a was accepted.

b. The homemaker will be less weary upon standing for long periods of time in meal preparation and clean up.

Twenty percent of the 55 homemakers chose carpeting for their kitchen over a form of hard surface floor covering because of ease of standing and walking on carpeting. Sixteen percent of the homemakers liked this feature about the carpeting after they purchased the carpeting, but had not considered it before the purchase was made. Ninety-six percent of the respondents were either satisfied or very satisfied with the comfort felt upon standing upon the carpet. Hypothesis 3b was accepted.

c. Aesthetics. When 55 homemakers were asked to rate the aesthetic qualities of their carpet 16 percent of them chose the carpet initially because of the appearance and 9 percent of the responses indicated that the carpet looked better than expected. Eighty-seven to 98 percent of the homemakers were either satisfied or very satisfied in all of the questions asked concerning aesthetics. Hypothesis 3c was accepted.

d. New concepts in interior decoration are now feasible. Only 2 percent of the 55 homemakers responded that carpeting followed a new trend in decorating and 4 percent that carpeting aided in the continuity of decorating within the home. Hypothesis 3d was rejected.

4. Households with kitchen carpeting will be households where there are few children or else where the children are of school age.

In the initial interview (55 homemakers) 48 percent of the families had children of school age, and 20 percent had children under school age. At the time of the follow-up interview (29 families) this ratio had changed somewhat to: 41 percent with children of school age and

6 percent with children under school age. Hypothesis 4 was accepted.

5. After one and one-half years, more homemakers will express fewer satisfactions with their carpeting than was the case at the time of the original interview. At the time of the follow-up a majority of the 25 homemakers interviewed still rated all features as either satisfactory or very satisfactory in all of the Likert-type scales. Hypothesis 5 was rejected.

II. CONCLUSIONS

A majority of the homemakers expressed that they were satisfied with most aspects of their carpeting; however, two homemakers were very unhappy with their carpeting. In one case the carpet (needlepunch made from polypropylene) had developed holes within three years of its purchase. In the other dissatisfied case the carpet (polypropylene tufted) had several very noticeable burns caused by the following incidents: a chair leg rubbing over it, a hot iron having been dropped on it, and grease having popped from a pan on it.

One of the questions which showed the greatest amount of change in response between the two interview periods had to do with the amount of static electricity produced. In the initial interview in the Likert-type rating 31 percent of the 55 respondents were very satisfied, 34 percent were satisfied, 7 percent were undecided, 13 percent were dissatisfied, and 11 percent were very dissatisfied. Four percent felt that the question did not apply. At the follow-up interview the 29 homemakers were asked to state whether or not their carpets had produced undesirable amounts of static electricity. Seven

percent of the homemakers responded yes while 93 percent said no. This could be due to several factors which might include: (1) the first interview was conducted in the winter when static is most evident and homemakers are more conscious of it and the second interview was conducted during the summer when static electricity is less of a problem; (2) 14 percent of the homemakers noted during the second interview that they had humidifiers which would help control static electricity (the humidifiers were not mentioned during the first interview).

Another area where there was a great deal of change was that of methods of spot removal. At the time of the initial interview 40 percent of the homemakers used a damp sponge whereas during the follow-up interview none of the homemakers were using this method. At the time of the initial interview 25 percent of the homemakers were using detergent plus water for this purpose, but by the time of the second interview, this practice had dropped to 10 percent. The homemakers had changed to other methods and products by the time of the follow-up interview. These included: an aerosol spray (carpet cleaner), concentrated detergent, a commercial spot remover, concentrated carpet shampoo, a wall cleaner, and dilute dish soap. At the time of the initial interview all homemakers had experienced some spots whereas at the time of the follow-up interview one homemaker had forgotten this and noted that she had had no spots.

Other homemakers had forgotten about past spots by the time of the follow-up interview. One homemaker reported in the initial interview that she had gotten paint on her carpet when it was first laid and she had painted a dining room set. She had successfully removed

the paint and by the time of the follow-up interview the incident had slipped her mind.

Even though a majority of the homemakers were satisfied with the ease of removing spots, there was an indication that a larger percentage of the 29 homemakers were dissatisfied at the time of the follow-up interview than was the case in the initial interview. Stains where the dissatisfaction had increased more than 5 percent were: stains which had dried, grease, eggs, milk, mustard, soft drinks, medicines, vomit, gravy, and mayonnaise.

At the time of the initial interview none of the carpets had shown an unsatisfactory amount of fading; however, at the time of the follow-up interview one carpet had begun to fade from sunlight. The same was true in the case of colorfastness from cleaning.

Eighteen percent of the 55 homemakers were dissatisfied with the degree to which their carpets showed daily soil and 16 percent were dissatisfied with the carpet's ability to camouflage dirt.

Even though 20 percent of the homemakers chose carpeting because it absorbed sound, the ratings having to do with acoustics were difficult for the homemakers to comprehend in that some had not considered these features before the time of the interview. Consequently, 13 percent were undecided about the amount of noise reduction when cooking utensils were used. Ratings were also high in the "does not apply" column (16 percent) when the homemakers were asked about the quietness from talking.

Flammability of textiles had become more of an issue between the time of the two interviews. In the first interview, the homemakers

were asked to rate the carpet's ability to withstand burns. Twenty-nine percent were satisfied while 22 percent were dissatisfied. Forty-five percent of the homemakers had experienced no burns so the question did not apply to them. Of 29 homemakers, 69 percent had received no burns on their carpets while 31 percent had. Fourteen percent of these burns were caused by cigarettes and 7 percent were caused by fireplace popping. Three percent of the respondents had had burns caused by each of the following: acid, hot iron, and friction from a moving chair. None of the burns had caused combustion and were not thought to have caused major damage.

Ease of cleaning was one of the most liked features of kitchen carpeting. Forty-two percent of the homemakers chose carpeting initially because of the ease of cleaning. Twenty-three percent of the homemakers liked the ease of cleaning after purchase even though they had not considered this aspect before purchase. When asked about the features retailers had led the homemakers to expect that had held true, ease of cleaning received the largest response (33 percent). Ninety-four percent of the homemakers were satisfied with the ease of care of the carpet when they rated this feature in the Likert-type rating.

When new products are introduced to the market it is difficult for consumers to know if the product will live up to their expectations. At the time the study was initiated, carpeting in the kitchen was new and very little information was available to the homemaker other than that published by manufacturers. Consequently, it was felt that the product possibly was being misrepresented due to the claims made about its performance. However, in only six instances were the

homemakers led to expect something of their carpeting which did not hold true.

If the question asking the homemaker would she choose carpeting again for her kitchen can be used as a guide, 90 percent of the 29 homemakers reported they were satisfied as indicated by the affirmative answer to the question. The reasons given over 40 percent of the time were: ease of cleaning and ease on feet when walking and standing.

BIBLIOGRAPHY

BIBLIOGRAPHY

1. Barry, Gerald F. "Carpet Static Control with Stainless Steel Fibers." Modern Textiles Magazine. 50:65. May 1969.

2. Burnett, Reg. "High Flying Carpet Scene Mandates Progress Review Phase-by-Phase." Modern Textiles Magazine. 50:29. May 1969.

3. Burnett, Reg. "Thought of the Month: New Developments at the January Market." Modern Textiles Magazine. 50:29. January 1969.

4. "Carpet Flammability Standards Due in a Year." Modern Textiles Magazine. 51:34. February 1970.

5. "Carpet Flame Standards Effective April 16, 1972." Modern Textiles Magazine. 51:38. June 1970.

6. "Contract Carpet Sales Still Big." Modern Textiles Magazine. 51:36-38. January 1970.

7. Cutler, Virginia. "Personal and Family Value in the Choice of Home." Cornell University Agr. Expt. Sta. Bull. 840. 1947.

8. Drackley, Janice Claire. "The Efficiency of Cleaning Agents in Removing Stains from Carpets of Selected Fiber Contents and Constructions." Unpublished Master's Thesis. University of Illinois. Urbana-Champaign. 1970.

9. Duffin, D. J. The Essentials of Modern Carpet Installation. Van Nostrand, Rineholt Co. New York. 1962.

10. "Dyeable Olefin Carpet Fibers." Modern Textiles Magazine. 48:31, 34. January 1967.

11. Feinauer, Dr. A.; Billie, Dr. H.; Ruttiger, Dr. W. "A New Soil-Release, Soil-Repellent Finish for Textiles." American Dyestuff Reporter. 58:16. June 2, 1969.

12. Goodyear, Margaret R.; Klohr, Mildred Chapin. Managing for Effective Living. John Wiley and Sons. New York. 1965.

13. Gusak, J. A. "Static Control in Carpets: Part I." Modern Textiles Magazine. 53:66. January 1972.

14. Gusak, J. A. "Static Control in Carpets: Part II." Modern Textiles Magazine. 53:25. February 1972.

15. Hall, A. J. The Standard Handbook of Textiles. Heywood Books. London. 1969.

16. Herculese Incorporated, "Kitchen News, New Upholstery Fabrics and Fashion and a Potpourri." Home Economists Newsletter. March 1969.

17. Hess, Katharine Paddock. Textile Fibers and Their Uses. J. B. Lippincott Co. New York. 6th edition. 1958.

18. "Home Furnishings Consumer Study." Modern Textiles Magazine. 49:30. January 1968.

19. Labarthe, Jules. Textiles: Origins to Usage. The Macmillan Co. New York. 1964.

20. Linton, George E. Applied Basic Textiles. Duell, Sloan, and Pearce. New York. 1966.

21. Linton, George E.; Pizzuto, Joseph. Applied Textiles: Raw Materials to Finished Fabrics. Lifetime Editions, Inc. New York. 1948.

22. Lynch, Salene Coleman. "The Measurement of Carpet Soil by Optical Methods." Unpublished Master's Thesis. Winthrop College. 1969.

23. Lynn, J. Edward. "The Carpet Industry Moves Ahead." American Dyestuffs Reporter. 58:26. June 16, 1969.

24. Man-Made Fibers Producers Association, Inc. "Guide to Man-Made Fibers." New York. Man-Made Fibers Producers Association.

25. "Manmade Fibers Used in Carpet Manufacturing." Modern Textiles Magazine. 52:37. January 1971.

26. McLendon, Verda Irene. "Removing Stains from Fabrics--Home Methods." Home and Garden Bulletin No. 62. U.S. Department of Agriculture. Washington, D.C. 1968.

27. Mumford, R. B.; Nevin, J. L. "Nylon--Progress and Prognosis in Carpets." Modern Textiles Magazine. 48:70-71. May 1967.

28. "New Study Pinpoints Acoustical Properties of Carpet." American Dyestuffs Reporter. 58:29-30. July 14, 1969.

29. Nickell, Pauline; Dorsey, Jean Muir. Management in Family Living. John Wiley and Sons, Inc. New York. 4th edition. 1967.

30. Parker, DeWitt H. Human Values. Harper and Brothers. New York. 1941.

31. "Performance Data on Hospital Floor Coverings." Safety Maintenance. 137:49-51. May 1969.

32. "Polyfibers Exerting Strong Influence on Carpet Market." American Textile Reporter. 83:31. May 1, 1969.

33. Stout, Evelyn E. Introduction to Textiles. John Wiley and Sons, Inc. New York. 3rd edition. 1970.

34. Struder, C. W. "Carpet Dirt Research." Bulletin by the Hoover Company, North Canton, Ohio. 1959.

35. Strum, Arietta Marlene. "Techniques for Identifying Value-Concepts Involved in Consumer Choice of Floor Covering." Unpublished Master's Thesis. Iowa State University. Ames, Iowa. 1960.

36. Tichner, Wayne C. "Basics of Carpet Flammability." Textile Industries. 137:51-54. May 1973.

37. U.S. Federal Trade Commission, Textile Fiber Products Identification Act. 1960.

38. Vander Zanden, James W. Sociology: A Systematic Approach. The Roland Press Co. New York. 1965.

39. Van Syckle, Calla. "Practices Followed by Consumers in Buying Large-Expenditure Items of Clothing, Furniture, and Equipment." Michigan Agr. Expt. Sta. Tech. Bull. 224. 1951.

40. "Wide Promotion Potentials for Carpet Detailed by Connett." Modern Textiles Magazine. 51:53. January 1970.

41. Williams, Robin. American Society. Alfred A. Knopf, Inc. New York. 1952.

42. Wingate, Isabel B. Textile Fabrics and Their Selection. Prentice-Hall, Inc. Englewood Cliffs, New Jersey. 1964.

43. Wolfe, W. C. "Performance Tests for Floor Coverings." Materials and Research Standards. 10:15-18. July 1970.

APPENDICES

APPENDIX A

ORIGINAL SCHEDULE

Construction:
a. Needlepunch _____
b. Tufted _____
c. Other _____

Design:
a. Pattern _____
b. Tweed _____
c. Plain _____

Date _____
Interview # _____

The name of the fiber is: _____

First of all, may I have some information about your household?

1. How many household members are there? _____
2. How many children of school age? _____
3. How many children under school age? _____
4. Do you have a family pet? Cat _____ Dog _____
   Other _____

Now, let's look back to the time when you chose the carpeting for your kitchen.

1. What were the features that you liked especially well at the time you purchased the carpet?

_____

_____

2. What were the features you were not especially happy about at the time that you bought the carpet?

_____

_____

3. Did you look at or consider hard surface floor covering such as linoleum or tile before you made this purchase?

Yes _____ No _____ Don't remember _____

   a. If "yes" why did you decide on the carpeting rather than some form of hard surface floor covering?

_____

_____

b. What were some of the features of hard surface floor covering that you especially liked?

c. If "no" what are some of the reasons why you did not consider hard surface floor covering?

4. Sometimes there are characteristics which one sees in a product after using it which are not seen at the time of purchase. Think of your carpet.

a. What are some of the features about your carpet that you did not think about when you purchased your carpet that you have found that you like?

b. What are some of the features about your carpet that you <u>did not</u> consider at the time that you purchased your carpet that you <u>do not</u> like now?

c. What are the features that the retailer led you to expect that have held true?

d. What are the features that the retailer led you to expect that have not held true?

5. From what sources did you get information about your carpeting before you bought it?
a. Friends _____
b. Newspapers and magazines _____
c. Television _____
d. Manufacturer's printed information ___
e. Salespeople _____
f. Home Economists _____
g. Other _____

6. How do you care for your carpeting?

7. What kind of spotting do you do--use of detergent vs. water, etc.?

8. What type of vacuum do you have?
a. Canister _____
b. Upright _____

The following questions are divided into several categories which will be stated during the questioning. These are to be rated according to the following degrees of satisfaction or dissatisfaction: 5=very satisfactory, 4=satisfactory, 3=undecided, 2=unsatisfactory, 1=very unsatisfactory, and 0=does not apply. Give the answer that best fits the question.

AESTHETICS

1.	The texture of the carpet is:	5 4 3 2 1 0
2.	The construction (tufting or needlepunch) is:	5 4 3 2 1 0
3.	The design is:	5 4 3 2 1 0
4.	The color is:	5 4 3 2 1 0
5.	The look of quality is:	5 4 3 2 1 0

COMFORT

6.	The way that it makes the room feel warmer (temperature wise) is:	5 4 3 2 1 0
7.	The feeling of warmth that the carpet gives when you look at it is:	5 4 3 2 1 0
8.	The amount of noise reduction when cooking utensils are used is:	5 4 3 2 1 0
9.	The degree of quietness from walking is:	5 4 3 2 1 0
10.	The degree of quietness when people are talking is:	5 4 3 2 1 0

11. The comfort felt upon standing during meal preparation is: 5 4 3 2 1 0

PERSONAL VALUES

12. The impression that it gives to guests is: 5 4 3 2 1 0
13. Compared to the kitchen floor covering of my friends, it is: 5 4 3 2 1 0

ECONOMICS

14. The amount of wear experienced so far is: 5 4 3 2 1 0
15. The price paid is: 5 4 3 2 1 0
16. The amount of reduction of breakage of dishes and glassware is: 5 4 3 2 1 0

WEAR

17. The degree of fading from sunlight is: 5 4 3 2 1 0
18. The amount of colorfastness when cleaned is: 5 4 3 2 1 0
19. The amount of static electricity produced is: 5 4 3 2 1 0
20. The amount that the pile has worn down is: 5 4 3 2 1 0
21. The way that it sheds lint is: 5 4 3 2 1 0
22. The way that it withstands burns is: 5 4 3 2 1 0
23. The degree to which it shows footprints is: 5 4 3 2 1 0
24. The degree to which daily soil shows is: 5 4 3 2 1 0
25. The degree to which it "camouflages" dirt is: 5 4 3 2 1 0
26. The way that the carpet recovers after having a heavy object moved is: 5 4 3 2 1 0

CARE

27. The ease in cleaning compared with previous floor covering is: 5 4 3 2 1 0
28. The ease of care is: 5 4 3 2 1 0
29. The amount of commercial cleaning needed is: 5 4 3 2 1 0

STAINS

General

30. The degree to which stains which have dried can be removed is: 5 4 3 2 1 0

31. The ease of removing paint is: 5 4 3 2 1 0
32. The way that it "gives up" grease stains is: 5 4 3 2 1 0

Nongreasy Stains

33. The way that catsup may be removed is: 5 4 3 2 1 0
34. The way that blood stains may be removed is: 5 4 3 2 1 0
35. The way that coffee stains may be removed is: 5 4 3 2 1 0
36. The way that vegetable stains may be removed is: 5 4 3 2 1 0
37. The way that fruit juice stains may be removed is: 5 4 3 2 1 0
38. The way that fruit stains may be removed is: 5 4 3 2 1 0
39. The way that egg stains may be removed is: 5 4 3 2 1 0
40. The way that mud stains may be removed is: 5 4 3 2 1 0
41. The way that milk stains may be removed is: 5 4 3 2 1 0
42. The way that mustard stains may be removed is: 5 4 3 2 1 0
43. The way that soft drink stains may be removed is: 5 4 3 2 1 0
44. The way that pet stains may be removed is: 5 4 3 2 1 0
45. The way that medicines may be removed is: 5 4 3 2 1 0
46. The way that vomit may be removed is: 5 4 3 2 1 0

Combination

47. The way that gravy stains may be removed is: 5 4 3 2 1 0
48. The way that sauce and creamed soups stains may be removed is: 5 4 3 2 1 0
49. The way that mayonnaise stains may be removed is: 5 4 3 2 1 0
50. The way that chocolate stains may be removed is: 5 4 3 2 1 0

APPENDIX B

FOLLOW-UP QUESTIONNAIRE

Construction:
a. Needlepunch _____
b. Tufted _____
c. Other _____

Design:
a. Pattern _____
b. Tweed _____
c. Plain _____

The name of the fiber is:
a. Acrylic _____
b. Nylon _____
c. Polypropylene _____
d. Polyester _____

How many household members:
a. 1 _____
b. 2 _____
c. 3 _____
d. 4 _____
e. 5 _____
f. 6 _____
g. 7 _____
h. 8 _____

Children of school age:
a. 1 _____
b. 2 _____
c. 3 _____
d. 4 _____
e. 5 _____
f. 6 _____

Children under school age:
a. 1 _____
b. 2 _____
c. 3 _____

Now that you have had the carpeting in your kitchen for two more years, you know more about its various qualities. How do you now feel about its performance?

1. How often does the carpet need to be vacuumed or swept?

2. How often does the carpet need to be thoroughly cleaned?

3. How often does the carpet need to be commercially cleaned?

4. How has it seemed to wear?

5. Are walking/standing areas in evidence?
   a) Because pile has flattened?
   b) Because of soil?
   c) Design wearing off or down?

6. Has it been colorfast when cleaned?

7. Has it been colorfast to light?

8. Has it produced undesirable amounts of static electricity?

9. Have you had any burns on it? What kind? Did they cause major damage?

10. How did you remove spots? Hot or cold water? Concentrated or dilute rug shampoo or detergent? Aerosol spray?

The following questions pertain to the stains that you might have had on your carpet at various times. Please rate the amount of satis- that you have had in removing these stains in the following manner: 5=very satisfactory, 4=satisfactory, 3=undecided, 2=unsatisfactory, 1=very unsatisfactory, and 0=does not apply.

11.	The degree to which stains which have dried can be removed is:	5 4 3 2 1 0
12.	The ease of removing paint is:	5 4 3 2 1 0
13.	The way that it "gives up" grease stains is:	5 4 3 2 1 0
14.	The way that catsup may be removed is:	5 4 3 2 1 0
15.	The way that blood stains may be removed is:	5 4 3 2 1 0
16.	The way that coffee stains may be removed is:	5 4 3 2 1 0
17.	The way that vegetable stains may be removed is:	5 4 3 2 1 0
18.	The way that fruit juice stains may be removed is:	5 4 3 2 1 0
19.	The way that fruit stains may be removed is:	5 4 3 2 1 0
20.	The way that egg stains may be removed is:	5 4 3 2 1 0
21.	The way that milk stains may be removed is:	5 4 3 2 1 0
22.	The way that mud stains may be removed is:	5 4 3 2 1 0
23.	The way that mustard stains may be removed is:	5 4 3 2 1 0
24.	The way that soft drink stains may be removed is:	5 4 3 2 1 0
25.	The way that pet stains may be removed is:	5 4 3 2 1 0
26.	The way that medicines may be removed is:	5 4 3 2 1 0
27.	The way that vomit may be removed is:	5 4 3 2 1 0
28.	The way that gravy stains may be removed is:	5 4 3 2 1 0

29. The way that mayonnaise stains may be removed is: 5 4 3 2 1 0

30. The way that sauces and soup stains may be removed is: 5 4 3 2 1 0

31. The way that chocolate stains may be removed is: 5 4 3 2 1 0

32. If you were to choose again between carpeting and hard surface floor covering, which would you choose? Why?

VITA

Susanne Barton Cooper was born in Kalamazoo, Michigan, on May 29, 1941. She attended public schools in Plainwell, Michigan and was graduated from Plainwell High School in 1959.

In the fall of 1959 she entered Stephens College in Columbia, Missouri, where in 1961 she earned an Associate of Arts Degree. In the fall of 1961 she entered the University of Missouri and in February 1964 received a Bachelor of Science degree from the University of Missouri with a major in Vocational Home Economics.

She entered Graduate School at the University of Tennessee in September 1968 where she was a graduate assistant in the Department of Textiles and Clothing.

She was employed by the Bertha Ellis Girls Club in Johnson City, Tennessee, from March 1971 until she began teaching at Dobyns-Bennett High School in the fall of 1972.

The Master of Science degree in Textiles and Clothing was awarded in December 1974.