

EXPERIENCE AS A FACTOR ASSOCIATED WITH A SELECTED
GROUP OF OKLAHOMA STATE UNIVERSITY WOMEN
STUDENTS' PREFERENCES FOR, ATTITUDES
TOWARD, AND PRESENT OR PROJECTED
USAGE OF WOOD-BURNING
FIREPLACES

By

ANN JEAN HUNT CRIDER

Bachelor of Science

Oklahoma State University

Stillwater, Oklahoma

1954

Submitted to the faculty of the Graduate School of
the Oklahoma State University
in partial fulfillment of the requirements
for the degree of
MASTER OF SCIENCE
August, 1965

NOV 24 1965

EXPERIENCE AS A FACTOR ASSOCIATED WITH A SELECTED
GROUP OF OKLAHOMA STATE UNIVERSITY WOMEN
STUDENTS' PREFERENCES FOR, ATTITUDES
TOWARD, AND PRESENT OR PROJECTED
USAGE OF WOOD-BURNING
FIREPLACES

Thesis Approved

Maie Aggren

Thesis Adviser

Milton Paschall

Leaven Pepin

Christine J. Salma

J. B. Boyce
Dean of the Graduate School

592737

PREFACE

Today the fireplace is once again appearing in the American home. Although a fireplace is generally considered as an "out-of-date" means of heating and cooking, its revival in the American home gives reason for assessing its renewed acceptance by the American public. The purposes of this study are: (1) to ascertain attitudes toward and preferences for wood-burning fireplaces, (2) to determine if these preferences and attitudes vary according to present or past experience with a fireplace and (3) to discover the extent to which fireplaces are or are not, would or would not be, used by future housing occupants. It is hoped that the findings which result from this study will be a help to building contractors, architects, housing specialists and others concerned with housing construction.

The writer wishes to express her sincere appreciation to Dr. Maie Nygren, Professor and Head of Housing and Interior Design, for her guidance, suggestions, constructive criticism and encouragement. Indebtedness is also acknowledged to Mrs. F. C. Salmon, Associate Professor in Housing and Interior Design; Mr. Milton Paschall, Assistant Professor in Housing and Interior Design and Miss Leevera Pepin, Assistant Professor in Housing and Interior Design, for their contributions as members of the advisory committee. The writer also acknowledges indebtedness to Dr. Carl E. Marshall, Professor of Statistics and Director of the Statistics Laboratory, for his help in drawing the sample and directing statistical treatment of the data; to Mr. John Blankenship

and Mrs. Evelyn Hamilton for their help in processing the data, and to Dr. Ilse Wolf, Professor and Head of the Department of Home Management, Equipment, and Family Economics, Mrs. Gladys Marshall, Assistant Professor of Home Economics Education, Mrs. Beulah Kinney, Assistant Professor of Family Relations and Child Development and Mrs. Lora Cacy, Assistant Professor, Home Economics Education, for their assistance in obtaining the sample. The writer also expresses appreciation to the students of the Home Economics classes 113, who so willingly cooperated in the study.

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION	1
Attitudes and Attitude Measurement	3
Statement of the Problem	6
Purpose	7
Assumptions	7
Hypothesis	7
Description of Variables	7
II. REVIEW OF LITERATURE	10
Summary	16
III. METHODOLOGY	17
Development of Instrument and Its Use in Obtaining Data	17
Treatment of Data	19
Description of Sample	20
IV. ANALYSIS OF DATA	24
Part I	24
Part II	27
Part III	35
Summary	38
V. SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND IMPLICATIONS	41
Summary	41
Conclusions	42
Recommendations	43
Implications	45
SELECTED BIBLIOGRAPHY	46
APPENDIX A	48

LIST OF TABLES

Table	Page
I. Per Cent of College Women Students Wanting a Fireplace.	11
II. Housing Features Given a High Value Rating by 75 Per Cent or More of 254 Families Classified According to Six Variables.	12
III. Selection of Fireplace as an Important Feature by Small City Families Classified According to Socio-Economic Level.	12
IV. Selection of Fireplaces as an Importing Feature by Small City Families Classified According to Occupational Status	13
V. Construction Cost of Custom-Built Houses and Presence of a Fireplace	15
VI. Sample Characteristics According to Major Variables	22
VII. Present and Past Experience with a Fireplace.	23
VIII. Present or Past Experience with a Fireplace	26
IX. Sources of Advice About Wood-Burning Fireplaces	27
X. Sources of Information About Wood-Burning Fireplaces.	28
XI. Desire for Wood-Burning Fireplace	29
XII. Desire for More Than One Fireplace.	29
XIII. Attitudes Toward Wood-Burning Fireplaces.	31
XIV. Designers of Fireplaces	32
XV. Influence on Aspects of Fireplaces.	33
XVI. Projected Usage of Fireplaces -- Frequency of Use	34
XVII. Projected Usage of Fireplaces -- Seasons of Use	35
XVIII. Choice Between Fireplace and Other Housing Features	36

LIST OF TABLES (Continued)

Table	Page
XIX. Ranking of Reasons For Wanting a Wood-Burning Fireplace. . .	37
XX. Ranking of Reasons According to Weighted Scores.	38
XXI. Attitudes Toward, Preferences For, and Usage of Wood-Burning Fireplaces.	44

CHAPTER I

INTRODUCTION

The discovery of igniting and using fire marks one of the long steps forward by which primitive man found his way to present civilized existence. Every civilization known to history has had its fireplace traditions. The fireplace evolved out of need for heat, for comfort and for cooking. The significance which the fireplace has held for primitive man is illustrated by its central location in a room. Cooking, sleeping and all indoor functions of life were pursued in a single room around the central fireplace. When one considers that the word "hearth" is derived from the Latin work "focus",¹ its tradition as a focal point is therefore logical. Its perception as a focal point remains today even though fireplaces have been moved from a central location in a room to a central location in a wall.

Fireplace traditions in the United States were nurtured in the long winters of northern Europe and England. American fireplaces have offered few departures from those of the mother countries. From colonial times, fireplaces fulfilled the basic needs of heat for the home, warmth for the occupants and a place where food could be cooked for consumption. Not until new devices and systems were developed for heating and cooking, and these devices and systems became available to nearly every one, were

¹Webster's New Collegiate Dictionary, (Springfield, Mass., 1953), p. 321.

fireplace traditions challenged. With nation-wide acceptance of these new heating and cooking devices the fireplace began to disappear from the American home. This decline continued for a long period of time.

Today the fireplace is once again appearing in the American home. Although a fireplace is generally considered as an "out-of-date" means for heating and cooking, its restoration in the American home cannot be denied.

The forces responsible for this revival could be any of a number. It may be that the fireplace is a symbol of security and in this day and age security seems to be a rather potent motivating force. It may be the fireplace is perceived by-and-large as a status symbol and certainly there are a number of sociologists who think the climb for status is a highly motivating force in contemporary American society. Again this revival may be related to the "development" of pre-fabricated fireplace heating units which have lessened the need for the highly skilled brick mason, an "item" not easily found in every small American community. Furthermore, the manufacturers of pre-fabricated fireplaces with contemporary designs, have undoubtedly interested owners of houses who would have considered traditionally-designed fireplaces to be incongruous with the design of their houses.

Whatever the causes may be, restoration of the fireplace raises questions about current attitudes toward the fireplace and its usage. These questions provide focus for the study described herein.

Basic to any meaningful measurement of the questions stated above, is an adequate formulation of the problem and clear definitions of concepts involved. In other words, ". . . one must first know what it is

he wants to measure".² In order to give a clearer meaning to some of the concepts used in this study, the writer offers the following definitions.

Masonry Fireplace - Any fireplace constructed of materials such as stone, brick, tile and rock. Some metal parts may be included in this construction but the main body is of brick, stone, tile or rock, assembled with mortar.

Pre-Fabricated Fireplace - A fireplace of which all the parts have been fabricated at a factory, so that construction in a home consists of merely assembling and uniting standardized parts.

Preference - The selection of, adoption of, liking for, or priority given to any object such as a fireplace.

Attitude - "...an affectively toned idea or group of ideas predisposing the organism to action."³ Another way of defining an attitude is, a tendency to react in a certain way toward a group, object or other stimuli.

Use And/Or Usage - The employment of, exercise with, or practice with a property or object for a purpose.

Attitudes and Attitude Measurement

It is difficult to separate attitudes from other closely related

²Claire Selltiz, et al., Research Methods in Social Relations, (New York, 1962), p. 146.

³H. H. Remmers, Introduction to Opinion and Attitude Measurement, (New York, 1954), p. 3.

psychological concepts. Remmers states that the concept of attitudes is:

. . . coterminous with, or closely related to, a considerable number of other psychological concepts, such as interests, appreciations, motives, mores, morality, morale, ideals, complexes, values, prejudices, fears, sentiments, loyalties, ideologies, character and the like.⁴

The environment in which an individual is born and grows is one basis for the formulation of his attitudes. Here the individual acquires his first attitudes and reacts to others' attitudes. His reactions then are defined as behaviors. Relative to this point, Remmers says:

As the child grows in his capacity to respond to those outside his family group, his social attitudes, e.g., cooperativeness, selfishness, dominance conformity and the like, will become definite.⁵

. . . accordingly, the term "attitude" is merely a convenient way of referring to the preparedness that exists within the organism for some future activity. It is to be emphasized that such preparedness is neither automatic nor routine, but possesses cognitive and conative aspects differentiating it from habit and reflexes as commonly regarded.⁶

Attitudes may be modified through learning, through association with others outside the family, or through one's own goals. In general, the closer the relationship between an individual and his family, friends and associates, the stronger will be the formulation of mutual attitudes.

Attitudes vary between different individuals and within an individual at different times. "The fact that attitudes do change accounts for social innovations, social conflicts, and social changes."⁷

⁴Ibid., p. 3.

⁵Ibid., p. 4.

⁶Ibid., p. 5.

⁷Ibid., p. 5.

When an attitude measure is taken it does not necessarily mean that the attitude measured will remain constant. Nor does it mean that the respondents will act in accordance with the attitudes he has endorsed. Relative to this point Thurstone states: "The measurement of attitudes expressed by a man's opinions does not necessarily mean the prediction of what he will do."⁸ Attitude measurement, however, does give a picture of true or intended opinions, thereby giving to some degree an image of intended actions or reactions to any given object or group of objects. In other words results of attitude measurement can be stated as a tendency toward or against an object but cannot necessarily be used as a "yardstick".

In the measurement of attitudes certain assumptions must be made. Remmer states these assumptions as:

1. Attitudes are measurable.
2. Attitudes vary along a linear continuum.
3. Attitudes are common to the group.
4. Attitudes are held by many people.⁹

With these assumptions in mind it is necessary to select a method or scale of measuring attitudes.

There are several recognized methods used in measuring attitudes. Goodenough defines an attitude scale as, ". . . a scale designed to show in quantitative terms the degree of favorableness or unfavorableness of

⁸L. L. Thurstone and E. J. Chave, The Measurement of Attitude, (Chicago, 1948), p. 9.

⁹Remmers, p. 6.

regard for a specified person, group, or social institution."¹⁰ It is used in asking an individual person or a group of people to express or voice approval or disapproval of the subjects under investigation. An attitude scale, usually consists of a number of questions designed to measure a single attitude, however, it is possible to use a single question to represent an attitude.

The scale selected for measuring attitudes in this study is sometimes referred to as the "A Priori Scale". This scale, in effect, is a two point scale, either favorable or unfavorable. A slight modification is also used by adding qualifying statements to the main proposition, such as: "is, is probably, is probably not, is not." The proportion of favorable and unfavorable opinions or attitudes is then taken as an index of the existing attitude of the individual or the given population.

Present or past experience with a fireplace may be a determining factor in the development of an individual's favorable or unfavorable attitude toward a fireplace. A favorable attitude toward an object is the first step toward developing a preference for that object. Through attitude measurement the degree of preference for a fireplace can be determined to some extent. Such information could be used by architects and housing contractors in specifying whether or not a fireplace should be included in future house construction.

Statement of the Problem

This study seeks to ascertain the attitudes toward, preferences for

¹⁰ Florence L. Goodenough, Mental Testing: Its History, Principles and Applications, (New York, 1949), p. 545.

and usage or projected usage of wood-burning fireplaces by a selected group of women students, and to ascertain if these attitudes, preferences and usage or projected usage are affected by present or past experiences with a fireplace.

Purpose

The purposes of this study are threefold. The first is to ascertain attitudes toward and preferences for wood-burning fireplaces. Second, to determine if these preferences and attitudes vary according to present or past experience with fireplaces; third to discover the extent to which fireplaces are or are not, would or would not be, used by future housing occupants.

Assumptions

Assumptions of the study are that attitudes are common to the group, they can be measured, and that attitudes measurement will to some degree give a picture of preferences for an object or group of objects.

Hypothesis

Present or past experience with a fireplace is associated with attitudes toward, preferences for and past, present and projected usage of wood-burning fireplaces by a selected group of Oklahoma State University students.

Description of Variables

Antecedent Variable

The antecedent variables for this study are: (1) freshman and

sophomore class standing, (2) single status and (3) female sex. Limitations of time and finances made it impossible to study all ages of future housing occupants. Freshman and sophomore college students were selected because they are fairly close to making housing decisions and because it was reasoned that this age group would more likely project actual present or past experience rather than information obtained in structured classes. Also, because of the previously mentioned limitations, the sample was further limited to single women students.

Independent Variables

1. Experience with a fireplace is defined as, present and/or past experience with one or more gas or wood-burning masonry or pre-fabricated fireplaces.

2. Non-experience with a fireplace is defined as no experience with a fireplace, or experience with only an imitation fireplace.

Dependent Variables

The dependent variables for this study are: (1) attitudes toward, (2) preferences for and (3) projected usage of wood-burning fireplaces.

Attitudes include feelings about the:

- Cost/worth relationship of fireplaces
- Expense of fireplace
- Cost increase or decrease related to a fireplace
- Time and effort/worth relationship
- Appearance of fireplace
- Efficiency of fireplace
- Contribution by fireplace to family togetherness
- Responsibility for fireplace design
- Reason for wanting fireplaces

Preferences include:

- Desire for a fireplace
- Number of fireplaces desired
- Preferred location for second fireplace (if desired)

Choices between fireplace and selected alternatives

Projected usage includes:

Frequency of use
Portion of the day in which use will occur
Season of year in which use will occur
Specific uses

CHAPTER II

REVIEW OF LITERATURE

From the earliest times for which records exist, the open fireplace has been the favorite device for heating the habitat of man. Although a fireplace is considered in America today as an "out-of-date" method for heating, an increasing proportion of the newly built houses in America include one or more fireplaces. If, since the development of central heating systems to solve major heating problems has rendered less practical a need for fireplaces, how then can the revival of the fireplace be accounted for?

Few research studies have been focused specifically on fireplaces. Several however, have included fireplaces in relation to other problems under investigation. Montgomery's study concerned with the housing images of women college students is one such investigation. In this study the fireplace seemed to have much attraction for women college students.¹ Data obtained in his investigation show a high percentage of college women having preference for a fireplace.

An average of the percentages from four states representing different geographical areas shows that 92 per cent of the women students wanted a fireplace in a house and at least 58 per cent expected to have one. Considering the fact that a fireplace is generally not used as a

¹James Montgomery, The Housing Images of Women College Students, (University Park, Pa., April, 1963), pp. 26-27.

major source of heat, the percentage of women desiring and expecting a fireplace is very high.

TABLE I
PER CENT OF COLLEGE WOMEN STUDENTS WANTING A FIREPLACE²

	Oregon	Tennessee	Minnesota	Pennsylvania	All
Desired	95	91	89	91	92
Expected	63	68	44	60	58

A study by Smith et al., concerning mobility also reveals some information about the fireplace. One purpose of this mobility study was ". . . to discover the causative factors which impelled families to move from one owned house to another as related to choice making situations."³ Although the findings indicate that the fireplace cannot be considered as a major causative factor, it certainly is considered an important feature when women select a residence.

The importance of features was determined by offering 254 families 97 housing features to select or reject. The fireplace was selected as an important feature by 75 per cent or more of the suburban women classified according to all of the major variables and by 75 per cent or more of the women living in small cities, except when they were classified according to socioeconomic level and occupation.

² Ibid., pp. 26-27.

³ Ruth Smith, et al., Housing Choices and Selections as Evidenced by Residential Mobility, (University Park, Pa., May, 1963), p. 1.

TABLE II

HOUSING FEATURES GIVEN A HIGH VALUE RATING BY 75 PER CENT OR MORE
OF 254 FAMILIES CLASSIFIED ACCORDING TO SIX VARIABLES⁴

Stage of family cycle	<u>Fireplaces</u>				
	Size of family	Income group	House value	SE level	Occupation
SC. Sub.	SC. Sub.	SC. Sub.	SC. Sub.	SC. Sub.	SC. Sub.
X X	X X	X X	X X	X	X

SC = Small Cities, Sub. = Suburban

Only those women living in small cities, who were of a low socio-economic level or whose husbands' occupations were manual, failed to select the fireplace with as great a frequency as did the women in the other classifications.

TABLE III

SELECTION OF FIREPLACE AS AN IMPORTANT FEATURE
BY SMALL CITY FAMILIES CLASSIFIED
ACCORDING TO SOCIOECONOMIC LEVEL⁵

	High	Low
Fireplace feature	97%	57%

In a survey conducted by McCall's magazine among 14,600 women respondents, 92 per cent said they wanted a fireplace in a new home. In addition, 15 per cent said ". . . they were planning to build a

⁴Ibid., p. 29.

⁵Ibid., p. 44.

fireplace, or remodel the existing one in the houses in which they lived."⁶

TABLE IV

SELECTION OF FIREPLACE AS AN IMPORTANT FEATURE BY SMALL CITY FAMILIES CLASSIFIED ACCORDING TO OCCUPATIONAL STATUS⁷

Feature	Manual	White Collar	Proprietor and Business	Professional
Fireplace	36%	96%	81%	98%

Nygren's study on housing images of freshman and senior secondary school students revealed that the fireplace holds much interest for teenagers also.⁸ Although only 16 per cent of the 1,028 student respondents had a fireplace in their homes, 73 per cent of the freshman and 78 per cent of the seniors pictured a fireplace in their image houses.

When the housing images were compared according to socio-economic status of the students Nygren found that:

A fireplace is more often a part of the image house of the high socio-economic status group than it is of the middle and low socio-economic status groups. In the high socio-economic status group, 82.4 per cent of the freshman and 88.9 per cent of the seniors picture a fireplace. In contrast to this, only . . . 72.1 per cent of the freshmen and 77.3 per cent

⁶ McCall's survey, 1944-45, quoted in Housing and Home Finance Agency, What People Want When They Buy A House, (Washington, 1955), p. 74

⁷ Ruth Smith, et al., Housing Choices and Selections as Evidenced by Residential Mobility, (University Park, Pa., May, 1963), p. 46.

⁸ Maie Nygren, "The Housing Images of Selected Freshman and Senior Secondary School Students in Certain Communities in Oklahoma" (unpub. Ed.D. dissertation, Oklahoma State University, 1961), p. 79.

of the seniors of the low socio-economic status group picture a fireplace.⁹

Nygren, in comparing the housing images according to the general location (rural or urban) of the parental homes, found: ". . . a fireplace is more often a part of the housing images of urban students, especially the seniors, than it is of the rural students."¹⁰

There was a significant difference also in the fireplace image when sex of the students was used as a variable. The study revealed that girls, both freshman and seniors, are more likely to include a fireplace in their image houses than are boys.

A survey conducted in 1948-49 by Better Homes and Gardens magazine and reported by the Housing and Home Finance Agency, revealed that 68 per cent of the new houses custom-built for owner-occupancy included a fireplace.¹¹ Again the findings given in the following table show a relationship between income and desire for a fireplace. The conclusion drawn by the Housing and Home Finance Agency was: ". . . the desire for a fireplace in a home remains strong . . . almost universal."¹²

The Editors of House and Home magazine surveyed 100 leading home builders, asking them to list the major features included in the interiors of their newly built houses. The findings show that a fireplace was included in 63 per cent of the family rooms and in 46 per cent of the living rooms in 1948-49. The builders also stated that their best

⁹Ibid., p. 109.

¹⁰Ibid., p. 79.

¹¹Better Homes and Gardens survey, 1948-49, quoted in Housing and Home Finance Agency, What People Want When They Buy A House (Washington, 1955), p. 74.

¹²Ibid., p. 75

selling models are priced between \$15,000 and \$25,000, of which, most have fireplaces. A comparison of the findings from this study with those from the Better Homes and Gardens study reveal a relationship between cost of a house and percentage of houses including a fireplace.

TABLE V
CONSTRUCTION COST OF CUSTOM-BUILT HOUSES AND PRESENCE
OF A FIREPLACE¹³

Construction costs of custom-built houses	Per cent of custom-built houses with fireplaces
Under \$7,000	28
\$7,500 under \$10,000	48
\$10,000 under \$15,000	69
\$15,000 under \$20,000	86
\$20,000 and over	93

In a study of rural housing in Garfield County, the investigators found that only two per cent of the farm homes had a fireplace.¹⁴ Forty per cent of the rural women interviewed, however, said that their images of "a house that would be just right for the family" would include a fireplace. Although the 40 per cent is much lower than the percentage found in other studies, this may be accounted for when one considers the socio-economic level of rural people. The difference in percentage of those who have (two per cent) and those who desire

¹³Ibid., p. 74.

¹⁴James E. Montgomery, et al., Rural Housing in Garfield County Oklahoma, A Study of Processes, Images and Values, (Stillwater, Okla., 1959), p. 32.

(40 per cent), nevertheless, indicates an increasing desire for a fireplace.

Summary

Research on fireplaces has shown a relationship between the socio-economic level of families and their desire for a fireplace. Generally speaking the higher the socio-economic level of the family the greater the desire for a fireplace to be included in the home.

One study revealed an association between preferences for a fireplace and socio-economic status of the students, the sex of students and the general location (rural or urban) of parental homes. A number of other studies show a similar association between socio-economic level and preference for fireplaces.

In all the studies reviewed, a high percentage of the respondents indicate they would like to have a fireplace. Although preference for fireplaces seems to increase as socio-economic level increases, the proportion of families wanting a fireplace is high at all socio-economic levels.

CHAPTER III

METHODOLOGY

Development of Instrument and Its Use in Obtaining Data

A questionnaire form was the means selected for obtaining data. The instrument used in collecting data for this investigation is the result of several developmental steps. Other methods used in previous studies for measuring attitudes were first reviewed. Studies pertaining to preferences for and usage of fireplaces were also reviewed. A list of questions was compiled before, throughout and following the review of related material. Pre-testing revealed weaknesses in clarity of some questions while others were found to be irrelevant to the respondent's situation. For these reasons, 35 questions were refined and became the final instrument. Questions were included on the basis of relevance to the objective of the study.

The main text of the instrument consisted of 25 questions. Of these, 17 were answered by all respondents and eight were answered by those respondents wanting or not objecting strongly to a fireplace. A secondary questionnaire, consisting of 12 questions, was developed to obtain further data from respondents who have had present or past experience with a fireplace. A majority of the questions offered each respondent a choice of alternative answers. Each respondent was asked to select one answer and in some cases more than one answer to each of the questions.

The instrument was then administered to women students enrolled in eight sections of Home Economics 113.* In administering the instrument, the investigator explained working definitions for certain terms used in the instrument. Each section of the questionnaire was also explained so every respondent would understand to which portions she was to respond. Two-hundred and seven respondents answered the questionnaire during regularly scheduled class periods. Instruments completed by three of this group were eliminated because the respondents were beyond the grade limit defined for the sample.

For each of 36 students absent from her class, the investigator compiled a packet consisting of the instrument, a listing of definitions of terms, and a self-addressed return envelope. These packets were given to the absentee students at their next class meetings. They were asked to complete the questionnaire and return it to the investigator. Of the 36 packets compiled, 33 were returned. Instruments completed by three of this group also were eliminated because the respondents were beyond the grade limit defined for the sample.

To establish that responses obtained during class were not different from those obtained by mail, 30 questionnaires were randomly selected from the 204 students responding during class and comparisons were made of tabulated responses obtained from both class respondents and mail respondents. No major differences in responses emerged, therefore, the 30 mailed instruments were incorporated into the sample, making a total of 234 respondents.

*"Home Economics 113", a course at the freshman and sophomore level required of all Home Economics majors.

Selection of the Sample

As this study is directed toward future housing selections, the investigator decided that freshmen and sophomores at the college level were a logical sample because they are fairly close to making housing decisions. Moreover, it was decided their responses probably would be less influenced by information obtained in structured classes than would be their older junior-senior counterparts. Because of limitations in time and finances it was decided to further limit the sample to single women students.

It was determined that a sample could be obtained from the students enrolled in Home Economics 113 at Oklahoma State University that would fit the limitations outlined for this study. The investigator received permission to administer the questionnaire during the regular class meetings scheduled for eight sections.

Treatment of Data

The data were analyzed in terms of the independent variable. Respondents were classified into two categories according to their experience or non-experience with a fireplace (excluding imitation fireplaces). Henceforth, the two sub-groups of the sample population will be referred to as "experience" (i.e. those having present and/or past experience with a fireplace) and "non-experience" (i.e. those having had no previous experience with a fireplace).

The analysis deals with the association between experience or non-experience with a fireplace and the various dimensions of the three major dependent variables: (1) attitudes toward, (2) preferences for

and (3) present or future usage, of wood-burning fireplaces. In some instances responses to the dependent variables were dichotomized or trichotomized.

Statistical Treatment

Responses were recorded on IBM Data Cards. Frequency, percentage and Chi-Square computations were made on a computer in the Computing Center at Oklahoma State University. The Chi-Square Test was used to determine association between the independent variable, experience, and various dimensions of the dependent variables, attitudes toward, preferences for and usage made of fireplaces. Siegel's table of "Critical Values of Chi-Square"¹ was used to determine significant differences between the two populations at the Computing Center at Oklahoma State University.

Description of Sample

The sample selected for study included freshman and sophomore women students enrolled in Home Economics 113 at Oklahoma State University. A total of 234 respondents met the sample limitations imposed in this study. Of the 234 respondents, 54.70 per cent had either present or past experience with one or more kinds of fireplaces and 45.30 per cent have not had experience with a fireplace. Respondents who have had experience with an imitation fireplace, only, were included in this latter group because such a fireplace was considered to be a decorative feature which, therefore, offered a different frame of reference.

¹Sidney Siegel, Series in Psychology, (New York, 1956), p. 249.

Table VI shows the composition of the total population according to the independent variable and selected interpretive variables: occupation of household head and location of the parental home. The distribution of the respondents according to the father's or household head's professional or non-professional occupation was approximately equal for the "experience" respondents. Of the "non-experience" respondents, however, a significantly greater percentage of the household heads were engaged in a non-professional occupation. The "no response" sub-group includes respondents who failed to give sufficient information for classifying occupations of the household heads.

Analysis of the data in terms of the respondent's rural or urban location of her parental home also reveals a significant difference. Over three-fourths of the "experience" group live in urban areas while less than one-fourth live in rural areas. In the "non-experience" group about one-third live in rural areas while almost two-thirds live in urban areas. Of the total population 27.8 per cent are from rural areas and 72.2 per cent are from urban areas.

Analysis of the data relating to the nature of experiences respondents have had with one or more kinds of fireplaces, Table VII, reveals that of the respondents who have had experience with a fireplace, 18.0 per cent have had past experience only, 13.2 per cent have had present experience with a fireplace, and 68.8 per cent have had both present and past experience with a fireplace. Analysis also revealed that three-fourths of the respondents have had experience (present or past) with more than one fireplace and one-fourth had experience with only one fireplace.

TABLE VI

SAMPLE CHARACTERISTICS ACCORDING TO MAJOR VARIABLES

	Exp.	Non-E.							
Experience with a Fireplace	128* (54.7)	106 (45.3)							
Occupation									
Pro.	59 (46.1)	28 (26.4)							
Non-P	64 (50.0)	67 (63.3)							
No Resp.	5 (3.9)	11 (10.3)							
			Occupation						
			Professional		Non-Professional		No Response		Total
			Exp.	Non-E.	Exp.	Non-E.	Exp.	Non-E.	
Location									
Rural	28 (22.1)	37 (34.9)	7 (5.4)	1 (.9)	22 (17.2)	31 (29.2)	1 (.7)	3 (2.8)	65 (27.8)
Urban	100 (77.9)	69 (65.1)	52 (40.6)	27 (25.5)	42 (32.8)	36 (34.0)	4 (3.2)	8 (7.5)	169 (72.2)
Total	128	106	59	28	64	67	5	11	234
Total Per Cent	(72.1)	(27.9)	(46.0)	(26.4)	(50.0)	(63.2)	(3.9)	(10.3)	(100.0)

*Top number represents N of the group; bottom number is percentage of the group.

TABLE VII
PRESENT AND PAST EXPERIENCE WITH A FIREPLACE

Type of Fireplace	Present	Past
No Fireplace	18.0	13.2
Wood-burning Masonry	62.5	68.8
Wood-burning Pre-fabricated	3.9	5.5
Gas-burning Masonry	8.6	15.6
Gas-burning Pre-fabricated	5.5	6.3
Imitation	<u>1.5</u>	<u>10.9</u>
	100.0	120.3*
N = 128		

*Total equals 120.3 per cent because some respondents (18 per cent) have had past experience with more than one type of fireplace.

CHAPTER IV

ANALYSIS OF DATA

The data for this investigation were analyzed according to whether or not the respondents have had experience, present or past, with a fireplace. The findings are presented in three parts: (1) respondents' present or past experiences with a fireplace and the over-all picture regarding experience or non-experience with a fireplace, (2) "experience" and "non-experience" respondents' preferences for, attitudes toward and projected usage of wood-burning fireplaces, and (3) "experience" and "non-experience" respondents' choices between a fireplace or other housing features and the values assigned by respondents to a fireplace in the home.

PART I

Present or Past Experience with a Fireplace

Respondents who have had present or past experiences with a fireplace were asked several questions concerning their experiences. The information included in Table VIII reveals the nature of experiences respondents have had with a fireplace. Judging from the evaluations of fireplaces made by this group, the fireplace has been a successful feature in their homes. Over nine-tenths of the respondents stated their fireplaces burned "well" or "fairly well;" that "none" or "very little" smoke escaped into the room where the fireplace was located;

and their fireplaces provided "very much" or "some" heat; and over four-fifths said their fireplace was "easy" or "fairly easy" to clean.

The data also reveal that three-fifths of the "experience" respondents bought or presently buy wood ready-cut, three-tenths cut their own wood and less than one-tenth had or have other means of obtaining wood. Almost one-half of the group indicated the main supply of wood was or is stored adjacent to the house and for one-third of the group the wood is in or adjacent to the garage or carport. Wood in storage was or is considered "very" or "fairly" accessible by over nine-tenths of the "experience" respondents. Analysis further reveals that in the homes of over two-thirds of the "experience" respondents, a central system was used for the major source of heat.

The data analysis reveals that the fireplace is perceived as contributing to the enjoyment of others besides family members. Respondents indicated that the fireplace was enjoyed by neighbors, friends, guests and relatives as well as by family members.

Over-All Picture of Respondents' Experience or Non-Experience with a Fireplace

The 234 respondents were asked if they had ever been given any advice about having or not having a wood-burning fireplace in a house. The only significant difference found between the "experience" and "non-experience" groups was in the advice received from professional builders. Almost one-half of the "experience" respondents compared to only one-fourth of the "non-experience" respondents had received advice from professional builders.

TABLE VIII
PRESENT OR PAST EXPERIENCE WITH A FIREPLACE

<u>Present or Past Experiences</u>	<u>Per Cent</u>	<u>Present or Past Experiences</u>	<u>Per Cent</u>
<u>Success of Fireplace</u>		<u>Method for Obtaining Wood</u>	
Very successful	75.2	Buy ready-cut	61.1
Fairly successful	20.4	Cut own	29.2
Not too successful	4.4	Other means	9.6
<u>Satisfaction with how well Fireplace Burned</u>		<u>Accessibility of Wood Storage</u>	
Well	82.3	Very accessible	44.7
Fairly well	15.9	Fairly accessible	46.4
Not too well or not well	1.8	Not very or not accessible	8.9
<u>Ease of Cleaning Fireplace</u>		<u>Others that Enjoy Fireplace</u>	
Easy	42.5	Friends	93.8
Fairly easy	40.7	Guests	83.7
Not too easy or not easy	16.8	Relatives	80.5
<u>Amount of Smoke Given Off by Fireplace</u>		Neighbors	62.0
None	55.7	Others	8.5
Very little	37.2	<u>Major Source of Heat for Houses Having Fireplaces</u>	
Some	7.1	Central heat	68.2
<u>Amount of Heat Provided by Fireplace</u>		Floor furnace	15.9
Very much	52.2	Gas-oil stove	9.7
Some	43.4	Wall furnace	4.4
Very little or none	4.4	Other	1.8
<u>Location of Main Wood Supply</u>		N = 113*	
House	2.7		
Adjacent to house	45.5		
Garage or carport	19.6		
Adjacent to garage or carport	15.2		
Other	17.0		

*The N in Table VIII is 113 rather than 128 because 15 of the experience respondents could not remember details about the fireplace or the information sought was not pertinent to the type of fireplace on which her experience was based.

TABLE IX
SOURCES OF ADVICE ABOUT WOOD-BURNING FIREPLACES

Source	Experience	Non-Experience
Friends	57.7	74.4
Family members	51.9	51.3
Professional builder	46.2	25.6*
Others	7.7	10.3

*Significant difference at the .05 level.

When the respondents were asked about sources of information, the data revealed a significant difference in the information received from family members. Two-thirds of the "experience" respondents had received information from family members about fireplaces while only two-fifths of the "non-experience" respondents received information from family members. Other differences that occurred were: a greater percentage of "experience" respondents received information from professional builders and a greater percentage of "non-experience" respondents received information from friends. The percentages of respondents receiving information about fireplaces from books, bulletins, news articles and other sources were similar for the "experience" and "non-experience" groups.

PART II

The second part of the data analysis is concerned with the "experience" and "non-experience" respondents preferences for, attitudes toward and projected usage of wood-burning fireplaces.

TABLE X
SOURCES OF INFORMATION ABOUT WOOD-BURNING FIREPLACES

Source	Experience	Non-Experience
Family members	65.2	41.7*
Professional builders	47.0	30.6
Friends	43.9	58.3
Books	16.7	16.7
Bulletins	16.7	16.7
News articles	13.6	19.4
Others	4.6	2.8

*Significant difference at the .01 level.

Preferences for Wood-Burning Fireplaces

All 234 respondents were asked a question pertaining to "desire for" a wood-burning fireplace. The data revealed a significant difference between the "experience" and the "non-experience" groups. Nine-tenths of the "experience" respondents wanted a wood-burning fireplace while only seven-tenths of the "non-experience" respondents wanted one. The high percentage of favorable experiences related in Part I may account for such a high percentage of the "experience" group desiring a fireplace in future housing, but whatever the reason the data appear to support the hypothesis. Responses of the "experience" and "non-experience" sample concerning their "desire for" a fireplace are summarized in Table XI.

Only those respondents that expressed a desire for one fireplace

were asked if they would be interested in having more than one. Here again a significant difference was found. Three-fifths of the "experience" respondents wanted a second fireplace, whereas, slightly more than one-third of the "non-experience" respondents wanted a second fireplace.

TABLE XI
DESIRE FOR WOOD-BURNING FIREPLACE

Fireplace	Experience	Non-Experience
Want very much	90.6	71.7
Would not insist or do not want	10.4	28.3

X^2 14.26 Tab. X^2 .001 (13.82) d.f. 1

TABLE XII
DESIRE FOR MORE THAN ONE FIREPLACE

Want More Than One Fireplace	Experience	Non-Experience
Yes	60.8	35.9
No	39.2	64.1

X^2 13.98 Tab. X^2 .001 (10.80) d.f. 1

"Experience" and "non-experience" respondents who expressed a desire for more than one fireplace were asked where the second fireplace should be located. The highest percentage of both groups agreed that the second fireplace should be located in the family room.

Attitudes Toward Fireplaces

Respondents in the "experience" and "non-experience" groups were asked nine questions relating to their attitudes toward fireplaces. The data reveal significant differences between the two groups in their responses to six of the nine questions. In general, the largest percentage of the "experience" respondents feel that a wood-burning fireplace "is worth" the time and effort, "is not" expensive, "will probably not" decrease heating costs, "is not" drafty, "is" warm looking and "is" worth the cost involved.

The "non-experience" respondents feel that a wood-burning fireplace "may be or is worth" the time and effort, "is probably not" expensive, "will probably" decrease heating costs, "is probably not too" drafty, "is" warm looking, and "is" worth the cost involved.

There seems to be general agreement between the "experience" and "non-experience" groups regarding pre-fabricated fireplaces. Both groups feel that the pre-fabricated fireplace "is not or is probably not" worth the cost involved. The "experience" group feels that a fireplace would have a "great deal of influence" in causing a family to gather together, whereas, the "non-experience" group were less positive about the influence of a fireplace, believing instead that a fireplace "probably would have an influence" in causing a family to gather together.

Respondents wanting a fireplace were asked about their attitudes toward a professional or non-professional person being responsible for the design of the fireplace. Both the "experience" and "non-experience" groups anticipate that an architect would design the fireplace, however, the percentages in Table XIV also indicate that for some people either

TABLE XIII

ATTITUDES TOWARD WOOD-BURNING FIREPLACES

Attitudes Regarding	Experience	Non-Experience
<u>Wood-Burning Masonry Fireplace</u>		
<u>Worth/Not Worth Cost***</u>		
Is probably not worth or is not worth	5.5	2.8
Is probably worth	11.7	26.4
Is worth	82.8	70.8
<u>Wood-Burning Pre-Fabricated Fireplace</u>		
<u>Worth/Not Worth Cost</u>		
Is probably not worth or is not worth	57.1	47.2
Is probably worth	35.9	42.4
Is worth	7.0	10.4
<u>Expense of Wood-Burning Fireplace*</u>		
Is expensive	12.5	9.4
Is probably expensive	16.4	26.4
Is probably not expensive	22.7	48.1
Is not expensive	48.4	16.1
<u>Decrease of Heating Costs****</u>		
Will decrease	20.3	14.1
Will probably decrease	19.5	36.8
Will probably not decrease	36.0	32.1
Will not decrease	24.2	17.0
<u>Increase of Heating Costs</u>		
Will or probably will increase	15.6	14.1
Will probably not increase	32.8	45.3
Will not increase	51.6	40.6
<u>Regarding Time and Effort*</u>		
Is not or probably not worth	3.9	16.1
May be worth	13.3	31.1
Is worth	82.8	53.8
<u>Appearance of Fireplace***</u>		
Is probably warm looking	1.6	8.5
Is warm looking	98.4	91.5

TABLE XIII (Continued)

Attitudes Regarding	Experience	Non-Experience
<u>Fireplaces Being Drafty**</u>		
Is or is probably drafty	11.7	9.4
Is probably not too drafty	27.4	47.2
Is not drafty	60.9	43.4
<u>Influence in Causing a Family to Gather Together</u>		
No influence or probably no influence in causing a family to gather together	10.2	10.4
Would probably have an influence in causing a family to gather together	41.4	48.1
Would have a great deal of influence in causing a family to gather together	48.4	41.5

*Significant difference at the .001 level.

**Significant difference at the .01 level.

***Significant difference at the .02 level.

****Significant difference at the .05 level.

TABLE XIV

DESIGNERS OF FIREPLACES

Designers	Experience	Non-Experience
Architect	58.4	52.4
Brick mason	36.0	26.2
Husband and/or self	53.6	39.8
Others	<u>4.8</u>	<u>5.8</u>
	162.8*	124.2*

*Total percentages are greater than one hundred because respondents were allowed to select more than one answer.

a brick mason and/or the husband and wife would design the fireplace.

When the data were analyzed further, as in Table XV, it was found that both groups of respondents wanted "some" influence on construction; and "very much" influence on selection of material, style or shape, and choice of location. It is concluded from these data that the respondents want to be consulted regarding these four aspects listed but the largest percentage of respondents want an architect to design the fireplace. The data also appear to indicate that a greater proportion of the "experience" respondents want an influence on the construction and location of the fireplace, whereas, a greater proportion of the "non-experience" want an influence on its materials and on its style or shape.

TABLE XV
INFLUENCE ON ASPECTS OF FIREPLACES

Influence On	Experience	Non-Experience
<u>Construction</u>		
Very much	36.8	38.8
Some	45.6	39.8
Very little	14.4	11.7
None or don't know	3.2	9.7
<u>Material</u>		
Very much	64.0	60.2
Some	25.6	31.1
Very little	5.6	2.9
None or don't know	5.0	5.8
<u>Style or Shape</u>		
Very much	77.6	74.8
Some	12.0	20.4
Very little	6.4	3.8
None or don't know	4.0	1.0
<u>Location</u>		
Very much	83.2	78.7
Some	8.8	10.7
Very little	4.8	8.7
None or don't know	3.2	1.9

Projected Usage

Respondents wanting a fireplace were asked three questions pertaining to projected usage of the fireplace. No significant differences emerged between the "experience" and "non-experience" groups in their anticipations of when, how much and how frequently they would use a fireplace.

In general, data revealed that the fireplace would be used by both groups for cooking on "special occasions only." The largest percentage of both groups indicated the fireplace would be used to the greatest extent during the evening hours. Some difference did appear between the groups regarding use of fireplace during the morning and afternoon. "Experience" respondents would use a fireplace more in the afternoon and less in the morning, whereas, the "non-experience" group would use a fireplace more in the morning and less in the afternoon.

TABLE XVI

PROJECTED USAGE OF FIREPLACE -- FREQUENCY OF USE

	Experience	Non-Experience
<u>Portion of Day</u>		
Morning	16.8	29.1
Afternoon	24.0	16.5
Evening	78.4	76.7
Different times	42.4	52.4
	161.6*	174.7*
<u>Cooking</u>		
Some of the time	25.0	15.6
Special Occasions (only)	64.7	73.3
Emergencies	2.9	6.6
Other	12.1	6.7
	104.7*	102.2*
N =	(116)	(76)

*Totals equal more than 100 per cent because respondents were allowed to select more than one answer.

Respondents were asked about projected usage of a fireplace according to the seasons of the year. Responses of the "experience" and "non-experience" groups were very similar, therefore, frequencies were combined for Table XVII. Data reveal that the largest percentage of both groups would use a fireplace: weekly in the fall, daily in the winter, on special occasions only in the spring, and respondents did not know when or if they would use a fireplace in the summer.

TABLE XVII
PROJECTED USAGE OF FIREPLACE -- SEASONAL USE

Frequency of Use	Fall	Winter	Spring	Summer
Daily	14.0	67.1	1.7	----
Weekly	36.9	24.1	12.3	.4
Monthly	14.0	3.1	8.8	.8
Special occasions (only)	18.0	.9	36.4	21.1
Don't know	<u>17.1</u> 100.0	<u>4.8</u> 100.0	<u>40.8</u> 100.0	<u>77.7</u> 100.0

PART III

Choices Between a Fireplace or Other Housing Features

The respondents in the "experience" and "non-experience" groups were asked to choose between a fireplace and several other housing features. The "experience" group chose a fireplace over a colored television and a high fidelity set, and over the addition of a one-car garage or carport. The fireplace was not chosen over wall-to-wall carpet, better living room furniture and new home appliances.

The "non-experience" group chose the fireplace over the one-car garage or carport, whereas, the guest bedroom, wall-to-wall carpet, better living room furniture, colored television and high fidelity and new home appliances chosen over the fireplace.

A significant difference was found between the two groups in regard to one of the pairs of choices. The "experience" group would select a fireplace over the guest bedroom, whereas, the "non-experience" group would select the guest bedroom over the fireplace. Data concerning the choices made between a fireplace and other housing features are presented in Table XVIII.

TABLE XVIII
CHOICE BETWEEN FIREPLACE AND OTHER HOUSING FEATURES

Fireplace or Housing Feature	Experience	Non-Experience
Fireplace	58.2	42.7
Guest Bedroom	41.8	57.3
Fireplace	30.3	24.3
Wall-to-wall Carpet	69.7	75.7
Fireplace	32.8	24.3
Better Living Room Furniture	67.2	75.7
Fireplace	54.9	48.5
Colored Television and High Fidelity	45.1	51.5
Fireplace	67.2	61.2
Add One Car Garage or Carport	32.8	38.8
Fireplace	21.3	17.5
New Home Appliances	78.7	82.5

*Significant difference at .05 level.

Values Assigned to Fireplace in Home

Respondents were asked to rank four value words in the order which most nearly described why they would want a wood-burning fireplace. A weighted scoring system was used for determining a rank order for the two groups. Four points were assigned for each first rank, three points for each second rank, two for each third, and one for each fourth.

The data in Table XIX reveal that both the "experience" and "non-experience" groups feel that family centeredness is the primary reason for wanting a wood-burning fireplace. The groups differ however, in their second and third placings of the four values. The "experience" group feel that "beauty" is the second reason and "comfort" the third reason for wanting a fireplace. In contrast to this the "non-experience" group ranks "comfort" above "beauty" as a reason for wanting a fireplace. Both groups of respondents feel "prestige" is the least important reason for wanting a wood-burning fireplace.

TABLE XIX

RANKING OF REASONS FOR WANTING A WOOD-BURNING FIREPLACE

Values	Experience				Non-Experience			
	1st	2nd	3rd	4th	1st	2nd	3rd	4th
Beauty	35.8	30.9	33.3	----	41.6	25.7	31.7	1.0
Family Centeredness	43.9	32.5	21.9	1.6	45.5	27.7	25.7	1.0
Comfort	20.3	35.8	41.5	2.5	12.9	42.6	40.6	3.9
Prestige	----	.8	3.3	95.9	----	4.6	2.0	94.0

TABLE XX
RANKING OF REASONS ACCORDING TO WEIGHTED SCORES

	Experience	Non-Experience
1st	(393) Family Centeredness	(321) Family Centeredness
2nd	(372) Beauty	(267) Comfort
3rd	(337) Comfort	(211) Beauty
4th	(129) Prestige	(111) Prestige

Summary

In general women students who have had experience with fireplaces consider these fireplaces as successful. Although some heat is provided by fireplaces, the major source of heat for houses is central heating units and wall or floor furnaces. It is also generally agreed by respondents that others besides their family enjoy the fireplace.

The "experience" respondents have received advice from professional builders and information from family members more than have the "non-experience" respondents. The sources of information about fireplaces are similar for the "experience" and the "non-experience" groups.

A higher percentage of the "experience" respondents want one or more fireplaces than the "non-experience". Respondents in both groups desiring more than one fireplace want the family room to be the location of the second fireplace.

In general the attitudes toward a fireplace held by the "experience" group are: wood-burning masonry is worth cost, is not expensive, will probably not decrease nor increase heating costs, is worth time and

effort, is warm looking, is not drafty, and would have a great deal of influence in causing a family to gather, whereas, the pre-fabricated fireplace was considered by this group as probably not worth the cost involved.

The attitudes toward a fireplace held by the "non-experience" group are: wood-burning masonry is worth the cost, is probably not expensive to use, will probably decrease heating costs, is worth time and effort, is warm looking, is probably not too drafty and would probably have an influence in causing the family to gather. A pre-fabricated fireplace, is believed to be not worth the cost involved.

In general both the "experience" and "non-experience" groups feel that an architect would be responsible for designing the fireplace in a future home. However, a number of respondents would leave the designing of a fireplace in the hands of a brick mason, others would design it themselves or would have their spouses or a combination of these people design it. The "experience" group appear to want influence on the construction and location of the fireplace, whereas, more of the "non-experience" want influence on the location and materials.

In analyzing the projected usage data, it was revealed that both groups would use the fireplace in a similar manner. The fireplace would be used mostly during the winter and this use would be daily. Both groups agree that the fireplace would be used to the greatest extent during the evening and it would be used for cooking only on special occasions.

Reasons for wanting a fireplace in the home by the "experience" group are for family centeredness, beauty, comfort and prestige, in that order. The reasons as ranked by the "non-experience" group are

family centeredness, comfort, beauty and prestige.

CHAPTER V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND IMPLICATIONS

Summary

In order to gain further insight and understanding about the revival of fireplaces in American homes, this study was designed to ascertain if there is a relationship between experience and non-experience with a fireplace and attitudes toward, preferences for and projected usage of wood-burning fireplaces. Such information is considered useful for specifying whether or not a fireplace should be included in future housing construction.

The purposes of this study are: (1) to ascertain attitudes toward and preferences for wood-burning fireplaces, (2) to determine if these preferences and attitudes vary according to present or past experience with fireplaces and (3) to discover the extent to which fireplaces are or are not, would or would not be, used by future housing occupants.

The hypothesis of this study is that: present or past experience with a fireplace is associated with attitudes toward, preferences for and past, present and projected usage of wood-burning fireplaces by a selected group of Oklahoma State University women students.

College level freshman and sophomore single women students were selected because they are fairly close to making housing decisions and because this age group would be less influenced by information obtained

in structured classes than would be their older junior-senior counterparts. The sample was obtained from freshman and sophomore students enrolled in Home Economics 113 at Oklahoma State University.

A questionnaire form was the means selected for obtaining data. The main text of the instrument consisted of 25 questions, 17 answered by all respondents and eight answered by respondents wanting a fireplace in a future home. A secondary questionnaire was developed to obtain further information from the "experience" respondents. All questions were devised to reflect various attitudes toward, preferences for and past or present and projected usage of fireplaces.

Following a pretest and revision, the instrument was administered to the eight sections of Home Economics 113 students. Students absent from their classes were later asked to complete the questionnaire and return it by mail. In preparing the data for processing, six instruments were rejected because the respondents did not meet sample limitations, leaving a total of 234 questionnaires which were analyzed.

The Chi-square Test was used to determine association between the independent variable, experience, and various dimensions of the dependent variables: attitudes toward, preferences for and projected usage to be made of fireplaces. Responses were recorded on IBM data cards and all frequency counts, percentages and Chi-square values were computed on an electronic high speed computer. Seigel's table of "Critical Values of Chi-Square" was used to determine significant differences.

Conclusions

A summary of significant differences at the .05 to .001 level of confidence are designated by one or more asterisks (*) in Table XXI.

From analysis of the data, the following conclusions relating to the hypothesis are drawn.

1. The Chi-square test indicates that six of the nine items relating to attitudes differ significantly with the "experience" or "non-experience" of the respondents. The conclusion is therefore drawn that present or past experience is associated with attitudes toward wood-burning fireplaces.
2. The Chi-square test also indicates that two of the three items relating to preferences differ significantly with the "experience" or "non-experience" of the respondents. It is concluded, therefore, that present or past experience is associated with preferences for wood-burning fireplaces.
3. Relatively few differences occurred between the two groups in regard to items relating to projected usage. The part of the hypothesis indicating an association between "experience with" and projected usage of fireplaces cannot be accepted.
4. Another conclusion drawn from the data is that this group of future consumers is on the whole desirous of having a fireplace.

Recommendations

The writer submits the following recommendations relative to further studies directed toward fireplaces.

1. That a larger study, including several age groups, be designed to ascertain if all age groups are equally interested in the fireplace as a housing feature.
2. That a comparable study, using men as subjects, be conducted to see if the patterns of associations and differences indicated

TABLE XXI

ATTITUDES TOWARD, PREFERENCES FOR, AND USAGE OF
WOOD-BURNING FIREPLACES

Attitudes Toward

Cost/worth relationship of fireplaces***
 Cost increase or decrease related to a fireplace****
 Expense of fireplace*
 Time and effort/worth relationship***
 Appearance of fireplace***
 Efficiency of fireplace**
 Contribution by fireplace to family togetherness
 Reason for wanting a fireplace

Preferences For

Desire for a fireplace*
 Number of fireplaces desired*
 Choices between a fireplace and selected alternatives

Projected Usage

Frequency of use
 Portion of the day in which use will occur
 Season of the year in which use will occur
 Specific uses

*Significant difference at .001 level.
 **Significant difference at .01 level.
 ***Significant difference at .02 level.
 ****Significant differences at .05 level.

in this study will be substantiated.

3. That the present study be enlarged using: (1) socio-economic status, (2) rural-urban location and (3) other associated factors for further data analysis.
4. That a study be conducted relating to the cost of various kinds of fireplace(s) in various kinds of house(s).
5. That the results from studies suggested in the recommendations above and the present study be combined and used by builders and prospective home owners in reaching decisions related to including a fireplace in house designs.

Implications

The proportion of students in both the "experience" and "non-experience" groups wanting a fireplace is very high, whereas, the number having received information and advice is rather limited. This would indicate that in all phases of housing education, educators should enrich their programs with information regarding fireplaces, location, cost, up-keep, use, aesthetic value and other associated factors. This type of information perhaps would lower the proportion of future housing occupants "wanting" a fireplace but it would also better prepare them as to what to expect when looking for or when using this housing feature.

Housing contractors, architects and others concerned with house construction should seriously consider including the fireplace feature in future housing designs and construction.

SELECTED BIBLIOGRAPHY

Professional Publications

- Edwards, Alba M. Classified Index of Occupations. Washington, D. C.: United States Government Printing Office, 1930.
- Fireplaces and Chimneys. Bulletin 1889. Washington, D. C.: U. S. Department of Agriculture, 1963.
- Freeman, Frank S. Theory and Practices of Psychological Testing. 3rd ed. New York: Holt, Rinehart and Winston, 1962.
- Goode, William J. and Paul K. Hatt. Methods in Social Research. New York: McGraw-Hill Book Company, 1952.
- Goodenough, Florence L. Mental Testing: Its History, Principles, and Applications. New York: Holt, Rinehart and Winston, 1949.
- Housing and Home Finance Agency. What People Want When They Buy A House. Washington, D. C.: U. S. Department of Commerce, 1955.
- Montgomery, James E. The Housing Images of Women College Students. Research Publication 202. University Park: Pennsylvania State University, April, 1963.
- _____, Sara S. Sutker, and Maie A. Nygren. Rural Housing in Garfield County, Oklahoma: A Study of Processes, Images and Values. Oklahoma State University Publication LVI, No. 2, Stillwater: Oklahoma State University, August, 1959.
- Nygren, Maie A. "The Housing Images of Selected Freshman and Senior Secondary School Students in Certain Communities in Oklahoma." Unpublished doctoral dissertation, Oklahoma State University, Stillwater, 1961.
- Putnam, J. P. The Open Fireplaces in All Ages. Boston: James R. Osgood and Company, 1882.
- Remmers, H. H. Introduction to Opinions and Attitude Measurement. New York: Harper and Brothers Publishers, 1954.
- Selitz, Claire, Marie Jahoda, Morton Deutsch and Stuart W. Cook. Research Methods in Social Relations. New York: Holt, Rinehart and Winston, Inc., 1962.

Siegel, Sidney. Series in Psychology. New York: McGraw-Hill Publishers, 1956.

Smith, Ruth H., Laura D. Kivlin, and Cecile P. Sinden. Housing Choices and Selections as Evidenced by Residential Mobility. Research Publication 204. University Park: Pennsylvania State University, May, 1963.

Thurstone, L. L., and E. J. Chave. The Measurement of Attitudes. Chicago: University of Chicago Press, 1948.

Webster's New College Dictionary. 2nd ed. Springfield, Mass.: G. and C. Merriam Co., 1952.

Non-Professional Publications

Book of Successful Fireplaces. 2nd ed. Cleveland: The Donely Brothers Co., 1949, 15-30.

Book of Successful Fireplaces. 17th ed. Cleveland: The Donely Brothers Co., 1964, 1-18.

"Report on Interiors: 100 Leading Builders Give You the Inside Story on Their Houses," House and Home. XXV (June, 1964), 79-97.

APPENDIX A

INSTRUCTIONS

Masonry fireplace--brick, stone, rock, etc.

Pre-fabricated--usually a metal unit installed after house is constructed.

1. Each question must have an answer. (White sheets)
2. Some questions will have more than one part.
3. If you have a fireplace in your present family home answer the yellow sheet.
4. If you have had a fireplace in the past answer the pink sheet.
5. If you have a fireplace now and have had a fireplace in the past answer only the yellow sheet.
6. When you have finished answering the questions, place in brown envelope and mail at once.

Thank you for your cooperation.

Ann Jean Crider

Page 2

7. Have you ever been given any information concerning use, maintenance or construction of a wood-burning fireplace? (Circle one)
- a. Yes.
 - b. No.
- 7a. IF YES: From where did your information come? (Circle as many as are appropriate)
- a. Professional builder(s).
 - b. Friend(s).
 - c. Family member(s).
 - d. Book(s).
 - e. News article(s).
 - f. Bulletin(s).
 - g. Other(s) (Specify) _____.
 - h. Don't know.

FOR THE NEXT 10 QUESTIONS CIRCLE LETTER BEFORE STATEMENT WHICH MOST NEARLY DESCRIBES HOW YOU FEEL. (Circle only one letter on each question)

8. I think a wood-burning fireplace which is pre-fabricated:
- a. is not worth the cost involved.
 - b. is probably not worth the cost involved.
 - c. is probably worth the cost involved.
 - d. is worth the cost involved.
9. I think a wood-burning fireplace which is of masonry construction:
- a. is not worth the cost involved.
 - b. is probably not worth the cost involved.
 - c. is probably worth the cost involved.
 - d. is worth the cost involved.
10. I think a wood-burning fireplace:
- a. is expensive to use.
 - b. is probably expensive to use.
 - c. is probably not expensive to use.
 - d. is not expensive to use.
11. I think a wood-burning fireplace:
- a. will increase heating costs.
 - b. will probably increase heating costs.
 - c. will probably not increase heating costs.
 - d. will not increase heating costs.

Page 3

12. I think a wood-burning fireplace:
- a. will decrease heating costs.
 - b. will probably decrease heating costs.
 - c. will probably not decrease heating costs.
 - d. will not decrease heating costs.
13. I think a wood-burning fireplace:
- a. is not worth the effort and time it takes to clean it.
 - b. may not be worth the effort and time it takes to clean it.
 - c. may be worth the effort and time it takes to clean it.
 - d. is worth the effort and time it takes to clean it.
14. I think a wood-burning fireplace:
- a. is cold looking.
 - b. is probably not too cold looking.
 - c. is probably warm looking.
 - d. is warm looking.
15. I think a wood-burning fireplace:
- a. is drafty.
 - b. is probably drafty.
 - c. is probably not too drafty.
 - d. is not drafty.
16. I think a wood-burning fireplace:
- a. would have no influence in causing a family to gather together.
 - b. would probably have no influence in causing a family to gather together.
 - c. would probably have an influence in causing a family to gather together.
 - d. would have a great deal of influence in causing a family to gather together.
17. If you were going to buy or build a new house, which of the statements below describes your feeling about having a wood-burning fireplace in it.
- a. I would want one very much.
 - b. I don't feel very strongly about having one but I would not object to one.
 - c. I would not want one.

IF YOU ANSWERED QUESTION 17, "a. or b.", PLEASE CONTINUE.

IF YOU ANSWERED QUESTION 17, "c." STOP HERE. PLEASE GO TO PINK OR YELLOW SET OF QUESTIONS.

IF YOU ANSWERED QUESTION 17, "c." AND YOU DO NOT HAVE A FIREPLACE AND HAVE NOT EVER LIVED IN A HOUSE WITH A FIREPLACE, STOP HERE.

18. Would you like to have more than one wood-burning fireplace?
(Circle one)

- a. Yes. (Specify location) _____
b. No. (example-family room, bedroom, etc.)

19. Check below how frequently you would use a wood-burning fireplace during each of the seasons listed at the right. (Check one on each line.)

	Daily	Weekly	Monthly	Special occasions only	Don't know	
a.						Fall
b.						Winter
c.						Spring
d.						Summer

20. During what portion(s) of the day would you use a wood-burning fireplace? (Circle as many as you like)

- a. All day.
b. Morning.
c. Afternoon.
d. Evening.
e. Different times.
f. Don't know.

21. Would you use the fireplace for cooking? (Circle one)

- a. Yes.
b. No.

21a. IF YES, when? (Circle one)

- a. All of the time.
b. Some of the time.
c. Special occasions only.
d. Emergencies only.
e. Other (Specify) _____
f. Don't know.

Page 5

22. If you were going to add or build a wood-burning fireplace who do you think would design it? (Circle as many as you like)

- a. Brick mason.
- b. Architect.
- c. Husband or wife.
- d. Myself.
- e. Other (Specify) _____.
- f. Don't know.

23. How much influence would you like to have on deciding each of the following: (Check in appropriate column on each line.)

	Very Much	Some	Very Little	None	Don't Know
a. Construction					
b. Material					
c. Style or Shape					
d. Location					

24. Assume that you do not have a wood-burning fireplace in your house nor do you have any of the items listed in the column on the right. Assume also that the fireplace referred to here is of masonry construction. If you had to choose between a fireplace and each of the items listed on the right, which would you choose?

(Indicate your answer by checking in the appropriate space on each line.)

- a. Fireplace or The addition of a guest bedroom.
- b. Fireplace or New wall-to-wall carpeting.
- c. Fireplace or Better living room furniture.
- d. Fireplace or Colored TV and/or a Hi Fi set.
- e. Fireplace or The addition of a one-car garage or carport.
- f. Fireplace or New home appliance. (Refrigerator, range, washer, etc.)

25. Which of the reasons listed below most nearly describes why you would want a wood-burning fireplace. Indicate your answer by ranking the statements 1st, 2nd, 3rd and 4th in the space provided at the left.

- ___ a. To add beauty.
- ___ b. To promote family-centeredness.
- ___ c. To provide comfort.
- ___ d. To give prestige.

PLEASE ANSWER PINK OR YELLOW SET OF QUESTIONS IF YOU HAVE A FIREPLACE
OR IF YOU HAVE HAD A FIREPLACE IN THE PAST.

(Yellow sheet)

IF YOU HAVE A WOOD BURNING FIREPLACE IN YOUR PRESENT HOME PLEASE ANSWER THE FOLLOWING QUESTIONS:

If you have more than one fireplace in your home, please answer these questions according to the one used most frequently. (Circle only one answer for each question.)

26. To what extent does your fireplace burn satisfactorily?
- Well.
 - Fairly well.
 - Not too well.
 - Not well.
27. How do you obtain a wood supply?
- Cut our own.
 - Buy wood ready cut.
 - Other (Specify) _____
 - Don't know.
28. Which of the words below describes the amount of heat provided by your fireplace?
- Very much.
 - Some.
 - Very little.
 - None
29. Is your fireplace:
- Easy to clean?
 - Fairly easy to clean?
 - Not too easy to clean?
 - Not easy to clean?
30. Which of the words describes the amount of smoke which escapes into the room:
- None.
 - Very little.
 - Some.
 - Very much.
31. Considering use, performance and maintenance would you classify the fireplace in your home:
- As, very successful?
 - As, fairly successful?
 - As, not too successful?
 - As, not successful?
32. Where is the main supply of wood located?
- In the house.
 - In a garage or carport.
 - Adjacent to the house.
 - Adjacent to the garage or carport.
 - Other (Specify) _____
33. Which of the statements below describes how accessible the wood in storage is to the fireplace?
- Very accessible.
 - Fairly accessible.
 - Not very accessible.
 - Not accessible.
34. Which of the group(s) listed below do you think also enjoy your fireplace? (Circle as many as you like.)
- Neighbor(s).
 - Friend(s).
 - Guest(s).
 - Relative(s).
 - Other(s) (Specify) _____

(Yellow sheet)

35. Which of the heating system(s) listed below serves as the major source of heat for your house?

- a. Central heat.
- b. Wall furnace(s).
- c. Floor furnace(s).
- d. Gas, wood, oil stove(s) or heater(s).
- e. Other (Specify) _____

(Pink sheet)

IF YOU HAD A WOOD BURNING FIREPLACE IN YOUR HOME IN THE PAST, BUT DO NOT HAVE A FIREPLACE NOW, PLEASE ANSWER THE FOLLOWING QUESTIONS:

If there was more than one fireplace in your home, please answer these questions according to the fireplace used most frequently. (Circle one answer only for each question.)

26. To what extent did your fireplace burn satisfactorily?
- Well.
 - Fairly well.
 - Not too well.
 - Not well.
27. How did you obtain a wood supply?
- Cut our own.
 - Bought wood ready cut.
 - Other (Specify) _____
 - Don't know.
28. Which of the words below describes the amount of heat provided by your fireplace?
- Very much.
 - Some.
 - Very little.
 - None.
29. Was your fireplace:
- Easy to clean?
 - Fairly easy to clean?
 - Not too easy to clean?
 - Not easy to clean?
30. Which of the words below describes the amount of smoke which escaped into the room:
- None.
 - Very little.
 - Some.
 - Very much.
31. Considering use, performance and maintenance would you classify the fireplace that was in your home:
- As, very successful?
 - As, fairly successful?
 - As, not too successful?
 - As, not successful?
32. Where was the main supply of wood located?
- In the house.
 - In the garage or carport.
 - Adjacent to the house.
 - Adjacent to the garage or carport.
 - Other (Specify) _____
33. Which of the statements below describes how accessible the wood in storage was to the fireplace?
- Very accessible.
 - Fairly accessible.
 - Not very accessible.
 - Not accessible.
34. Which of the group(s) listed below do you think also enjoyed your fireplace? (Circle as many as you like.)
- Neighbor(s).
 - Friend(s).
 - Guest(s).
 - Relative(s).
 - Other(s) (Specify) _____

(Pink sheet)

35. Which of the heating system(s) listed below served as the major source of heat for your house?

- a. Central heat.
 - b. Wall furnace(s).
 - c. Floor furnace(s).
 - d. Gas, wood, oil stove(s) or heater(s).
 - e. Other (Specify) _____
-

VITA

Ann Jean Hunt Crider

Candidate for the Degree of

Master of Science

Thesis: EXPERIENCE AS A FACTOR ASSOCIATED WITH A SELECTED GROUP OF OKLAHOMA STATE UNIVERSITY WOMEN STUDENTS' PREFERENCES FOR, ATTITUDES TOWARD, AND PRESENT OR PROJECTED USAGE OF WOOD-BURNING FIREPLACES

Major Field: Housing and Interior Design

Biographical:

Personal Data: Born in Clinton, Oklahoma, the daughter of Harry H. and Nellie A. Hunt.

Education: Attended Perry Grade School in Perry, Oklahoma; graduated from Perry High School in 1949; attended the University of Oklahoma at Norman 1949-1951; received Bachelor of Science degree from Oklahoma State University, Stillwater, May, 1954; completed requirements for the Master of Science degree, August, 1965.

Professional Experience: Assistant Interior Decorator for Brown Duncan of Tulsa, Oklahoma, 1954-1955; Assistant Home Demonstration Agent, Ellis County, Idabel, Oklahoma, 1955-1956; Home Demonstration Agent, Love County, Marietta, Oklahoma, 1956-1958; Home Demonstration Agent, Ellis County, Arnett, Oklahoma, 1958-1963.

Organizations: Phi Upsilon Omicron, Omicron Nu