# A COMPARATIVE STUDY OF THE RECYCLING HABITS OF EXTENSION HOMEMAKER UNIT WOMEN IN MARION AND RILEY COUNTIES

by

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#### CHAPTER I

#### INTRODUCTION

The fluctuation in the economy of the United States and emphasis on the emerging energy crisis have made people more aware of the need to save money, conserve energy and eliminate wastefulness in many areas of expenditure. One means of doing this is by recycling clothes.

The value placed on clothing varies with the individual, the aesthetic effect desired, and the reason for selecting the clothing worn. These values are derived from the individual's experience, part of which is determined by the culture in which he lives (21:99). Vance Packard, in the early 1960's in <a href="The Wastemakers">The Wastemakers</a>, pointed out that, "style can destroy completely the value of possessions even while their utility remains unimpaired" (18:68). Values act as a directive or motivating force on behavior and in decision making (21:1).

Prior to the 1970's clothes were discarded rapidly and without much thought on the effect produced on the economy or the environment. In the 1950's, designers in many fields studied the obsolescence creating techniques that had been pioneered in the field of clothing and accessories (18:71).

One of the major fields in this planned obsolescence was the women's fashion field. It appeared to be ideal because of increased psychological "wants" and it was found that women purchased new clothes for a psychological sense of well being. Women often said that feeling well-dressed uplifted their morale (21:107). Vance Packard suggested that

the only women in the United States who ever wore out their garments were those in the very highest or very lowest classes (19:71). This theory was exemplified by Mary Shaw Ryan (22:105), who stated that, "In general, the white collar worker or a member of the upper-middle economic group thinks that clothing is of greater importance while those of the upper-upper and the lower socio-economic categories consider clothing less important."

By 1960, the clothing and accessories field had become a twelve billion dollar industry, which was created by obsolescence planning (19:71). However, this figure is low by comparison to the 1974 figure which was sixty-two billion dollars being spent on clothing, shoes and accessories. This amount constituted more than one out of every twelve dollars spent in the United States (10:18). The citizens of this nation were no longer a nation of conservationists but a nation of consumers (19:71).

It seemed that many of the citizens of the United States were so affluent that they could afford to discard garments that showed little or no sign of wear. Or, perhaps they had been conditioned by the psychology of planned obsolescence so that the three year life of a fashion style was accepted as normal and desirable (7:69).

A change occurred in the middle to late 1960's. Attitudes and beliefs about waste began to change (28:20). In the mid 1960's people became aware that natural resources were becoming exhausted. Furthermore, clothing prices rose steadily, fashion styles changed rapidly and it was becoming impossible to stay in style (29:18). Few persons could either afford to discard an entire wardrobe every six months, or could find the time to construct new clothes each season (30:2).

Consumer awareness created the incentive to recycle clothing that previously would have been discarded. Because inflation became a considerable factor, people began to make a greater effort to recycle or re-use clothing and accessories than in the past (33:3). Money was saved by recycling clothes since the original garment was worn for longer periods of time (2). Recycling involved additional work for the seamstress but, consumers accepted this as a utilization of a garment which normally would be discarded and transformed it into a useful and decorative item (32).

There is extensive information available which deals with the recycling of clothes by the consumer. Such information can be found in local newspapers, such as the Manhattan Mercury (4), Kansas State Collegian (8), and The Wichita Beacon (13; 14; 15). Similar material is likely to be found in other newspapers throughout the nation. Popular magazines, such as Redbook (9), Family Circle (20), and Glamour (30), have published articles dealing with the recycling of clothes. Information is also available from State Cooperative Extension Services. Many extension clothing specialists have been developing teaching materials concerning recycling programs (2; 32; 33). It is apparent that information is readily available to consumers interested in the concept of recycling clothes.

The recycling programs that have been and continue to be in schools and industry have encouraged many who felt no justifiable reason for destroying or otherwise eliminating usable materials. The items can be attractive and functional if recycled into secondary items, whether they be clothing or accessories.

Glenn Seaborg, former Chairperson of the Atomic Energy Commission and presently working at the University of California at Berkeley, has

forecast the future of the world in terms of how this nation and others will have to recycle everything that is available. Otherwise there will be no materials with which to continue society as it is presently known. Seaborg states:

We will eventually . . . in a few decades . . . have to create a 'recycled society,' a society in which virtually all materials are reused indefinitely and our virgin resources become primarily the "make-up" materials to account for the amounts lost in use and production and needed for new production to take care of any quality of life (27).

If one is to take Dr. Seaborg seriously, then the recycling information has become available at the appropriate time.

The rationale for the undertaking of a study on the recycling of clothing is three fold. First of all, there is an increasing amount of information available on recycling of clothes. However, is this information being used? If it is not being used, why not? Secondly, from the evidence available it appears that there is a need for recycling information. This is apparent in terms of the present economic situation and the increased awareness of ecology in the United States. Finally, is there really any consumer awareness of the clothing recycling trend and if not, why not?

This study is limited to an investigation and comparison of clothing recycling practices of Extension Homemaker Unit Women in Riley and Marion counties in Kansas. The objectives of the study were:

- To investigate whether or not an extension course dealing with recycled clothing would affect the amount of recycling of clothing done.
- 2) To investigate whether enough information concerning recycling clothing is presently available.

- To investigate whether those who recycle their clothing were saving money.
- 4) To investigate where the clothing to be recycled was obtained.

  Eight hypotheses were formulated in relationship to the recycling questionnaire. The hypotheses were determined after the researcher had read all available literature, and had given considerable thought to what type hypotheses would be most useful to the study.

## The hypotheses were:

- There will be no significant difference in the amount of recycling done by those individuals that took a recycling class and those who did not take the class.
- 2) There will be no significant difference in the amount of old clothes or those exchanged with friends compared with clothes that are purchased to be recycled.
- 3) There will be no significant difference between the amount of expensive items such as coats, dresses, jackets, skirts and slacks that are recycled and less expensive items such as socks, stockings, blouses and work clothes that are recycled.
- 4) There will be no significant difference between the amount of recycling done for women and children as compared to that done for men.
- 5) There will be no significant difference between the amount of recycling done by people in lower income brackets as compared to the amount of recycling done by people in higher income brackets.
- 6) There will be no significant difference between the number of children in a family and the amount of recycling done.
- 7) There will be no positive correlation between the degree of

- satisfaction with recycling and whether or not the recycling class was taken.
- 8) There will be no significant difference between the amount of recycling done as determined by the availability of recycling information.

## Definitions of Terms Used

- Recycle. The term "recycle" is synonymous with "remake" or "remodel."

  For the purpose of this work recycle shall refer to any garment that has been determined unwearable prior to remaking any part of that garment. This could include anything as simple as shortening or lengthening the garment, to totally dismantling the garment so that it could be reconstructed into another form.
- College Age. "College age" refers to individuals between 18 and 21 years of age.
- Extension Homemaker Unit. The Extension Homemaker Units primary objective is for homemaking education and improving family life. They are closely affiliated with the Cooperative Extension Service and look to the Extension Quality of Living Program for guidance and assistance in developing their educational programs.

#### CHAPTER II

#### REVIEW OF LITERATURE

#### Introduction to Review of Literature

The Review of Literature is divided into three sections. The first, Historical Perspective, is devoted to the literature available to those individuals that remade or remodeled (as recycling was then called) during the Depression (1929-1939), and War World II. This literature was of good quality for the period and much of it is noteworthy today. Fashions change, although the techniques for recycling them has not changed as rapidly.

The next section, Limitations of Available Literature, deals with recycling information obtained from Cooperative Extension Clothing Specialists in the United States and Virgin Islands. This literature is used in the study because no primary sources have been located on recycling clothes. Due to this fact the researcher believes it is necessary to indicate the trend in recycling clothes by showing how much literature the Extension Clothing Specialists have published on the subject. This information is of excellent quality. However, material from other sources also is necessary.

The third and final section, Current Available Literature, is a summary of what is happening with the recycling trend today. Much of the literature updates that which was discussed in the Historical

Perspectives. This section also points out the change in attitudes toward recycling.

All three sections of the Review of Literature have valuable information for a prospective recycler. The older information has to be sorted through so that the materials that are no longer valid can be discarded. However, this gives the recycler a glimpse of the past, which is also worthwhile.

## Historical Perspective

The recycling of fabric and clothes is not a new innovation, as there are many examples of this type of construction technique. For example, the pieced quilt of pioneer years provided a means of turning printed cotton scraps, which were rare and costly, into useful wall or bed coverings (16:15). These pieced quilts were constructed from scraps which were otherwise not used, and were familiar to most households where economy was a necessity. Another example of an early recycling technique was the evening dress that Scarlett O'Hara constructed from a green velvet curtain, in the movie, "Gone With the Wind," which depicted the Civil War era (26:57).

There is a lack of literature available in the area of the recycling of clothing. However, an analysis of the historical background and data on the recycling of garments and fabrics provided relevant information on the subject. Published literature was available during the years of World War II and the depression years, 1929-1939, which could be used for recycling projects, and the same ideas are also mentioned in the current literature.

The majority of information related to the recycling concept concerns "how and what" can be done when recycling. There is less literature available which investigated or described the reasons or motives concerning why people recycled clothing.

For many families, clothing needs have often exceeded the clothing budget. Garments that have out-lived their usefulness have been made into other articles. For example, a woman's suit may be made from a man's suit (23:157). This not only gave the individual a sense of accomplishment and satisfaction, but also was economically feasible (17:373). An item created from limited or discarded items fascinated many individuals (21:157). Prior to the energy crisis of the 1970's, people believed that they were "making something from nothing" when items were recycled. The present concept of recycling maintains that every item already in existence is potentially useful. Hence, it should be recycled into a secondary use (24:143).

It is extremely important to determine whether or not the fabric in the garment is worth the time and energy that would be involved in the recycling process (17:373; 18:461; 25:211). In addition, when deciding whether or not to recycle a major item, one should consider the following factors:

- 1) Does one have the ability (skill) to do the job?
- 2) Will the new garment be useful?
- 3) Will the results be satisfactory?
- 4) Will the amount of time put into the project be worth the end result?
- 5) Will the project cost more than it's worth?
- 6) Does one have the money for extras? (18:468; 25:212)

If the fabric is worth recycling the first step is to catalog the clothes to be recycled into three groups. Group One includes those clothes that can be worn "as is," Group Two would include those items that are liked but do not fit, are out of fashion or need repair, and Group Three would include the items that are beyond repair or will not be worn regardless of what might be done to them. Group One should be put back in the closet for future use; Group Two should be set aside for repair or recycling; while Group Three should be given to a charitable or needy organization (17:373; 1:104).

When a decision has been made concerning which garments to recycle three alternate routes of action are available:

- 1) Accessories may be added, i.e. trims, embroidery, buttons.
- 2) The garment lines may be altered.
- 3) The garment may be completely remodeled.

If the garment will be completely remodeled a commercial pattern is suggested. Also, complicated designs should be avoided as there may be difficulty in manipulating the numerous pattern pieces (21:158; 18:467).

There were and still are several advantages to the process of recycling garments. The best fabric may be saved from garments that were in good condition, although they may be out of fashion. It is possible for a plain garment to be made from a dressy one, as it is easier to remove the decorative extras than to add them. Minor changes revive a favorite garment, or two garments could be combined to make one (18:470).

Previous authors have suggested criteria which might be considered prior to recycling a garment. Extensive remaking was not recommended for beginners (7:523). If it was decided that recycling was to be undertaken, it was advisable to use the original design lines. If this was not

feasible, piecing fabric was recommended. If this was done it was necessary to piece fabric so it was unnoticeable. This could be done by utilizing pleats, panels and gathers. Using the wrong side of the fabric as the right side for an interesting effect might also be considered. It was pointed out that if new fabrics were to be used in the recycled garment similar fabrics should be combined (23:158). This was easily accomplished when combinations of different fabrics were in fashion, because the selection process was simplified (1:104). A final word of advice was given to the prospective recycler, if the garment was cut into small pieces, because of its style, no attempt should be made to recycle it (6:296).

It is necessary that great care be taken when the old garment is torn apart, for the seams should not be cut. The seam allowances will be needed in the recycled garment. As the garment is sectioned, each piece should have the straight of grain marked, which should guarantee that the recycled garment will be grain perfect (23:159).

After the garment has been separated both sides of the fabric should be brushed. The fabric should be washed or drycleaned and this would also preshrink it. At this point the fabric could be dyed a more pleasing color if necessary (18:469).

With all the suggestions given and the possible problems pointed out, an individual in the 1930's, as well as an individual today could successfully begin the construction of a new, recycled garment.

## Limitation of Available Research

There appears to be a growing interest in recycling clothes from the large amount of "how to do it" material that recently has been published on the topic. However, no primary sources have been located to prove that recycling is even a trend.

During World War II, the United States Department of Agriculture, Cooperative Extension Service, published pamphlets which dealt with the remaking or remodeling of clothes. To explore if this was being repeated at this time, the fifty-two Cooperative Extension Clothing Specialists, in the United States and the Virgin Islands were contacted. The purpose was to determine if materials were being developed for use in their state on the recycling of clothes.

Thirty clothing specialists answered the letter sent out by the researcher (Appendix C). Of the thirty responses, twenty-six clothing specialists indicated that they have or are working on a clothing recycling program for their particular states. The majority of clothing specialists indicated what they were doing in their states and enclosed the written materials for their state programs.

The following summarizes the data received from State Clothing Specialists:

- Alabama General outline of what is covered at an agents recycling training meeting.
- Arizona No clothing specialist was employed at the time of correspondence.

Colorado - Bulletin: "Rags to Riches" no. 487A by Mildred Crawford.

Connecticut - News release that had just appeared in a local paper.

Delaware - Indicated that a number of meetings were being conducted on the topic of recycling. Enclosed handouts on "how to do it" information.

- Florida In the process of developing a teaching package on recycling clothes.
- Indiana Developed a slide set and made six copies, which are in continual use. Title: "Updating Your Wardrobe."
- Iowa Noted that recycling clothes has been a popular topic for extension meetings for two years. Prepared kits with 100 slides and have a set of demonstration garments to correspond to the slides.
- Kansas State program on recycling clothes is in progress. Program

  leader's booklet titled "Recycling Clothing," by Zelda Zimmerman.

  Also have a pamphlet available that is given to participants in the program.
- Kentucky Publication available titled, "Recycle Your Wardrobe."
- Massachusetts Teaching a program entitled, "Rags to Riches," includes a newspaper series on various recycling ideas by the same name.

  Program has been received enthusiastically.
- Minnesota Uses visual kits and the Iowa slide set. In addition to this
  the American Thread Company Booklet and transparency set titled,
  "Your Wardrobe Recycled" is being utilized.
- Nebraska Works with recycling workshops throughout the state. Also have worked with in-service training on recycling.

## Extension Publications:

"Reinforcing Readymades" by Anna Marie Kreifels and Jane Speece.

"Relining Coats and Jackets" E.C. 71-475.

"Altering Women's Ready-made Dresses" E.C. 72-427.

"Restyling Sweater Knits" E.C. 71-478.

- "Restyling or Remodeling a Garment" E.C. 71-482.

  "Inset (overall) Patch" E.C. 71-481.
- New Jersey Extensive use of the American Thread Company publication,

  "Your Wardrobe Recycled." Devoted a newsletter Young Singles/

  Young Doubles, to a recycling topic, "Retread the Threads."
- New Mexico Published an article in <a href="The New Mexico Family Living Guide">The New Mexico Family Living Guide</a>,
  "Recycle--It's Fun."
- North Dakota Developed a suitcase program on wardrobe recycling for use by county extension home economists.

#### Extension Publications:

"Relining Coats and Jackets," by Sonja Rue and Jane Winge.

"Your Wardrobe Recycled" a 4-H project plan by Sonja Rue.

"Skeletons in the Closet or What to do About that Unworn Clothing," by Jane Williamson, Clothing Specialist.

"From Scraps to Mittens," by Eleanore Fitzgerald, Home
Economics Writer.

Oklahoma - Developed a number of Extension Bulletins for the State, which are also adapted for use in other states.

### Extension Publications:

"Relining Coats part 1: preparing a pattern," by Marjorie Y.

Baker, Extension Clothing Specialist.

"Relining Coats part 2: attaching a lining machine method,"

by Marjorie Y. Baker.

"New Clothes from Old," by Marjorie Y. Baker.

"New Clothes from Old: Back Opening Hospital Gowns from Men's Shirts," by Marjorie Y. Baker.

Oregon - Introducing a recycling program at this time.

Extension Publication:

"Money Saving Make-Overs," Elaine K. Carlson, Extension Clothing and Textiles, September, 1971, #788.

## Pennsylvania -

#### Extension Publication:

"Investment Dressing," Ruth Ann Wilson, Associate Professor,
Extension Clothing.

Rhode Island - Developed a slide set entitled, "Recycle Your Wardrobe."

South Carolina -

#### Extension Publications:

"Restitch and Renew to Keep Clothing in Use," by Ursula

Holahan, Associate Professor of Home Economics, May, 1975,

leaflet TC #L-322.

"Reuse Revamp and Reap Clothing Savings," Ursula Holahan,
May, 1975, leaflet TC #L-323.

"Clothing Your Family with Sense and Satisfaction," Ursula Holahan, May, 1975, leaflet TC #L-324.

"Reap Clothing Savings," Ursula Holahan, leaflet TC #L-326.

"Remodeling Clothes," Adapted by Jane Burgress, Home

Economist, in consultation with Ursula Holahan, July, 1972,

leaflet TC #L-321.

#### Tennessee -

#### Extension Publication:

"Recycle Your Unwearables," Helen Rader, Professor and leader Clothing Section, #305 Rev. 10/72.

In addition to this publication the clothing specialist is working on new teaching materials.

#### South Dakota -

Extension Publication:

"New Life for Old Clothes," #F.S. 402.

Texas - Conducting various consumer programs in the form of Sew Fairs on recycling. A slide set has been developed entitled, "Recycle Your Wardrobe," #132.

#### Extension Publications:

"Recycle Yesterday's Fashions for Today," Home Demonstration

Teaching Packet for county extension agents and clothing

leaders, July, 1974, CLO 3-5.

"Quick and Easy Ideas for Recycling," Vivian C. Simmons, Clothing Specialist, March, 1974, CLO 3-3.

"Recycling, Is It Really Worth It?" CLO 3-5.

"Solve Your Hemline Headaches with Mini Recycling," October, 1974, CLO 3-5.

"Swing Into Maxi Recycling," October, 1974, CLO 3-5.

The American Thread Publication, "Your Wardrobe Recycled," also is used.

#### Utah - Extension Publication:

"Modern Make Overs," Theta Johnson, Clothing and Textiles

Specialist.

Vermont - Developed travel suitcases used in the state to help agents present recycling materials.

Hand outs: "Discards Into Dollars," Kathleen Strassburg, Textiles,
Clothing and Design Specialist.

Virginia - Developed a recycling clothing kit designed for extension agents' use in the state.

Handouts included in the kit:

"Make Sadrags into Gladrags, Recycling Large Garments into Smaller Ones," May, 1975.

"Limits to Alterations," (12 considerations), February, 1975.

"Recycling Clothes," Dr. Beatrice S. Kalka, Extension Specialist Clothing and Textiles.

"Ideas for Lengthening Garments," Mary Helen Marshall,
Extension Clothing Specialist, October, 1972, MC-306.

"Recycling Ideas," prepared by Gail F. Cook, Extension Clothing Specialist, Clothing and Textiles.

"Un-Applique," Dr. Beatrice S. Kalka, February, 1975.

Virgin Islands - Plans to develop recycling materials.

West Virginia -

Extension Publication:

"Recycle Your Wardrobe." Kate Clark.

#### Current Available Literature

Necessity is not the primary motive for the vast amount of clothing recycled today. Generally, it is done because people choose to recycle (26:54).

The American population has digressed from the compulsion to always buy new clothing regardless of cost. It has become "vogue" to save clothes and recycle them into something new and exciting (26:54).

The younger generation of the 1960's was the first group to make old clothes fashionable. However, at that time it was due to the

diffidence of their traditional parents, many of whom remembered the only pajamas, underwear and even dresses they had as children were fashioned from old flour and grain sacks. The adolescents of the 1960's never knew these particular hard times and enjoyed the shabby look of old discards and ragged work clothes (26:54).

Second hand stores, the Salvation Army, and Army Surplus stores became popular because the younger generation could find garments that had more character and individuality than garments that were acquired directly from a garment factory. Even the merchants recognized the "worn out trend" and began to produce garments with a washed out look. Some "earth-minded" people felt that the mass-produced garments never acquired the aura of "down-home funkiness" of home-made or recycled garments (21:2). Nevertheless, it is no longer socially unacceptable to wear old clothes. Today, ecologically it is better to use items until they are worn out (12:143).

Present literature stresses the sheer extravagance of discarding clothes of superior fabric only because styles have changed (24:55).

Regardless of this extravagance, each year the American public spends approximately sixty billion dollars on clothes. A major proportion of this is for clothes that are "stylish." These items may soon become unstylish and have to again be replaced by newer styles (12:143; 16:262).

Recycling is an excellent means of having attractive clothes at no additional cost (24:55). The old wardrobe can easily be revitalized. The basic garment is at hand and the manufacturer has already performed the most laborious work, for the material has been cut and sewn into shape, the sleeves have been attached, zippers inserted and seams sewn together. The basic form exists, and the exciting, creative part remains to be

completed by the recycler. Regardless of how extensive the redesigning of the garment is, the work is already half completed (3:10).

Initially, when one decides to undertake a recycling project, the new styles should be studied. One needs to analyze what can be done with the old garment (26:57). If the garment still fits and the fabric is in good condition, there is the potential for a new wardrobe (31:1).

The garment should be fitted and examined to determine if there is anything specific that is disliked. Any color, style, fit, or condition problems that the garment initially has should be eliminated, otherwise the newly recycled garment will continue to be disliked and unworn (3:11; 26:56).

A decision should be made as to whether the garment selected for recycling is worth the time and effort involved in the process. The major seams, and the condition of the fabric at the elbow, under the arms, and at stress points should be evaluated, for the garment as a whole may be too worn for successful recycling (5:257; 25:56). The overall luster and color of the fabric should be examined for if the fabric is too worn or stained, these flaws will still appear when the garment is renovated (26:56).

With the expenditure of very little time and with the feeling of pleasure, the classic garments stored away in the closet can be given a second chance to once again be fashionable. Regardless of whether the old clothes were out yesterday or have been packed in mothballs for twenty-five years, they can look new. Once they are recycled, redesigned or refitted, the wearer will enjoy wearing them again, just as much as when they were initially purchased. The garments also will look as if they were custom-made, and they will be one of a kind (93:8).

The secret of success in restyling is to think in terms of complete renovation. One should not be timid about a recycling project. If the decision has been made to recycle a garment, the resulting garment should be dramatically different from the old one. For example, the addition of a small band to lengthen a dress will look like an afterthought. One should strive to recycle a garment for a totally new look. A dramatic change is often needed (3:8; 26:56). The newly recycled garment should be unrecognizable and different from the original, starting garment.

Clothes can be recycled in all conditions whether they are old, of thriftshop vintage, soiled or baggy. Children's clothes are just as recyclable as adult clothing. In fact, hand-me-downs will lose their secondhand look and younger children will enjoy wearing them (3:10).

Older or secondhand clothing can be the inspiration and basis for a completely individual wardrobe. For example, a mini skirt, cut shorter on the bias, can have wide contrasting bias strip added to achieve any desired length. A second idea, to achieve flare and length when working with narrow pants is to separate the side seams and add a brightly printed godet and border (26:56).

Nonconventional recycling ideas utilize ribbons, buttons, ballfringe, beads, studs, sequins, hem tape and other notions not used in
their usual manner. All types of trims and sewing accessories may be used
by themselves or in combination with others (3:14).

In addition to nonconventional recycling ideas, one can develop the potential of ordinary dime-store items. Iron-on patches can be cut into shapes and ironed on clothes as appliques. A handkerchief may be converted to a collar and bandanas are a distinctive decorative effect when used as sleeves, waistbands, pockets and cuffs. Felt, an ideal fabric for applique because of its nonraveling edges can also be used as a belt, or an apron front for a shirt. Dishcloths multiply into beach jackets and kitchen curtains can be gathered into a skirt (3:14). These are just a few ideas. The renovator can concentrate her efforts on projects that reflect her special interests.

Brock and Boder suggest that for the first recycling project one should select a garment that would never be worn in its present condition (3:12). It is believed that if this project is successful, the recycler will have developed the confidence to work on clothes that had previously been favorites.

As the recycling project is planned, it is important that the correct proportions be established on the new garment. For instance, the exact width of the godet should be determined to give the proper flare to a pair of narrow pants. Moreover, the point at which the leg seam is going to be opened should be marked before cutting. This is contingent upon the individual's personal proportions. A complimentary style for a long, lean figure may be disastrous for a short, plump one (26:56).

Once the rough parameters of the intended changes have been calculated, it may be helpful to make a paper or muslin pattern. The pattern piece can be pinned or basted to the old garment for test fittings. This extra step during the preliminary stages can eliminate complications as the work on the project progresses (26:56).

If new fabric is to be incorporated in the recycled garment, the original garment should be brought to the fabric store. There, under natural light, the new and old fabric can be judged as to their compatability both in texture and color. The fabric selection should be made

carefully, as the color of the fabric can change dramatically with different textures and weaves. Furthermore, if one wishes to select a solid color to be added to an original plaid or print, a slightly darker hue than the original should be selected. The darker color will appear to be a closer match than one that is too light. If it is impossible to find a color that will blend well, a color that is distinctly different but harmonizes with the original garment should be selected. Also, the two materials being combined should be similar in weight and weave if they are to be used in an area that will be under constant functional stress. Otherwise the seam will pucker (26:57).

These ideas, in addition to those suggested in the previous section supply information for recycling today's clothes. Much of this recent knowledge is both functional and inspirational for both young and old. With a little practice one can select garments for their excellent material and have the confidence needed to update and revitalize the old garments.

The only problem with the available literature is that it is insufficient. In addition to this, much research needs to be done in the area of recycling to determine the effectiveness of the present literature.

#### CHAPTER III

#### METHOD OF PROCEDURE

The purpose of this investigation was to describe and to analyze the concern of Extension Homemaker Unit women with the recycling of clothes. This study utilized the survey method.

#### Instrument

A questionnaire was developed to specifically determine:

- 1) Whether Extension Homemaker Unit women recycle clothes.
- 2) Where the Extension Homemaker Unit women obtain the clothing they plan to recycle.
- 3) Whether any specific training or literature was helpful to them when working on a recycling project?
- 4) Whether the Extension Homemaker Unit women have difficulty locating information about recycling clothes?

The questions were stated in a variety of ways. In an attempt to keep the respondents interested in the questionnaire check list, open-ended as well as "yes" or "no" questions were used. Respondents were instructed that more than one selection might be checked on the check list questions, if more than one applied in their instance. Six questions on socioeconomic background (such as marital status, number of children, income bracket) were included.

In the spring of 1975, a pilot version of the questionnaire was prepared and pretested, using ninety-six undergraduate students in the

Pattern Study and Garment Construction classes at Kansas State University. The answers were tabulated and changes were made to increase the validity of the questionnaire. The questionnaire was condensed considerably from the first version (see Appendix A).

## Selection of the Sample

Riley and Marion counties in Kansas were chosen as areas to be studied. These counties were selected because a recycling lesson had been given to the Riley County Extension Homemaker Units. No recycling lesson had been given in Marion County. This enabled a comparison of the recycling habits of Extension Homemaker Units in both counties.

The sample was composed of Extension Homemaker Unit women in two counties who responded to the Extension Agents invitation to complete the questionnaire. One hundred and fifty women volunteered to answer the questionnaire in each county. There was no attempt to match subjects on demographic characteristics. The only controlled variable was that Marion County women had not taken an Extension Homemaker Unit lesson on recycling clothes, whereas Riley County women had taken the Extension Homemaker Unit lesson on recycling clothes.

## Administration of the Instrument

Since the county agents were familiar with the women who had completed the recycling lessons, they were the best qualified to administer the questionnaire. The directions for administering the questionnaire were given to the county agents who in turn, administered the questionnaire to the Extension Homemaker Unit women.

# Methods of Analysis

All responses were coded to facilitate the key punching of computer cards and for categorization. Frequency tests and percentages were obtained. Chi square tests were used to determine whether there were any significant differences between the two groups of respondents.

#### CHAPTER IV

#### DISCUSSION AND RESULTS

## Preliminary Information

Much of the background information for this study was obtained by interviewing individuals regarding their concept of recycling clothes. The purpose of these informal interviews was to determine if recycling clothes was a timely topic to research. This information does not necessarily relate to the data found after the final questionnaires were tabulated. However, the responses received from the informal interviews were interesting and helpful in determining the recycling knowledge the interviewees had concerning recycling clothes. So this information has been included in this section.

When the word "recycle" was mentioned during the interviews, many persons immediately thought of the "hippy cult" of the 1960's. However, after an explanation of what the researcher meant by recycle the comments generally were, "Oh, my family did that during the depression," or "Mom did that during the war."

Some of the interviewees were not old enough to remember World War II, or the depression of the 1930's. However, they were past college age and had negative attitudes toward recycling clothes. For example, many of these individuals thought that only poor people needed to recycle their clothes.

Many of the college students who received the questionnaire thought that recycling was "fun." However, the main interest had been with recycling blue jeans. Many students indicated that they recycled their blue jeans into handbags, shirts, and jackets. Others purchased these same recycled items in retail stores.

Informal interviews and results from the questionnaire indicated that recycling has been done. It further indicated that recycling was being revived.

More concise categories were formulated to statistically analyze several of the questionnaire answers. For example, question number 2; When do you discard a garment? had several possible answers, namely:

- a. When the fabric is worn out.
- d. When it no longer fits.
- b. When it is out of style.
- e. Other (please specify)
- c. When it is no longer liked.

The answers were then narrowed to three selections. Letters "a" and "d" were combined because they dealt with the idea that the garment had served its purpose and could no longer be useful. If a garment were out of style (b) or no longer liked (c) it was still wearable, therefore "b" and "c" were combined.

## Demographic Information

Demographic information was assembled from each participant who responded to this information. The questions which were of a more personal nature were placed in the last portion of the questionnaire, so that it would still be possible for the researcher to use the recycling information if the demographic information were not completed.

Generally, in demographic responses the range of percentages between the two county groups was very similar. In the Riley County

group 10 percent of the respondents chose not to answer the question related to their marital status. In Marion County six percent did the same. Of those individuals that responded in Riley County (took the recycling course) 0.1 percent were single, 68 percent were married, 11 percent divorced, and 11 percent widowed. The Marion County, Extension Homemaker Unit women (did not take the recycling course) had similar percentages, two percent were single, 70 percent were married, 10 percent were divorced, and 12 percent were widowed. Thus, the even distribution of these groups can be observed.

The researcher also hypothesized whether the number of children in a family would affect the amount of recycling of clothes that would be done. The next demographic question dealt with the number of children in each family. Figure 1 compares the number of children per family in the two counties.

A comparison of the income levels of the two county groups showed that there was only a slight difference in reported income levels between the two groups. As shown in Figure 2, Riley County respondents had a slightly higher reported income level than Marion County.

The data from Figure 2 shows that if the "no answers" percentages were disregarded, Riley County persons had a higher level of income than those living in Marion County. In Riley County 20 percent of the respondents were in the \$12,000 to \$15,000 bracket, whereas in Marion County only 11 percent were in this same income bracket. However, 24 percent of the Marion County respondents were in the \$8,000 to \$12,000 bracket and while Riley County had only 11 percent of its persons in this bracket.

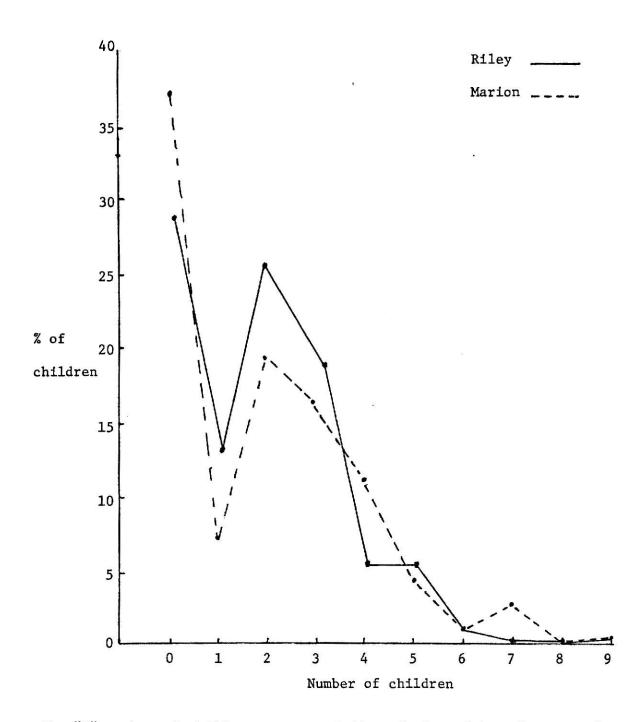
The average age range of the respondents was over 41 years of age, for both groups. In Riley County 69 percent of the Extension Homemaker

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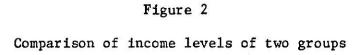
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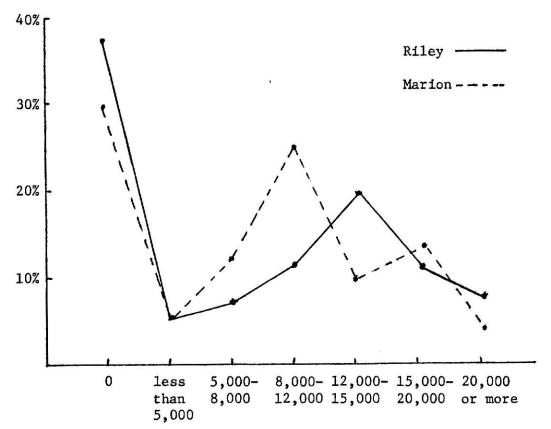
Figure 1

Number of children per family



The "O" number of children category indicated that either the respondents had no children or that the respondents selected not to answer the question. It can be seen from the above figure that, in general, Riley County Extension Homemaker Unit families had a slightly higher number of children than the Marion County Extension Homemaker Unit families.





The "0" income level indicated the percent of respondents who did not answer the income level question.

Unit women were in the older age group, while 59 percent of the Extension Homemaker Unit women in Marion County were in the 41 years and over group. The second largest age group to answer the questionnaire was the 22 to 40 years of age group. Twenty-two percent of this group were from Riley County and 27 percent were from Marion County. There were no respondents in the 0 to 21 year old bracket in Riley County and only two percent from Marion County. Nine percent of the respondents in Riley County and 11 percent of the respondents in Marion County selected not to answer the age question.

No difference was found in the number of persons who had sewing classes in either county (80 percent Riley County, 80 percent Marion County). Of the Riley County respondents 10 percent had not taken sewing classes, and 10 percent did not answer the question. The percentages were similar in Marion County: nine percent of the respondents had not taken sewing classes and 11 percent selected not to answer the question.

The final demographic question dealt with the type of sewing classes that the respondent might have taken. The respondents were given a choice of answers ranging from normal classes such as those available in high school, college or adult education, or more informal classes which might be offered through the extension service, 4-H club work or commercial instruction from a fabric store or sewing machine dealer. In Riley County 19 percent of the respondents chose not to answer the question, while 16 percent did not answer the question in Marion County. In Riley County 35 percent of the Extension Homemaker Unit women had formal classes, while 30 percent of the Extension Homemaker Unit women in Marion County had formal classes. Only nine percent of the respondents in Riley County had informal instruction compared with 15 percent in Marion County who had the informal instruction. The highest percentages found were in the combination of formal and informal instruction. Thirty-seven percent of Riley County respondents and 39 percent of the Marion County respondents comprised this group.

## Questionnaire Data

Information as to when a garment was discarded and where recycled clothing was obtained was asked in questions two and three. This information was needed to determine (1) whether the respondents discarded clothes

while still useful (i.e. not totally worn out), (2) whether or not the individuals questioned spent additional money to obtain clothing to recycle and (3) whether they recycled the clothes they presently owned.

In Riley County, 51 percent of the respondents discarded their clothes after the fabric was worn out or the garment no longer fit. In Marion County, 44 percent discarded their clothes for the same reasons. The percentage of persons who discarded clothes because they were out of style or were no longer liked were approximately the same in both counties (16 percent Riley County and 15 percent Marion County). Twenty-five percent of the respondents in Riley County and 37 percent of the respondents in Marion County discarded clothes for all the reasons mentioned above. These figures might indicate that the majority of the respondents were their clothes until they no longer felt "presentable" in them rather than discarding the clothes because of style or dissatisfaction.

One question regarding whether or not the respondents recycle the clothes presently owned or whether clothes were purchased for this purpose was also included in the study. The results showed that eight percent of the Extension Homemaker Unit women in Riley County spent money on clothes specifically for purposes of recycling, compared with 11 percent in Marion County. In Riley County 58 percent of the respondents working with available clothes compared to 59 percent of the Marion County respondents. A small percentage of the Extension Homemaker Unit women in each county used clothes on hand in addition to purchasing some clothes to recycle (Riley County 12 percent, Marion County 13 percent). This may indicate that the respondents did not find it necessary to spend extra

money or to purchase old clothes for recycling. This may also indicate that there apparently was enough clothing on hand for this purpose.

The availability and accessibility of information on recycling clothes was a concern in this study. An initial question asked the respondent if there was difficulty in finding or obtaining information on the recycling of clothes. In Riley County, where the Extension Homemaker Unit women had a recycling lesson, 21 percent of the respondents had difficulty locating information on recycling. In Marion County, where no recycling lesson was given, 22 percent of the respondents had a problem locating recycling information. The percentage of Extension Homemaker Unit women that did not have any difficulty obtaining recycling information was higher than the percent that had difficulty for both counties (42 percent in Riley County, 47 percent in Marion County). The remaining percentage of respondents (37 percent in Riley County and 31 percent in Marion County), did not choose to answer the question.

Table I: Percent of respondents

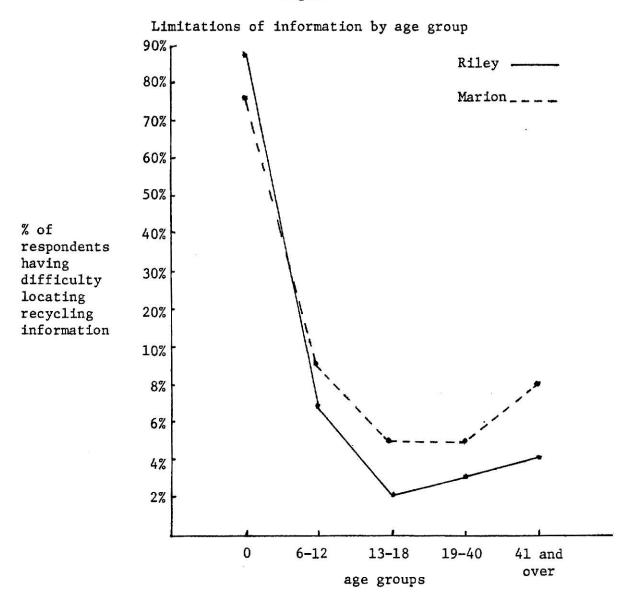
	No response	Had no difficulty locating information	Had difficulty locating information	Total
Riley County	37%	21%	42%	100
Marion County	31%	22%	47%	100
Total	68%	43%	89%	

It is interesting to note that even though the percentage of individuals who had difficulty locating recycling information was not particularly high, there was a greater percentage of persons in both counties who wanted more information to be available. For example, of the respondents in Riley County 38 percent were interested in obtaining more information on recycling clothes, while 43 percent of the individuals in Marion County wanted more information on this topic. Thirty percent of the respondents in Riley County were not interested in more information on recycling clothes, while in Marion County 20 percent of the respondents felt they had no need for more recycling information.

The respondents were also asked to select the age group for which recycling information was the most difficult to obtain. For this question, the respondents initially answering "no" to question number ten, on the difficulty of obtaining information on recycling, did not answer this question. The responses to this question were limited. Eighty-six percent of the Riley County respondents and 76 percent of the Marion County respondents did not answer the question. The remaining percentage of responses were low, as can be seen in Figure 3. This figure illustrated the lack of response to the question concerning the age levels at which more recycling information is needed.

The final question was concerned with whether or not the respondents were saving money by recycling clothes (Question 14). In both counties the majority of the respondents felt that money was saved by the recycling of clothes. In Riley County, the percentage of respondents stating that they had saved money by recycling was slightly lower (61 percent) than in Marion County (67 percent). Only seven percent of the Riley County respondents said they had not saved money by recycling clothes while 11 percent of the respondents in Marion County felt that they had not saved by recycling clothes. Thirty-two percent of the respondents in Riley County and 22 percent of the respondents in Marion County did not answer the question.

Figure 3



The extent to which a garment was recycled by the Extension Home-maker Unit families in Riley and Marion Counties was investigated by question number six. The question was as follows:

Question 6: When remaking or recycling clothes do you:

- a. Alter the entire garment to make a different garment?
- b. Lengthen or shorten some part of it with bands or some sort of trim?
- c. Use a commercial pattern?
- d. Make your own pattern?
- e. Other (Please specify)

The results were tabulated into four categories, which included: <u>0</u>, for those individuals who selected none of the available choices; <u>1</u>, for those individuals who had done one type of suggested recycling; <u>2</u>, those individuals who had performed two of the selected recycling methods; and 3 or more, a category which encompassed the remaining possible choices. Table II illustrates the results in percentages of the tabulations by categories.

Categories 2 3 0 1 % Marion Riley Marion Riley Marion Riley Marion Response Riley 19% 20% 5% 11% 28% 18% 56% 51%

Table II: Methods for recycling a garment

In comparing the percentages of Riley and Marion counties it is evident that both counties have approximately the same number of respondents in category 1 or 2 (56 percent and 51 percent for category 1, 19 percent and 20 percent for category 2).

These results suggest that the respondents may have decided upon one recycling method and found it to be successful. So that, it was not necessary to try other alternate recycling methods.

There has been extreme difficulty in locating current, primary, research literature on the recycling of clothes. Question number nine was used for the purpose of determining where the respondents found information on recycling. The question specifically asked:

Question 9: What kinds of information helped you the most in the clothing remaking or recycling projects you do?

- a. Newspapers and magazines
- b. Radio and TV
- c. USDA bulletins and leaflets
- d. Extension bulletins
- e. Books

- f. Information from business and industry
- g. Advice from friends and/or relatives
- h. Your own judgment

The results were tabulated into four categories which included:

- 0 for those respondents who selected not to answer the question;
- 1 for the respondents who used one of the listed sources;
- 2 for the respondents who found two sources to be useful and

3 or more for the respondents who found three or more sources helpful for recycling projects.

Table III shows a comparison of results for the two counties in relationship to the number of sources used for recycling projects.

Table III: Number of sources used for recycling projects

				Cate	gories			
g <sub>i</sub>		0		1		2	3	
% Response	Riley	Marion	Riley	Marion	Riley	Marion	Riley	Marion
	27%	19%	35%	37%	21%	25%	18%	18%

Once again categories 1 and 2 have the highest percentages for both Riley and Marion counties which might mean that the respondents looked only for one or two sources on recycling clothes and were satisfied with the information they obtained. Another possible explanation might be that the source or sources found were of such excellent quality that additional information was unnecessary.

To determine the amount of information, i.e. how much or how little, pertaining to particular clothing items was available, question number 11 asked the following information:

Question 11: What type of garments have you had difficulty finding information for?

- a. Wraps and coats
- b. Shirts
- c. Dresses
- d. Blouses
- e. Skirts
- f. Sweaters

- g. Jackets
- h. Children's clothes
- i. Work clothes
- j. Socks and stockings
- k. Slacks
- 1. Other (Please specify)

The responses to this question were grouped into four areas which included:

0 - for the respondents that did not answer the question.

(It should be noted that if the respondents stated that they had no difficulty locating recycling information, it was not necessary for them to answer this question);

- 1 for the respondents that had difficulty acquiring information for only one clothing item;
- 2 used for the respondents that could not find information for two specific clothing items;

3 or more for those respondents that had difficulty locating information for three or more clothing items.

Table IV indicates the percentage of response in each of the above mentioned areas.

				Cate	gories				
0		0		1		2	3		
Response	Riley	Marion	Riley	Marion	Riley	Marion	Riley	Marion	
	85%	76%	9%	15%	4%	5%	2%	4%	

Table IV: Percent of clothing items had difficulty finding information for

The response to Question 11 was very limited, for 85 percent of the respondents in Riley County and 76 percent of Marion County respondents did not answer the question. The results of questions 11 and 12, asking which clothing items and for which age groups information was most difficult to obtain had the same results. Perhaps these results indicate that respondents were able to locate enough information on recycling the various garments mentioned which included:

- a. Wrap and coats
- b. Shirts
- c. Dresses
- d. Blouses
- e. Skirts
- f. Sweaters

- g. Jackets
- h. Children's clothes
- i. Work clothes
- j. Socks or stockings
- k. Slacks
- 1. Other

The question (12) concerning what age group people might be having difficulty locating information for included:

- a. 6 months 6 years
- d. 29 40
- b. 7 years 12 years
- e. 41 60

c. 13 - 18

f. 61 years and over

d. 19 - 28

## Analysis of Hypothesis

\*The chi square test was used to test the independence of two factors the chi square did not apply to hypothesis two, three, or four, which are stated on pages five and six.

 $x^2$ Significance level Comparison (1)Took class vs. did not significant not take class 1 2 3 (5) Lower vs. higher 5 .1959 not significant income (6) Number of children vs. amount of 6 3.4571 not significant recycling (7) People that recycle vs. availability of .4878 not significant 7 information (8) Amount of recycling .005 vs. recycling class 8 10.5678

Table V: Chi square values

## Hypothesis Data

The data obtained from the hypotheses are presented in the following discussion.

Hypothesis one stated that: There will be no significant differences between the amount of recycling done by those individuals that took a recycling class and those that did not take the class. Table VI illustrates the results in percentages of this hypothesis.

Table VI:	Percent	of	individ	uals	that	had	recycling	class
		vs.	those	that	did	not		

	No response	Answered yes	Answered no	Total
Riley Had class	14%	63%	23%	100%
Marion No class	8%	68%	24%	100%
Total	22%	131%	47%	

Hypothesis one was accepted as there was no significant difference between the amount of recycling done by those individuals who took a recycling class and those who did not take the class. The chi square value was .0336. Of the individuals recycling clothing, 63 percent of the Riley County responded and 68 percent of the Marion County responded, indicating that recycling clothes was not an uncommon occurrence. There was not a large difference in percentages of persons not recycling clothes in the two counties, 23 percent in Riley County and 24 percent in Marion County.

Hypothesis two stated that: There will be no significant difference in the amount of old clothes or those exchanged with friends compared with clothes that are purchased to be recycled.

This hypothesis was accepted indicating that there was no significant difference in the amount of old clothes, or clothes exchanged with friends that are recycled compared with clothes that were purchased to be recycled. Table VII shows the percentages obtained from the hypothesis.

ı	% No response	% Old or swapped	% Purchased	% Both	Total
Riley Had class	23%	8%	58%	12%	101%
Marion No class	17%	11%	59%	13%	100%
Total	40%	19%	117%	25%	

Table VII: Percent of respondents in categories

It can be seen from Table VII that many more of the respondents spent money on purchasing additional clothing with which to recycle.

Question three from the questionnaire was used to obtain this information. The question asked: Where do you usually obtain clothing that you plan to remake or recycle?

- a. Purchase new
- b. Purchase from thrift stores
- c. Purchase from clothing exchanges
- d. Gifts from friends
- e. Swap with friends
- f. Old clothes presently own
- g. Hand-me-downs
- h. Other (Please specify)

For statistical analyses these answers were placed into three categories: 1 - included a, b and c; these items indicate that clothing would be purchased for recycling.

- 2 included d, e, f, g and e; those items that were on hand or free.
- 3 was combination of both 1 and 2.

Perhaps the fact that the respondents were willing to spend additional money recycling clothing rather than working with what was available indicated the respondents were not pleased with the items they owned.

Another possibility was that there might be a relationship with when the respondents discarded clothing versus when clothes to be recycled were purchased. In Riley County 51 percent of the respondents did not discard

their clothes until the fabric was worn out or the garment no longer fit.

In Marion County 44 percent discarded their clothes for the same reasons.

Perhaps this data indicates that the clothing owned at the time of the study was not worth the time and effort needed to recycle a garment.

Hypothesis three stated: There will be no significant difference between the amount of expensive items such as coats, dresses, jackets, skirts and slacks that are recycled and less expensive items such as socks, stockings, blouses and work clothes that are recycled. Table VIII shows a comparison by percent of the two counties response to Hypothesis three. This hypothesis was accepted.

Table VIII: Percent of response to expensive vs.

less expensive clothing items

	% No response	% Expensive clothing items	% Inexpensive clothing items	% Both	Total
Riley Had class	25%	45%	9%	22%	101%
Marion No class	17%	46%	7%	30%	100%
Total	42%	91%	16%	52%	

The percentages indicate that the majority of items that are recycled are the more expensive items, such as coats, dresses, jackets, skirts and slacks. The respondents may not have felt that smaller, less expensive items were worth the time and work necessary for recycling. A second reason for not recycling less expensive items might be that these items were easily replaced therefore, it would be less expensive to buy new items.

Hypothesis four stated that: There will be no significant difference between the amount of recycling done for women and children as compared to that done for men. This hypothesis was not accepted.

	% No response	% Women and children	% Men	% Both	Total
Had recycling class	23%	54%	1%	22%	100%
No recycling class	15%	47%	3%	35%	100%
Total	38%	101%	4%	57%	

Table IX: Amount of recycling for women and children vs. men

As can be observed from the above data, a large percentage of the clothing recycled is for women and children, fifty-four percent of the respondents that had a recycling class recycled clothing for women and children.

Only one percent of the clothing was recycled for men. Of the respondents that had not had a recycling class 47 percent recycled clothing for women and children while three percent of this recycling was done for men.

These data may indicate that the respondents did not believe that recycling men's clothing was worth the time and effort needed to do a good job. A second reason for this could relate to the idea that men will wear their clothing until it is threadbare, in which case it would not be practical to recycle these items.

Hypothesis five stated that: There will be no significant difference between the amount of recycling done by people in lower income brackets as compared to the amount of recycling done by people in higher income brackets.

	% Lower income	% Higher income	Total
Had recycling class	50%	50%	100%
No recycling class	55%	45%	100%
Total	105%	95%	

Table X: Amount of recycling vs. percentage of income

Table X shows there is little difference between the two counties (Marion and Riley) in the amount of recycling done by the respondents in these respective counties, based on income. It can be seen that of those who had a recycling class 50 percent were in the lower income bracket and 50 percent were in the higher income bracket. This data indicates that the respondents who recycle clothes did so regardless of their income levels. The Chi Square value for this hypothesis was .1959 showing that there was no significant difference between the amount of recycling done by people in lower income brackets as compared to the amount of recycling done by people in higher income brackets.

Hypothesis six stated that: There will be no significant difference between the number of children in a family and the amount of recycling done. This hypothesis was accepted, as the Chi Square value was not significant ( $X^2 = 3.4571$ ). Table XI shows the percentages used to calculate the findings for this hypothesis.

Table XI indicates that the number of children in a family does not influence the amount of clothing recycled by that family. A good example of this is the fact that respondents who do the most recycling

have no children (28 percent of those that recycled and 35 percent those that did not recycle).

No. children	0	1	2	3	4	5	6	7	8	9	Total
Recycle clothing	28%	11%	23%	19%	10%	5%	2%	1%	0%	1%	100%
Do not recycle clothing	35%	12%	22%	19%	7%	2%	2%	2%	0%	0%	100%
Total	63%	23%	45%	38%	17%	7%	4%	3%	0%	1%	

Table XI: Percent of children vs. amount of recycling

The results of hypothesis six may mean that the respondents without children have more time to recycle clothes. Many respondents may recycle for themselves or a spouse rather than for children.

Hypothesis seven stated that: There will be no positive correlation between the degree of satisfaction with recycling and whether or not the recycling class was taken.

Hypothesis seven was accepted as no significant differences between the two groups were obtained. The percentage of respondents who answered the questions pertaining to this hypothesis (questions 1, 7 and 8) are shown in Table XII.

It can be seen from Table XII that slightly more people who have had the recycling class were pleased with the results obtained by recycling. However, the difference between the percentages (60 percent in Riley with a class versus 52 percent in Marion without a class) was not large enough to be significant. These results may imply that the recycling class did not affect how well the respondents liked their finished

	Pleased with results	Not pleased with results	Total
Had recycling class	60%	40%	100%
No recycling class	52%	48%	100%
Total	112%	88%	

Table XII: Pleased with results vs. not pleased

recycling project. This might have been because the respondents worked with clothing they never liked, thus the recycled garment was not liked. Or, the recycler did not use the knowledge gained at the recycling class and the recycled garment did not turn out well. There could be any number of other technical problems that occurred during the recycling project that may have changed the final results.

Hypothesis eight stated that: There will be no significant difference between the amount of recycling done as determined by the availability of recycling information. This hypothesis was not accepted. The Chi Square test showed a value of 10.5678 which was at a .005 significant level. This showed that the amount of information available on recycling clothes influenced how much recycling was done by the respondents. Table XIII shows the percentages of respondents who answered the questions pertaining to this hypothesis (questions one and 10).

The data from Table XIII may also indicate that if more information were available concerning recycling clothes a larger number of people might begin to recycle the clothing they presently own.

Table XIII: Recycling vs. availability of information

	Information available	Information not available	Total
Recycle	54%	46%	100%
Do not recycle	22%	78%	100%
Total	124%	76%	

#### CHAPTER V

#### SUMMARY AND RECOMMENDATIONS

This was an exploratory study and any generalizations that are made are largely in the realm of speculation. Conclusions reached as a result of this study are not applicable to all individuals who recycle clothing, but are restricted to the selected population represented by the Riley and Marion Counties, Kansas, Extension Homemaker Unit women, who participated in this study. However, it is hoped that the information presented here might give some insight into the importance of recycling clothes and the amount of recycling that is possibly being done by people in other parts of the United States.

It was found that the amount of information available on recycling clothes influenced how much recycling was done by the respondents. However, there was no correlation between the amount of recycling done and whether or not the respondents had taken a recycling lesson. There was no relationship between the amount of clothes recycled for women and children versus that done for men. The number of children in the respondent's family did not influence the amount of clothes recycled either. Only a slightly larger percentage of respondents who had the recycling lesson were pleased with the results obtained by recycling clothes.

Of all the participants that responded to the recycling questionnaire 66 percent said they recycle clothes. This percentage would indicate that recycling is currently being done. Another interesting finding was that 63 percent of the respondents were over 41 years of age. This may indicate that these individuals are less likely to be persuaded to work on faddish items than are individuals of a younger age group.

However, they might be making faddish items for individuals of a younger age.

In the series of questions concerning where the respondents obtained information on recycling clothes, many respondents acquired information through formal educational programs or a combination of formal and informal educational sources (74 percent). Thirty-one percent of these respondents also gained knowledge concerning recycling clothes by trial and error methods of experimentation and from the helpful suggestions of friends.

Another area of concern in the recycling questionnaire was how the respondents recycled their clothes. It was found that the majority of respondents (53 percent) made their own pattern with which to recycle. Only 13 percent of the respondents used commercial patterns when recycling clothes and four percent altered the entire garment to make a different garment. These results are really noteworthy considering the limited use of commercial patterns. The use of a commercial pattern might suggest that the persons who are recycling might have undertaken a more extensive recycling project. Or, use of a pattern might also indicate that the persons involved needed the reassurance of a "tested" product.

In answering the question concerning the satisfaction of the finished, recycled garments, 59 percent of the individuals questioned were pleased with the end result. Only 18 percent of the individuals questioned were unhappy with their finished garment and 22 percent did not answer the question.

#### Recommendations for Future Studies

The data presented in this study could be used as a building block for a more diverse study. This could include:

- (1) A more extensive study should be done to determine whether recycling clothes will continue to be a means of remaining in fashion.
- (2) The study could be expanded to include other populations besides women involved in extension programs.
- (3) A comparative study could be done between an extension group and another type organization, such as the Women's Club of Homemakers.
- (4) Compare two populations in specific group categories.
- (5) Incorporation of the data from this study into a booklet which would emphasize the following points:
  - a) necessity to recycle clothes
  - b) recycling suggestions for the average family
  - c) ideas and instructions for children.

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APPENDICES

# APPENDIX A

# RECYCLING QUESTIONNAIRE

Please check the appropriate answer:

1.	Your grade level a. freshman b. sophomore c. junior d. senior e. graduate student
2.	Your age a. 16 to 21 b. 22 to 30 c. 31 to 40 d. 41 and above
3.	Your sex 'a. male b. female
4.	Did you have Home Economics courses in high school? _a. yes _b. no
5.	If yes, how many? a. 0 (none) b. 1-3 c. 4-6 d. over 7
6.	Are you a Home Economics major? _a. yes _b. no
7.	How many clothing and textiles courses have you had so far (including ones you are in) at this university?  a. 0 (none)  b. 1-2  c. 3-4  d. over 5

8.	Do you sew most of your clothes? _a. yes _b. no
9.	Do you purchase most of your clothes? _a. yes _b. no
10.	Do you have your own sewing machine? _a. yes _b. no
	What garments do you tend to wear longest? Wraps or coats Dresses Slacks; men's women's Shirts Sheets Blouses Work clothes Play clothes Play clothes Sports clothes Other (specify)
12.	Do you or your spouse remake or recycle these garments into other uses?  a. yes  b. no
	When do you discard a garment?  a. When the fabric is worn out.  b. When it is out of style.  c. When it is no longer liked.  d. When it no longer fits.  e. Other (please specify)
	Where do you usually obtain clothing that you plan to remake or recycle?  a. Purchased new  b. Purchased from thrift shops  c. Purchased from clothing exchanges  d. Gifts from friend or relatives  e. Swapped with friends  f. Old clothes presently owned  g. Hand me downs  h. Other (please specify)
	What garment do you most often remake or recycle?  a. Wraps or coats b. Dresses c. Shirts d. Blouses e. Work clothes f. Play clothes g. Sports clothes m. Other (please specify)

16.	For whom do you recycle clothes?  a. Yourself  b. Spouse  c. Daughter(s)  d. Son(s)  e. Father  f. Mother
	When remaking or recycling clothes do you:  _a. Alter the entire garment to make a different garment?  _b. Lengthen some part of it with bands or some sort of trim?  _c. Use commercial patterns?  _d. Make your own pattern?
	Have any of the following helped you in your clothing remaking or recycling project?  a. Adult Education classes  b. Junior college classes  c. Vocational Technical classes  d. Women's groups  e. 4-H clubs (member)  f. 4-H clubs (leader)  g. Extension clubs or classes  h. Other (please specify)
	What kinds of information helps you the most in the clothing remaking or recycling projects you do?  a. Newspapers and magazines  b. Radio and TV  c. USDA Bulletins and leaflets  d. Extension Bulletins  e. Books  f. Corporation information pamphlets  g. Advice from friends and/or relatives  h. Your own judgment
	Have you had any fitting problems when remaking or recycling your clothes?  _a. yes _b. no
21.	Are you generally pleased with the remade or recycled garments that you have made?  _a. yes _b. no
22.	How do you feel about your remade or recycled clothing?  a. Attractive and useful for my life style  b. Helps my clothing budget, but would prefer new clothes  c. Enjoy being creative through recycling  d. Other (please specify)
23.	Do you know if your friends are also recycling their clothing?  _a. yes  _b. no

24.	Are the remade or recycled clothes worn at social functions?  _a. yes _b. no
25.	If the answer to #24 is yes, please specify.
26.	Do others know the outfit has been remade or recycled? _a. yes _b. no
	Are the remade or recycled clothes cared for in the same manner as other clothes?  a. yes  b. no
28.	Is it difficult to obtain information on how to remake or recycle clothes?  a. yes  b. no  If yes, answer questions 29 and 30.
	For what types of garments have you had difficulty finding information?  a. Wraps or coats b. Dresses c. Shirts d. Blouses e. Work clothes f. Play clothes g. Sports clothes m. Other (please specify)
30.	For what age group is it difficult to find remaking or recycling information?  a. 6 months to 6 years  b. 7 years to 12 years  c. 13 years to 18 years  d. 19 years to 28 years  e. 29 years to 40 years  f. 41 years to 60 years  g. 61 and over
31.	Would you like to have more information on remaking or recycling available?  a. yes  b. no
32.	Did you spend less for clothing this year than last year? _a. yes _b. no

33.	Ιf	yes,	do	you	think	it	was	because	of	the	money	you	saved	by
	rei	nakin	g or	re	cyclin	g y	our	clothing	?					
20-20-20-2	_a.	yes												
0.00	b.	no												

Please use this page for any comments or suggestions that would improve the questionnaire. Thank you.

## APPENDIX B

# RECYCLING QUESTIONNAIRE

This questionnaire is concerned with attitudes about remaking or recycling clothes. There is no right or wrong answer. Please--read each statement carefully. Then indicate the answer that best describes your feeling about the statement.

1.	Do you or your spouse remake or recycla. yesb. no	Le garments into other uses?
2.		d. When it no longer fits. e. Other (Please specify)
3.	b. Purchase from thrift shops c. Purchase from clothing	that you plan to remake or  e. Swap with friends  f. Old clothes presently owned  g. Hand-me-downs  n. Other (Please specify)
4.	b. Dresses 1 c. Shirts 2 d. Blouses 2 e. Skirts 1	e or recycle? g. Jackets n. Children's clothes L. Work clothes j. Socks or stockings k. Slacks L. Other (Please specify)
5.	For whom do you recycle clothes?  a. Yourself d. Son(s)  b. Spouse e. Father  c. Daughter f. Mother	g. Sister(s) h. Brother(s) i. Other (Please specify)
6.	When remaking or recycling clothes do a. Alter the entire garment to make a b. Lengthen or shorten some part of it trim? c. Use a commercial pattern? d. Make your own pattern? e. Other (Please specify)	different garment?

7.	Are you generally pleased with you have made?  a. yesb. no	the remad	le or recycled garments that
	Have any of the following helped recycling projects? _a. Adult education classes _b. Junior college classes _c. Vocational technical classes	e. f.	your clothing remaking or  4-H club work Extension clubs or classes Other (Please specify)
	_d. Women's groups  What kinds of information help or recycling projects you do?  a. Newspapers and magazines  b. Radio and TV  c. USDA bulletins and leaflets  d. Extension bulletins  e. Books	you the r	
10.	Is it difficult to obtain informulations:  a. yesb. no  If yes, answer questions 11 and		n how to remake or recycle
	What type garments have you had a. Wraps or coats b. Shirts c. Dresses d. Blouses e. Skirts f. Sweaters	ghjjk.	Ity finding information for? Jackets Children's clothes Work clothes Socks or stockings Slacks Other (Please specify)
12.	For what age group have you had cerning remaking or recycling ca. 6 months to 6 years  b. 7 years to 12 years  c. 13 years to 18 years  d. 19 years to 28 years	lothes? e. f.	Lty finding information con- 29 years to 40 years 41 years to 60 years 61 years and over
13.	Would you like more information recycling clothes?  a. yesb. no	to be as	vailable on remaking or
14.	Have you saved money by remaking a. yesb. no	g or recy	ycling your clothes?

# Socio-Economic Information

1.	Are you:a. singleb. married	c. divorcedd. widowed
2.	Number of children, if any.	~
	b. \$5,000 to \$8,000e	mily fall? . \$12,000 to \$15,000 . \$15,000 to \$20,000 . \$20,000 or more
	b. 17 to 21f	. 41 to 50 . 51 to 60 . 61 and over
5.	Have you ever had any sewing classes?  a. yesb. no	40
	b. Collegef	. 4-H Club work . Commercial instruction (store) . Other (Please specify)

## APPENDIX C

Dear Ms.

The economic and environmental situation facing our nation has led to a recurrence of interest in the remaking or recycling of clothes. I am a graduate student at Kansas State University working on my master's degree in Clothing, Textiles and Interior Design. The research for my master's degree at Kansas State University is concerned with this area of clothing.

I am having difficulty finding any references about the topic. I was able to obtain some information from the Kansas State Cooperative Extension Service on the topic. This led me to wonder if other Cooperative Extension Services might also have developed information dealing with the recycling of clothes. If you have such information and are willing to share it, I would appreciate receiving copies of these materials. Thank you very much for your assistance.

Sincerely,

Holly E. Bastow

# A COMPARATIVE STUDY OF THE RECYCLING HABITS OF EXTENSION HOMEMAKER UNIT WOMEN IN MARION AND RILEY COUNTIES

by

## HOLLY E. BASTOW

B. S., Virginia Polytechnic Institute and State University, 1972

AN ABSTRACT OF A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Clothing, Textiles, and Interior Design

KANSAS STATE UNIVERSITY
Manhattan, Kansas

The purpose of this study was to do a comparative investigation of the clothing recycling habits of Extension Homemaker Unit women in two counties in Kansas. The comparisons were made between Marion County Extension Homemaker Unit women who had not taken a clothing recycling lesson and Riley County Extension Homemaker Unit women who had taken a recycling lesson.

A survey was done to obtain the data for the study. One hundred and fifty questionnaires were distributed to the Extension Homemaker Unit women in each county who volunteered to complete the survey.

It was found that the amount of information available on recycling clothes influenced how much recycling was done by the respondents. However, there was no correlation between the amount of recycling done and whether or not the respondents had taken a recycling lesson. There was no relationship between the amount of clothes recycled for women and children versus that done for men. The number of children in the respondent's family did not influence the amount of clothes recycled either. Only a slightly larger percentage of respondents who had the recycling lesson were pleased with the results obtained by recycling clothes.

In conclusion if more information were available on recycling clothes, perhaps more people would recycle. Since this was an exploratory study many of the conclusions were speculative in nature.