AN ABSTRACT OF THE THESIS OF

<u>CHRISANNE CLARK LAURITSEN</u> for the <u>MASTER OF SCIENCE</u>
(Name of Student) (Degree)

in <u>CLOTHING, TEXTILES AND RELATED ARTS</u> presented on <u>April 26, 1972</u>
(Major) (Date)

Title: <u>INNOVATIVENESS IN CLOTHING AND TEXTILES AS</u>
  <u>RELATED TO ADOPTION LEADERSHIP, VENTURESOME-</u>
  <u>NESS, PERCEIVED SEWING COMPETENCE, AND SELECTED</u>
  <u>DEMOGRAPHIC FACTORS</u>

Redacted for privacy

Abstract approved:
Dr. Ruth E. Gates

The purpose of this study was to investigate the relationship between innovativeness in clothing and textiles and: self rating of innovativeness, adoption leadership, venturesomeness, perceived sewing competence, age, education, social status characteristics, social participation, sources of information, and continuation of learning.

The sample consisted of 67 women who sew who are listed in the telephone directory of a university town in Western Oregon. The women were randomly selected and contacted by phone. Women who did not sew were excluded from the study.

Questionnaires were mailed to 77 subjects and were collected one week later in person by the investigator. A 100 percent return of questionnaires was achieved; 67 were complete and were analyzed.

Scales were developed, adopted, or adapted to measure each of the variables, which were then related to innovativeness by the

correlation coefficient or analysis of variance.

Correlation coefficients significant at the .05 level were found between innovativeness and: self rating of innovativeness +.3694, adoption leadership +.2623, venturesomeness +.3431, perceived sewing competence +.4856, social status characteristics -.2448 (a lower score indicates higher social status), and sources of information +.5852 ($|r|$ = .2360, $p < .05$).

The relationship between innovativeness and social participation was not significant at the .05 level (r = +.0761). Innovativeness was not significantly related to age (F = +.9236, $|F|$ = 2.76), nor to continuation of learning (F = +.9855, $|F|$ = 4.00), nor directionally related to education (F = +3.3016, $|F|$ = 3.15) as determined by analysis of variance.

Innovativeness is a characteristic relevant to the area of clothing and textiles. Hypotheses and measures from many different fields were found to apply. The variables of self rating of innovativeness, adoption leadership, venturesomeness, social status characteristics, and sources of information, reported to be related to innovativeness in the adoption of farm practices, consumer products, and research in many other fields, were also found to be related to innovativeness in clothing and textiles in this study. Perceived sewing competence was a new dimension also related to innovativeness. When women felt confident about their sewing ability, they were free to explore new products and practices.

Innovativeness in clothing and textiles offers a fruitful area for further research. Studies might be made with different populations to extend the knowledge and understanding of innovativeness. Scales of innovativeness might be improved and revised to include dates of adoption for more reliable and valid measures of innovativeness.

Innovativeness in Clothing and Textiles
as Related to Adoption Leadership,
Venturesomeness, Perceived Sewing Competence,
and Selected Demographic Factors

by

Chrisanne Clark Lauritsen

A THESIS

submitted to

Oregon State University

in partial fulfillment of

the requirements for the

degree of

MASTER OF SCIENCE

June 1972

APPROVED:

Associate Professor of Clothing, Textiles and Related Arts
in charge of major

Head of Clothing, Textiles and Related Arts Department

Dean of Graduate School

Date thesis is presented _April 26, 1972_

Thesis typed by Mary Olson for __Chrisanne Clark Lauritsen__

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

DEFINITION OF TERMS

Acceptance -- begins with the year in which a person first uses a new

practice or product (Ryan and Gross, 1950).

Adopter categories --

Innovators -- those individuals who are first to adopt new pro-

ducts or practices, 2. 5% of the population of adopters.

Early adopters -- the next group of individuals to adopt, 13. 5%

of the population.

Early majority -- those individuals who adopt before the average

adoption date, 34% of the population.

Late majority -- those individuals who adopt after the average

adoption date, 34% of the population.

Laggards -- the last group of individuals to adopt, 16% of the

population.

Nonadopters -- those individuals who do not adopt a product or

practice.   (Rogers, 1961)

Adoption -- point in time when an individual decides to continue using

a new product or practice (Rogers, 1958).

Adoption process -- the mental process through which an individual

passes from first hearing about a new idea to its final adoption

(Bohlen, et al. , 1968).

Adoption leaders -- those individuals consulted by others for information and advice, also called opinion leaders (Rogers, 1958).

Change agents -- those individuals who influence change and work to make it occur (i. e. , government agency personnel, extension agents, and college researchers) (Rogers, 1961).

Communication process -- the flow of new ideas (Katz, 1957).

Continuation of learning -- an individual's participation in adult classes, both credit and noncredit.

Diffusion -- the spread of new ideas from originating sources to users (Bohlen, et al. , 1968).

Innovation -- a change involving a change in materials and their use (Beal and Bohlen, 1957), also the new product or practice which is an innovation.

Innovativeness -- the degree to which an individual adopts new practices relatively earlier than others within a local community (Rogers, 1961). Two tests were employed to measure innovativeness:

A. Preliminary Scale of Innovativeness --a standard score was calculated from the date of adoption utilizing Roger's method (1961, p. 57).

B. Scale of Innovativeness --a revised scale was developed in which dates of adoption were ignored and a score was calculated by adding together the numbered responses which subjects selected as their degree of adoption of each item.

Mass media -- television, radio, magazines, newspapers, and other

   forms of communication available to the public, but not including

   items requested, such as extension bulletins (Beal and Bohlen,

   1957).

Perceived sewing competence -- an individual's appraisal of her own

   sewing ability, as measured by Wheeler's Scale.

Self rating of innovativeness -- an individual's assessment of her

   position of adoption relative to others (Rogers, 1958).

Social participation -- "The degree of a person's participation in

   community groups and institutions" (Chapin, 1947, p. 276).

Social status characteristics -- prestige accorded on the basis of

   social and economic position in the community, based on

   Warner's Index of Status Characteristics (occupation, source

   of income, house type, and dwelling area).

Sources of information -- those references used by individuals to

   acquire knowledge.

Venturesomeness -- the degree to which an individual possesses a

   favorable attitude toward trying new ideas and practices (Rogers,

   1958).

INNOVATIVENESS IN CLOTHING AND TEXTILES AS RELATED TO ADOPTION LEADERSHIP, VENTURESOMENESS, PERCEIVED SEWING COMPETENCE, AND SELECTED DEMOGRAPHIC FACTORS

INTRODUCTION

Innovations are the foundation of change accepted by individuals in a society. Acceptance and the steps leading to it are under investigation as more studies are made of adoption of various innovations and the similarity of the adoption process of farm practices, drugs, color television, consumer products, fabrics, and many others (The adoption of ..., 1959).

Interest in the change of fabrics available in ready-to-wear clothes and in yardage for the home seamstress over the past ten years instigated this research. Especially of interest are the introduction and quick acceptance of the various knit fabrics and construction techniques required to handle them successfully. Many questions were brought to mind:

How aware are women of new fabrics?

What contributes to the adoption of new fabrics?

How are early users different from late adopters?

How do women acquire facts to help them in their decision to use new fabrics?

Do expert sewers make more attempts to try new fabrics and techniques than less competent sewers?

Do early users of fabrics realize that they are ahead of
others in their community and try to influence others?
These questions were the basis for the development of this research
study.

Modern technology and progress create change which, if accepted,
results in a shift from the comfortable, old products and practices to
unfamiliar, new ones. Katz, Levin, and Hamilton (1963, p. 237) say
that "diffusion of innovation is one of the major mechanisms of social
and technical change". It is important to study how this change occurs
and the characteristics of those individuals who more readily accept
change and adopt ideas and practices in a shorter period of time.

According to Flinn (1961) the value of studying innovators is to
speed up adoption time, especially if the innovation is an advantage to
the individual and to the public. Failure to adopt may affect their own
well-being or that of their family, community, or country. Awareness
of new ideas and products can be created earlier by publishing informa-
tion in those sources used by innovators and other early adopters or by
reaching change agents who can present information to innovators and
early adopters. Knowledge of adopters' characteristics and communica-
tion with them help to narrow the time period between early adoption
and later adoption of any product or practice.

Beal and Bohlen (1957, p. 630) state that advances in science
and technology make homemaking "easier, more efficient, and more

satisfying". Innovations include many of the new man-made fibers, as well as improvements in special finishes and fabric construction of natural fibers and older man-made fibers. Advantages of accepting these advances in new fabrics are variety, durability, machine washability, wrinkle resistance, and ease of sewing construction. However, textile innovations also pose new problems so that it becomes necessary to change handling techniques, such as laundering and construction, in order to have successful results with the new materials.

Statement of the Problem

Many original studies of innovation were conducted with farmers and their adoption of new farming methods or products. Beal and Bohlen (1957) have compiled 35 research studies on innovativeness, including those on home practices, fabrics, deep freezes, and medicines, into a model of innovation and adopter categories. According to this model the innovator is younger, has a larger income, is higher in social status, more active in the community and in formal organizations, has more education, reads more research publications and more magazines, but is not named as a source of information by others.

In order to study innovativeness, the Beal and Bohlen model was used to determine if these variables were applicable to adopters of clothing and textiles in the selected city. The objectives were to investigate possible relationships between innovativeness and: self

rating of innovativeness, adoption leadership, venturesomeness, perceived sewing competence, age, education, social status, social participation, sources of information, and continuation of learning.

Hypotheses

The following null hypotheses were tested:

Hypothesis I. Innovativeness is not positively related to self rating of innovativeness.

Hypothesis II. Innovativeness is not positively related to adoption leadership.

Hypothesis III. Innovativeness is not positively related to venturesomeness.

Hypothesis IV. Innovativeness is not positively related to perceived sewing competence.

Hypothesis V. Innovativeness is not negatively related to age.

Hypothesis VI. Innovativeness is not positively related to education.

Hypothesis VII. Innovativeness is not positively related to social status characteristics.

Hypothesis VIII. Innovativeness is not positively related to social participation.

Hypothesis IX. Innovativeness is not positively related to sources of information.

4

Hypothesis X. Innovativeness is not positively related to continuation of learning.

Assumptions

The following assumptions were made concerning the study:

The sample was unbiased.

The women were willing to complete the questionnaires

truthfully.

The measures used to test the variables were valid

and reliable.

Innovativeness as a trait is normally distributed (Rogers,

1958).

REVIEW OF LITERATURE

Innovation

Adoption follows a pattern of long, gradual initial growth, rapid growth, and then a decline in further growth as an innovation is accepted by most of the people (Ryan and Gross, 1950). There are still a few who resist adoption. First, a few people hear about a new practice; only a very few begin trying it. By the time most of the people have heard about it, a few more are using it. Then, through a rapid rise many more are using the innovation. A leveling off occurs as some are not using the new practice or have not heard of it yet. This process is illustrated in Figure 1.

FIGURE 1. The Pattern of Adoption
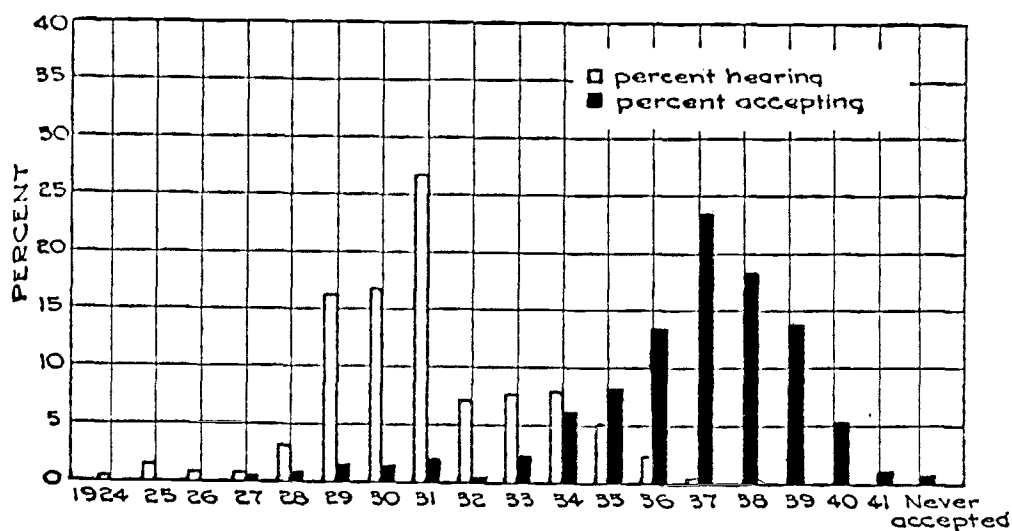
Fig. 1. Percentages of Farm Operators First Hearing of Hybrid Seed Corn and Percentages First Accepting It, by Years.

(Ryan and Gross, 1943, p. 17)

Another way of illustrating the diffusion process is with an S

curve (Figure 2). "A few people adopt a product at first, then a few

more, followed by a rather sharp increase and finally a leveling off

when most of the potential consumers have adopted" (The adoption of

. . . , 1959, p. 1).

FIGURE 2. Adoption Curve

(Beal and Bohlen, 1957, p. 5)
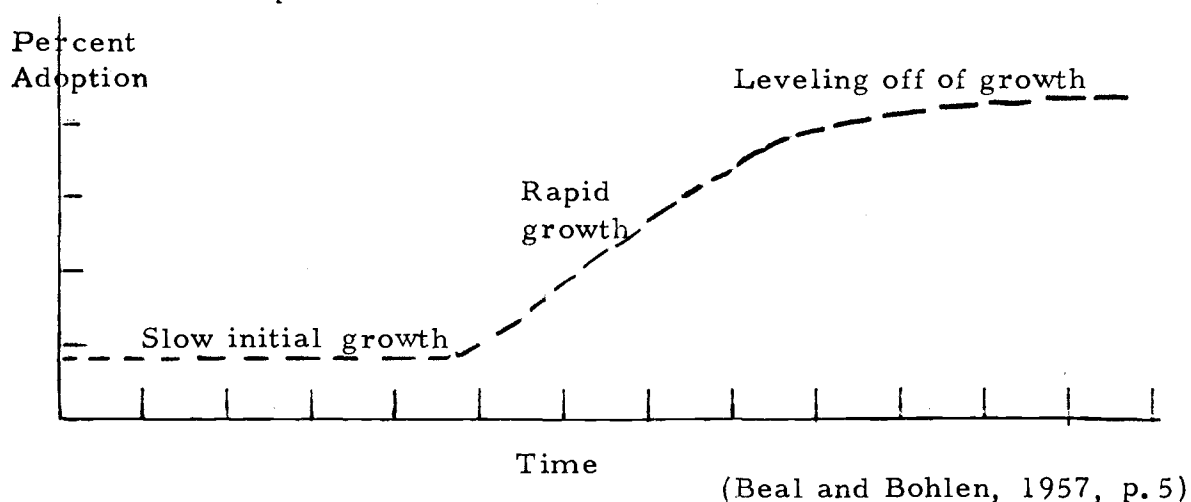
Different practices will spread at different rates (Wilkening, 1953)

and individuals will accept innovations at different rates (Beal and

Bohlen, 1957). The same individual with different practices and pro-

ducts will also adopt at varying rates depending on the usefulness of

the innovations to him (Mass media sources..., 1969).

Other factors which may affect the rate of adoption are cost and

economic returns to the individual, complexity of the product or

practice, visibility of it, and compatibility with existing products or

practices (Bohlen, et al. , 1968).

There are four levels of complexity of new practices:

1) simple change in materials or equipment

2) an improved practice or change of technique

3) a change in materials and techniques, which is the

level of complexity of an innovation

4) a change in enterprise, which involves many innovations.

(Beal and Bohlen, 1957, p. 3)

The level of complexity is an important factor in determining the time it takes for a new product or practice to be adopted.

Kivlin (1960) defines complexity as the amount of skill, training, or experience needed to make use of a new practice. He reports that degree of complexity is negatively related to rate of adoption. Time of adoption may also vary depending on the resistance to replacing a practice which has become a part of the individual's life.

According to Beal and Bohlen (1957) and Beal, Rogers, and Bohlen (1957) the adoption process is a series of complex mental acts which follow a definite pattern. The stages of this process can be recalled and distinguished by individuals who relate points during each stage to a researcher for study of the thought process. The five stages are: awareness, interest, evaluation, trial, and adoption. First, an individual becomes aware of a new idea or practice, but lacks information about it. As he becomes interested or curious, he seeks more information about what it is, how it works, and how he

might use it. Then he thinks about the product or idea, applying it to his situation and evaluating its possible use. Next he tries it, conducting his own small scale experiment to see if it works for him. Lastly, he continues using the product or idea due to his satisfaction with it. About the mental process of adoption, Gallup (1955, p. 234) says,

> This period of integration, following acceptance, can be described as a period of absorption, a period of gestation, a period when the idea in some mysterious way becomes incorporated into the thinking process.

Lazer and Bell (1969, p. 197) found that innovative consumers can be placed into three categories by their manner of making a purchase decision. There are problem solvers who decide through the thought process, to purchase an item after evaluating its use for their specific situation. Twenty percent of their subjects fit into this category. The rest of the subjects made a purchase decision before entering the store, but did not go through a careful decision process, or decided on impulse in the store to purchase an item.

Innovators perform certain roles in the diffusion process according to Rogers (1961, p. 49). These may be as:

1) a line of communication

2) a local demonstrator

3) an influencer of local change agents, or

4) a developer of new technology.

Innovators participate in the communication process through direct contact with extension agents and college researchers about

new products and practices. They become aware earlier and adopt sooner. Then they communicate these new ideas to others in their community. More adopters then help to convince others also to try a new practice. Katz (1957) calls this "the two-step flow of communication", which Rogers (1961) renamed the "multi-step flow". This type of communication helps to speed up adoption. Coleman, Katz, and Menzel (1957) report that innovations are integrated into the community through this type of social interaction.

Success with a new practice is demonstrated by the innovator, helping to make others aware of its worth. Ryan and Gross (1943 and 1950) and Beal and Bohlen (1957) also refer to the importance of local laboratories in spreading innovations. People are influenced by action more than by words, so that watching the use of a new practice or product becomes part of the communication process. Rogers and Pitzer (1960) report that personal observation of farms of others was the most important factor in convincing farmers to adopt. The early user takes the risks while others watch and learn from his experiences. Improved methods can be compared with older methods also in use at the same time. After watching the innovator, other adopters usually conduct their own small experiments before completely adopting a new practice. As Lazer and Bell (1969, p. 197) state, "Personal experience is the most important factor in continued use of an idea".

Rogers (1961) reports that there is evidence that innovators will tell extension agents about new ideas so that these agents can create awareness in others.

An innovator may also do some research on his own to develop new technology or modify practices he has seen or heard about from others. He is research minded, actively seeks research information, and tries to develop better methods.

The fashion innovator according to King (1969) is a consumer change agent, an early communicator of new styles to the rest of the fashion consumers in that community, an initiator of the adoption process by her purchase, and a fashion adoption leader. She plays these roles by purchasing new styles and by wearing them to social events where she is observed, and later imitated.

In 1904 Simmel wrote that individuals are torn between the desire to imitate and be a member of the group, and the desire to remain differentiated as an individual (Simmel, 1957). How this conflict is resolved determines what an individual selects to wear. The innovator is in the position of accepting new fashions before others wear them, and, therefore, wears something unique.

The attitudes, norms, and values of the innovator's social group (such as social class or organization) help to determine the atmosphere for the acceptance or rejection of a new style or fabric. Ridicule or loss of prestige for a fashion experimenter may defer an

innovation. Status and respect may be accorded an innovator and encourage the acceptance of an innovation (Lionberger, 1952).

Communities differ in their attitudes toward change and differ in how they accept change, either progressively or conservatively (Marsh and Coleman, 1956).

> The extent to which changes are adopted depends upon the values and expectations of the group and upon the extent to which the individual is expected to conform (How farm people..., 1955, p. 7).

Norms and values which are favorable to adoption lead to earlier adoption (Marsh and Coleman, 1956).

Rogers (1958) classifies the adopter categories as innovators, early adopters, early majority, late majority, laggards, and non-adopters. Because adoption is a human trait it is normally distributed (Figure 3).

FIGURE 3. Distribution of Adoption Categories
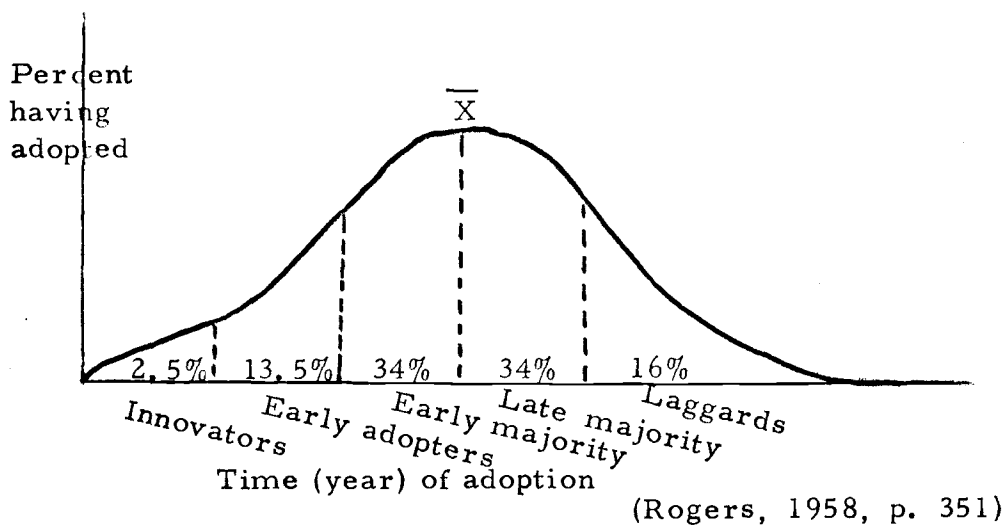
(Rogers, 1958, p. 351)

Self Rating of Innovativeness

An individual's self rating of his position of innovativeness may be meaningful (Rogers, 1957). Rogers (1958, p. 353) reports that an individual's self rating is positively correlated with adoption (+. 35 in his research and +. 69 in other's research). This may be a useful factor in observing a person's awareness about adoption of new practices and his relative position as he sees it. Rogers (1961) also reports that innovators have more accurate self images and this factor is reflected in their self ratings.

Adoption Leadership

Rogers (1961), Rogers and Burdge (1962), and King (1969) report that early adopters and innovators are asked for advice and information by their friends, neighbors, and relatives and are therefore adoption leaders. With a score of 0-7 on the Adoption Leadership Scale, early adopters had a mean score of 6. 53 and laggards a score of 3. 28 (Rogers, 1961, p. 12).

King (1969) investigated the communication characteristics of the fashion innovator. He reports that the fashion innovator has a key position in the adoption process because of her influence on others, and is therefore a fashion opinion leader. Even if she is not asked directly for advice, she is watched, imitated, and followed, which means she influences others in the adoption process.

In order to be consulted, the innovator must be respected by others in the community, and fit the group norms and standards (Rogers, 1961). Marsh and Coleman (1954) found that leaders (those consulted for information and advice) had low adoption scores in communities with lower average adoption scores and high scores in communities with higher average adoption scores. Therefore, values and norms of the community are reflected by leaders in that community. "If value is placed on innovations (high adoption) then farmers will go to innovators for information" (Marsh and Coleman, 1954, p. 181). So innovators may or may not be leaders, depending on the community.

Ryan and Gross (1950); Wilkening (1952b); Beal and Bohlen (1957); Copp, Sill, and Brown (1958); and Lazer and Bell (1969) report that innovators are not asked for advice because they are not like the rest of their community. Their values may be different from the rest of the group as they look to science and research for improvements of products and practices. Other adopter categories, such as the early majority, are more like the rest of the population so are consulted more often (Beal and Bohlen, 1957). Innovators may be watched but are usually not consulted or followed immediately.

Venturesomeness

Innovators are more venturesome than individuals in other adopter categories according to Rogers (1961) and Robertson (1968). Venturesomeness is highly correlated with innovativeness according to Havens

(1965). Rogers (1961) reports that individuals feel that it is "socially acceptable" to be venturesome. Even so, he reports that from a range of 0-8 points on the Venturesomeness Scale, innovators had a mean score of 5.9 and laggards a mean score of 3.6 (Rogers, 1961, p. 36).

Perceived Sewing Competence

Hess and Miller (1954) report that an individual must have some basic knowledge before making a decision to adopt a new product or practice. Wilkening (1953) agrees that knowledge is one step ahead of the decision to accept and adopt. Without knowledge an individual does not knowingly adopt.

Knowledge in this research applies to knowledge of fabrics and the techniques and skills needed to handle them. Success in construction due to skill should lead to adoption of new fabrics.

Age

Innovators are seen as less conservative and less held by tradition (Graham, 1956). They are more open-minded about change (Ryan and Gross, 1950). These characteristics are more often associated with a younger individual. Ryan and Gross (1950), Copp (1956), Beal and Bohlen (1957), Belcher (1957), Sill (1958), Rogers (1961), and Flinn (1970) found that innovators are younger than individuals in other adopter categories. Rogers (1961, p. 14) found

that innovators and early adopters had an average age of 37.6 years and laggards an average of 54 years.

Wilkening (1952a and b), Hoffer and Stangland (1958a and b), and Polgar, Dunphy, and Cox (1963) found that age is not always significantly related to innovativeness. Wilkening reports that age may be a distinguishing factor, though, and that younger farmers are more likely to adopt more practices and that farmers over 50 years are more disapproving of new practices, but it was not statistically significant.

Polgar, Dunphy, and Cox (1963) give many reasons for their results which differ from the Beal and Bohlen model of innovativeness. There were limiting factors in the selection of the sample, the high cost to farmers of changing equipment for the new water management practices, complex techniques required to adopt, and the practices used in the study could not be implemented gradually. They felt that the community is a variable which needs further study in order to improve a model for innovativeness. The size, density, homogeneity, and autonomy of the community may affect adoption of innovations.

Hoffer and Stangland (1958a) report that personal characteristics of the farmer and his values are important in the adoption process. Efficient and progressive farmers were more likely to adopt and conservative farmers who valued security postponed adoption. Relation between adoption and age was inconclusive.

Education

Most research has shown that innovators are more highly educated than individuals in lower adoption groups (Ryan and Gross, 1950; Wilkening, 1952a; Hess and Miller, 1954; Copp, 1956; Beal and Bohlen, 1957; Sill, 1958; Rogers, 1961; Rogers and Burdge, 1962; and Flinn, 1970). Ryan and Gross (1950, p. 689) found that one-third of their innovators had some college education, but that later adopters had an average of a grade school education. Rogers (1961, p. 12) reports early adopters and innovators had an average of 12.57 years of education compared with 8.64 years for laggards.

Education is not significantly related to innovativeness according to Belcher (1958) and Polgar, Dunphy, and Cox (1963). Belcher reports that at the time of his research there was newspaper coverage about dangerous effects of the polio vaccine which was probably read by the more educated people. For the most part the Negroes accepted the vaccine earlier because it was free and its use was encouraged by officials in the area. Therefore, the less educated individuals accepted the vaccine earlier than the more highly educated. A possible explanation for results by Polgar, Dunphy, and Cox which differ from most other research findings is given above under "age", page 16.

Social Status Characteristics

Social status or social class (education, wealth, income, and material possessions) is related to innovativeness according to Wilkening (1952a and b), Lionberger (1952 and 1953), Beal and Bohlen (1957), Rogers (1961), Flinn (1961 and 1970), King (1969), and The process of ... (1969). Early adopters and innovators scored 3.76 points (total of five possible) on Rogers' Social Scale compared with 2.59 for laggards (Rogers, 1961, p. 14). Copp (1958) reports that social position is only of minor importance, but economic status is very important. Hess and Miller (1954), Copp (1956), and Rogers (1961) also report that innovators have higher incomes. Many other researchers (Ryan and Gross, 1943 and 1950; Wilkening, 1952a; Beal and Bohlen, 1957; Rogers, 1961; Flinn, 1961; and Rogers and Burdge, 1962) also report the relation of innovativeness to ownership of larger farms which suggests larger incomes and more wealth. Because of this factor innovators can afford to take more financial risks and try new methods. Polgar, Dunphy, and Cox (1963) found that higher income and larger farms are not related to innovativeness (see possible explanation under "age", page 16).

Graham (1956) reports that the upper classes may be more conservative toward change and wish to maintain the status quo. Therefore, they may be less innovative. In his research Graham found that the relationship between class and conservatism is complex and not

easily proved.

Simmel, on the other hand, wrote in 1904 that fashions and manner of dress are distinctive for the different classes. The upper classes adopt new styles first and are copied by the lower classes.

> Just as soon as the lower classes begin to copy
> their styles, thereby crossing the line of
> demarcation the upper classes have drawn
> and destroying the uniformity of their coherence,
> the upper classes turn away from this style and
> adopt a new one, which in turn differentiates them
> from the masses; and thus the game goes merrily
> on. (Simmel, 1957, p. 545)

Fashions change more often in a social system that has various classes or strata.

Barber and Lobel (1952) call this system the "trickle down theory" as the upper classes adopt first and the lower classes copy their styles. This is seen today as ready-to-wear manufacturers copy designer fashions and sell to the lower classes who cannot afford originals. Therefore, upper class women may be innovators because they are earlier to adopt new styles.

An individual's social class may also be a reference group as the individual refers to others in the class when forming an opinion on adopting a new product or practice (The adoption of ..., 1959). Behavior is often influenced by what others may think or say. Therefore, an individual may follow accepted standards of behavior, conforming to his class norms.

Social Participation

King (1969) reports that fashion innovators are more socially involved. Because they attend more meetings and social activities, there are more different occasions where certain clothing is appropriate, and, therefore, where fashion awareness may be important to the individual.

According to Ryan and Gross (1950), Wilkening (1952b), Lionberger (1953), Copp (1956), Beal and Bohlen (1957), Belcher (1958), Rogers (1961), King (1969), and The process of ... (1969) innovators are more active in formal organizations such as church, PTA, and professional organizations. Rogers (1961, p. 13) reports innovators scored an average of 8.80 compared with laggards average score of 1.71 on his scale of social participation (one point was given for each: membership, active participation, and officership). Innovators belong to more organizations beyond their immediate social community (King, 1969 and Rogers, 1961). Polgar, Dunphy, and Cox (1963) found that social participation is not related to adoption (see possible explanation under "age", page 16).

Sources of Information

Contacts for sources of information are personal or impersonal according to Beal and Rogers (1957). Personal contacts are those sources where social interaction occurs between two or more persons, for example, neighbors, friends, relatives, salesmen, or agency

personnel. Impersonal or formalized contacts (Wilkening, 1950b) are
printed materials, such as extension reports and mass media
(magazines, television, and radio). Havens (1965) reports that personal
contacts are more important in the diffusion process than impersonal
sources. Wilkening (1950b) and King (1969) report that innovators
rely on impersonal or formalized sources rather than on personal
ones.

Sources vary with different stages of the adoption process.
Many research projects have been directed at the various sources
of information used at each stage (Beal and Bohlen, 1957; Copp, Sill,
and Brown, 1958; and Lazer and Bell, 1969). Beal and Rogers (1957,
p. 682) report the following sources used most widely in the adoption
of nylon, Dacron, and Orlon:

Awareness Stage

Mass media	59%
Neighbors and friends	16%
Commercial contacts[1]	15%
Others	10%

Information or Interest Stage

Neighbors and friends	34%
Mass media	34%

---

[1] Commercial contacts include salespeople, store displays,
and written materials from manufacturers.

Commercial   16%

Other   16%

Application or Evaluation Stage

    Neighbors and friends   39%

    Commercial   31%

    Other   30%

Trial Stage

    Commercial   40%

    Neighbors and friends   18%

    Other   42%

Adoption Stage

    Self (adopter's own information, use,
and experimentation)

Mass media decrease in importance through the adoption pro-

cess. Neighbors and friends are most often named as the most

important source of information (Ryan and Gross, 1943 and 1950;

Wilkening, 1950b and 1952a). Salesmen were named most often as

the earliest source of information according to Ryan and Gross (1943).

Innovators read more magazines (Ryan and Gross, 1950;

Wilkening, 1952b; Beal and Bohlen, 1957; Rogers, 1961; Polgar, Dunphy,

and Cox, 1963; Lazer and Bell, 1969; Mass media sources ..., 1969;

and King, 1969). They also read more varied sources such as research

and technical reports (Copp, 1956 and Rogers, 1961). In order to

obtain technical information, innovators call college researchers or

specialists (Beal and Bohlen, 1957). Gross and Taves (1952) report

a significant difference in readership of state college bulletins

between adopters and nonadopters. Therefore, the quality of sources

of information is higher for innovators (Copp, 1956; Rogers and Burdge,

1962; King, 1969; and The process of ..., 1969). Laggards get their

information from nontechnical sources (Rogers, 1961).

King (1969) reports that fashion innovators get their information

from fashion magazines, fashion shows, and newspaper fashion ads.

Continuation of Learning

Wilkening (1950a) suggests that one approach to the study of

innovativeness is learning theory. Innovators continue to learn and

keep up with new ideas and changes. They actively seek information

through various forms of adult education such as classes and varied

sources of information. More use of continuing education is made by

some individuals than by others, partly because of varied interests,

motivations, and levels of intelligence and formal education.

PROCEDURE

Development of Measures and Scoring

Innovativeness

Several methods for scoring innovativeness were reviewed and one was selected that seemed best suited for this study. Roger's method of classifying adopter categories (1961, p. 57-63) was selected because it includes dates of adoption as the basis for assigning an individual to an earlier adopter group. Rogers and Rogers (1961, p. 335), report that it is necessary to include dates because "... 38% and 21% of the variation in the two adoption scores is not accounted for unless time of adoption is obtained as well as number of practices adopted". Time makes the test more sensitive. They further report that adoption scales are valid, reliable, and internally consistent. With Roger's innovativeness scale more credit is awarded for adopting a practice earlier than the average adoption date for that practice. A standard score is computed from the adoption date, the mean date, and the standard deviation. An advantage of this scoring method is that many different practices adopted in different years may be added together for a composite score.

The Preliminary Scale of Innovativeness combined two ideas from Rogers (1961) and Beal and Bohlen (1957) to the measurement. Thirty-four clothing and textile styles and terms were used in place of farm practices from Roger's scale. Instead of asking if the subject had used each item and the date of first use, a two part scale was developed

following Beal and Bohlen's (1957) steps of the diffusion process. First, each respondent marked her degree of adoption from the following scale:

0   I have not heard about it.

1   I have heard about it.

2   I know about it.

3   I have thought about using it.

4   I have tried it.

5   I use or wear it often.

Second, she was also asked to mark the year of first use of the items she had tried or used often. This date was then used to compute the standard score with each adopted item having an equal weighting.

The formula for the standard score is:

$$U_i = \frac{x_i - \overline{x}}{\sigma_x}$$

U_i = standard score

$\overline{x}$ = mean

x_i = observation (adoption date)

σ_x = standard deviation

(Rogers, 1961, p. 59)

Thus, the mean $(\overline{x})$ is subtracted from the observation (x_i) and then is divided by the standard deviation (σ_x) of the distribution.

The standard score of each of the 34 items is then added together $(U_1 + U_2 + \ldots + U_{34})$ to give the total standard score of innovativeness. This score represents an individual's rating compared with other subjects in the sample.

Adopter categories were then classified from the total standard score using a method developed by Rogers (1958, p. 351). Scores were grouped into a distribution curve, and adopter categories were assigned by the computer by the percentage falling into each of the categories (see Table I).

TABLE I. Adopter Categories and Number of Subjects.

Adopter Category	Desired no. of subjects in the category	No. of subjects in the study from each adopter category
Innovators	2.5%	1
Early Adopters	13.5%	10
Early Majority	34%	23
Late Majority	34%	23
Laggards	16%	10
	100%	67

A pretest was given to 50 students in a Clothing Selection course. Their scores approximated the normal distribution, so this test appeared to be an acceptable measure of innovativeness.

The weakness of this method, however, is that it depends on accurate recall of dates. First tabulation of the questionnaires showed that from the 34 items on the innovativeness test, a total of 1,041

responses were given, but only 824 dates were supplied; thus, about 80 percent of the dates were remembered for items adopted.

The incompleteness of response on dates and the suspected lack of accuracy of many of the dates given, cast doubt on the validity of this method of scoring innovativeness for this study. A second test of innovativeness (Scale of Innovativeness) was designed and was deemed to be satisfactory (see Findings). A total score was calculated by adding together the numbered responses which subjects selected as their degree of adoption of each of the 34 items. These responses followed the steps of the diffusion process and were scored in the following manner:

0 points I have not heard about it.

1 point   I have heard about it.

2 points I know about it.

3 points I have thought about using it.

4 points I have tried it.

5 points I use or wear it often.

Self Rating of Innovativeness

Respondents were asked to rate their use of new styles and textiles by checking one of the following choices and were assigned the points for that answer:

5 points   Far ahead of the average

4 points   Ahead of the average

3 points   Average

2 points   Behind the average

1 point   Far behind the average

This self rating scale was adapted from Rogers (1957, p. 268) to compare an individual's assessment of her innovativeness to the innovativeness score.

Adoption Leadership

The scale for Adoption Leadership was adapted from Rogers (1961, p. 10):

During the past six months have you told anyone about new styles or fabrics?

_____ Yes *

_____ No

Compared with your circle of friends are you:

_____ More likely*
           or
_____ Less likely to be asked for advice about

new styles and fabrics?

Thinking back to your last discussion about fabrics were you:

_____ Asked for your opinion*
           or
_____ Did you ask someone else?

When you and your friends discuss clothing and fabrics, what part do you play?

       _____ Try to convince them of your ideas*
                or
       _____ Mainly listen

Which of these happens to you most often?

       _____ You tell friends and neighbors about clothing

        and fabrics*
                or
       _____ They tell you

Do you have the feeling that you are generally regarded by your friends as a good source of advice about new styles and fabrics?

       _____ Yes*

       _____ No

Two points were given for leadership answers (*), and one point for the other choice. Zero was used as a code if the respondent left the question blank or checked both choices.

Venturesomeness

Rogers (1961, p. 34) listed six hypothetical farm practices and respondents were asked to rate whether they would "adopt immediately", "wait and see", or "not be interested". The author used this type of rating scale and presented 15 recent developments in textiles, all of which are actual textile products as reported in journals over the past three years.

The first venturesomeness scale was pretested on 16 students enrolled in a tailoring course. They checked their reactions concerning the 15 textile items on the following scale:

It does not interest me.   0 points

It sounds interesting.   1 point

I want to know more.   2 points

I want to see a sample.   3 points

I would like to try it out.   4 points

Points were then totaled. The range of scores was 12-55 points (60 possible) with an average of 38.

Suggestions from these test subjects were followed in revising the Venturesomeness Scale. The responses to be checked for the degree of adoption for each product were changed to four items and the points for each were changed. A four item scale was used so that subjects might not be tempted to check the middle item of three. Choices and points for each were:

It does not interest me.   1 point

I would like to wait and see how it works.   2 points

I would like to know more before trying it.   3 points

I would like to try it immediately.   4 points

These choices represent the steps in the adoption process--interest, evaluation, and trial. A total venturesomeness score was determined by totaling the points for the checked responses.

Perceived Sewing Competence

Judith Wheeler (Wheeler, 1972) developed a list of construction features which would be used in sewing a variety of styles of garments. These features were then grouped into similar categories or units of construction.

The respondent was asked to mark the skill level she had achieved for each feature:

5 Exceptional

4 Above average

3 Average

2 Below average

1 Have not tried to do this

These same points were then added together for a total perceived sewing competence score.

Age

Subjects were asked to check their age group which was then coded for the computer cards:

18-20 years code 5

21-29 4

30-39 3

40-49 2

50 or over 1

Education

Respondents were asked to check their highest level of formal education from the following groups, which were then coded for use on the computer cards:

0-3 years of school   code 1

4-7 years   2

Grammar school graduate   3

1-3 years of high school   4

High school graduate   5

1-4 years of college   6

Professional or graduate school 7

Social Status Characteristics

Warner's Index of Status Characteristics (Warner, 1960) was used as a measure of social status. Four characteristics were assessed and weighted as follows:

4 Occupation

3 Source of income

3 House type

2 Dwelling area   (Warner, 1960, p. 123)

The researcher evaluated the house type and dwelling area from direct observation of the home and neighborhood as she collected the questionnaire.

Occupational listings by Warner (p. 140-141) were used whenever possible to assign the status rating to occupation, which was supplied on the questionnaire by the subject. In many cases occupations were given which were not included in Warner's Revised Scale for Occupational Rating; for these the researcher attempted to assess its prestige and place it in a group with similar occupations. For example, painter was assigned the value of six since it seemed to be a semi-skilled occupation. Banker was assigned the value of two with assitant managers and accountants (see Appendix D). Married women, even though employed, received the status of their husband's occupation. Single, widowed, or divorced women were assigned the value of their own occupation.

Source of income was supplied by the subject on the questionnaire and the corresponding value was selected by the researcher from Warner's ratings. Retired persons were assigned the source of income from their working years. Army compensation to dependents, social security (if the source of income during working years was not given), and the G. I. Bill were assigned the value of a salary.

After the numerical values were assigned for each status characteristic, the total score was computed by multiplying the weighting by the numerical value and totaling the four scores.

If the occupation or one of the other characteristics was missing, the other three characteristics were assigned different ratings as recommended by Warner (p. 124). For example, a university student is not a listed occupation on Warner's scale, so source of income was weighted 5, house type 4, and dwelling area 3, in order to have a common basis for comparison of scores of all subjects. This method makes it possible to categorize all subjects into social classes by their score (p. 127).

Social Participation

Chapin's Scale of Social Participation (Chapin, 1947) was used. Subjects were asked to list the organizations to which they belonged. One point was given for each organization, two for attending meetings, three for making financial contributions, four for committee membership, and five for officership.

Sources of Information

Subjects were asked to list the magazines they read regularly. These magazines were then counted to give one score and weighted for a second score. Weightings were:

3 points   High-fashion magazines such as Vogue and Bazaar

2 points   General women's magazines such as McCalls and

Good Housekeeping

1 point   General and professional magazines such as Life,

Reader's Digest, National Geographic, and Education

Digest.

The number of magazines read plus the weighted score were added

together for the total score for magazine readership.

Sources were assigned values of one, two, or three, with higher

weightings for more professional sources. Assigned points were

summed. The weightings used are as follows:

1 point   Magazine and newspaper articles, books, television,

and radio, salespeople, and friends.

2 points   Manufacturer's booklets, pattern guides and

catalogs, and sewing classes.

3 points   Extension bulletins, and college and high school

teachers.

Continuation of Learning

Three classifications were given for the scoring of continuation

of learning:

2 points   Subject attended adult classes

1 point   Subject did not attend adult classes

0 points   Subject did not answer the question.

TABLE II. Location of the Test Measure on the Questionnaire.

Test Measure	Location on the Questionnaire
Innovativeness	Part I
Self Rating of Innovativeness	Part V, #18
Adoption Leadership	Part V, #12-17
Venturesomeness	Part III
Perceived Sewing Competence	Part IV
Age	Part V, #1
Education	Part V, #2
Social Status Characteristics	Part V, #3-7
Social Participation	Part II
Sources of Information	Part V, #8 and 9
Continuation of Learning	Part V, #10 and 11

Collection of Data

Selection of Site

The college town in which the researcher lives was selected as

the research site, in order to make it possible to collect the question-

naires personally.

The population was also restricted to the urban community and to

the same shopping areas and availability of new fabrics.

Description of Selected City

The city selected for this research site is a college town located

85 miles south of Portland in the Willamette Valley. The population

in December, 1970 was 35,153 (Important facts concerning ..., 1971,

p. 2), which includes university students who live in the city. The

average income per family in 1970 was $11,602, the second highest

in the state (Important facts concerning ..., 1971, p. 2).

Oregon State University has the largest payroll in the city,

employing about 5,000 persons (Directory of manufacturers ..., 1971,

p. 2). Research is emphasized by the university in association with

private industry in areas of oceanography, radiation, and water quality

(Corvallis at a ..., 1971). Another important research field in the

area is that of wood products. This city is called the research center

of Oregon (Important facts concerning ..., 1971, p. 4).

The selected city is not a large manufacturing center but has many small manufacturers and industries, such as those making plywood sheeting, hardboard paneling, and building materials. Agriculture is also an important industry.

The business district and shopping centers have many locally owned stores and several large chain stores. Retail sales in 1970 were $67,139,000 (Important facts concerning ..., 1971, p. 2).

Sources for information available in the selected city include nine television stations from Portland, Salem, Corvallis, and Eugene, and many radio stations. Published in the county are university, city, and county papers. The public library contains 87,190 volumes and has a circulation of 414,740 volumes (Important facts concerning ..., 1971, p. 3).

There were 14,500 individual telephone subscribers in the city in October, 1971 (Important facts concerning ..., 1971, p. 1).

Selection of Sample

A random selection of subjects was made from approximately 17,700 names listed in the 1971-72 telephone directory. Thus, the population for this study was women listed in the directory (either under her name or her husband's) who did some home sewing.

Collection Procedure

In order to select the sample, the computer printed a list of random numbers which matched listings in the telephone directory of the selected city. The list contained 300 numbers located in the directory by page, column, and line number.

Each prospective subject was telephoned. The caller asked for Miss or Mrs. _____, explained that she was a graduate student in Clothing and Textiles, and then asked if the woman did any home sewing for herself or her family. (See Appendix C for the complete telephone conversation.)

If the answer was "no", it was explained that the study was limited to women who sew, and the woman was thanked for her time.

If the woman's answer was "yes", she was told that the caller was interested in learning more about women's use of fabrics. It was further explained that a questionnaire would be mailed to her and then collected in person by the caller in seven days. Each subject was asked if morning, afternoon, or evening was the most convenient time for the questionnaire to be picked up.

If the woman said she did a little sewing or did not sew a lot, she was asked if she had been in a fabric store in the past six months. If she answered "yes", then she was told a questionnaire would be mailed to her, and she became part of the sample.

An attempt was made to word the telephone conversation to eliminate or reduce refusals. The questionnaires were collected in person rather than returned by mail to increase the number of returns and to allow the researcher to evaluate the subject's home and dwelling area according to Warner's Index of Status Characteristics. The visit in person also gave the subjects the opportunity to ask the researcher questions to clarify any part of the questionnaire which they did not understand.

Seven days after the telephone contact, the investigator stopped at the woman's home to collect the questionnaire. Many follow-up calls were made if the woman was not home and another time was arranged for the collection of the questionnaire.

Each questionnaire was coded by the computer-selected random number so that it could be identified. The questionnaire was mimeographed on 8 1/2 by 14" paper, folded in half crosswise and typed lengthwise on each half to form a booklet. Both sides of the page were printed to make the questionnaire appear shorter (Levine and Gordon, 1958). The questionnaire and a cover letter on the School of Home Economics letterhead explaining the nature of the research, and signed by the researcher and her major professor, were mailed in business size envelopes with the same letterhead.

Seventy-seven questionnaires were mailed from August to October, 1971 and 77 questionnaires were collected over the same three month period, a 100% return. Ten questionnaires were incomplete and were excluded from the study: thus, 67 completed questionnaires were analyzed (see Tables III and IV). Because the population was randomly sampled and a high percentage of returns was achieved, it is assumed that this sample is representative of the population. Parten (1950) states that a greater percentage of returns is a more accurate representation of the population.

TABLE III. Number of Persons Telephoned.

Number called and included in the study		77
Women who sew	77	
Number called and not included in the study		116
Women who do not sew	62	
Residents who could not be reached with at least three attempts	28	
Unmarried men	22	
Women who sew but declined to have a questionnaire mailed to them	4	
Total		193

TABLE IV. Number of Questionnaires.

Number of questionnaires mailed		77
Number of questionnaires collected		77
Questionnaires completed and included in the study	67	
Questionnaires incomplete and excluded from the study	10	

Statistical Analyses

Correlation coefficient and simple linear regression (with the t test and confidence interval) were used for statistical analysis of the relationship between innovativeness and: self rating of innovativeness, adoption leadership, venturesomeness, perceived sewing competence, social status, social participation, and sources of information.

Analysis of variance was used to test differences among mean innovativeness scores for age, education, and continuation of learning categories.

A significance level of .05 was selected. Frequency tables and the means of scores by adopter categories were also used for comparisons.

FINDINGS

Description of Sample

The sample consisted of 77 adult women who sew, randomly selected from the 1971-72 telephone directory of a small unversity town in Western Oregon. Specific factors studied are discussed below and furnish further description of the sample.

Statistical Analyses

The hypotheses for self rating of innovativeness, adoption leadership, venturesomeness, perceived sewing competence, social status characteristics, social participation, and sources of information were tested by computing the correlation coefficient for the relationship to innovativeness. An absolute value of the correlation coefficient larger than .2360 and an absolute value of t larger than 1.667 was significant at the .05 level of confidence, for n = 67.

Innovativeness

Calculations of the Preliminary Scale of Innovativeness utilizing Roger's standard score from adoption dates were made and were correlated with self rating of innovativeness, adoption leadership, venturesomeness, perceived sewing competence, social status characteristics, social participation, sources of information, and the Scale of Innovativeness. Correlation coefficients (see Table V) were so low that it

TABLE V. Correlation of Preliminary Scale of Innovativeness with
Other Variables

Variable	Correlation Coefficient
Self Rating of Innovativeness	+ .3082 *
Adoption Leadership	+ .2120
Venturesomeness	+ .0092
Perceived Sewing Competence	+ .2661 *
Age	
Education	
Social Status Characteristics	+ .0414
Social Participation	+ .1802
Sources of Information	+ .1695
Continuation of Learning	
Innovativeness	+ .0803

* Significant at the .05 level ($|\, r\, | = .2360$).

seemed correct to assume that a more accurate measure of innovativeness for this study was necessary. Therefore, the Scale of Innovativeness was used to test the relationship between innovativeness and each of the other variables (see Table VI).

Innovativeness scores ranged from 39-140 points. The highest possible score on this test is 170. The mean was 95. When plotted the distribution of scores approximated a normal curve (see Table VII).

Individuals were assigned to adopter categories by the innovativeness score and by the predetermined percentage (Rogers, 1958, p. 346) of subjects for each adopter category (see Table VIII).

TABLE VI. Relationship of Innovativeness to Other Variables.

Variable	r	Regression Equation		t test for the slope	C. I. for the slope	Analysis of Variance	
		a	+ bx			F	$F_{0.95}$
Self Rating of Innovativeness	+. 3694*	56. 8801	+ 12. 8280	3. 2543*	6. 2567		
Adoption Leadership	+. 2623*	71. 8123	+ 2. 7668	2. 2251*	0. 6947		
Venturesomeness	+. 3431*	48. 8641	+ 1. 2399	2. 9906*	0. 5481		
Perceived Sewing Competence	+. 4856*	49. 2644	+ 0. 3151	4. 5465*	0. 1996		
Age						. 9236	2. 76
Education						3. 3016	3. 15
Social Status Characteristics	-. 2448*	121. 6178	- 0. 6241	-2. 0663*	-0. 1207		
Social Participation	+. 0761	93. 5086	+ 0. 1045	0. 6246	-0. 1739		
Sources of Information	+. 5852*	63. 0571	+ 2. 5192	5. 9073*	1. 8074		
Continuation of Learning						. 9855	4. 00

$|r| = .2360$ $|t| = 1.667$

* Significant at the .05 level.

TABLE VII. Frequency Distribution of Innovativeness Scores
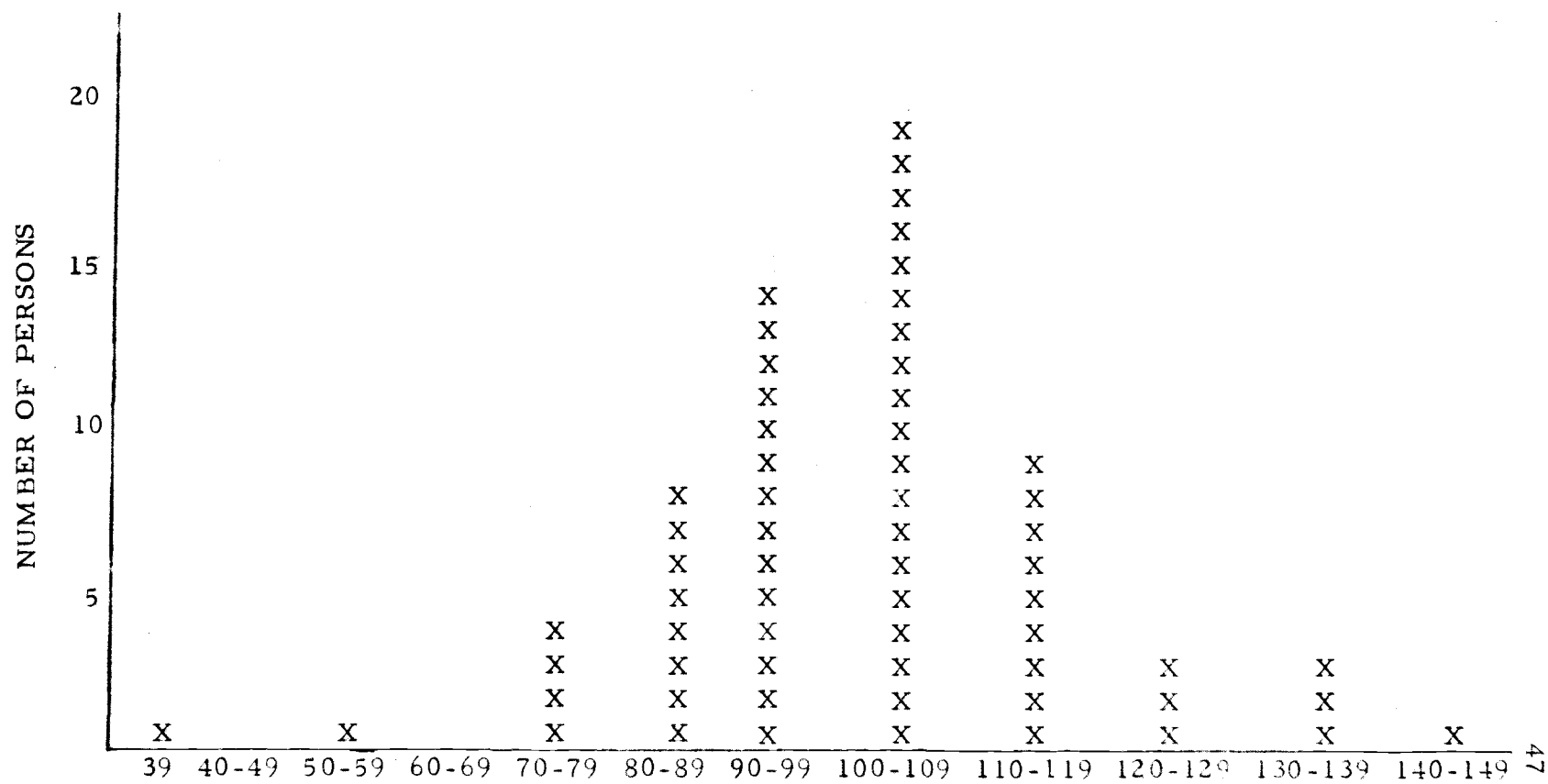
TABLE VIII. Innovativeness Scores.

Adopter Category	Innovativeness Scores	Predetermined % of sample	Number of subjects
Innovator	139 - 140	2. 5%	1
Early Adopters	113 - 138	13. 5%	10
Early Majority	100 - 113	34 %	23
Late Majority	77 - 100	34 %	23
Laggards	76 - 39	16 %	10
TOTAL		100 %	67

Self Rating of Innovativeness

The possible range of scores for self rating of innovativeness was 1-5 points, and the range of the scores for the sample was also 1-5 points. The mean was 3. 03 (see Table IX).

TABLE IX. Frequency Table for Adopter Categories and Self Rating of Innovativeness.

Self Rating of Innovativeness Score	Inno- vator	Early Adopters	Early Major- ity	Late Major- ity	Laggards	Totals
Far ahead of average 5 points			1			1
Ahead of the average 4 points	1	4	6	3	1	15
Average 3 points		6	12	13	6	37
Behind the average 2 points			4	7	2	13
Far behind average 1 point					1	1
	1	10	23	23	10	67

Innovativeness and self rating of innovativeness had a correlation coefficient of +.3694, p < .05.

The regression equation (56.8801 + 12.8280) estimates the values for the y intercept and the slope of the line for the relationship between innovativeness and self rating of innovativeness. The t test, testing the significance of the slope of the regression function, had a value of 3.2543 and was significant at the .05 level with a one-tailed test. The slope was therefore significantly different from zero with a lower confidence interval of 6.2567.

The regression line can be used to predict the expected innovativeness score from a given self rating of innovativeness score or vice versa.

Therefore, the test statistics indicate that a higher innovativeness score is positively related to a higher self rating of innovativeness score. Thus, earlier adopters had higher self rating of innovativeness scores. The mean self rating of innovativeness score for the innovator and earlier adopters was 3.45, for the early majority 3.17, for the late majority 2.83, and for laggards 2.70. (See Table X)

TABLE X. Adopter Categories and Mean Self Rating of Innovativeness Scores.
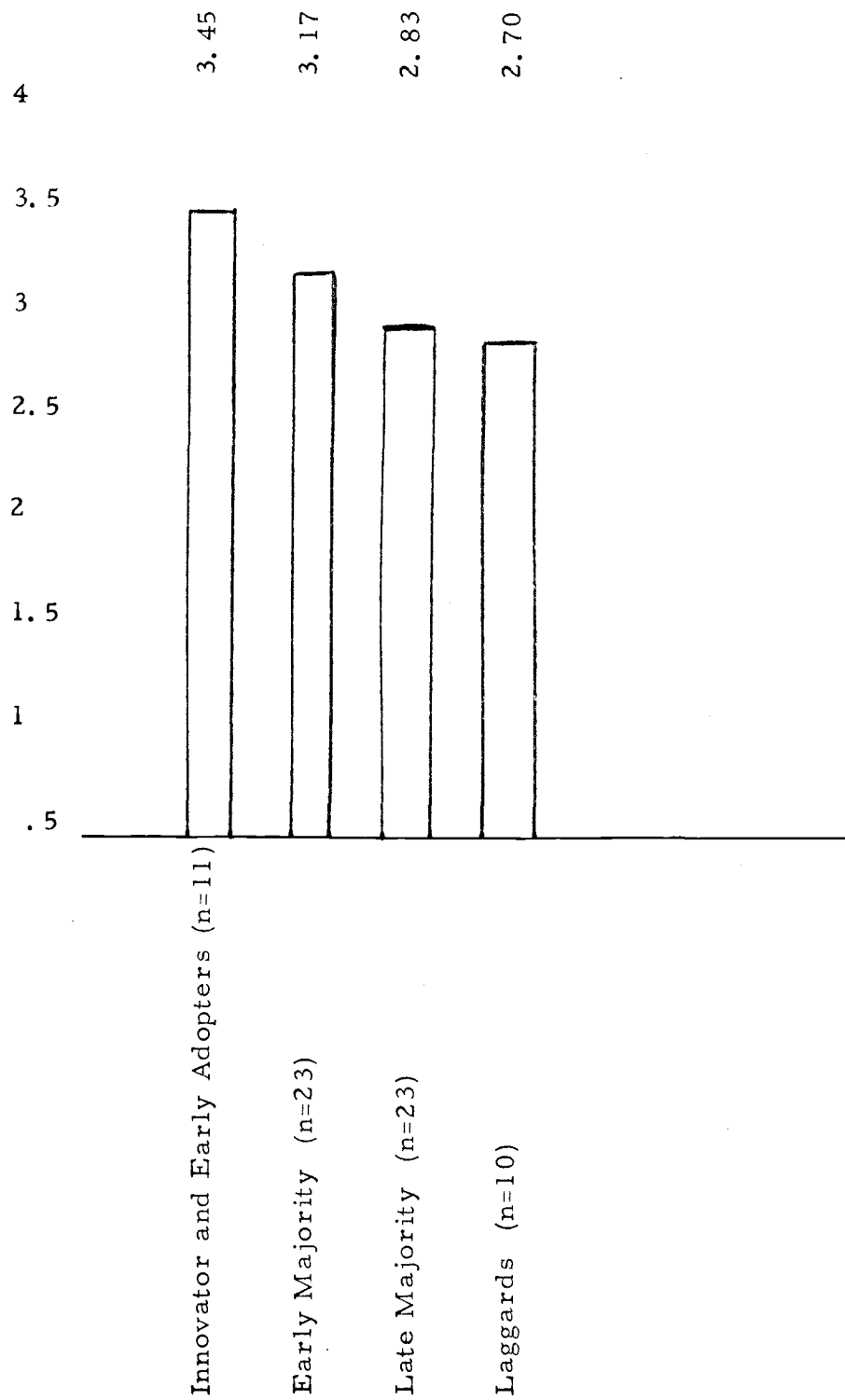
Adoption Leadership

The range on the Adoption Leadership Scale was 4-12 points (see

Table XI) with a possible range of 0-12. The mean was 8.57.

TABLE XI. Frequency Table for Adopter Categories and Adoption
Leadership.

Adoption Leadership Scores	Inno- vator	Early Adopters	Early Major- ity	Late Major- ity	Laggards	Totals
4-6		2	3	6	5	16
7-9			10	11	2	23
10-12	1	8	10	6	3	28
	1	10	23	23	10	67

Innovativeness and adoption leadership had a correlation coefficient

of +.2623, p <.05. The regression equation (71.8123 + 2.7668),

estimates the values for the y intercept and the slope of the line for

the relationship between innovativeness and adoption leadership. The

t test, testing the significance of the slope of the regression function,

had a value of 2.2251 and was significant at the .05 level with a one-

tailed test. The slope was therefore significantly different from zero

with a lower confidence interval of .6947. The regression line can be

used to predict the expected innovativeness score from a given adoption

leadership score or vice versa.

These results indicate that a higher innovativeness score is

positively related to a higher adoption leadership score. Earlier

adopters scored higher on the Adoption Leadership Scale. The

innovator and early adopters had a mean adoption leadership score of

9. 91; the early majority had a mean of 9. 04; the late majority had a

mean of 8. 0; and the laggards had a mean of 7. 3 points (see Table XIII).

Venturesomeness

The range of venturesomeness scores from the sample was

24-54 with a possible range of 15-60 points (see Table XII). The mean

score was 37. 87.

TABLE XII. Frequency Table for Adopter Categories and Venture-
someness.

Venture-someness Scores	Inno-vator	Early Adopters	Early Major-ity	Late Major-ity	Laggards	Totals
25-32			5	6	3	14
33-40		5	11	8	5	29
41-48	1	3	4	9	2	19
49-54		2	3			5
	1	10	23	23	10	67

Innovativeness and venturesomeness had a correlation coefficient

of +. 3431, $p < .05$.

The regression line for the relationship of these two variables

is 48. 8641 + 1. 2399. The t test, testing the significance of the slope

of the regression line, had a value of 2. 9906 and was significant at the

. 05 level with a one-tailed test. The slope was therefore significantly

different from zero with a lower confidence interval of . 5481.

TABLE XIII. Adopter Categories and Mean Adoption Leadership Scores.
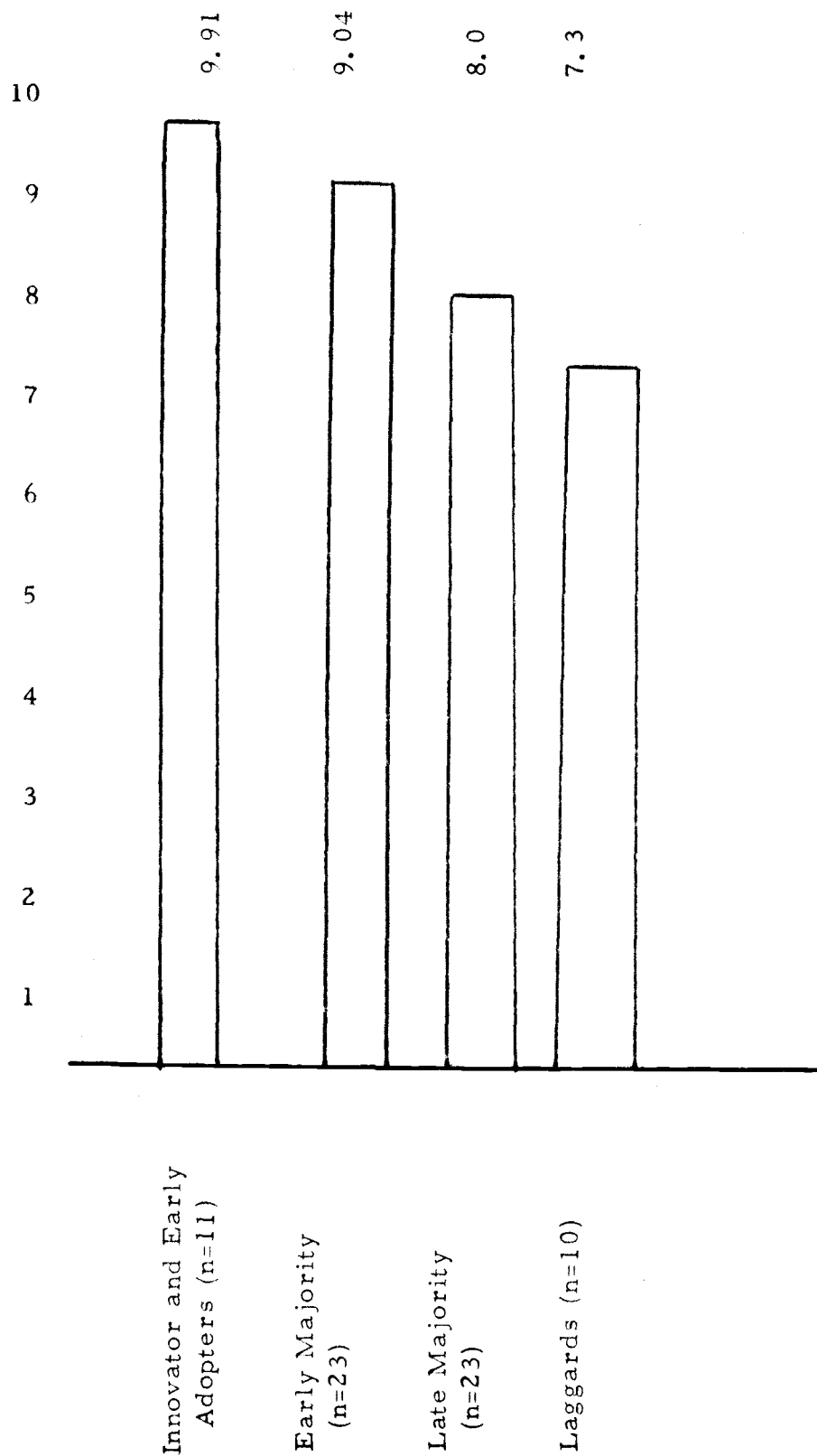
The regression line can be used to predict the expected innovativeness score from a given venturesomeness score or vice versa. Therefore, the test statistics indicate that a higher innovativeness score is positively related to a higher venturesomeness score. Thus, earlier adopters scored higher on the scale than later adopters. The mean venturesomeness scores for the innovator and early adopters was 41.64, 38.0 for early majority, 37.48 for late majority, and 34.3 for laggards (see Table XV).

Perceived Sewing Competence

There was a range of 80-246 points on the Perceived Sewing Competence Scale, with a high of 275 points possible (see Table XIV). The mean score was 145.67.

TABLE XIV. Frequency Table for Adopter Categories and Perceived Sewing Competence

Perceived Sewing Competence Scores	Innovator	Early Adopters	Early Majority	Late Majority	Laggards	Totals
80-100				2	3	5
101-120			2	8	2	12
121-140			7	4		11
141-160		3	7	6	3	19
161-180	1	1	3	1		6
181-200		2	2	1	2	7
201-220		1	2	1		4
221-240		1				1
241-260		2				2
	1	10	23	23	10	67

TABLE XV. Adopter Categories and Mean Venturesomeness Scores

41.64

38.0

37.48

34.3

42
41
40
39
38
37
36
35
34
33
32
31
30
29

Innovator and Early Adopters (n=11)

Early Majority (n=23)

Late Majority (n=23)

Laggards (n=10)
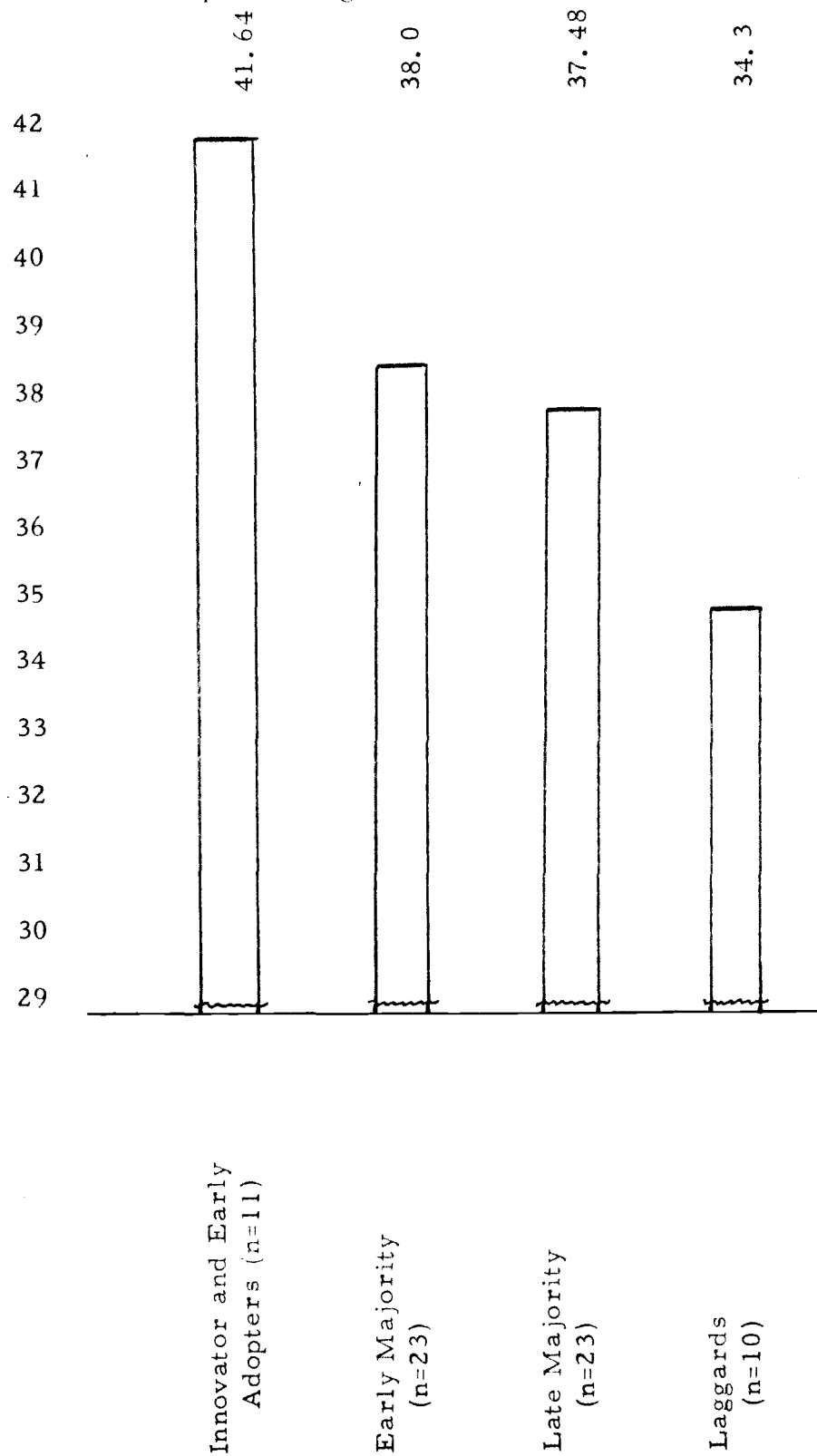
Innovativeness and perceived sewing competence had a correlation coefficient of +.4856, p < .05.

The regression equation (49.2644 + 0.3151) estimates the values for the y intercept and the slope of the line for the relationship between innovativeness and perceived sewing competence. The t test, testing the significance of the slope of the regression line, had a value of 4.5465 and was significant at the .05 level with a one-tailed test. The slope was therefore significantly different from zero with a lower confidence interval of .1996.

The regression line can be used to predict the expected innovativeness score from a given perceived sewing competence score or vice versa.

Therefore, the test statistics indicate that a higher innovativeness score is positively related to a higher perceived sewing competence score. Thus, earlier adopters scored higher on the scale. The mean perceived sewing competence score for the innovator and early adopters was 189.55; for the early majority it was 152; for the late majority it was 132; and for the laggards it was 132.6 (see Table XVI).

TABLE XVI. Adopter Categories and Mean Perceived Sewing
Competence Scores.

189.55 152 132 132.6

190

180

170

160

150

140

130

120

Innovator and Early Adopters (n=11)

Early Majority (n=23)

Late Majority (n=23)

Laggards (n=10)
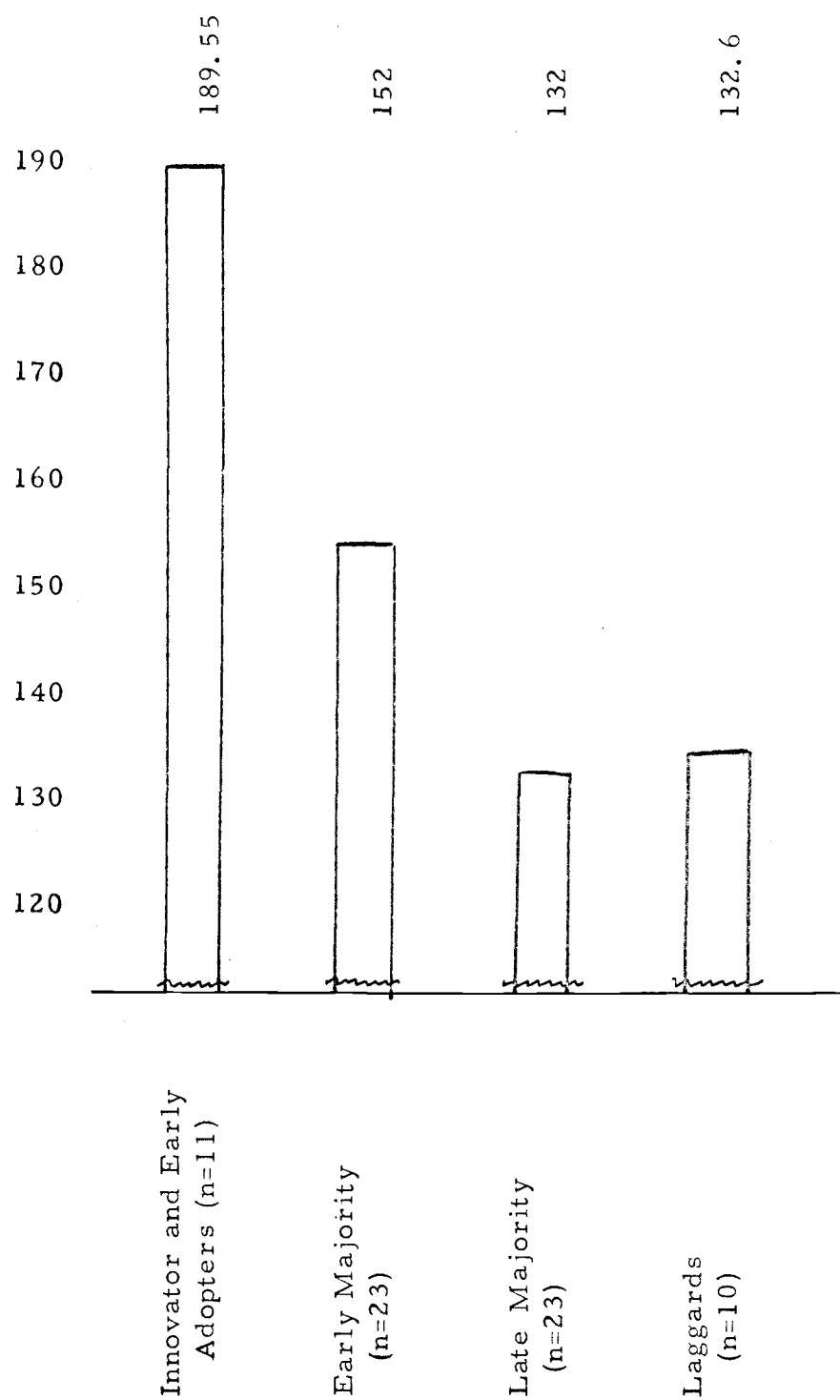
Age

Mean innovativeness scores for each age category were compared by analysis of variance to determine if the means for each category were significantly different. The mean innovativeness scores for women over 50 years was 91.9, for women 40-49 years it was 96.8, for women 30-39 years it was 99.9, and for women 21-29 years it was 102.8 (see Tables XVII and XVIII). The calculated F value for the analysis of variance test was .9236 which is less than $F_{0.95} = 2.76$. Therefore, there is no significant difference among the means. There is more variation of innovativeness scores within each age category than there is among the categories. Even so, there appears to be a trend for younger individuals to score higher on the innovativeness scale.

TABLE XVII. Frequency Table for Adopter Categories and Age

Age Groups	Inno-vator	Early Adopters	Early Major-ity	Late Major-ity	Laggards	Totals
Over 50		2	3	5	4	14
40-49		1	7	5	3	16
30-39		4	5	4	2	15
21-29	1	3	8	9	1	22
	1	10	23	23	10	67

TABLE XVIII.   Mean Innovativeness Scores by Age Categories.

91.9   96.8   99.9   102.8

105

100

95

90

Over 50 years (n=14)

40 - 49 years (n=16)

30 - 39 years (n=15)

21 - 29 years (n=22)
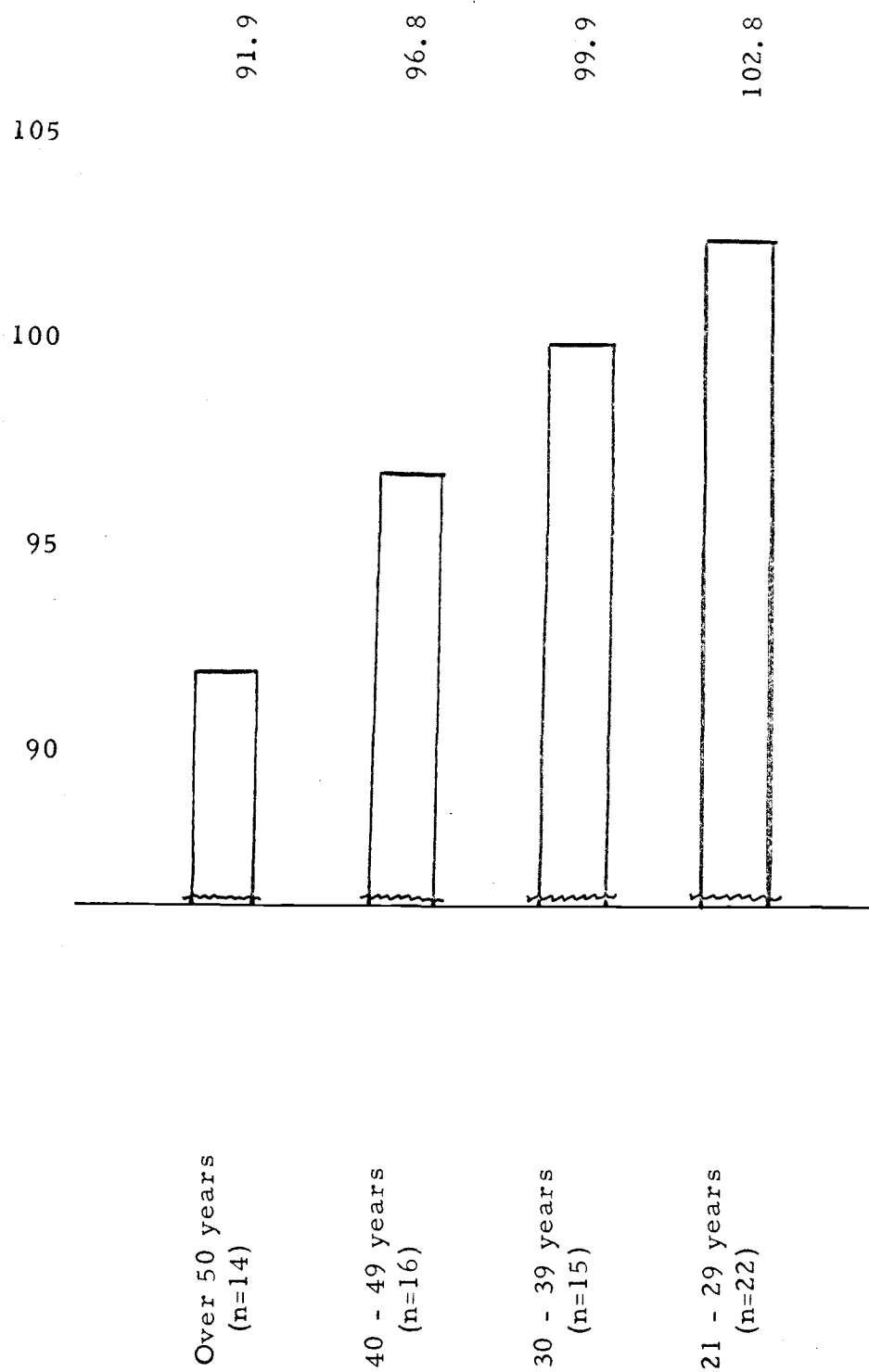
<u>Education</u>

Mean innovativeness scores for women with a high school educa-tion or less was 88.2, for women with 1-4 years of college it was 103.2, and for women who had attended professional or graduate school it was 97.19 (see Tables XIX and XX).

The analysis of variance calculated F value of 3.3016 is greater than $F_{0.95}$ = 3.15, therefore the means for educational categories are significantly different. However, the directional relationship pre-dicted in the hypothesis that innovativeness is positively related to educational level did not obtain. Therefore, even though there is a difference in means it was not the directional increase in means that was predicted and is not significant.

TABLE XIX. Frequency Table for Adopter Categories and Education.

Educational Groups	Inno-vator	Early Adopters	Early Major-ity	Late Major-ity	Laggards	Totals
Grammar School Graduate			1		1	2
1-3 years of high school						
High school graduate		1	3	5	4	13
College (1-4 years)	1	6	13	14	2	36
Professional or graduate school		3	6	4	3	16
	1	10	23	23	10	67

TABLE XX. Mean Innovativeness Scores by Educational Categories.

88.2

103.2

97.19

105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25

High School
education or
less (n=15)

1-4 years of
college (n=36)

Professional
or graduate
school (n=16)
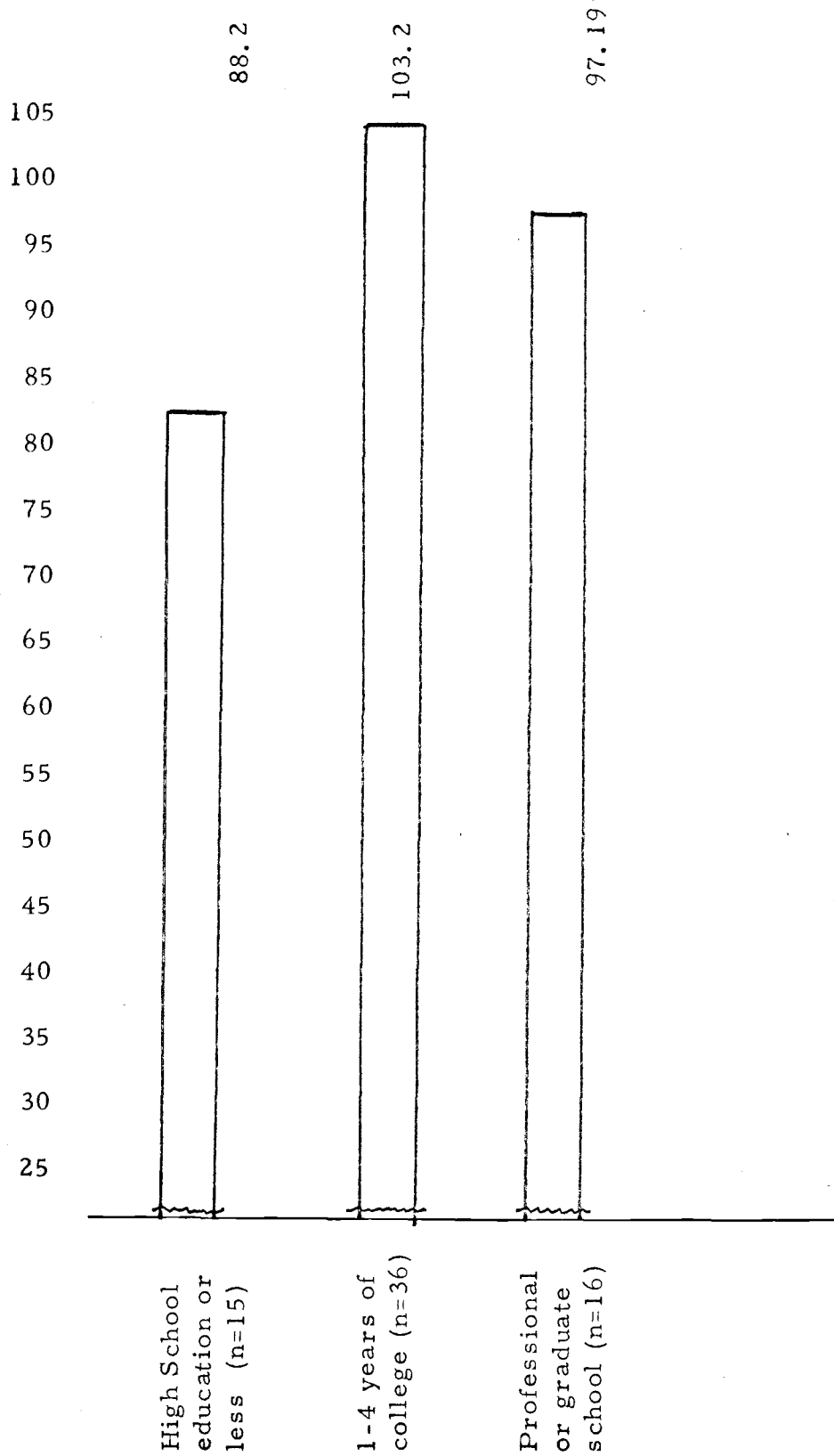
Social Status Characteristics

The range of scores for the sample on Warner's Index of Status Characteristics was 25-69 (see Table XXI), with a possible range of 12-84. A lower score denotes higher social class. The mean score was 41.3.

TABLE XXI. Frequency Table for Adopter Categories and Social Status Characteristics

Status Characteristic Scores	Innovator	Early Adopters	Early Majority	Late Majority	Laggards	Total
Upper Middle Class 23-37 points		3	7	12	3	25
Lower Middle Class 38-51 points		6	14	9	4	33
Upper Lower Class 52-66 points	1	1	2	2	2	8
Lower Lower Class 67-84 points					1	1
	1	10	23	23	10	67

Innovativeness and social status characteristics had a correlation coefficient of -0.2448 (a low score denotes high social class, which accounts for the negative correlation), $p < .05$.

The regression equation (121.6178 - 0.6241) estimates the values for the y intercept and the slope of the line for the relationship between innovativeness and social status characteristics. The t test, testing the

significance of the slope of the regression line, had a value of -2.0663 and was significant at the .05 level of confidence with a one-tailed test. The slope was therefore significantly different from zero with an upper confidence interval of -.1207.

The regression line can be used to predict the expected innovativeness score from a given social status characteristics score and vice versa.

The results of the statistical analysis indicate that a higher innovativeness score is negatively related to a lower social status characteristics score. Therefore, as innovativeness increases social status increases. The mean social status characteristics score for the innovator and early adopters was 41.7; for the early majority it was 40.65; for the late majority it was 40.0; and for the laggards it was 45.8. Although there is little difference in mean social status characteristics scores for the innovator, early adopters, early majority, and late majority, the laggards had a higher mean score denoting lower social status (see Table XXII).

Social Participation

The range of social participation scores was 0-76 (see Table XXIII). The mean score for the sample was 19.94. Eight subjects did not belong to any organizations.

TABLE XXII.   Adopter Categories and Mean Social Status
Characteristics Scores.

41.7   40.65   40.0   45.8

50

40

30

20

10

0

Innovator and Early Adopters
(n=11)

Early Majority
(n=23)

Late Majority
(n=23)
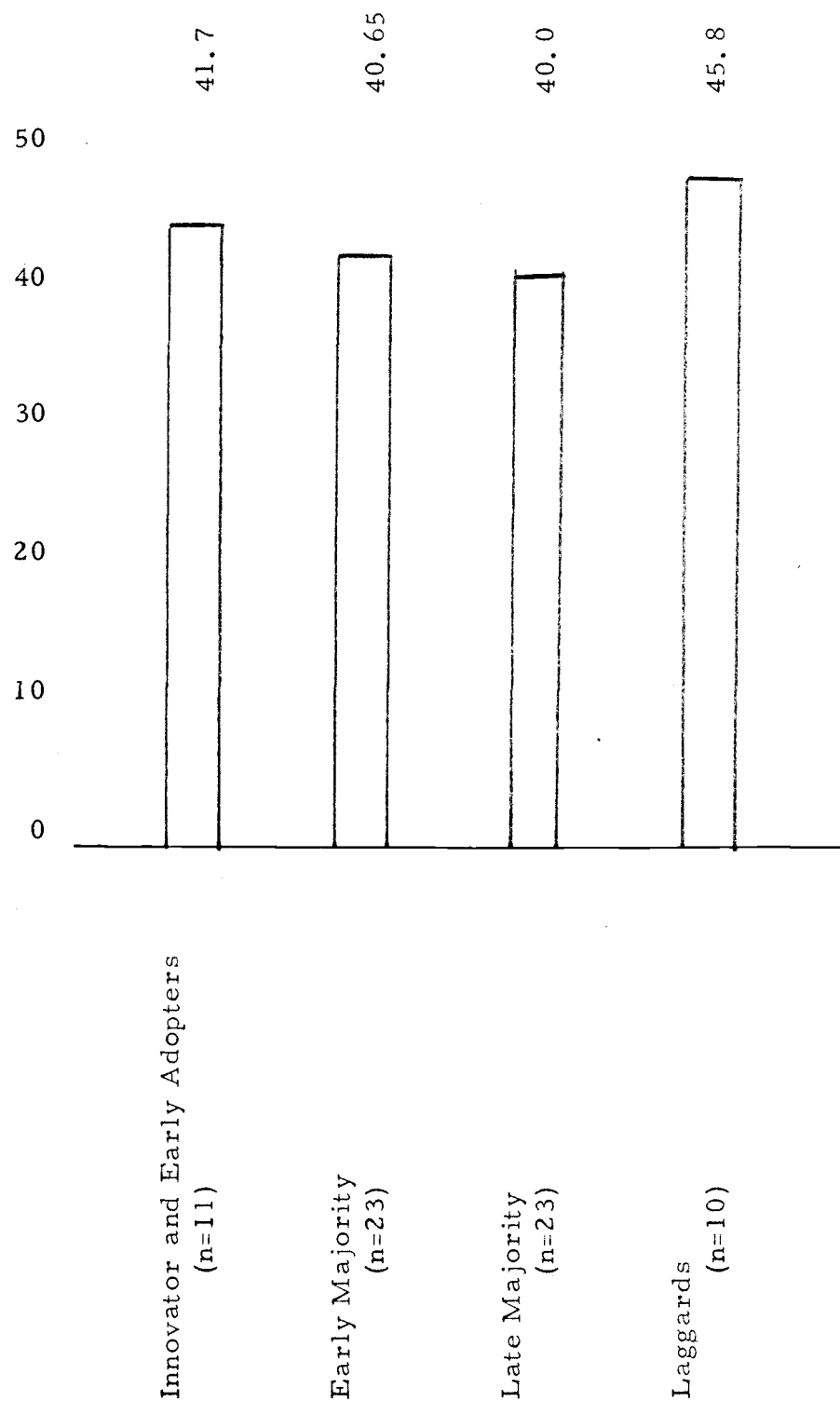
Laggards
(n=10)

TABLE XXIII. Frequency Table for Adopter Categories and Social
Participation

Social Participation Score	Innovator	Early Adopters	Early Majority	Late Majority	Laggards	Total
0-15	1	6	9	11	5	32
16-30		3	7	7	3	20
31-45			4	1	2	7
46-60			3	2		5
61-76		1		2		3
	1	10	23	23	10	67

Scores for innovativeness and social participation had a correlation coefficient of +. 0761, which is not significant (p > . 05). The t value was -. 1739, which is not significant. Therefore there is a probability that the slope of the line is equal to zero. Thus, no relationship exists between innovativeness and social participation.

The mean social participation score for the innovator and early adopters was 16. 18 points, 21. 26 for early majority, 22. 35 for late majority, and 15. 5 for laggards (see Table XXIV).

Sources of Information

The range of scores for sources of information was 2-29 points (see Table XXV). The mean score was 13. 15.

66

TABLE XXIV. Adopter Categories and Mean Social Participation Scores.

16.18   21.26   22.35   15.5

25

20

15

10

5

0

Innovator and Early Adopters (n=11)

Early Majority (n=23)

Late Majority (n=23)
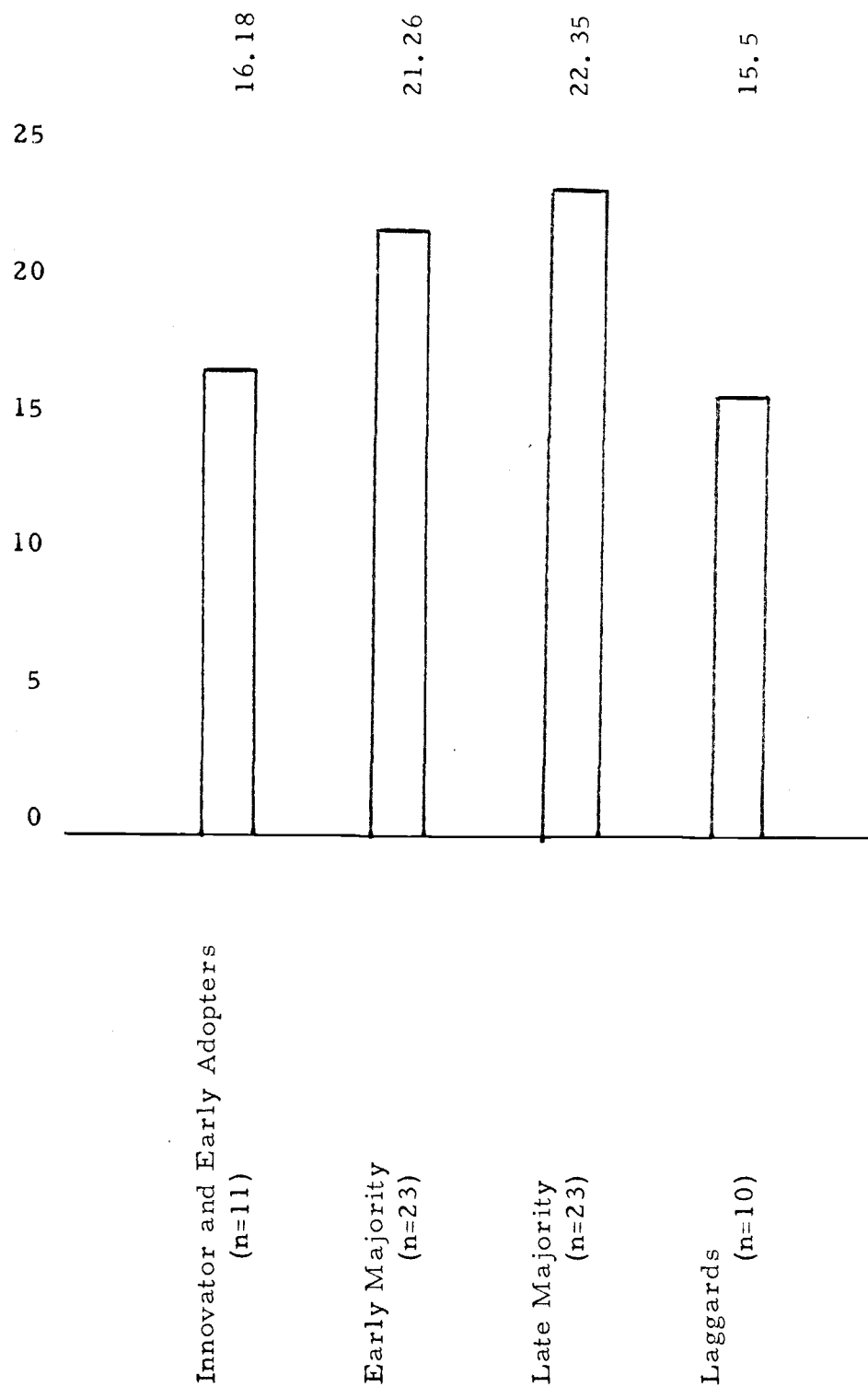
Laggards (n=10)

TABLE XXV. Frequency Table for Adopter Categories and Sources
of Information

Sources of Information Score	Inno-vator	Early Adopters	Early Major-ity	Late Major-ity	Laggards	Totals
2-8		1	1	7	6	15
9-16		4	13	13	3	33
17-24		4	9	3	1	17
25-29	1	1				2
	1	10	23	23	10	67

Scores for innovativeness and sources of information had a

correlation coefficient of +.5852, p < .05.

The regression equation, 63.0571 + 2.5192, estimates the values

for the y intercept and the slope of the line for the relationship between

innovativeness and sources of information. The t test, testing the

significance of the slope of the line, had a value of 5.9073 and was

significant at the .05 level with a one-tailed test. Thus, the slope was

significantly different from zero with a lower confidence interval of

1.8074.

The regression line can be used to predict the expected innovative-

ness score from a given source of information score or vice versa.

Therefore, the test statistics indicate that a higher innovative-

ness score is positively related to a higher score for sources of

information. Thus, earlier adopters had higher sources of information

scores. The mean sources of information score for the innovator and

early adopters was 17, 15.22 for early majority, 11.26 for late major-

ity, and 8.5 for laggards (see Table XXVI).

TABLE XXVI. Adopter Categories and Mean Sources of Information
Scores.

20

15

10

5

0

17

15.22

11.26

8.5

Innovator and Early Adopters
(n=11)

Early Majority
(n=23)

Late Majority
(n=23)

Laggards
(n=10)
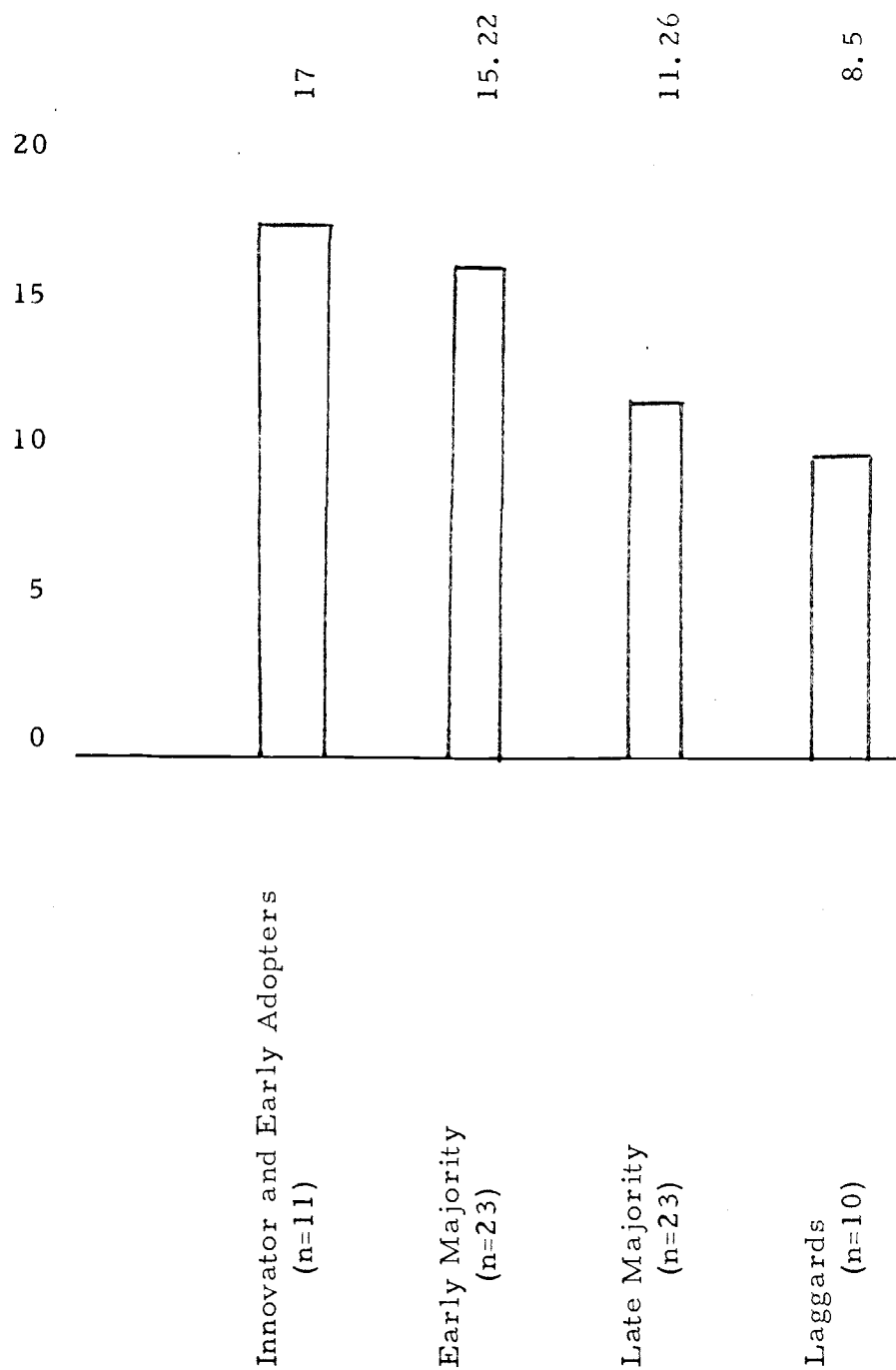
The range of scores for magazine readership was 2-25 points (see Table XXVII). The mean score for the sample was 10.86. Only one subject read a high-fashion magazine (Vogue).

TABLE XXVII. Frequency Table for Adopter Categories and Magazine Readership

Magazine Readership Score	Innovator	Early Adopters	Early Majority	Late Majority	Laggards	Total
0-7	1	2	7	5	3	18
7-14		3	12	11	5	31
15-21		3	4	7	2	16
22-28		2				2
	1	10	23	23	10	67

Scores for innovativeness and magazine readership had a correlation coefficient of +.3604, $p < .05$.

The regression equation, 77.7927 + 1.6831, estimates the values for the y intercept and the slope of the line for the relationship between innovativeness and magazine readership. The t test, testing the significance of the slope of the regression line, had a value of 3.1630 and was significant at the .05 level with a one-tailed test. The slope was therefore significantly different from zero with a lower confidence interval of .7963.

The regression line can be used to predict the expected innovativeness score from a given magazine readership score or vice versa.

Thus, the test statistics indicate that innovativeness is positively related to magazine readership. As innovativeness increases magazine readership increases.

The mean magazine readership score for the innovator and early adopters was 13.18, for the early majority 9.78, for the late majority 11.61, and for the laggards 9.1 (see Table XXVIII).

Continuation of Learning

Mean innovativeness scores for enrollment in adult education categories were compared by analysis of variance to determine if the means for each category were significantly different. The mean innovativeness score for those women who enrolled in adult classes was 100.14 and 95.09 for women who had not enrolled in adult classes (see Tables XXIX and XXX). The calculated F value of .9855 was less than $F_{0.95} = 4.00$; therefore, there is not a significant difference between them. There is more variation of innovativeness scores within each category than there is between the categories. There appeared to be a trend for higher innovativeness scores for those enrolled in adult classes even though it was not significant.

TABLE XXVIII. Adopter Categories and Mean Magazine Readership
Scores.
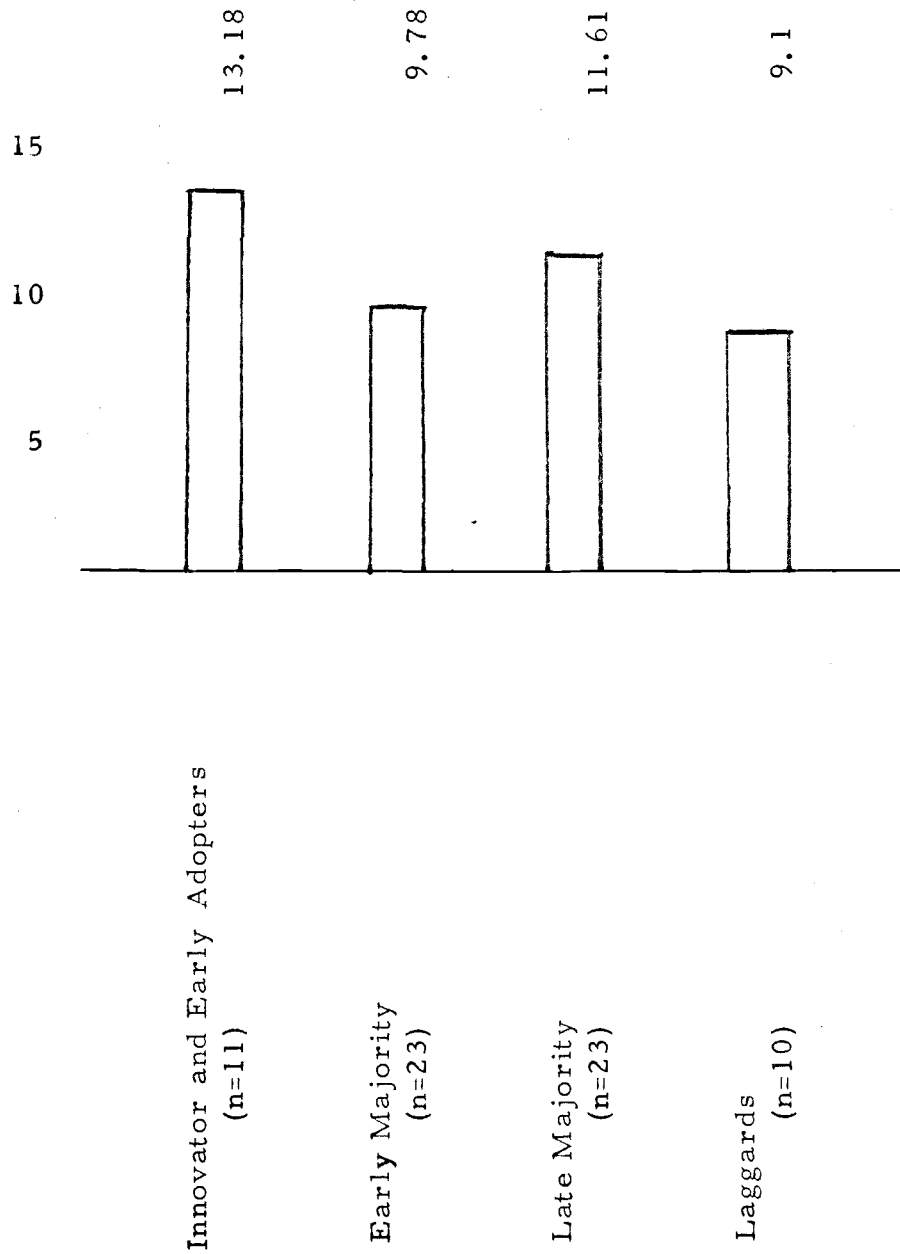
TABLE XXIX. Frequency Table for Adopter Categories and Continuation of Learning

Continuation of Learning	Innovator	Early Adopters	Early Majority	Late Majority	Laggards	Total
Have not enrolled in adult classes		3	7	9	4	23
Have enrolled in adult classes	1	7	16	14	6	44
	1	10	23	23	10	67

TABLE XXX. Mean Innovativeness Scores by Enrollment in Adult Education.
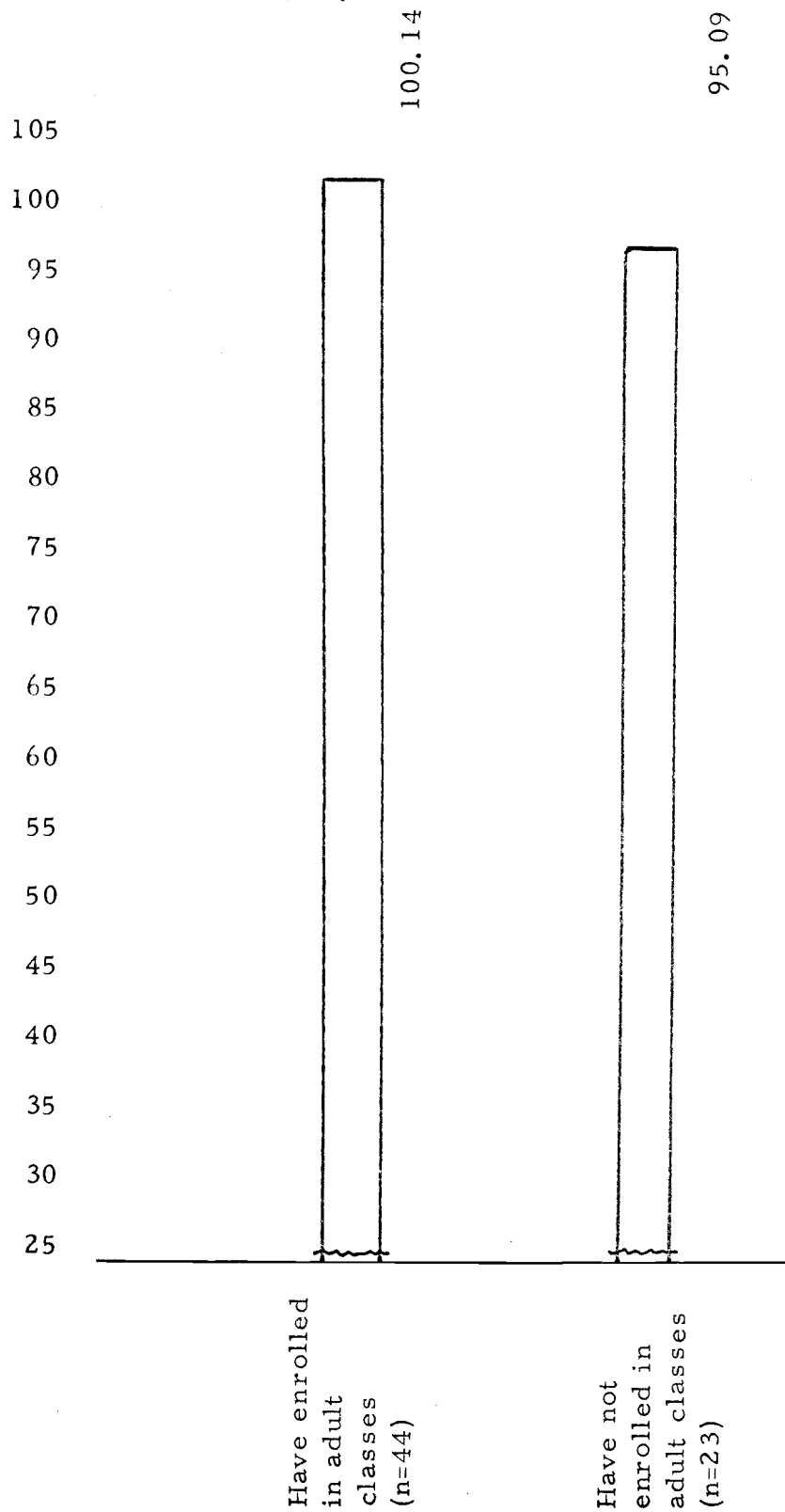
CONCLUSIONS AND DISCUSSION

The following conclusions have been drawn about the null

hypotheses posed:

Hypothesis I. Innovativeness is not positively related to self

rating of innovativeness.

A positive correlation between innovativeness and self rating of

innovativeness was significant ($r = +.3694$, $|r| = .2360$, $p < .05$).

Therefore, the null hypothesis was rejected.

More innovative women knew that they used new styles and fabrics

earlier than later adopters. Thus, their self images were accurate as

they gave their self rating of innovativeness.

Hypothesis II. Innovativeness is not positively related to

adoption leadership.

A positive correlation between innovativeness and adoption

leadership was significant ($r = +.2623$, $|r| = .2360$, $p < .05$).

Therefore, the null hypothesis was rejected.

More innovative women discussed clothing and were asked for

advice and information by other individuals. They were adoption

leaders because of their influence on others as they discuss and

advise, and as they are watched and imitated by later adopters.

Hypothesis III. Innovativeness is not positively related to venture-
someness.

A positive correlation between innovativeness and venturesome-
ness was significant (r = +. 3431, $\left| r \right|$ = .2360, p <. 05). Therefore,
the null hypothesis was rejected.

More innovative women were more venturesome and were interested
in trying new textile items. They were willing to take risks and
experiment with new products and methods. Many actively seek some-
thing new to try.

Hypothesis IV. Innovativeness is not positively related to per-
ceived sewing competence.

A positive correlation between innovativeness and perceived sew-
ing competence was significant (r = +. 4856, $\left| r \right|$ = .2360, p <. 05).
Therefore, the null hypothesis was rejected.

More innovative women felt their sewing ability was more skilled
than did later adopters. To have success in construction they need
knowledge of fabrics and the techniques required to sew on them.
Higher perceived sewing competence seemed to indicate that the
individual had the confidence to work with the many new styles and
textiles that they had adopted.

Hypothesis V.   Innovativeness is not negatively related to age.

There was no significant difference among mean innovativeness scores for the age categories ($F = +.9236$, $|F| = 2.76$, $p > .05$). Therefore, the null hypothesis was not rejected.

Since the relationship between age and innovativeness was not significant, younger individuals were not more innovative. Other characteristics may be more important in contributing to innovativeness than age.

Hypothesis VI.   Innovativeness is not positively related to education.

Even though there was a significant difference among innovativeness scores for the educational categories, the mean scores did not increase as educational level increased ($F = +3.3016$, $|F| = 3.15$, $p < .05$). Therefore, the null hypothesis was not rejected.

Innovativeness did not increase with educational level. College educated women were more innovative than women who had advanced through graduate or professional school. Possibly women with the highest education are more specialized in their field, and are less interested or aware of clothing and textiles.

Hypothesis VII. Innovativeness is not positively related to social status characteristics.

A negative correlation between innovativeness and social characteristics was significant ($r = -.2448$, $|r| = .2360$, $p < .05$). The negative correlation occurred because a lower score for social status characteristics denotes higher social class. Therefore, the null hypothesis was rejected.

More innovative women had higher social status characteristics. The economic factor is very important because they can afford to buy new products and try new practices. They also can afford to subscribe to magazines, buy books, and send for other sources of information. They can afford to spend more on clothes, and change styles with the seasons.

Hypothesis VIII. Innovativeness is not positively related to social participation.

Correlation between innovativeness and social participation was not significant ($r = +.0761$, $|r| = .2360$, $p > .05$). No relationship existed between innovativeness and social participation. Therefore, the null hypothesis was not rejected.

More innovative women were not more socially active. They did not belong to more organizations or participate more actively. There was great variation in social participation scores for all

adopter categories, with many individuals in the less innovative groups being very active.

An analysis might be made separating fashion items from non-fashion items on the Scale of Innovativeness to determine if the fashion innovator is more socially active as reported by other's research.

Hypothesis IX. Innovativeness is not positively related to sources of information.

A positive correlation between innovativeness and magazine readership and between innovativeness and other sources of information was significant (for magazine readership $r = +.3604$, for other sources of information $r = +.5852$, $|r| = .2360$, $p < .05$). Therefore, the null hypothesis was rejected.

Sources of information correlated the highest with innovativeness. More innovative women used more sources and more professional ones. They had contacts with extension agents and educational personnel, and read extension and manufacturer's bulletins. A fashion magazine was only listed once as a source of information. Apparently a variety of sources contribute to innovativeness in clothing and textiles.

Hypothesis X. Innovativeness is not positively related to con-

tinuation of learning.

There was no significant difference between the mean innovative-

ness scores for the continuation of learning categories ($F = +.9855$,

$\left| F \right| = 4.00$, $p > .05$). Therefore, the null hypothesis was not rejected.

Continuation of learning, as measured by enrollment in adult

classes, was not related to innovativeness. From the total sample,

68.7% attended adult classes. Many individuals, whether innovative

or not, were interested in continuing to learn.

Innovativeness as a characteristic, is relevant to the clothing

and textiles area. From the results of the analyses of this study,

it may be concluded that innovativeness in clothing and textiles is

related to similar variables found to be related from research on the

adoption of drugs and medicines, home products and practices, farm

equipment and practices, child rearing methods, and consumer pro-

ducts. Thus, innovativeness is a characteristic applicable to many

fields.

LIMITATIONS AND RECOMMENDATIONS

Results of innovativeness scores calculated from the Preliminary Scale of Innovativeness showed that the scale required improvement and revision before the data obtained could be subjected to statistical analyses. The advantage in using a scale which incorporates dates is that the dates of adoption account for more variation in scores.

The author would recommend that dates be incorporated into an innovativeness scale if the following problems can be solved: 1) many of the items dated so far back, about 30 years for nylon, that women could not remember the year when they first started using it; 2) women could not remember dates at all for many items or were not accurate in their recall of dates, for example they marked a date of first use of an item before it was available on the market (i. e. , fabric softener, 1955); 3) women did not appear to be aware of textiles they use often because only 51 women out of 67 marked that they use nylon, and 49 out of 67 that they use acrylics; 4) cycles of clothing styles are repeated and older women remembered using an item years ago, for example, midi lengths and jumpsuits were worn in the 1950's and meant something different to older women than it did to younger ones; 5) older women probably started using older items, such as nylon, earlier than younger women, possibly before some respondents were even born, and had the possibility

of receiving a higher innovativeness score; 6) there seemed to be no method of analysing data when any dates were missing for adopted items; 7) there were too many items on the scale and it was difficult for respondents to recall so many dates.

The author would recommend further development of an innovativeness scale utilizing year of adoption to make the scale more reliable and valid. Some of the above problems could be eliminated by limiting the number of items on the scale to fewer than 34, but have a minimum of 12-15 items, as suggested by Rogers and Rogers (1961). These items should have been introduced on the market in the past 5-10 years. Rogers and Rogers (1961) also report that innovativeness scales can be improved by allowing respondents to check that certain items do not apply to their situation.

Further testing of the type of innovativeness measure used in this study should be made to see if it does measure innovativeness. Correlations between the two methods could be tested.

Another method of scoring innovativeness which also uses dates of adoption is the "sten" score method (Rogers, Havens, and Cartano, 1962). A "sten" score is a "standard scale of ten units" (Canfield, 1951, p. 295). It is a system for assigning single-digit values to scores and then correlating scores (Coates and Bertrand, 1955). It might be worthwhile also to test this method of scoring innovativeness in the area of clothing and textiles.

The author further recommends that a similar study be conducted in another city that has a more varied population than the academic community selected as the research site. More variation in education and social status characteristics would be of value.

Many women told the researcher that they were not interested in some of the items listed on the Venturesomeness Scale because of the ecology issue and problems of disposal. Item analysis could be done to determine if these items should be eliminated to improve the test of venturesomeness.

Conclusions are limited to the population sampled and are representative of one geographic area, and are not necessarily applicable to other communities or to all innovators of clothing and textiles. Tests should be made in many other communities to add to the knowledge and understanding of innovativeness in clothing and textiles. Women who do not sew might also be included in future studies.

SUMMARY

The purpose of this study was to investigate the relationship between innovativeness and self rating of innovativeness, adoption leadership, venturesomeness, perceived sewing competence, age, education, social status characteristics, social participation, sources of information, and continuation of learning.

The author developed measures for innovativeness, sources of information, and continuation of learning and adapted other's tests and measures to the clothing and textiles area for self rating of innovativeness, adoption leadership, and venturesomeness. The Perceived Sewing Competence Scale was developed by Judith Wheeler. Warner's Index of Status Characteristics was used to measure social status and Chapin's Social Participation Scale was used to measure social participation.

A questionnaire was mailed to 77 women randomly selected from the telephone directory of the research city, and was collected in person by the investigator. Many women were first screened by telephone to limit the sample to women who sew. Sixty-seven questionnaires were complete and were analyzed.

The major findings of the study show that innovativeness is correlated* with

1. self rating of innovativeness   +. 3694

2. adoption leadership   +. 2623

3. venturesomeness   +. 3431

4. perceived sewing competence   +. 4856

5. social status characteristics (a lower score is higher social class)   -. 2448

6. sources of information   +. 5852

Innovativeness was not significantly related to social participation (r = +. 0761) at the . 05 level of confidence, nor were there significant difference among directional mean innovativeness scores for age, education, or continuation of learning categories. Therefore, innovativeness was not related to age, education, social participation, or continuation of learning

The results of the study indicate that innovativeness is relevant to the area of clothing and textiles. As reported by previous research in other fields and supported by this study, innovativeness is positively related to self rating of innovativeness, adoption leadership, venturesomeness, social status characteristics, and sources of information. A newly developed variable, perceived sewing competence, was also found to be related to innovativeness.

---

*Significant at the . 05 level ($\left| r \right|$ = . 2360).

Age, education, social participation, and continuation of learning were not related to innovativeness in clothing and textiles.

A limitation of this study was that dates of adoption were not incorporated into the Scale of Innovativeness. The author would recommend that dates be included to give a more accurate measure of innovativeness.

BIBLIOGRAPHY

Barber, Bernard and Lyle S. Lobel. 1952. Fashion in women's
    clothes and the American social system. Social Forces.
    31: 124-131.

Beal, George M. and Joe M. Bohlen. 1957. The diffusion process.
    Ames, Iowa State College Agricultural Extension Service
    Special Report 18.

Beal, George M. and Everett M. Rogers. 1957. Informational sources
    in the adoption process of new fabrics. Journal of Home
    Economics. 49:630-634.

Beal, George M., Everett M. Rogers and Joe M. Bohlen. 1957.
    Validity of the concept of stages in the adoptive process.
    Rural Sociology. 22:166-168.

Belcher, John C. 1968. Acceptance of the Salk Polio Vaccine. Rural
    Sociology. 23:158-170.

Bohlen, Joe M., Milton C. Coughenour, Herbert F. Lionberger,
    Edward O. Moe and Everett M. Rogers. 1968. Adopters of
    new farm ideas. In: Perspectives in consumer behavior, ed.
    by Harold H. Kassarjian and Thomas S. Robertson. Glenview,
    Illinois, Scott, Foresman and Co. pp. 351-361.

Canfield, A. A. 1951. The "sten" scale - a modified C-scale.
    Educational and Psychological Measurement. 11:295-297.

Chapin, Francis Stuart. 1947. Experimental designs in sociological
    research. Revised edition. New York, Harper Brothers.

Coates, Charles H. and Alvin L. Bertrand. 1955. A simplified
    statistical methodology for developing multi-measure indices
    as research tools. Rural Sociology. 20:132-141.

Coleman, James, Elihu Katz and Herbert Menzel. 1957. The
    diffusion of an innovation among physicians. Sociometry.
    20:253-270.

Copp, James H. 1956. Personal and social factors associated with the adoption of recommended farm practices among cattlemen. Manhattan, Kansas Agricultural Experiment Station Technical Bulletin 83.

_____. 1958. Toward generalization in farm practice research. Rural Sociology. 23:103-111.

Copp, James H., Maurice L. Sill and Emory Brown. 1958. The function of information sources in the farm practice adoption process. Rural Sociology. 23:146-157.

Corvallis at a glance. 1971. Gazette-Times. p. A-5, August 6.

Directory of manufacturers and large payrolls. 1971. Prepared by the Corvallis Area Chamber of Commerce.

Flinn, William L. 1961. Combined influence of group norms and personal characteristics on innovators. Master's thesis. Columbus, Ohio State University.

_____. 1970. Influence of community values on innovations. American Journal of Sociology. 75:983-991.

Gallup, George. 1955. The absorption rate of ideas. Public Opinion Quarterly. 19:234-242.

Graham, Saxon. 1956. Class and conservatism in the adoption of innovations. Human Relations. 9:91-100.

Gross, Neal and Marvin J. Taves. 1952. Characteristics associated with acceptance of recommended farm practices. Rural Sociology. 17:321-327.

Havens, A. Eugene. 1962. A review of factors related to innovativeness. Columbus, Ohio Agricultural Experiment Station A.E. 329.

Havens, A. Eugene. 1965. Increasing the effectiveness of predicting innovativeness. Rural Sociology. 30:150-165.

Hess, C. V. and L. F. Miller. 1954. Some personal, economic, and sociological factors influencing dairymen's actions and success. University Park, Pennsylvania State University Agricultural Experiment Station Bulletin 577.

Hoffer, Charles R. and Dale Stangland. 1958a. Farmer's attitudes and values in relation to adoption of approved practices in corn growing. Rural Sociology. 23:112-120.

_____. 1958b. Farmer's reactions to new practices. East Lansing, Michigan State University Agricultural Experiment Station Technical Bulletin 264.

How farm people accept new ideas. 1955. Ames, Iowa Agricultural Extension Service, Iowa State College Special Report 15.

Important facts concerning Corvallis, Oregon. 1971. Prepared by the Corvallis Area Chamber of Commerce.

Katz, Elihu. 1957. The two-step flow of communication. Public Opinion Quarterly. 21:61-78.

Katz, Elihu, Martin L. Levin and Herbert Hamilton. 1963. Traditions of research on the diffusion of innovation. American Sociological Review. 28:237-252.

King, Charles W. 1969. Communicating with the innovator in the fashion adoption process. In: Dimensions of communication, ed. by Lee Richardson, New York, Meredith Corp. p. 223-236.

Kivlin, Joseph E. 1960. Characteristics of farm practices associated with rate of adoption. Ph.D. thesis. University Park, Pennsylvania State University.

Lazer, William and William Bell. 1969. The communication process and innovation. In: Dimensions of communication, ed. by Lee Richardson, New York, Meredith Corp. p. 195-204.

Levine, Sol and Gerald Gordon. 1958. Maximizing returns on mail questionnaires. Public Opinion Quarterly, 22:568-575.

Lionberger, Herbert F. 1952. The diffusion of farm and home information as an area of sociological research. Rural Sociology. 17:132-143.

_____. 1953. Some characteristics of farm operators sought as sources of farm information in a Missouri community. Rural Sociology. 18:327-338.

Marsh, C. Paul and A. Lee Coleman. 1954. Farmer's practices--
adoption rates in relation to adoption rates of leaders. Rural
Sociology. 19:180-181.

_____. 1956. Group influences and agricultural innovations:
some tentative findings and hypotheses. American Journal of
Sociology. 61:588-594.

Mass media sources of influence. 1969. In: Dimensions of communica-
tion, ed. by Lee Richardson. New York, Meredith Corp.
p. 205-208.

Parten, Mildred B. 1950. Surveys, polls, and samples: practical
procedures. New York, Harper and Brothers.

Polgar, Steven, Howard Dunphy and Bruce Cox. 1963. Diffusion and
farming advice: a test of some current notions. Social Forces.
42:104-111.

Robertson, Thomas S. 1968. Social factors in innovative behavior.
In: Perspectives in consumer behavior, ed. by Harold H.
Kassarjian and Thomas S. Robertson. Glenview, Illinois, Scott,
Foresman and Co. p. 361-370.

Rogers, Everett M. 1957. Personality correlates of the adoption of
technological practices. Rural Sociology. 22:267-268.

_____. 1958. Categorizing the adopters of agricultural
practices. Rural Sociology. 23:345-354.

_____. 1961. Characteristics of agricultural innovators
and other adopter categories. Wooster, Ohio Agricultural Experi-
ment Station Research Bulletin 882.

_____. 1962. Bibliography on the diffusion of innovations.
Columbus, Ohio Agricultural Experiment Station Bulletin A. E.
328.

Rogers, Everett M. and Rabel J. Burdge. 1962. Community norms,
opinion leadership, and innovativeness among truck growers.
Wooster, Ohio Agricultural Experiment Station Research
Bulletin 912.

Rogers, Everett M., A. Eugene Havens and David G. Cartano. 1962. The construction of innovativeness scales. Columbus, Ohio Agricultural Experiment Station Bulletin A. E. 330.

Rogers, Everett M. and R. L. Pitzer. 1960. The adoption of irrigation by Ohio farmers. Wooster, Ohio Agricultural Experiment Station Research Bulletin 851.

Rogers, Everett M. and L. Edna Rogers. 1961. A methodological analysis of adoption scales. Rural Sociology. 26:325-336.

Ryan, Bryce and Neal C. Gross. 1943. The diffusion of hybrid seed corn in two Iowa communities. Rural Sociology. 8:15-24.

_____. 1950. Acceptance and diffusion of hybrid corn seed in two Iowa communities. Ames, Iowa Agricultural Experiment Station Research Bulletin 372.

Sill, Maurice L. 1958. Personal, situational, and communicational factors associated with the farm practice adoption process. Ph. D. thesis. University Park, Pennsylvania State University.

Simmel, George. 1957. Fashion. American Journal of Sociology. 62:541-558. (First published in 1904)

The adoption of new products: process and influence. 1959. Ann Arbor, Foundation for Research on Human Behavior.

The process of mass acceptance. 1969. In: Dimensions of communication, ed. by Lee Richardson, New York, Meredith Corp. p. 209-214.

Warner, W. Lloyd, with Marchia Meeker and Kenneth Eells. 1960. Social class in America: a manual of procedure for the measurement of social status. New York, Harper and Row Publishers. (First copyright 1949)

Wheeler, Judith. 1972. Relationship between home sewing practices, perceived sewing competence, self-role concept and selected demographic factors. Master's thesis. Corvallis, Oregon State University. (In preparation)

Wilkening, Eugene A. 1950a. A sociopsychological approach to the study of the acceptance of innovations in farming. Rural Sociology. 15:352-364.

_____. 1950b. Sources of information for improved farm practices. Rural Sociology. 15:19-30.

_____. 1952a. Acceptance of improved farm practices in three coastal plain counties. Raleigh, North Carolina Agricultural Experiment Station Technical Bulletin 98.

_____. 1952b. Informal leaders and innovators in farm practices. Rural Sociology. 17:272-275.

_____. 1953. Adoption of improved farm practices as related to family factors. Madison, Wisconsin Experiment Station Research Bulletin 183.

APPENDICES

APPENDIX A

Letter of Introduction to the Study

OSU

OREGON STATE UNIVERSITY

SCHOOL OF HOME ECONOMICS

CORVALLIS, OREGON 97331

July 20, 1972

Enclosed is the questionnaire I mentioned to you on the phone. As I told you, I am a graduate student in Clothing, Textiles and Related Arts and this research on the home sewer and her use of fabrics is a portion of my Master's program.

Your name was selected randomly from the telephone directory. Will you please take a few minutes and complete the enclosed questionnaire. Answers will be coded and information is confidential.

If you have any questions about a section, please write it down on the form. I will stop by your house to answer your questions and collect the form.

Thank you for talking with me on the phone. Your help will be greatly appreciated.

Sincerely,

Chrisanne C. Lauritsen, Graduate Student
Clothing, Textiles and Related Arts

Ruth E. Gates, Adviser, Associate Professor
Clothing, Textiles and Related Arts

APPENDIX B

Questionnaire

TEXTILE

QUESTIONNAIRE

APPENDIX C

Telephone Conversation

Telephone Conversation

This is Chrisanne Lauritsen. I am a graduate student working on my thesis in Clothing and Textiles at Oregon State University.

Could you tell me, do you do any sewing at home for yourself or your family?

(If yes) We are interested in learning more about women's use of fabrics. I would like to mail you a questionnaire tomorrow for you to fill out. I will stop by your home a week from today to collect it. Is morning, afternoon, or evening the best time for me to stop? Thank you.

(If no) Our study is limited to women who sew. Thank you for your time.

APPENDIX D

Listing of Occupational Ratings from Warner's Scale

Occupational Ratings

Rating assigned to the occupation[2/]	Occupation
1	8 University professors 5 Engineers 3 Owners of large businesses (valued over $75,000) 2 Lawyers 1 Pharmacist 1 Entomologist 1 Supervisor of a national forest
2	7 Teachers 3 Business managers 2 Realtors 1 Accountant 1 Banker* 1 Elementary principal* 1 Counselor* 1 Librarian 1 Computer programmer* 1 Retail merchant
3	1 Self employed farm owner, not living on the farm* 1 County employee (clerk)
4	1 Electrician 1 Foreman of a meat cutting department 1 Student manager of an apartment (bookkeeper)* 1 Drug receiving*
5	2 Cabinet makers* 1 Construction worker (skilled) 1 TV technician 1 Mechanic 1 Practical nurse
6	1 Painter 1 Truck driver 1 City sewage plant worker (machine operator)*
	13 University students 1 Retired

[2/]Warner, 1960, p. 140-141   *Not listed on Warner's Revised Scale

APPENDIX E

Marital Status and Occupations

APPENDIX E

Marital Status and Occupations

Married Women	Number of Women
Teachers	6
Secretaries	5
Sales Clerks	4
Bookkeepers	2
Nurses	2
Students	2
Receptionist	1
Desk Clerk	1
Resident Manager	1
Dental Assistant	1
Library Aide	1
Engraver	1
Telephone Operator	1
Merchandising Counter	1
Total employed	29
Total unemployed	29
Total	58

Widows	Number of Women
Teacher	1
Counselor	1
Principal	1
Total employed	3
Total unemployed	1
Total	4

Divorced or separated women	Number of women
Teacher	1
Total	1

Single Women	Number of women
Teacher	1
Librarian	1
Student	1
Total employed	3
Total unemployed	1
Total	4

APPENDIX F

Innovativeness Scores

Innovativeness Scores

Innovator	Early Adopters	Early Majority	Late Majority	Laggards
140	113	100	80	39
	115	102	81	58
	117	102	82	60
	117	102	85	61
	125	103	86	61
	125	103	86	68
	125	104	87	70
	134	106	88	72
	134	106	90	75
	134	107	93	76
		107	93	
		108	94	
		108	94	
		108	96	
		108	96	
		109	96	
		109	97	
		109	97	
		110	97	
		110	98	
		111	98	
		112	99	
		113	100	