IOWA STATE UNIVERSITY Digital Repository

Retrospective Theses and Dissertations

Iowa State University Capstones, Theses and Dissertations

1977

Factors influencing female adult students to continue their education

Cecilia Douthy Willis

Iowa State University

Follow this and additional works at: https://lib.dr.iastate.edu/rtd

Part of the <u>Higher Education Administration Commons</u>, and the <u>Higher Education and Teaching Commons</u>

Recommended Citation

Willis, Cecilia Douthy, "Factors influencing female adult students to continue their education" (1977). Retrospective Theses and Dissertations. 7591.

https://lib.dr.iastate.edu/rtd/7591

This Dissertation is brought to you for free and open access by the Iowa State University Capstones, Theses and Dissertations at Iowa State University Digital Repository. It has been accepted for inclusion in Retrospective Theses and Dissertations by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.



INFORMATION TO USERS

This material was produced from a microfilm copy of the original document. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the original submitted.

The following explanation of techniques is provided to help you understand markings or patterns which may appear on this reproduction.

- 1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting thru an image and duplicating adjacent pages to insure you complete continuity.
- 2. When an image on the film is obliterated with a large round black mark, it is an indication that the photographer suspected that the copy may have moved during exposure and thus cause a blurred image. You will find a good image of the page in the adjacent frame.
- 3. When a map, drawing or chart, etc., was part of the material being photographed the photographer followed a definite method in "sectioning" the material. It is customary to begin photoing at the upper left hand corner of a large sheet and to continue photoing from left to right in equal sections with a small overlap. If necessary, sectioning is continued again beginning below the first row and continuing on until complete.
- 4. The majority of users indicate that the textual content is of greatest value, however, a somewhat higher quality reproduction could be made from "photographs" if essential to the understanding of the dissertation. Silver prints of "photographs" may be ordered at additional charge by writing the Order Department, giving the catalog number, title, author and specific pages you wish reproduced.
- 5. PLEASE NOTE: Some pages may have indistinct print. Filmed as received.

Xerox University Microfilms

300 North Zeeb Road Ann Arbor, Michigan 48106

77-26,020

WILLIS, Cecilia Douthy, 1949-FACTORS INFLUENCING FEMALE ADULT STUDENTS TO CONTINUE THEIR EDUCATION.

Iowa State University, Ph.D., 1977 Education, higher

Xerox University Microfilms, Ann Arbor, Michigan 48106

Factors influencing female adult students to continue their education

by

Cecilia Douthy Willis

A Dissertation Submitted to the

Graduate Faculty in Partial Fulfillment of

The Requirements for the Degree of

DOCTOR OF PHILOSOPHY

Department: Professional Studies
Major: Higher Education

Approved:

Signature was redacted for privacy.

In Challge of Major Work

Signature was redacted for privacy.

For the Major Department

Signature was redacted for privacy.

For the Graduate College

Iowa State University Ames, Iowa

TABLE OF CONTENTS

	Page
Introduction	1
Review of Literature	7
Methodology	22
Findings and Discussion	31
Summary, Conclusion and Recommendations	109
References	114
Acknowledgments	117
Appendix A. Correspondence	119
Appendix B. Research Instrument	121

LIST OF TABLES

			Page
Table	1	Frequency Distribution By Total Sample and Current	
		Academic Status	32
Table	2	Frequency Distribution By Sample and Ethnic	
		Background	33
Table	3	Frequency Distribution of Total Sample By Age	35
Table	4	Frequency Distribution of Total Sample By Present	
		Marital Status	36
Table	5	Frequency Distribution of Total Sample By Total	
		Number of Children	37
Table	6	Frequency Distribution of Total Sample By Ages of .	
		Children Currently Living At Home	38
Table	7	Frequency Distribution of Total Sample By Degrees	·
		Completed	40
Table	8	Frequency Distribution of Total Sample By	
		Combination of Roles	41
Table	9	Ranked Order Frequency Distribution of Factors	•
		Influencing Sample To Continue Their Education	43
Table	10	Ranked Order Frequency Distribution of Factors	
		Influencing Sample's Choice of Institution	45
Table	11	Frequency Distribution of Total Sample By Financial	
		Support	48
Table	12	Ranked Order Frequency Distribution of Total Sample	
		By Educational Goals	49

Table 13	Frequency Distribution of Total Sample By Contact	
	With Counseling Center	52
Table 14	Frequency Distribution of Total Sample By Contact	
	With Adult Student Programs	53
Table 15	Ranked Order Frequency Distribution of Total Sample	
	By Subjects' Perceptions of Student Services	54
Table 16	Significant and Non-Significant Variables Cross-	
	Tabulated With Educational Institution or Age	57
Table 17	Numerical Distribution of Sample By Institution And	
	Current Academic Status	59
Table 18	Percentage Distribution of Sample By Institution	
	And Current Academic Status	60
Table 19	Numerical Distribution of Sample By Institution	
	and Ethnic Background	62
Table 20	Percentage Distribution of Sample By Institution	
	and Ethnic Background	63
Table 21	Numerical Distribution of Sample By Institution	
	and Marital Status	64
Table 22	Percentage Distribution of Sample By Institution	
	and Marital Status	. 65
Table 23	Numerical Distribution of Sample By Institution	
	and Degrees Completed	67
Table 24	Percentage Distribution of Sample By Institution	
	and Degrees Completed	68

		v	
	Table 25	Ranked First in Order of Importance for Numerical	
		Distribution of Sample By Institution and Factors	
		Influencing Subject's Decision to Continue Her	
		Education	69
	Table 26	Ranked First in Order of Importance of Percentage	
		Distribution of Sample By Institution and Factors	
•		Influencing Subject's Decision To Continue Her	
		Education	71
	Table 27	Numerical Distribution of Sample By Institution and	
		Combination of Roles	73
·	Table 28	Percentage Distribution of Sample By Institution	
		and Combination of Roles	74
	Table 29	Ranked First in Order of Importance for Numerical	
		Distribution of Sample By Institution and	
		Factors Influencing Choice of Institution	76
	Table 30	Ranked First in Order of Importance for Percentage	
		Distribution of Sample By Institution and	
		Factors Influencing Choice of Institution	77
	Table 31	Ranked Second in Order of Importance for Numerical	
		Distribution of Sample By Institution and	:
		Factors Influencing Choice of Institution	78
	Table 32	Ranked Second in Order of Importance for Percentage	
		Distribution of Sample By Institution and	
		Factors Influencing Choice of Institution	79

Table 33	Ranked Third in Order of Importance for Numerical	
	Distribution of Sample By Institution and	
	Factors Influencing Choice of Institution	80
Table 34	Ranked Third in Order of Importance for Percentage	
	Distribution of Sample By Institution and	
	Factors Influencing Choice of Institution	81
Table 35	Numerical Distribution of Sample By Institution	
	and Financial Support	83
Table 36	Percentage Distribution of Sample By Institution	
	and Financial Support	84
Table 37	Numerical Distribution of Sample By Institution	
	and Utilization of Counseling Service	85
Table 38	Percentage Distribution of Sample By Institution and	
	Utilization of Counseling Service	86
Table 39	Numerical Distribution of Sample By Institution	
	and Programs Designed for Female Adult	
	Students	87
Table 40	Percentage Distribution of Sample By Institution	
	and Programs Designed for Female Adult	
	Students	88
Table 41	Ranked First in Order of Importance for Numerical	
	Distribution Of Sample By Institution and	
	Student Services	90
Table 42	Ranked First in Order of Importance for Percentage	
	Distribution of Sample By Institution and	
	Student Services	91

Table 43	Ranked Second in Order of Importance for Numerical	
	Distribution Of Sample By Institution and	
	Student Services	92
Table 44	Ranked Second in Order of Importance for Percentage	
	Distribution of Sample By Institution and	
	Student Services	93
Table 45	Numerical Distribution of Sample By Age and	
	Marital Status	95
Table 46	Percentage Distribution of Sample By Age and	
	Marital Status	96
Table 47	Numerical Distribution of Sample By Age and	
	Combination of Roles	97
Table 48	Percentage Distribution of Sample By Age and	
	Combination of Roles	98
Table 49	Ranked First in Order of Importance for Numerical	
	Distribution of Sample By Age and Factors	
	Influencing Choice of Institution	101
Table 50	Ranked First in Order of Importance for Percentage	
	Distribution Of Sample By Age and Factors	
	Influencing Choice of Institution	103
Table 51	Ranked Second in Order of Importance for Numerical	
	Distribution of Sample By Age and Factors	
	Influencing Choice of Institution	105
Table 52	Ranked Second in Order of Importance for Percentage	
	Distribution Of Sample By Age and Factors	
	Influencing Choice of Institution	107

Introduction

What is the value of education to women? Luetkens (1946) summarized her thoughts about education's value in the following quotation:

To gain access to the stores of knowledge accumulated through the ages and to learn methods of handling it has always been one of the first desires of groups who have become aware of their place in society. Knowledge makes free, free to accept or to reject authority. Education is a great emancipator.

America's women appear to be changing. The one common stereotype of women as homemakers, caught up in a world of dishes, diapers, and cookbooks, can no longer be taken for granted.

Erickson (1968) described the stereotypic image of women in the following passage:

A good woman encourages a man. An intelligent one inspires him, An attractive woman interests a man, And a sympathetic one wins him.

The traditional image and role of women and the major goals of their lives have often been predefined. When all of the preconceived expectations and goals have been fulfilled, the question remains, what's next?

What are some of the alternatives available for women; what are some of the problems they face when reviewing their lives and continued education is considered as one of the alternatives? Some women may choose to return to the labor market or, as many women are discovering, they can return to college.

The number of women over 30 who are enrolled in higher education courses has doubled during the past 10 years, thus indicating that

more and more women are not limiting their roles to those of wives and mothers but are seeking to alter these once traditional roles (Oliver, 1975).

A review of the literature in the area of mature women and higher education indicated that the adult female enrollment increase can be attributed to the following: Women are having fewer children and therefore can leave the home earlier; labor saving devices have decreased the amount of time spent doing household chores; increased numbers of single, widowed, and divorced women must support themselves; and the impetus of the women's movement has helped create a feeling for some women that a choice need not be made between their personal lives and their desired careers.

According to Seifer (1973) there is a direct correlation between the level of education of women and their openness to change in their roles. The better informed a woman becomes, the greater the likelihood that she will want a role which may include a career outside the home as well as a satisfying and creative life style.

Researchers who have investigated the area of women and/or female adult learners conclude that the peculiar life cycles, the multiple roles which they must play in modern society, and their needs for self-fulfillment intellectually and professionally require a special kind of continued education.

The conceptualization of this study was generated as a result of the literature that has been published about women and the world of work, the status of women, and the sex roles of women. Few studies have dealt with the question of the education of the mature women even though education may be considered by some to be one of the more obvious avenues for improving the status of women and enriching their lives. This study was designed to add to the research by indicating or clarifying some of the relative concerns of women in the labor market who decide to modify their lives and social worlds by going to college.

Objectives of the Study

The primary objective of this study was to increase knowledge about women who are continuing their education. The factors investigated were those associated with the decision of women over 25 years of age to continue their education.

Secondary objectives of this study included:

- 1. Collecting and reporting data which will indicate which student services are perceived as necessary by female adult students.
- 2. Collecting and reporting data which indicate which student services are currently being utilized by female adult students.
- 3. Recommending services which will directly relate to female adult students.
- 4. Reporting data which will help the directors of student services evaluate the services' effectiveness as it relates to female adult students.

The objectives of this study were met by sampling three Iowa Board of

Regents institutions, the largest private institution in Iowa, and one area community college in the largest population center in Iowa.

Organization of the Study

The study was organized in the following manner:

- 1. The first chapter is an account of the problem, the basic purposes, and the objectives of this study.
- 2. The second chapter provides a frame of reference by reviewing the literature in several areas: adult education and the adult learner, role of women in education, and female adult students and education.
- 3. The method of study is presented in the third chapter, giving a general description of each institution, sampling procedure and description of the sample, development and implementation of the instrument used in collecting the data, measurement of the variables, and the statistical procedure used to analyze the collected data.
 - 4. The fourth chapter gives the findings and discussion.
- 5. In the fifth chapter, summaries of the conclusions drawn from the data are presented. This chapter also contains recommendations for student services which can be utilized by female adult students who are currently enrolled in college as well as female adult students who may wish to engage in further study, and poses questions for further research.

Limitations

The scope of this investigation was confined to three Board of Regents four-year institutions; the largest private, four-year

institution; and the central campus of the Area XI community college within the state of Iowa for geographic considerations.

A sample of the currently enrolled female adult students was used because of the large population size.

The response rate of the questionnaire may have been restricted due to use of the U.S. Postal Service as opposed to personal administration and collection.

The Rights of Privacy Act of 1973 prevented the researcher from obtaining certain information which may have been of value in the study.

Hypotheses To Be Tested

Based on a review of past research and conceptual frameworks, two general hypotheses were developed for testing:

- A. There will be a relationship between educational institutions and personal, social, and situational variables for female adult students.
- B. There will be a relationship between age and personal, social, and situational variables for female adult students.

The personal, social, and situational variables to be examined in this study are: current academic status, ethnic background, present age, present marital status, total number of children, ages of children currently living at home, degrees completed, factors which influenced the subject's decision to continue her education, roles the subject was currently combining, factors which influenced the subject's choice

of institution, source of financial support, major, educational goals, and student services. (See Appendix B for questionnaire.)

Review of Literature

Much of the information and research in the area of the female adult student has been gathered in a sporadic and unsystematic manner. Though numerous institutions of higher learning claim to have programs which assist the female adult students who have decided to continue their education, actual research reports few institutions offer such programs. Mattfeld's (1971) study indicated out of 750 colleges and universities surveyed, only 49% of those institutions had actually made any concessions to meet the needs of female adult students.

This chapter presents a general review of the literature emphasizing the factors that influence the female adult to continue her education. In the first section of the review, the writer discusses adult education, characteristics of the adult learner and the female adult learner and her particular characteristics. In the next section, the writer discusses the role of women in education. This is followed by a discussion of the female adult student and higher education. The final sections of the Review of Literature focus on specific factors which influence the adult female to continue her education, the obstacles she faces in making that decision, and recommendations for services which can assist her with her academic endeavors.

Adult Education and the Adult Learner

Bergevin (1967) emphasizes that adult education is not a pasttime or fad of an affluent society. In its broadest definition, adult education can be considered the wave or direction of the future in higher education.

A review of the literature on adult education and the adult learner cites the following as the general purposes, major goals, and tasks of adult education: (a) to discover and present to the adult the opportunity to advance as a maturing individual, (b) to help one learn how to contribute one's share to the civilizing process, and (c) to assist the adult to develop into the person it is possible for one to be—a free, creative, responsible, productive, and maturing citizen.

Adult education is directed to the acquisition of knowledge through study, teaching, and research; as well as the dissemination of theoretical and practical knowledge through a professional training program.

The following are cited characteristics of adult learners by

Knowles (1976): (a) their self-concept moves from one of being a dependent personality toward one of being a self-directing human being,

(b) they accumulate a growing reservoir of experience that becomes an increasing resource for learning, (c) their readiness to learn becomes oriented increasingly to the developmental changes from one of post-poned application of knowledge to immediacy of application and their orientation toward learning shifts from one of subject-centeredness to one of problem-centeredness.

Another characteristic of adult learners is their strong drive for self-improvement. Many adult learners have returned to college while still working full- or part-time as well as assuming household responsibilities.

Certain characteristics have been observed with regularity as they relate to the female adult learner. Ruud and Hall (1974) indicate that

these characteristics include the fact that the learner is generally between the ages of 25 and 50, married, and tends to be from middle class or upper middle class socioeconomic backgrounds. The female adult learner has also expressed an interest in community as well as family affairs.

In observing the female adult learners, Helfter (1962) compared the academic performance of women 40 years plus with the performance of women 18-25 in the same classes at two major universities. The mature women achieved better than their younger counterparts in total performance and in each field of study.

Doty (1967) who also conducted research in the area of the female adult learner versus the young learner noted that in the area of academic difficulties mature women had difficulty in concentrating, reading rapidly, and in taking effective class notes. It was also noted that mature women spent twice as much time studying, studied daily at regular hours, reviewed and outlined materials, began assignments promptly, and wrote multiple drafts of papers.

The older learner also expected superior performance of herself because she felt her maturity made her better able to recognize the importance of a college education.

As noted by Letchworth (1970), each year more mature women enroll in colleges and universities across the country. The satisfaction felt by so many women is a function of their ability to understand their motivations for returning to college and their resourcefulness in overcoming initial difficulties.

Lichtenstein and Black (1963) at Hofstra University found that the mature woman receives grades significantly higher than the mature male. Nevertheless, if the goal of our institutions of higher learning is to educate, and further, if grades reflect attainment, the fact remains that these women are getting more out of their educational experience than most students.

Some female adult students have expressed the feeling that while they were occupied with raising children, their husbands often had completed one or more degrees as well as having advanced on their jobs. In order to keep up with their husband's increased intellectual level, many female adults turn their thoughts to continuing their education. To continue their education is generally a next step because many female adults have continued to experiment with various forms of education and the stimulus and encouragement of sharing ideas provides additional support for the endeavor.

Though the need is often unconscious, the female adult has often expressed her need for feelings of worth or achievement as an individual, outside the roles of homemaker, wife, and mother.

Role of Women in Education

In the complex history of American higher education, one fact stands out conspicuously. It took American educators 200 years after they established institutions of higher education for men to recognize the legitimacy of women's claims to similar education.

Exactly 205 years after Harvard opened its doors to men, three women received the A.B. degree from Oberlin College. By the mid-19th

century, however, attitudes and practices regarding the formal education of women had changed drastically. Holmstrom (1973) cited several factors for this change:

- 1. Industrial production replaced the home as the unit of production and thus created a demand for women workers.
- 2. The economic advantages of hiring women teachers was quickly realized by those who voiced opposition to women's participation in the labor market.
- 3. The Civil War greatly reduced the enrollment of male students, thus increasing the opportunity for more female enrollments.
- 4. The movement for equal rights and financial donations designed for female students gave impetus to the educational movement for women.

Just as men claim the right to think, to have free and equal access to the wealth of wisdom, women expressed the same desire. Education seemed the natural way to the fulfillment of their new individualism and liberty. Aside from increasing their intellectual capacities, education was an obvious way to personal satisfaction, as well as material and spiritual independence.

The best preliminary preparation for professional and technical study should not be affected by the question of one's sex. Whatever one may think of a woman's right to gain a livelihood in any given occupation, it must be agreed that if a woman is to compete successfully with a man engaged in the same occupation, she must receive the same thorough and prolonged preparation as a man. For the purpose of

successful competition it is desirable to minimize the difference between men and women by giving the same, and not a different, preparation.

Barriers to individual development through education will begin to be eliminated when we as a society decide that educational opportunity depends not on class, stereotypes based on color or shade of one's skin, but upon individual needs, desires, and potential for contribution. Once we recognize that women as well as men can be doctors, lawyers, scientists, businessmen, politicians, and noted writers and artists, we will find the ways to prepare them for their new roles.

If the American women are to be prepared for meeting the growing demands of the new roles they must fill, the status of women in our society, especially in the areas of education and occupations, must be raised to the same level of status as men.

The Female Adult Student and Education

The Chronicle of Higher Education, December 23, 1974, described the situation faced by mature women. As they came to the campuses, the mature women found that colleges and universities had few if any arrangements to meet their particular needs. Required courses were held at impossible times. Review classes in special fields were nonexistent and the personal and academic problems that evolved from combining family responsibilities, college, and re-entry into the job market were foreign to counselors who spent their time advising young people.

Insofar as women are entering higher education in ever-increasing numbers, it is the responsibility of educational institutions to

encourage women to continue their education and to use resources available to them for their personal growth and development.

It is no longer necessary to champion the cause of women's education. The current task appears to be to understand the life of women, how they adapt to the educational process, what sorts of consequences may result and what information and services are available from every source with which to plan and implement further progress in the field.

"Women need help in understanding their life patterns and how their futures are not predestined but how they can be shaped and personally determined" (Koontz, 1970). Scott (1971) indicates that the specific life pattern a woman develops depends on three strategic variables: the shaping of her personality, the immediate circumstances of her adult life, and the way in which she responds to these circumstances.

Before the turn of the century, alternative patterns of life were determined to a great extent by a more or less rigid environment. A woman who had completed higher education could generally pursue a career only at the cost of foregoing marriage and a family. Her alternatives were a career or marriage.

Because of the revolutionary changes which have taken place in the environment, a woman is now able to work while she is studying; before her marriage; after she is married; while her children are very young, enter school, or have grown.

Continuing education programs for women are becoming more of a reality and integral part of higher education.

The basic theme behind programs of continuing education for women is one of understanding the special time pattern of educational and personal growth of women. This pattern generally involves some education, marriage, a family, and then a resumption of education.

Alexandra (1976) notes that continuing education programs for women should provide mutual supports and encouragement for women, development of a strong sense of self-esteem in women, and help in improving family relations. It also helps provide the academic preparation and skills needed for women to make decisions about educational and personal goals as well as career decisions.

Much courage is required for a woman to take the initial steps in returning to college. Encouragement, counseling, and careful planning can help her establish realistic and attainable goals. Large numbers of female adults are taking these steps and accomplishing their goals, whether for job preparation, insurance for the future, or personal satisfaction.

The female adult student is sometimes characterized by having sent her youngest child off to school; average age about 35; and can look forward to some 30 years of productive work with reduced home responsibilities (Furness & Graham, 1974).

Demographic factors, as noted by Osborn (1963) found the adult female student to be in the upper 10% of her graduating class, had participated in three or four extracurricular activities, had been married at least once, and rated her marriage as happy. The fathers of

the female adult students were in professional or managerial occupations, and their mothers were primarily homemakers. The average education of the parents was a little over 11 years.

Women are finding themselves in a different social environment; one in which opportunities for women have greatly expanded. With these opportunities more available, women are finding themselves with more and more time on their hands, and are often anxious to seek new modes of personal development and social contribution.

The female adult student has been a population which has noticeably increased in the classrooms of institutions of higher learning. Though it has been noted that this population is steadily increasing, what reasons can be attributed to this increase?

Brandon (1973) listed several statements by adult females as to why they decided to return to college:

I refuse to stagnate to prove to myself and the world I was not stupid intellectually...I find a housewife's duties non-creative and a bore...My family is nearly grown so the decision to plan my future made it mandatory that I further my education...My divorce this year...I need more education for the job market...I would like to set an example for my children...This is my third return, the other times family obligations made it difficult to continue... This return is for my personal satisfaction, as I have felt I left something "unfinished" all these years...I was a secretary for 13 years and found it hopelessly boring and completely unchallenging.

The following statements were made by female adult students enrolled in a Women's Re-Entry Program at San Jose City College between 1973 and 1976:

I figure I have 20 years left of my life and I want to make the most of it. I feel ashamed that I do not have a degree. In fact,

I lie sometimes and say I went to college two years. So now, I would like to try and make that lie a truth.

It has been 26 years since I have studied and I will be checked by 10 little ones to be sure I practice what I preach. Since I am at an age when jobs are not easy to find, the more I have to offer the better chance I will have to get a worthwhile and profitable one.

I am now mother and father to my two children. My husband died in an automobile accident. I went back to high school, but now I find in order to really help my children in their health and education in this new world, I need to learn and educate myself, so as to keep up and understand them. For myself, I need to go on in this world; I cannot build my world solely around my sons.

At the age of 28, I've discovered my brain is stagnating.

The most frequent reasons for female adults returning to college according to Letchworth (1970) is to gain relief from boredom. These are women whose families are grown and feel their life is dull compared to their husbands.

The female adult student in a study conducted by Doty (1966) cited the following as reasons for returning to college:

To fulfill a desire for knowledge; dissatisfaction with club, community, and social activities; financial preparation for retirement; lack of interests in jobs that did not require a college education. Almost one-third of the women said they always intended to return to college when they were financially able and their children were of school age.

The following reasons were cited by Osborn (1963) for why female adult students in her survey returned to college: personal growth and self-improvement, enjoyment of learning, and desire for professional growth. Although the aforementioned reasons were the primary ones given by Osborn's participants, other factors such as preparation for teaching, financial assistance for children, advance in work, enrichment of

everyday living, and preparation for employment other than teaching were included. When asked who provided encouragement for them to return to school, 75% of Osborn's participants said their husbands; 66% were encouraged by their parents, children, and professors; and 80% were encouraged by employers.

Maki (1974) noted personal satisfaction, to meet a challenge, to complete a degree, to learn new and different things, as well as a way to meet new people as reasons for the female adults returning to Mesabi Community College.

Several other factors were cited as reasons for the female adult student's presence on college campus: (a) a desire to grow intellectually and personally, (b) to provide enrichment of leisure time, (c) insurance in case the need arises in the future for support of self, (d) to develop special skills needed for volunteer work, (e) the rising standard of living, (f) the general population shift toward more education, and (g) the demands of a rapidly changing society for female adults returning to college.

Other women return to college to escape from responsibilities that have little meaning or to escape from divorce and marriage troubles. For these women, college is not only a retreat from personal problems, but also requires the establishment of a new pattern of life. College helps these women meet new people, develop useful skills, and develop new ideas.

Finally, some women want to return to college to finish college work they had started many years earlier.

The academic interests of women returning to college included education, sociology, nursing, law, literature, and women's studies.

In the reviewing of literature, Osborn (1963) found that many of the older women students' difficulties in returning to college were transitory. Among the transitory problems were: inadequate study techniques, deficient orientation to college, and lack of self-confidence. Occasional problems were the ubiquitous scheduling difficulty, tensions of exams causing increased tensions at home, and sharp curtailment of social activity.

Clements (1974) noted several difficulties female adults encountered when returning to school. These difficulties often served as barriers to the students. Some of the difficulties included:

Refusal to accept transfer credits; arbitrary age limits; overt discrimination of faculties, deans, and college officials; admission requirements; lack of services which make education compatible with women's other activities; residence requirements; insistence on full-time study; lack of childcare facilities; and the discrimination often encountered when applying for fellowships, travel grants, and married student housing.

Through her research Andrews (1973) cited another set of difficulties often expressed by the female who desires to continue her education: (a) the potential student's family is often critical and concerned that continued education will interfere with household duties, (b) general family criticism about mother or wife continuing her education, (c) the financial strain of higher education, (d) the adjustment of being graded again, and (e) any other personal problems she might encounter with her family, friends, or employers.

The following questions were posed of female adults who have decided to continue their education: (Ruud & Hall, 1974)

- 1. Is she still capable of learning, especially in competition with young people?
- 2. Will she be able to manage time to study without neglecting husband, children, and home responsibilities?
 - 3. Is there money within the budget for continued education?
- 4. Will she have adequate time to complete her study as her husband is completing course work or before he is transferred by his company to another part of the country?

Roby (1975) pointed out that the structural barriers to women in higher education are strengthened by the social attitudes and norms taught to both men and women concerning "feminine behavior." The seeds of sex-role conflict are sown in very early socialization that takes place concerning sex-roles and remain as a problem and influence the lives of women.

The responses from directors of continuing education programs for women express a healthy acceptance of the view that education is not a mechanical transfer of facts from teacher to student, but rather a process in which the expectations, hopes, and fears of the student bear heavily on her capacity to learn.

When surveyed on the services needed to assist the female adult student in her adjustment to her new environment, directors stressed the importance of guidance and counseling, as well as the importance of the psychological support of peers. What is the importance of counseling programs? The most frequent request of female adult students is for individual counseling by qualified persons. They seek highly competent advice with respect to educational and employment plans. It was also noted that college counselors who necessarily spend much of their time working with young people often do not realize the special problems associated with continued family responsibilities and re-entry into the labor force at a mature age. Also noted by some female adult students was the fact that counselors are often not sufficiently aware of existing services and facilities that can help solve students' problems. We cannot stress too strongly how great is this sense of need for career guidance to new realities at this critical turning point in the life of a woman.

The institution's counseling service is vital as well as essential, for where else can women of 30, 40, and 50 go for diagnosis of their intellectual potential, evaluation of their prior education and review of their work experience, with subsequent counseling as to the next steps in both education and career.

Conclusion

It has been suggested by some educators that an experimental situation would help to determine the mature women's motivations to learn, effective means of instruction, pertinent instructional materials, and the effect of previous nonacademic experience on self-concept and approach to learning. It should incorporate features such as resource centers on available opportunities for women, child care facilities,

coursework credit for relevant non-academic experiences, flexible curricula to meet specific needs of ethnic women, and procedures which will help to alleviate or eliminate administrative encounters with institutions.

It has therefore been concluded by some researchers that the peculiar life cycles of women, the multiple roles which they must play in modern society, and their needs for self-fulfillment--intellectually and professionally--require a special kind of education.

Methodology

This chapter presents the method employed in this study including a general description of each institution sampled, sampling procedures and a description of the sample, the development of the instrument, the ways in which the selected variables were measured, the hypotheses to be tested, and the statistical procedure used to analyze the data. Institutions

The institutions sampled in this study included the three Board of Regents institutions in the state of Iowa; the largest private, four-year institution in Iowa; and one area community college in the largest population center in Iowa.

Iowa State University is a four-year, state-supported institution located in Ames. The student population as of September 1976 numbered over 22,000 with a faculty of approximately 2,000. Instruction is offered throughout the year, divided into four quarters of approximately 11 weeks each. Tuition, as of September 1976, for resident undergraduate students is \$735, and \$858 for resident graduate students for the academic year.

Drake University is a private and independent major university located on a campus in an urban setting, Des Moines. Approximately 5,000 students are enrolled in each of the two semesters. Two fiveweek terms and a three-week interim term are offered in the summer session. Drake's College of Continuing Education offers late afternoon, evening, and Saturday classes on campus and extension classes at

locations throughout the state of Iowa. The College for Continuing Education also conducts conferences, workshops, institutes, and professional seminars for business, industry, associations, and government groups with special programs for women. Tuition costs as of September 1976 are \$1465 for undergraduate students per academic year.

The University of Northern Iowa is located in Cedar Falls, north and east of the geographic center of Iowa, on the Cedar River. Cedar Falls has a population of approximately 32,000 with the Cedar Falls-Waterloo greater metropolitan area having a population of more than 106,000. The student body population is approximately 10,000 with a faculty numbering about 575. The University of Northern Iowa is a state-supported institution. Tuition cost is \$694 for an in-state undergraduate student and \$726 for an in-state graduate student for the academic year.

The University of Iowa's enrollment is more than 22,500 students with a full-time faculty of 1,200 and 1,400 part-time instructors. Its 900-acre main campus spans the Iowa River Valley and merges with the business center of Iowa City, a community of 50,000 persons near Cedar Rapids, Iowa's second largest city. Approximately 82.5% of the University's undergraduate students are enrolled in the College of Liberal Arts. Less than 25% of its total enrollment are in the Graduate College. The University of Iowa is also a state-supported institution, governed by the same Board of Regents as Iowa State and

University of Northern Iowa. Tuition costs are \$750 for resident undergraduate students and \$858 for resident graduate students.

Des Moines Area Community College is a publicly-supported, twoyear institution serving the Des Moines metropolitan area and surrounding counties. The college's central campus and administrative offices are located at Ankeny. Other ongoing attendance centers are the Boone Campus, the Urban Campus in Des Moines, and the Carroll Center. In addition, classes are held in more than 50 locations within the district. Tuition costs are \$405 per year.

Sampling Procedures-Sample Description

The subjects in this study were women over 25 years of age who were currently enrolled in one of the following institutions; Iowa State University, Drake University, the University of Northern Iowa, the University of Iowa, and the Des Moines Area Community College—Ankeny Campus; during the winter quarter or semester of 1977.

Because of the policy of allowing only officials of the institution to have access to the records, the Vice Presidents for Student Affairs obtained the names of all women fitting the criteria outlined by the researcher (that they were 25 years of age and were currently enrolled in one of the selected institutions during winter quarter or semester 1977). The subjects were selected from the lists submitted by each institution by use of a table of random numbers.

One hundred questionnaires were distributed to female adult students at each of the following institutions: Iowa State University, Drake University, University of Northern Iowa, and University of Iowa.

Des Moines Area Community College—Ankeny Campus received 190 questionnaires to distribute to female adult students. The number sent to the community college was designed to increase the two-year institution representation.

Materials distributed to each subject included an explanatory cover letter; a questionnaire; and an addressed, postage-paid envelope. The cover letter (See Appendix A.) emphasized the purpose of the study, the importance of each individual's response, and assured respondents that their answers would be kept confidential. Although responses were to be confidential, each questionnaire had a number on the back in the lower right-hand corner so follow-up materials could be sent to non-respondents.

Five weeks after the initial set of materials were mailed, a follow-up letter (See Appendix A.) was sent to the individuals who had not responded. Included with the follow-up materials was another explanatory cover letter; a questionnaire; and an addressed, postage-paid envelope.

The total number of questionnaires distributed was 626, including the pilot study. Of the sample mailed, five were returned because selected subjects had moved and left no forwarding address. Questionnaires were completed by 351 women: This figure includes the 32 women in the pilot study.

Response rates by institution were: Iowa State University, 98 women responding = 27.9% of total sample; Drake University, 52 women

responding = 14.8% of total sample; University of Northern Iowa, 63 women responding = 17.9% of total sample; University of Iowa, 50 women responding = 14.2% of total sample; Des Moines Area Community College, 88 women responding = 25.1% of total sample. The Iowa State University response rate was larger for two reasons: (a) this institution included the pilot study, and (b) the institution was the researcher's home base.

The Questionnaire

The research instrument used in this study consisted of a semistructured, open-ended questionnaire composed of questions seeking factual information, questions seeking problem information, questions seeking information about goals and student services.

As a preliminary step, a pilot study was conducted to determine the effectiveness of the questionnaire in eliciting the information desired and to estimate the time required for completion of the questionnaire.

One purpose of the pilot study had been to determine whether or not any of the questions needed to be reworded or rearranged for greater clarity. Since the information sought was elicited to the satisfaction of the researcher, the questions remained unchanged. For this pilot study 36 women were selected and 32 responded.

Measurement of Variables

Measurement of the variables current academic status, ethnic background, age, present marital status, total number of children,

ages of children currently living at home, degrees completed, combination of roles, and sources of financial support are described in the tables included in the Findings and Discussion chapter of this study.

In measuring the variable "what factors influenced the subject's decision to continue her education," it was determined by having the subject check all the responses which applied as factors influencing her decision and then rank ordering the responses, using 1 as most important.

"Factors which influenced the respondent's choices of institutions" was measured by having the subject check all the factors which
applied and then rank ordering the responses, using 1 to indicate most
important.

"Sources of financial support" was measured by having the respondent check all the sources of financial support for her continued education.

"Education goals" was measured by the subjects checking all the responses which indicated their educational goals and then rank ordering them using 1 to indicate most important.

"Contact with institution's counseling center and programs designed for female adult students" was measured by the subjects' responses to two questions, each indicating a choice of answers on a continuum ranging from "visit often" to "did not know where the counseling center was" or "did not know programs existed on the campus."

Subjects were to check one answer per question.

"Student services" was measured by two questions, one concerning which student services the female adult student perceived as necessary and the second having to do with which student services the subject wanted to know more about. Subjects were to check all student services which they perceived as necessary and wanted to know more about and then rank order the responses, using 1 to indicate most important. Hypotheses

As indicated in the first chapter, the two major hypotheses to be tested are:

- A. There will be a relationship between educational institutions and personal, social, and situational variables for female adult students.
- B. There will be a relationship between age and personal, social, and situational variables for female adult students.

These hypotheses are listed with the null hypothesis first, followed by the alternative hypothesis. The specific hypotheses to be tested for general hypothesis A are:

Hypotheses 1

- Ho: There will be no significant difference between current academic status and educational institutions sampled.
- Ha: There will be a significant difference between current academic status and educational institutions sampled.

Hypotheses 2

- H₀: There will be no significant difference between the category ethnic background and educational institutions sampled.
- H: There will be a significant difference between the category ethnic background and educational institutions sampled.

Hypotheses 3

- Ho: There will be no significant difference between the category age and educational institutions sampled.
- Ha: There will be a significant difference between the category age and educational institutions sampled.

Hypotheses 4

- H₀: There will be no significant difference between the category of present marital status and educational institutions sampled.
- Ha: There will be a significant difference between the category of present marital status and educational institutions sampled.

Hypotheses 5

- H_O: There will be no significant difference between the category total number of children and educational institutions sampled.
- H_A: There will be a significant difference between the category total number of children and educational institutions sampled.

Hypotheses 6

- H₀: There will be no significant difference between the category of degrees completed and educational institutions sampled.
- H_A: There will be a significant difference between the category of degrees completed and educational institutions sampled.

Hypotheses 7

- H_O: There will be no significant difference between rank order of importance of factors which influence a subject to continue her education and educational institutions sampled.
- HA: There will be a significant difference between rank order of importance of factors which influence a subject to continue her education and educational institutions sampled.

Hypotheses 8

Ho: There will be no significant difference between the category of educational goals and the educational institutions sampled.

H: There will be a significant difference between the category of educational goals and the educational institutions sampled.

Hypotheses 9

- H_O: There will be no significant difference between the category of student services perceived as necessary by female adult students and educational institutions sampled.
- H: There will be a significant difference between the category of student services perceived as necessary by female adult students and educational institutions sampled.

The specific hypotheses to be tested for general hypothesis B are the same as the hypotheses stated in testing general hypothesis A, with age inserted for institution.

Statistical Procedures

Analysis of these data was completed by an IBM 360 computer using the <u>Statistical Package for the Social Sciences</u> (SPSS) (Nie, Hull, Jenkins, Steinbrenner, & Brent, 1975).

The statistical significance of the tabled data was tested by computing chi-squares. The chi-square test is a simple and direct test of significance. It is appropriate for most cases in which observations can be classified into discrete categories and treated as frequencies (McCollough, 1963).

Findings and Discussion

The data collected through the questionnaire are presented according to personal, social, and situational variables (See Appendix B.).

The demographic characteristics, influential factors, educational goals, and the role of student services as they relate to female adult students over 25 years of age are described and discussed in this chapter.

Demographic Characteristics

To obtain a more complete profile of the sample included in the study, the following demographic characteristics were researched: current academic status, ethnic background, age, present marital status, total number of children, ages of children currently living at home, degrees completed, and combination of roles.

Current academic status, as shown in Table 1, indicated the sample included undergraduate, graduate, and special students. The largest number of women indicated they were graduate students (37%), with 29% considering themselves as part-time graduate students. Almost 50% of the total sample indicated that they were part-time students regardless of their current academic classification.

Ethnic background, as reported in Table 2, indicated 88% of the total sample were Caucasian, whereas Blacks and Foreign/Non-US Citizens comprised 9% of the sample. The remaining 3% of the respondents were represented by the ethnic background categories of American Indian, Asian American, and Spanish American.

All of the women included in the study were between 25 and 60 years of age, with the average age category being 25-30. This age

Table 1
Frequency Distribution By Total Sample
And Current Academic Status

Status	# of subjects	Adj. freq. %ª
Full-time undergraduate	69	19.8
Part-time undergraduate	68	19.5
Full-time graduate	63	18.1
Part-time graduate	102	29.3
Other	46	13.2
No response	3	
Total	351	100.0

Adjusted Frequency Percent (Adj. freq. %) includes non-responses or missing data.

Table 2
Frequency Distribution By Sample and
Ethnic Background

Ethnic background	# of subjects	Adj. freq. %ª
American Indian	5	1.4
Black	22	6.3
Mexican American	1	0.3
Asian American	2	0.6
Caucasian	307	88.0
Puerto Rican	0	0.0
Foreign/Non-US citizen	12	3.4
No response	2	
Total	351	100.0

Adjusted Frequency Percent (Adj. freq. %) includes non-responses or missing data.

category accounted for 51% of the total sample. The age category groupings were utilized by the researcher because it was anticipated that the subjects were more likely to respond to an age grouping rather than specifying their actual age. Table 3 lists the number of women in each age category.

Many of the women sampled indicated a combination of the roles of student and spouse. As indicated in Table 4, 212 women were married; 74 women were either widowed, divorced, or separated; and 65 women were single. Data do not indicate whether the subjects responding single had ever been married or were single as a result of being widowed, divorced, or separated. The study does not specify whether subjects who responded married had been married more than once. However, for the research purposes of this study, the current marital status was used to identify the sample groups.

Of the women sampled, 36% indicated having no children, whereas 25% of the 344 women indicated having at least two children. Only 4% of the women sampled had five or more children. The writer did not assume that no response by the subject was equivalent to not having any children. Table 5 indicates the frequency distribution of the total sample by the total number of children.

In response to the question "number of children currently living at home," 95 women indicated that they had children under 6 years of age, whereas 24 women had children 18 years or older living at home. Table 6 provides frequency distribution data for the number of women who indicated ages of children living at home.

Table 3 Frequency Distribution of Total Sample By Age

Age	# of subjects	Adj. freq. %
25-30	179	51.1
31-35	66	18.9
36–40	56	16.0
41-45	27	7.7
46–50	12	3.4
51-55	9	2.6
56-60	1	0.3
61-65	0	0.0
66 or older	0	0.0
No response	1	
Total	351	100.0

^aAdjusted Frequency Percent (Adj. freq. %) includes non-responses or missing data.

Table 4
Frequency Distribution of Total Sample
By Present Marital Status

Marital status	# of subjects	Adj. freq. %
Single	65	18.5
Married	212	60.4
Widowed	7	2.0
Divorced	57	16.2
Separated	10	2.8
Total	351	100.0

Adjusted Frequency Percent (Adj. freq. %) includes non-responses or missing data.

Table 5

Frequency Distribution of Total Sample

By Total Number of Children

Children	# of subjects	Adj. freq. %
0	127	36.9
1	58	16.9
2	86	25.0
3	36	10.5
4	22	6.4
5	7	2.0
6	5	1.5
7	1	0.3
8	2	0.6
No response	7	
Total	351	100.0

Adjusted Frequency Percent (Adj. freq. %) includes non-responses or missing data.

Table 6

Frequency Distribution of Total

Sample By Ages of Children

Currently Living At Home

Ages	#
Birth-6 years	95
7-12 years	108
13-17 years	59
18 years or older	24
No response	5
No children	60
Total	351

More than 55% of the women sampled had completed at least a bachelors degree, whereas 26% of the women sampled had completed requirements for a masters degree. Eleven percent of the women listed that they had completed other degrees. These were not specified in the question but were required for completion of at least one of the recognized degrees in order to be certified in a particular area. The certification process in society and the flexibility of programs may provide some understanding of the diversity of degrees offered. Table 7 provides the frequency distribution of the total sample by the degrees completed.

As stated previously, 212 of the women sampled were combining the roles of spouse and student. More than 35% of the respondents were combining the roles of a professional and a student, and 43% of the respondents combined the roles of spouse, professional, and student (Table 8).

Factors Influencing Female Adult Students to Continue Their Education

Factors which influenced female adult students to continue their education are reported in this section.

Respondents were asked to check all factors which influenced their decisions to return to education and to rank order responses, with the 1 being most important.

In reviewing the responses when asked the question "what influenced your decision to continue your education," 67% of the female adult students sampled indicated increased job potential as their

Table 7
Frequency Distribution of Total
Sample By Degrees Completed

# of subjects	Adj. freq. % ^a
18	7.3
135	55.1
64	26.1
0	0.0
28	11.4
106	
351	100.0
	18 135 64 0 28 106

^aAdjusted Frequency Percent (Adj. freq. %) includes non-responses or missing data.

Table 8

Frequency Distribution of Total Sample

By Combination of Roles

# of subjects	Adj. freq. % ^a
94	32.3
73	25.1
124	42.6
60	
351	100.0
	94 73 124 60

Adjusted Frequency Percent (Adj. freq. %) includes non-responses or missing data.

primary reason for continuing. Their secondary reason for continuing their education was a feeling of achievement (Table 9).

However, when asked to rank order factors that influenced their decisions to continue their education, over 28% of the sample revealed increased job potential as the primary factor and 19% reported an increase in income as the secondary factor for continued education. It should be noted that 0% of the women sampled were continuing their education because of social pressure.

Factors Influencing Choice of Educational Institution

Factors influencing the female adult student to select a particular educational institution are reported in this section.

Respondents were asked to check all factors influencing their choice of educational institution and then to rank order their responses, with 1 being the most important. Over 57% indicated traveling distance as a reason for choice of an educational institution and 53% indicated availability of courses desired as reason for choosing an educational institution.

When asked to rank order the factors that influenced selection of a particular educational institution, over 20% indicated traveling distance as the first. An additional 48% listed traveling distance as the second factor affecting their choice. Availability of course offerings at an institution was ranked third (19%). Though not ranked in the top three choices, location of spouse's job was a reason cited for selection of an educational institution. Table 10 indicates the rank order of factors utilized by students in the selection of an institution.

Table 9

Ranked Order Frequency Distribution of Factors Influencing

Sample To Continue Their Education

	Ranked 1	
Factors	# of subjects	Adj. freq. Z
Fellowship or scholarship	7	2.3
Prestige of a degree	3	1.0
Potential for increase in income	35	11.6
Financial self-sufficiency	35	11.6
Obtaining a feeling of achievement	49	16.2
Prevent boredom	7	2.3
Children more capable and thus provided the opportunity	1	0.3
Family encouragement	11	3.6
Increased job potential	86	28.4
Update of education	23	7.6
Interest in specific course offerings	26	8.6
Encouragement of others	ġ	1.0
Social pressure	0	0.0
Other	17	5.6
No response	48	
Total	351	100.1

Adjusted Frequency Percent (Adj. freq. %) includes non-responses or missing data.

Ranked 2		Ranked 3	
# of subjects	Adj. freq. %	# of subjects	Adj. freq. %
5	1.7	5	1.8
8	2.8	10	3.6
56	19.4	37	13.4
20	6.9	28	10.1
47	16.3	37	13.4
7	2.4	11	4.0
3	1.0	12	4.3
16	5.5	31	11.2
52	18.0	44	15.9
. 33	11.4	18	6.5
23	8.0	21	7.6
11	3.8	16	5.8
1	0.3	6	2.2
7	2.4	0	0.0
62		75	
351	100.0	351	100.0

Table 10

Ranked Order Frequency Distribution of Factors Influencing

Sample's Choice of Institution

	Ra	nked 1
Factors	# of subjects	Adj. freq. %
Finances	64	20.6
Traveling distance	71	22.9
Household responsibilities	2	0.6
Child care	3	1.0
Spouse's attitude	2	0.6
Special counseling programs for women	5	1.6
College advising office	0	0.0
Recruitment by college representative	4	1.1
Employment (full-time)	21	6.8
Employment (part-time)	6	1.7
Availability of courses desired	62	20.0
Location of spouse's job	49	15.8
Other	21	6.8
No response	41	
Total	351	100.0

Adjusted Frequency Percent (Adj. freq. %) includes non-responses or missing data.

Ranked 2		Ra	nked 3
# of subjects	Adj. freq. %	# of subjects	Adj. freq. %
41	17.4	25	16.1
72	30.6	22	14.2
6	2.6	19	12.3
7	3.0	7	4.5
2	0.9	6	3.9
0	0.0	5	3.2
0	0.0	2	1.2
4	1.7	1	0.6
10	4.3	9	5.8
10	4.3	10	6.5
51	21.7	30	19.4
16	6.8	10	6.5
16	6.9	9	5.7
116		196	
351	100.0	351	100.0

Financial Support

When asked to indicate source(s) of financial support for their continued education, 31% of the women sampled indicated they were self-supporting. Of the 42% who indicated a combination of financial sources, spouse and self was the most frequently cited combination.

Table 11 indicates the frequency distribution of the total sample by financial support.

Educational Goals

In an attempt to better understand the reasons why women decide to continue their education, the researcher asked the women what their educational goals were. The female adult students sampled were asked to check all of the educational goals which were appropriate and rank order their goals, with 1 being the most important.

Increased job potential was listed by 74% of the women sampled as their primary reason for returning to school; 71% indicated self-satisfaction as their secondary educational goal; 65% reported obtaining a degree as their third goal (Table 12). The following educational goals were stated in order of importance by the female adult: obtaining a degree, increased job potential, and self-satisfaction.

Further research should be conducted to determine whether the subjects' educational goals were the same upon graduation from high school as they were at the time of this survey, as well as whether the subjects attained their educational goals.

Student Services

Resuming one's education is a significant decision on the part of mature women, as it may involve the assumption of additional roles

Table 11
Frequency Distribution of Total Sample
By Financial Support

Source	# of subjects	Adj. freq. %
Self	108	31.0
Spouse	53	15.2
Parents	9	2.6
Fellowships	13	3.7
Government funds	18	5.2
Comb. of sources	147	42.3
No response	3	
Total	351	100.0

Adjusted Frequency Percent (Adj. freq. %) includes non-responses or missing data.

Table 12

Ranked Order Frequency Distribution of Total

Sample By Educational Goals

	Ranked 1		
Goals	# of subjects	Adj. freq. %	
Obtain a degree	79	25.3	
Increase job potential	71	22.8	
Obtain self-sufficiency	24	7.7	
Self-satisfaction	54	17.3	
Opportunity for occupational advancement	46	14.7	
Desire for educational advancement	28	9.0	
Other	10	3.2	
No response	39		
Total	351	100.0	

^aAdjusted Frequency Percent (Adj. freq. %) includes non-responses or missing data.

Ras	aked 2	Ra	nked 3
# of subjects	Adj. freq. %	# of subjects	·Adj. freq. %
46	16.4	37	14.9
81	28.8	45	18.1
33	11.7	45	18.1
59	21.0	66	26.6
35	12.5	23	9.3
25	8.9	31	12.5
2	0.7	1	0.4
70		103	
351	100.0	351	100.0

which may or may not be compatible with previously established or expected role patterns. In some instances this change in roles and environmental setting may cause discomfort and/or fear.

Each of the institutions sampled had an established counseling service. At least three of the institutions had programs designed specifically for female adult students who had decided to seek additional education. However, student responses indicated that 61% had never visited the counseling center or did not know where the counseling center was located, whereas only 7% visited the center often and 32% reported that they seldom visited the center (Table 13).

Almost the same information was obtained when the women were asked about their contact with programs designed to meet specific needs. Of the 28% who were aware of the programs only 9% visited often and 18% visited program offices on a sporadic basis. Seventy-two precent of the women sampled never visited or were unaware of specific programs for female adult students existing on campus (Table 14).

The researcher was interested in ascertaining what student services the women perceived as being most important to them in their roles as female adult students. The respondents were asked to check all of the student services that they perceived as necessary and rank order the services in order of importance, with 1 being the most important.

The placement office was perceived by 45% of the women in the sample as being of major importance, whereas 41% listed the financial aid office as being important (Table 15).

Table 13

Frequency Distribution of Total Sample By

Contact With Counseling Center

Contact	# of subjects	Adj. freq. % ^a
Visit often	25	7.2
Visit seldom	111	32.1
Never visit	129	37.3
Do not know where it is	81	23.4
No response	5	
Total	351	. 100.0

Adjusted Frequency Percent (Adj. freq. %) includes non-responses or missing data.

Table 14

Frequency Distribution of Total Sample By

Contact With Adult Student Programs

# of subjects	Adj. freq. %ª
33	9.5
64	18.4
147	42.4
103	29.7
4	
351	100.0
	33 64 147 103

Adjusted Frequency Percent (Adj. freq. %) includes non-responses or missing data.

Table 15

Ranked Order Frequency Distribution of Total

Sample By Subjects' Perceptions of Student Services

	Ran	nked 1
Student services	# of subjects	Adj. freq. %
Financial aid office	88	32.9
Counseling service	46	17.2
Minority programs		
Office of student act.	2	0.7
Dean of students	14	5.2
Adult program office	24	9.0
Women's center	9	3.4
Placement office	61	22.8
Other	24	9.0
No response	83	
Total	351	100.0

^aAdjusted Frequency Percent (Adj. freq. %) includes non-responses or missing data.

Rai	iked 2	Ranked 3		
# of subjects	Adj. freq. %	# of subjects	Adj. freq. %	
25	14.9	12	11.6	
3 9	23.2	23	22.1	
9	5.4	3	2.9	
7	4.2	2	1.9	
5	3.0	8	7.7	
24	14.3	8	7.7	
19	1.3	20	19.2	
38	22.6	23	22.1	
2	1.2	5	4.8	
183		247		
351	100.0	351	100.0	

Differences Among Institutions

Table 16 indicates the significant and non-significant variables cross-tabulated with educational institution or age.

<u>Current academic status</u>. A significant relationship was found between educational institution sampled and the variable current academic status.

The total sample included undergraduate, graduate, and special students. Of this sample, 47% were classified as full- or part-time graduate students, which compared to 39% of the females sampled who were full- or part-time undergraduates.

Iowa State University (ISU), the State University of Iowa (SUI), and Drake University had the majority of their female adult students classified as graduate students. Of all of the educational institutions sampled, Drake had the most female graduate students. They were also classified as part-time. The majority of the female graduate students at SUI were full-time graduate students, carrying nine hours or more. There was almost an equal number of female adult graduate students classified as full- or part-time at ISU.

The major difference between educational institutions is the graduate/undergraduate classification of students at the four-year institutions and Des Moines Area Community College (DMACC), a two-year institution. Ninety-five percent of the female undergraduate population were enrolled at DMACC. However, 6% of the graduates sampled were enrolled at DMACC. This can be attributed to women who have returned to school to update credentials or take courses offered only at DMACC.

Table 16
Significant and Non-Significant Variables Cross-Tabulated With
Educational Institution or Age

	Significant ^a for institution	Significant ^a for age	
Variables	Yes No	Yes No	
Current academic status	х	X	
Ethnic background	x	X	
Age	x	Х	
Marital status	x	X	
Degrees completed	x	x	
Combination of roles	x	X	
Financial support	x	х	
Utilization of counseling service	x	X	
Contact with special programs	х	x	

^aSignificant difference calculated at or beyond the .05 level.

The philosophy of the community college with regard to flexible class scheduling and an open door admission policy could account for the 51% of the female adult students from DMACC being classified as part-time undergraduates.

The part-time student status encourages women to continue their education. The flexibility of the part-time status allows women to return to school without completely revising their life styles. The part-time enrollment may also be an accurate determination of the female's real desire to continue education.

Thirteen percent of the total sample were classified as "other," which can be explained by female adult students enrolled for courses in non-degree programs, taking special courses, or participating in workshops which require official enrollment in school. Tables 17 and 18 report the numerical and percentage distributions of the sample by institution and current academic status.

Ethnic background. A significant relationship was found between educational institution and ethnic background. The greatest number of female adult students were Caucasian (88%), which is consistent with the population in the state of Iowa. Less than 1% of the total population is minority.

Sixty-seven percent of the women who are Foreign/Non-US Citizens are enrolled at Iowa State. The large enrollment of international female adult students could be attributed to the enrollment in school of the females' spouses. Iowa State is an attractive educational institution because of its agricultural, science, and technology emphasis.

Table 17

Numerical Distribution of Sample By Institution

And Current Academic Status

Current academic status	ISU	Drake	UNI	U of I	DMACC	Total
Full-time undergraduate	8	5	18	8	30	69
Part-time undergraduate	12	8	10	13	35	68
Full-time graduate	31	9	4	19	0	63
Part-time graduate	34	25	23	14	6	102
Other	13	5	8	6	14	46
Total	98	52	63	50	85	348

Missing observations = 3.

Chi-square = 116.16565 with 16 degrees of freedom.

Table 18

Percentage Distribution of Sample By Institution

And Current Academic Status

Current academic status	ISU	Drake	UNI	U of I	DMACC	Total
Full-time undergraduate	8.2	9.6	28.6	16.0	25.3	19.8
Part-time undergraduate	12.2	15.4	15.9	6.0	41.2	19.5
Full-time graduate	31.6	17.3	6.3	38.0	0.0	18.1
Part-time graduate	34.7	48.1	36.5	28.0	7.1	29.3
Other	13.3	9.6	12.7	12.0	16.5	13.2
Total ^a	100.0	100.0	100.0	100.0	100.0	100.0

Missing observations = 3.

Chi-square = 116.16565 with 16 degrees of freedom.

 $^{^{\}rm a}$ Column totals may not equal 100% due to rounding error in the computation process.

Ninety-one percent of the females who were Black were enrolled at either Iowa State or DMACC. The number of Blacks in the Iowa State sample is due to the pilot study being included in the sample and that the women in the randomly selected sample were combining the roles of professional and school. Black female adult students were enrolled at DMACC because of its geographic proximity to Des Moines and the specialization of courses available at the community college. Tables 19 and 20 report the numerical and percentage distributions of the sample by institution and ethnic background.

Age. There was no significant relationship between educational institution sampled and the variable age. Fifty-one percent of the sample were 25-30 years of age. The age of the sample was the same at all of the institutions. Less than 1% of the total sample were over 55 years of age.

Marital status. There was a significant relationship between educational institution and present marital status. Over 60% of the total sample were married, as compared to 40% of the total sample who were single (Tables 21 and 22). The 21% of the total sample who were divorced, widowed, or separated indicated returning to school to become more self-sufficient.

<u>Degrees completed</u>. There was a significant relationship between educational institution and degrees completed.

Seven percent of the women sampled indicated they had completed at least an Associate of Arts (A.A.) degree. The majority of women (44%)

Table 19

Numerical Distribution of Sample By

Institution and Ethnic Background

Ethnic background	ISU	Drake	UNI	U of I	DMACC	Total
American Indian	0	2	1	0	2	5
Black American	13	1	0	1	7	22
Mexican American	0	0	1	0	0	1
Caucasian	74	48	60	47	78	307
Puerto Rican ^a	0	0	0	0	0	0
Foreign/Non-US citizen	7	1	0	2	1	12
Asian American	2	0	0	0	0	2
Total	97	52	62	50	88	349

Missing observations = 2.

Chi-square = 42.36551 with 20 degrees of freedom.

Category not included in calculation of chi-square.

Table 20
Percentage Distribution of Sample By
Institution and Ethnic Background

Ethnic background	ISU	Drake	UNI	U of I	DMACC	Total
American Indian	0.0	3.8	1.6	0.0	2.3	1.4
Black American	13.4	1.9	0.0	2.0	8.0	6.3
Mexican American	0.0	0.0	1.6	0.0	0.0	0.3
Caucasian	76.3	92.3	96.8	94.0	88.6	88.0
Puerto Rican	0.0	0.0	0.0	0.0	0.0	0.0
Foreign/Non-US citizen	8.2	1.9	0.0	4.0	1.1	3.4
Asian American	2.1	0.0	0.0	0.0	0.0	0.6
Total ^b	100.0	100.0	100.0	100.0	100.0	100.0

Missing observations = 2.

Chi-square = 42.36551 with 20 degrees of freedom.

Category not included in the calculation of chi-square.

^bColumn totals may not equal 100% due to rounding error in the computation process.

Table 21

Numerical Distribution of Sample By

Institution and Marital Status

Marital status	ISU	Drake	UNI	U of I	DMACC	Total
Single	19	8	7	19	12	65
Married	62	32	45	15	58	212
Widowed	2	0	1	2	2	7
Divorced	13	11	7	13	13	57
Separated	2	1	્ 3	1	3	10
Total	98	52	63	50	88	351

Chi-square = 31.99220 with 16 degrees of freedom.

Table 22

Percentage Distribution of Sample By

Institution and Marital Status

Marital status	ISU	Drake	UNI	U of I	DMACC	Total
Single	19.4	15.4	11.1	38.0	13.6	18.5
Married	63.3	61.5	71.4	30.0	65.9	60.4
Widowed	2.0	0.0	1.6	4.0	2.3	2.0
Divorced	13.3	21.2	11.1	26.0	14.8	16.2
Separated	2.0	1.9	4.8	2.0	3.4	2.8
Total	100.0	100.0	100.0	100.0	100.0	100.0

Chi-square = 31.99220 with 16 degrees of freedom.

^aColumn totals may not equal 100% due to rounding error in the computation process.

who indicated A.A. degrees were enrolled at DMACC or University of Northern Iowa (UNI) (33%). DMACC offers only an A.A. degree and the female adult students at UNI who indicated completion of an A.A. had transferred from a community college in the area.

Fifty-five percent of the total population had completed at least a bachelors degree. Over 38% of the female adult students had completed bachelors degrees, whereas only 6% of the women at DMACC had completed the same degree. Though the comparison is not totally valid, it does indicate that a portion of the women at DMACC had attended a four-year institution. There was an equal number who had completed masters degrees; 25 of the female adult students at each of the four-year institutions had completed masters degrees. Tables 23 and 24 give the numerical and percentage distributions on these data.

Decision to continue education. A relationship was found between educational institution and ranked order of importance of factors which influenced the women sampled to continue their education. Twenty-nine percent of the women sampled indicated "increased job potential" as the primary reason for their return to school; "fellowship or scholarship," "prestige of a degree," "financial self-sufficiency," and "children more capable and thus provided the opportunity" were not significant factors in their decisions to return to school (Tables 25 and 26).

Combination of roles. A significant relationship was found between educational institution and combination of roles. Sixty-eight percent of the total population were combining the roles of student and professional (Tables 27 and 28). The greatest number of female adult

Table 23

Numerical Distribution of Sample By

Institution and Degrees Completed

Degree	ISU	Drake	UNI	U of I	DMACC	Total
Associate of Arts	2	1	6	1	8	18
Bachelors	51	25	21	30	8	135
Masters	29	13	9	13	0	64
Doctorate	0	0	0	0	0	0
Other ^b	5	3	4	4	11	27
Total	88	42	40	48	27	245

Missing observations = 106.

Chi-square = 70.45554 with 16 degrees of freedom.

aCategory not included in the calculation of chi-square.

^bRepresented one additional choice.

Table 24

Percentage Distribution of Sample By

Institution and Degrees Completed

Degrees	ISU	Drake	UNI	U of I	DMACC	Total
Associate of Arts	2.3	2.4	15.0	2.1	29.6	7.3
Bachelors	58.0	59.5	52.5	62.5	29.6	55.1
Masters	33.0	31.0	22.5	27.1	0.0	26.1
Doctorate	0.0	0.0	0.0	0.0	0.0	0.0
Other ^b	6.8	7.1	10.0	8.3	40.7	11.4
Total ^C	100.0	100.0	100.0	100.0	100.0	100.0

Missing observations = 106.

Chi-square = 70.45554 with 16 degrees of freedom.

^aCategory not included in the calculation of chi-square.

^bRepresented one additional category.

^cColumn totals may not equal 100% due to rounding error in the computation process.

Table 25

Ranked First in Order of Importance for Numerical

Distribution of Sample By Institution and Factors

Influencing Subject's Decision to

Continue Her Education

Factors	ISU	Drake
Fellowship or scholarship	1	0
Prestige of a degree	1	1
Potential for increase in income	9	5
Financial self-sufficiency	9	6
Obtaining a feeling of achievement	17	4
Prevent "boredom"	1	3
Children more capable and thus provided the opportunity	0	0
Family encouragement	4	2
Increased job potential	27	12
Update of education	8	1
Interest in specific course offerings	5	6
Encouragement of others	0	0
Social pressure	0	0
Other ^b	5	5
Total	87	45

Missing observations = 48.

Chi-square = 72.50311 with 52 degrees of freedom.

^aCategory not included in the calculation of chi-square.

b Represented two additional categories.

UNI	U of I	DMACC	Total
1	4	0	6
0	1	0	3
9	0	12	35
4	2	14	35
10	4	14	49
1	1	1	7
0	0	1	1
2	1	2	11
15	11	22	87
4	5	5	23
5	6	4	26
0	2	1	3
0	0	0	0
1	5	1	17
52	42	77	303

Table 26

Ranked First in Order of Importance of Percentage Distribution of Sample By Institution and Factors Influencing Subject's Decision

To Continue Her Education

Factors	ISU	Drake	UNI
Fellowship or scholarship	1.1	0.0	1.9
Prestige of a degree	1.1	2.2	0.0
Potential for increase in income	10.3	11.1	17.3
Financial self-sufficiency	10.3	13.3	7.7
Obtaining a feeling of achievement	19.5	8.9	19.2
Prevent "boredom"	1.1	6.7	1.9
Children more capable and thus provided the opportunity	0.0	0.0	0.0
Family encouragement	4.6	4.4	3.8
Increased job potential	31.0	26.7	28.8
Update of education	9.2	2.2	7.7
Interest in specific course offerings	5.7	13.3	9.6
Encouragement of others	0.0	0.0	0.0
Social pressure	0.0	0.0	0.0
Other	5.7	11.1	1.9
Total ^c	100.0	100.0	100.0

Missing observations = 48.

Chi-square = 72.50311 with 52 degrees of freedom.

aCategory not included in the calculation of chi-square.

bRepresented one additional category.

^CColumn totals may not equal 100% due to rounding error in the computation process.

U of I	DMACC	Total
9.5	0.0	2.0
2.4	0.0	1.0
0.0	15.6	11.6
4.8	18.2	11.6
9.5	18.2	16.2
2.4	1.3	2.3
0.0	0.0	0.3
2.4	2.6	3.6
26.2	28.6	28.7
11.9	6.5	7.6
14.3	4.2	8.6
4.8	1.3	1.0
0.0	0.0	0.0
11.9	1.3	5.6
100.0	100.0	100.0
	 	

Table 27

Numerical Distribution of Sample By

Institution and Combination of Roles

Role	ISU	Drake	UNI	U of I	DMACC	Total
Marriage with school	29	10	20	11	23	93
Career with school	19	13	7	16	19	74
Marriage & career with school	34	24	27	5	34	124
Total	82	47	54	32	76	291

Missing observations = 60.

Chi-square = 25.99013 with 12 degrees of freedom.

Table 28

Percentage Distribution of Sample By

Institution and Combination of Roles

Role	ISU	Drake	UNI	U of I	DMACC	Total
Marriage with school	35.4	21.3	37.0	34.4	30.3	32.0
Career with school	· 23 . 2	27.6	13.0	50.0	25.0	25.4
Marriage & career with school	41.5	51.1	50.0	15.6	44.7	42.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

Missing observations = 60.

Chi-square = 25.99013 with 12 degrees of freedom.

^aColumn totals may not equal 100% due to rounding error in the computation process.

students who were combining the roles of spouse and student were enrolled at ISU. ISU and DMACC accounted for 50% of the female adult students who were combining the roles of a professional and student.

The same proportion (27%) of female adult students at both institutions were combining the roles of spouse, professional, and student. This figure can be attributed to the part-time student status of both samples.

Choice of institution. A relationship was found between educational institution and ranked order of importance for factors which influenced the subject's choice of institution. Twenty-three percent of the women sampled indicated traveling distance as the primary factor in choice of institution (Tables 29, 30, 31, 32, 33, and 34). Women sampled at ISU indicated their primary reason for choice of institution was location of spouse's job. Women sampled at SUI indicated availability of courses, whereas 47% of the women sampled at DMACC indicated finances as their primary reason for choice of institution.

Financial support. A significant relationship was found between educational institution and financial support. Of the total number of women sampled, 31% indicated they were self-supporting; 37% were receiving financial support from a combination of sources, self, spouse, parents, and fellowship or scholarship. Sixty-four percent of the female adult students whose major source of financial support was fellowship or scholarship were enrolled at ISU. This was consistent with the graduate status of the female adult students at ISU. At DMACC 61% of

Table 29

Ranked First in Order of Importance for Numerical Distribution of Sample By Institution and Factors Influencing Choice of Institution

Factors	ISU	Drake	UNI	U of I	DMACC	Total
Finances	12	4	4	8	36	64
Traveling distance	9	22	27	3	10	71
Household responsibilities	1	0	0	0	1	2
Child care	0	1	0	0	2	3
Spouse's attitude	1	0	0	1	0	2
Special counseling program for women	3	0	0	0	2	5
College advising office ^a	0	0	0	0	0	0
Recruitment by college representative	3	0	0	0	1	4
Employment (full-time)	8	4	2	3	4	21
Employment (part-time)	4	0	0	2	0	6
Availability of courses desired	9	10	10	14	19	62
Location of spouse's job	26	5	9	8	0	48
Other ^b	12	1	3	5	1	22
Total	88	47	55	44	76	310

Missing observations = 41.

Chi-square = 167.95982 with 52 degrees of freedom.

^aCategory not included in the calculation of chi-square.

bRepresented two additional categories.

Table 30

Ranked First in Order of Importance for Percentage Distribution of Sample By Institution and Factors Influencing Choice of Institution

Factors	ISU	Drake	UNI	U of I	DMACC	Total
Finances	13.6	8.5	7.3	18.2	47.4	20.6
Traveling distance	10.2	46.8	49.1	6.8	13.2	22.9
Household respon- sibilities	1.1	0.0	0.0	0.0	1.3	0.6
Child care	0.0	2.1	0.0	0.0	2.6	1.0
Spouse's attitude	1.1	0.0	0.0	2.3	0.0	0.6
Special counseling programs for women	3.4	0.0	0.0	0.0	2.6	1.6
College advising office	0.0	0.0	0.0	0.0	0.0	0.0
Recruitment by college representative	3.4	0.0	0.0	0.0	1.3	1.3
Employment (full-time)	9.1	8.5	3.6	6.8	5.3	6.8
Employment (part-time)	4.5	0.0	0.0	4.5	0.0	1.9
Availability of courses desired	10.2	21.3	18.2	31.8	25.0	20.0
Location of spouse's job	29.5	10.6	16.4	18.2	0.0	15.5
Other ^b	13.6	2.1	5.5	11.4	1.3	7.1
Total ^C	100.0	100.0	100.0	100.0	100.0	100.0

Missing observations = 41.

Chi-square = 167.95982 with 52 degrees of freedom.

^aCategory not included in the calculation of chi-square.

bRepresented one additional category.

 $^{^{\}rm C}{\rm Column}$ totals may not equal 100% due to rounding error in the computation process.

Table 31

Ranked Second in Order of Importance for Numerical Distribution of Sample By Institution and Factors Influencing Choice of Institution

Factors	ISU	Drake	UNI	U of I	DMACC	Total
Finances	5	1	10	5	20	41
Traveling distance	19	10	9	8	26	72
Household responsibilities	1	2	1	1	1	6
Child care	1	3	1	0	2	7
Spouse's attitude ^a	0	0	0	0	0	0
Special counseling program for women	0	0	0	0	0	0
College advising office ^a	0	0	0	0	0	0
Recruitment by college representative	2	0	0	1	0	4
Employment (full-time)	1	5	1	1	2	10
Employment (part-time)	5	0	2	2	1	10
Availability of courses desired	13	6	9	12	11	51
Location of spouse's job	8	1	. 5	1	1	16
Other ^b	9	3	0	4	0	16
Total	64	32	39	35	65	235

Missing observations = 44.

Chi-square = 90.12358 with 44 degrees of freedom.

^aCategories not included in the calculation of chi-square.

^bRepresented two additional categories.

Table 32

Ranked Second in Order of Importance for Percentage Distribution of Sample By Institution and Factors Influencing Choice of Institution

Factors	ISU	Drake	UNI	U of I	DMACC	Total
Finances	7.8	3.1	25.6	14.3	30.8	17.4
Traveling distance	29.7	31.3	23.1	22.9	40.0	30.6
Household respon- sibilities	1.6	6.3	2.6	2.9	1.5	2.6
Child care	1.6	9.4	2.6	6.3	3.1	3.0
Spouse's attitude ^a	0.0	0.0	0.0	. 3	0.0	0.9
Special counseling programs for women	0.0	0.0	0.0	0.0	0.0	0.0
College advising office	0.0	0.0	0.0	0.0	0.0	0.0
Recruitment by college representative	3.1	0.0	2.6	2.9	0.0	1.7
Employment (full-time)	1.6	15.6	2.6	2.9	3.1	4.3
Employment (part-time)	7.8	0.0	5.1	5.7	1.5	4.3
Availability of courses desired	20.3	18.8	23.1	34.3	16.9	21.7
Location of spouse's job	12.5	3.1	12.8	2.9	1.5	6.8
Other ^b	14.1	.94	0.0	11.4	0.0	6.9
Total ^C	100.0	100.0	100.0	100.0	100.0	100.0

Missing observations = 44.

Chi-square = 90.12358 with 44 degrees of freedom.

^aCategories not included in the calculation of chi-square.

^bRepresented one additional category.

^CColumn totals may not equal 100% due to rounding error in the computation process.

Table 33

Ranked Third in Order of Importance for Numerical Distribution of Sample By Institution and Factors Influencing Choice of Institution

Factors	ISU	Drake	UNI	U of I	DMACC	Total
Finances	7	0	6	7	5	25
Traveling distance	5	0	4	4	9	22
Household responsibilities	7	4	2	0	6	19
Child care	3	1	1	0	2	7
Spouse's attitude	2	2	0	0	2	6
Special counseling program for women	1	0	1	2	1	5
College advising office	1	1	0	0	0	2
Recruitment by college representative	0	1	0	0	0	1
Employment (full-time)	1	3	3	0	2	9
Employment (part-time)	1	0	3	2	. 4	10
Availability of courses desired	2	5	4	2	17	30
Location of spouse's job	4	2	1	2	1	10
Other ^a	5	3	0	0	1	9
Total	39	22	25	19	50	155

Missing observations = 196.

Chi-square = 91.97108 with 60 degrees of freedom.

^aRepresented one additional category.

Table 34

Ranked Third in Order of Importance for Percentage Distribution of Sample By Institution and Factors Influencing Choice of Institution

Factors	ISU	Drake	UNI	U of I	DMACC	Total
Finances	17.9	0.0	24.0	36.8	10.0	16.1
Traveling distance	12.8	0.0	16.0	21.1	18.0	14.2
Household respon- sibilities	17.9	18.2	8.0	0.0	12.0	12.3
Child care	7.7	4.5	4.0	0.0	4.0	4.5
Spouse's attitude	5.1	9.1	0.0	0.0	4.0	3.9
Special counseling programs for women	2.6	0.0	4.0	10.5	2.0	3.2
College advising office	2.6	4.5	0.0	0.0	0.0	1.3
Recruitment by college representative	0.0	4.5	0.0	0.0	0.0	0.6
Employment (full-time)	2.6	13.6	12.0	0.0	4.0	5.8
Employment (part-time)	2.6	0.0	12.0	10.5	8.0	6.5
Availability of courses desired	5.1	22.7	16.0	10.5	34.0	19.4
Location of spouse's job	10.3	9.1	4.0	10.5	2.0	6.5
Other	12.8	13.6	0.0	0.0	2.0	5.8
Total	100.0	100.0	100.0	100.0	100.0	100.0

Missing observations = 196.

Chi-square = 91.97108 with 60 degrees of freedom.

^aColumn totals may not equal 100% due to rounding error in the computation process.

the female adult students were supported through government funds, whereas only 6% of the women at Drake and SUI were receiving financial aid from government funds (Tables 35 and 36).

Counseling service. A significant relationship was found between educational institution and utilization of counseling services. Thirty-seven percent of the total sample indicated they never used the institution's counseling service (Tables 37 and 38). Only 7% of the sample visited often; 32% of the female adult students at ISU and 44% of the women at DMACC visited their counseling center often. Iowa State offered services specifically to female adult students and the average age of all students at DMACC is over 25 and the counseling center was viewed as a positive service on campus because of the staff. Almost equal numbers of women at ISU, Drake, UNI, and SUI responded they seldom visited, never visited, and did not know where the counseling center was located. Only 9% of the women sampled at DMACC indicated they did not know where the counseling center was.

Programs. A significant relationship was found between educational institution and utilization of programs specifically designed for female adult students. Over 72% of the total sample indicated they never used or were unaware of programs designed for female adult students on their campuses. (See Tables 39 and 40.)

Female adult students at ISU (37%) and DMACC (27%) had the most contact with special programs for mature women. Women at Drake and UNI (14%) indicated they seldom had contact with special programs.

Table 35

Numerical Distribution of Sample By

Institution and Financial Support

Financial support	ISU	Drake	UNI	U of I	DMACC	Total
Self	28	16	16	16	31	107
Spouse	15	7	11	6	14	53
Parents	2	2	1	3	1	9
Fellowship or scholarship	9	3	2	0	0	14
Government funds	3	1	2	1	11	18
Combination of support	37	20	28	22	23	130
Other	4	2	2	2	7	17
Total	98	51	62	50	87	348

Missing observations = 3.

Chi-square = 37.78572 with 24 degrees of freedom.

Table 36

Percentage Distribution of Sample By

Institution and Financial Support

Financial support	ISU	Drake	UNI	U of I	DMACC	Total
Self	28.6	31.4	25.8	32.0	35.6	30.7
Spouse	15.3	13.7	17.7	12.0	16.1	15.2
Parents	2.0	3.9	1.6	6.0	1.1	2.6
Fellowship or scholarship	9.2	5.9	3.2	0.0	0.0	4.0
Government funds	3.1	2.0	3.2	2.0	12.6	5.2
Combination of support	37.8	39.2	45.2	44.0	26.4	37.4
Other	4.1	3.9	3.2	4.0	8.0	4.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

Missing observations = 3.

Chi-square = 37.78572 with 24 degrees of freedom.

Column totals may not equal 100% due to rounding error in the computation process.

Table 37

Numerical Distribution of Sample By Institution and

Utilization of Counseling Service

ISU	Drake	UNI	U of I	DMACC	Total
8	3	0	3	11	25
25	11	22	10	43	111
38	26	22	18	25	129
25	12	18	19	7	81
96	52	62	50	86	346
	8 25 38 25	8 3 25 11 38 26 25 12	8 3 0 25 11 22 38 26 22 25 12 18	8 3 0 3 25 11 22 10 38 26 22 18 25 12 18 19	8 3 0 3 11 25 11 22 10 43 38 26 22 18 25 25 12 18 19 7

Missing observations = 5.

Chi-square = 40.97879 with 12 degrees of freedom.

Table 38

Percentage Distribution of Sample By Institution and

Utilization of Counseling Service

Contact	ISU	Drake	UNI	U of I	DMACC	Total
Visit often	8.3	5.8	0.0	6.0	12.8	7.2
Visit seldom	26.0	21.2	35.5	20.0	50.0	32.1
Never visit	39.6	50.0	35.5	36.0	29.1	37.3
Do not know where it is	26.0	23.1	29.0	38.0	8.1	23.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

Missing observations = 5.

Chi-square = 40.97879 with 12 degrees of freedom.

^aColumn totals may not equal 100% due to rounding error in the computation process.

Table 39

Numerical Distribution of Sample By Institution and

Programs Designed for Female Adult Students

Programs	ISU	Drake	UNI	U of I	DMACC	Total
Visit often	11	6	4	4	8	33
Visit seldom	22	9	9	6	18	64
Never visit	51	27	25	21	23	147
Did not know programs existed at my institution	13	10	24	18	38	103
Total	97	52	62	49	87	347

Missing observations = 4.

Chi-square = 40.24437 with 16 degrees of freedom.

Table 40

Percentage Distribution of Sample By Institution and

Programs Designed for Female Adult Students

Programs	ISU	Drake	UNI	U of I	DMACC	Total
Visit often	11.3	11.5	6.5	8.1	9.2	9.5
Visit seldom	22.7	17.3	14.5	12.2	20.7	18.4
Never visit	52.6	51.9	40.3	42.9	26.4	42.4
Did not know programs existed at my institution	13.4	19.2	38.7	36.7	43.7	29.7
Total	100.0	100.0	100.0	100.0	100.0	100.0

Missing observations = 4.

Chi-square = 40.24437 with 16 degrees of freedom.

 $^{^{\}rm a} \text{Column}$ totals may not equal 100% due to rounding error in the computation process.

Dissatisfaction with staff and program content were indicated as reasons for not participating in programs or activities designed to meet the needs of female adult students.

Student services. A significant relationship was found between educational institution and ranked order of importance of student services indicated as necessary by female adult students sampled. The financial aid office was listed as the most important student service by 33% of the total sample (Tables 41, 42, 43, and 44). Women sampled at ISU (33%) indicated the placement office as the most important service, whereas women at the other institutions were consistent with the total sample's report. DMACC's female adult students reported counseling services as the most important.

Educational goals. No significant relationship was found between educational institution and ranked order of importance of educational goals. Twenty-five percent of the women sampled indicated their primary educational goal as "obtaining a degree." Other educational goals included "increased job potential," "obtain self-sufficiency," "self-satisfaction," "opportunity for occupational advancement," and "desire for educational advancement."

Differences Among Age Categories

Current academic status. No significant relationship was found between age and current academic status. Of the females sampled between the ages of 25 and 30, 61% were classified as full-time undergraduates. In the age group 41-45, 7% were classified as full-time

Table 41

Ranked First in Order of Importance for Numerical Distribution

Of Sample By Institution and Student Services

Student services	ISU	Drake	UNI	U of I	DMACC	Total
Financial aid	19	16	11	16	25	87
Counseling service	7	7	5	2	25	46
Minority programs	0	0	0	0	0	0
Office of student activities	1	0	0	0	1	2
Dean of students	3	5	1	4	1	14
Adult programs office	10	3	2	4	5	24
Women's center	4	1	2	0	2	9
Placement office	26	7	10	12	6	61
Other b	8	2	10	2	2	24
Total	79	41	41	40	67	268

Missing observations = 83.

Chi-square = 69.90530 with 32 degrees of freedom.

aCategory not included in the calculation of chi-square.

^bRepresented two additional categories.

Table 42

Ranked First in Order of Importance for Percentage Distribution of Sample By Institution and Student Services

Student service	ISU	Drake	UNI	U of I	DMACC	Total
Financial aid	25.4	39.0	26.8	40.0	37.3	32.9
Counseling service	8.9	17.1	12.0	5.0	37.3	17.2
Minority programs ^a	0.0	0.0	0.0	0.0	0.0	0.0
Office of student activities	1.3	0.0	0.0	0.0	1.5	0.7
Dean of students	3.8	12.2	2.4	10.0	1.5	5.2
Adult programs office	12.7	7.3	4.9	10.0	7.5	9.0
Women's center	5.1	2.4	4.9	0.0	3.0	3.4
Placement office	32.9	17.1	24.4	30.0	9.0	22.8
0ther b	10.1	4.9	24.4	5.0	3.0	9.0
Total ^c	100.0	100.0	100.0	100.0	100.0	100.0

Missing observations = 83.

Chi-square = 69.90530 with 32 degrees of freedom.

^aCategory not included in the calculation of chi-square.

bRepresented one additional category.

 $^{^{\}rm C}\textsc{Column}$ totals may not equal 100% due to rounding error in the computation process.

Table 43

Ranked Second in Order of Importance for Numerical Distribution

Of Sample By Institution and Student Services

Student services	ISU	Drake	UNI	U of I	DMACC	Total
Financial aid	5	5	5	3	7	25
Counseling service	8	6	5	7	13	39
Minority programs	7	0	0	1	1	9
Office of student activities	2	0	1	4	0	7
Dean of students	3	0	1	0	1	5
Adult programs office	9	3	0	0	12	24
Women's center	4	5	1	. 5	4	19
Placement office	13	6	7	3	9	38
Other	1	0	0	0	0	1
Total	52	25	20	23	47	168

Missing observations = 183.

Chi-square = 53.87881 with 36 degrees of freedom.

^aRepresented two additional categories.

Table 44

Ranked Second in Order of Importance for Percentage Distribution of Sample By Institution and Student Services

Student service	ISU	Drake	UNI	U of I	DMACC	Total
Financial aid	9.4	20.0	25.0	13.0	14.9	14.9
Counseling service	15.1	24.0	25.0	30.4	27.7	23.2
Minority programs	13.2	0.0	0.0	4.3	2.1	5.4
Office of student activities	3.8	0.0	5.0	17.4	0.0	4.2
Dean of students	5.7	0.0	5.0	0.0	2.1	3.0
Adult programs office	17.0	12.0	0.0	0.0	25.2	14.3
Women's center	7.5	20.0	5.0	21.7	8.5	11.3
Placement office	24.5	24.0	35.0	13.0	19.1	22.6
0ther	3.8	0.0	0.0	0.0	0.0	1.2
Total b	100.0	100.0	100.0	100.0	100.0	100.0

Missing observations = 183.

Chi-square = 53.87881 with 36 degrees of freedom.

aRepresented one additional category.

bColumn totals may not equal 100% due to rounding error in the computation process.

undergraduates. The greatest number of women sampled were between the ages of 25 and 30. Therefore, this age group represented the largest number of women in each academic classification.

Ethnic background. No significant relationship was found between age and ethnic background. As reported previously, the greatest number of women (88%) sampled were Caucasian. The greatest number of these women were 25-30 years of age. The women sampled who indicated other ethnic categories generally were over 30 years of age.

Marital status. A significant relationship was found between age and present marital status. Of the women sampled between the ages of 25 and 30, 82% were single. The greatest number of women who are widowed and divorced are over 30 years of age (Tables 45 and 46).

Degrees completed. No significant relationship was reported between age and degrees completed. At least a bachelors degree had been completed by 39% of the women sampled between 31 and 35 years of age.

Combination of roles. A significant relationship was found between age and combination of roles. Over 50% of the women sampled between the ages of 25 and 30 indicated the combination of roles spouse and student. Over 58% of the women in the age group 25-30 were combining the roles of a professional and student, whereas only 1% of the women 41-45 years of age were. One percent of the women 56-60 years of age were combining the roles of a professional, spouse, and student. The low number of women in this category corresponds with the percentage of women who were also widowed or divorced. Tables 47 and 48 report numerical and percentage distributions for these data.

Table 45

Numerical Distribution of Sample

By Age and Marital Status

Marital status	25-30	31-35	36-40	41–45	46–50	51-55	56–60	Total
Single	53	7	2	1	0	2	0	65
Married	96	38	41	20	9	7	1	212
Widowed	1	1	1	4	0	0	0	7
Divorced	24	18	11	2	2	0	0	57
Separated	5	2	1	0	1	0	0	9
Total	179	66	56	27	12	9	1	350

Missing observations = 1.

Chi-square = 67.80399 with 24 degrees of freedom.

Table 46

Percentage Distribution of Sample

By Age and Marital Status

Marital status	25-30	31–35	36–40	41–45	46–50	51–55	56–60	Total
Single	29.6	10.6	3.6	3.7	0.0	22.2	0.0	18.6
Married	53.6	57.6	73.2	74.1	75.0	77.8	100.0	60.6
Widowed	0.6	1.5	1.8	14.8	0.0	0.0	0.0	2.0
Divorced	13.4	27.3	19.6	74.4	16.7	0.0	0.0	16.3
Separated	2.8	3.0	1.8	0.0	8.3	0.0	0.0	2.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Missing observations = 1.

Chi-square = 67.80399 with 24 degrees of freedom.

 $^{^{\}rm a} \! \text{Column}$ totals may not equal 100% due to rounding error in the computation process.

Table 47

Numerical Distribution of Sample By Age and Combination of Roles

Ro le	25-30	31-35	36-40	41-45	46-50	51-55	56-60	Total
Marriage with school	47	20	16	8	3	0	0	94
Career with school	42	16	10	1	2	2	0	73
Marriage and career with school	54	20	24	12	7	6	1	124
Total	143	56	50	21	12	8	1	291

Missing observations = 60.

Chi-square = 39.65097 with 18 degrees of freedom.

Table 48

Percentage Distribution of Sample By Age and Combination of Roles

Role	25-30	31-35	36-40	41-45	46-50	51-55	56-60	Total
Miarriage with school	32.9	35.7	32.0	38.1	25.0	0.0	0.0	32.3
Career with school	29.4	28.6	20.0	4.8	16.7	25.0	0.0	25.1
Marriage and career with school	37.8	35.7	48.0	57.1	58.3	75.0	100.0	42.6
Total a	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Missing observations = 60.

Chi-square = 39.65097 with 18 degrees of freedom.

^aColumn totals may not equal 100% due to rounding error in the computation process.

Financial support. No significant relationship was found between age and sources of financial support. Of the women sampled between the ages of 25 and 30, 89% reported their primary sources of financial support as parents and fellowships or scholarships. Data are not consistent with the number of female adult students sampled who reported being married.

Counseling service. No significant relationship was reported between age and utilization of counseling services.

<u>Programs</u>. A significant relationship was reported between age and contact with programs designed for female adult students. Frequent contacts with the programs designed for female adult students were reported by 6% of the women sampled between the ages 25 and 30, whereas 81% of the women sampled in this age group indicated they never visited or were unaware of programs on their campus.

Decision to continue education. No significant relationship was found between age and ranked order of importance of factors which influenced the women sampled to continue their education.

Choice of institution. A significant relationship was found between age and ranked order of importance for factors which influenced the subject's choice of institution. Of the women 25-30 years of age, 24% indicated finances as the primary factor in their choice of educational institution. Of the women 31-35, 22% indicated availability of courses desired, whereas women 46-50 indicated location of spouse's job as their primary reason for choosing an educational institution.

Ranked second in order of importance for choice of institution was traveling distance. This was consistent with all age categories. (See Tables 49, 50, 51, and 52.)

Student services. No significant relationship was found between age and ranked order of importance of student services.

Educational goals. No significant relationship was found between age and ranked order of importance of educational goals.

Table 49

Ranked First in Order of Importance for Numerical

Distribution of Sample By Age and Factors

Influencing Choice of Institution

Factors	25-30	31-35	36-40	41-45
Finances	38	12	10	I
Traveling distance	27	10	19	10
Household responsibilities	0	1	0	1
Child care	2	1	0	0
Spouse's attitude	2	0	0	0
Special counseling program for women	3	1	1	0
College advising office	0	0	0	0
Recruitment by college representative	3	0	0	1
Employment (full-time)	10	3	5	0
Employment (part-time)	4	2	0	0
Availability of courses desired	40	13	1	6
Location of spouse's job	19	11	9	3
Other	9	6	4	1
Total	157	60	49	23

Missing observations = 42.

Chi-square = 103.24278 with 78 degrees of freedom.

aCategory not included in the calculation of chi-square.

Bepresented two additional categories.

46-50	51-55	56-60	Total
1	2	0	64
1	3	1	71
0	0	0	2
0	0	0	3
0	0	0	2
0	0	0	5
0	0	0	0
0	0	0	4
1	2	0	21
0	0	0	6
1	1	0	62
6	0	0	48
1	0	0	21
11	8	1	309

Table 50

Ranked First in Order of Importance for Percentage Distribution

Of Sample By Age and Factors Influencing Choice of Institution

Factors	25–30	31–35	36-40	41–45
Finances	34.2	20.0	20.4	4.3
Traveling distance	17.2	16.7	38.8	43.5
Household responsibilities	0.0	1.7	0.0	4.3
Child care	1.3	1.7	0.0	0.0
Spouse's attitude	1.3	0.0	0.0	0.0
Special counseling program for women	1.9	1.7	2.0	0.0
College advising office	0.0	0.0	0.0	0.0
Recruitment by college representative	1.9	0.0	0.0	4.3
Employment (full-time)	6.4	5.0	10.2	0.0
Employment (part-time)	2.5	3.3	0.0	0.0
Availability of courses desired	25.5	21.7	2.0	26.1
Location of spouse's job	12.1	18.3	18.4	13.0
b Other	5.7	10.0	8.2	4.3
Total ^c	100.0	100.0	100.0	100.0

Missing observations = 42.

Chi-square = 103.24278 with 78 degrees of freedom.

^aCategory not included in the calculation of chi-square.

^bRepresented one additional category.

^cColumn totals may not equal 100% due to rounding error in the computation process.

46-50	51-55	56-60	Total
9.1	25.0	0.0	20.7
9.1	37.5	100.0	23.0
0.0	0.0	0.0	0.6
0.0	0.0	0.0	1.0
0.0	0.0	0.0	0.6
0.0	0.0	0.0	1.6
0.0	0.0	0.0	0.0
0.0	0.0	0.0	1.3
9.1	25.0	0.0	6.8
0.0	0.0	0.0	1.9
9.1	12.5	0.0	20.1
54.5	0.0	0.0	15.5
9.1	0.0	0.0	6.8
100.0	100.0	100.0	100.0

Table 51

Ranked Second in Order of Importance for Numerical

Distribution of Sample By Age and Factors

Influencing Choice of Institution

Factors	25~30	31-35	36–40	41-45
Finances	26	7	5	3
Traveling distance	32	13	16	5
Household responsibilities	1	3	. 1	0
Child care	2	4	0	0
Spouse's attitude	0	1	Ģ	0
Special counseling program for women	0	0	0	0
College advising office	0	0	0	0
Recruitment by college representative	4	0	0	0
Employment (full-time)	4	2	2	1
Employment (part-time)	9	1	0	0
Availability of courses desired	28	11	6	4
Location of spouse's job	8	3	3	2
b Other	8	6	0	1
Total	122	51	33	16

Missing observations = 116.

Chi-square = 110.51929 with 66 degrees of freedom.

^aCategories not included in the calculation of chi-square.

b Represented two additional categories.

46–50	51-55	56-60	Total
0	0	0	41
4	2	0	72
1	0	0	6
1	0	0	7
0	1	0	2
0	0	0	0
0	0	0	0
0	0	0	4
0	0	1	10
0	0	0	10
0	2	0	51
0	0	0	16
1	0	0	16
7	5	1	235

Table 52

Ranked Second in Order of Importance for Percentage Distribution

Of Sample By Age and Factors Influencing Choice of Institution

Factors	25–30	31-35	36–40	41–45
Finances	21.3	13.7	15.2	18.8
Traveling distance	26.2	25.5	48.5	31.3
Household responsibilities	0.8	5.9	3.0	0.0
Child care	1.6	7.8	0.0	0.0
Spouse's attitude	0.0	2.0	0.0	0.0
Special counseling program for women	0.0	0.0	0.0	0.0
College advising office	0.0	0.0	0.0	0.0
Recruitment by college representative	3.3	0.0	0.0	0.0
Employment (full-time)	3.3	3.9	6.1	6.3
Employment (part-time)	7.4	2.0	0.0	0.0
Availability of courses desired	23.0	21.6	18.2	25.0
Location of spouse's job	6.6	5.9	9.1	12.5
Other ^b	6.5	11.8	0.0	6.3
Total	100.0	100.0	100.0	100.0

Missing observations = 116.

Chi-square = 110.51929 with 66 degrees of freedom.

^aCategories not included in the calculation of chi-square.

b Represented two additional categories.

Total	56-60	51-55	46-50
17.4	0.0	0.0	0.0
30.6	0.0	40.0	57.1
2.6	0.0	0.0	14.3
3.0	0.0	0.0	14.3
0.9	0.0	20.0	0.0
C.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0
1.7	0.0	0.0	0.0
4.3	100.0	0.0	0.0
4.3	0.0	0.0	0.0
21.7	0.0	40.0	0.0
6.8	0.0	0.0	0.0
6.9	0.0	0.0	14.3
100.0	100.0	100.0	100.0

Summary, Conclusion and Recommendations

The purpose of this study was to research factors which influence female adult students to continue their education and to study the demographic characteristics of women over 25 years of age who were enrolled at five Iowa post-secondary institutions. The study focused on the choice of educational institution, educational goals, and institutional student services that female adult students perceived as necessary for a successful experience.

The sample was selected from a population of over 3,000 women who were enrolled at either Iowa State University, Drake University, the University of Northern Iowa, the State University of Iowa, or Des Moines Area Community College, during winter term, 1977. The sample population consisted of 351 women between the ages of 25 and 60.

The research instrument used for the study consisted of a semistructured, open-ended questionmaire which was pretested in a pilot study. The instrument was not changed because the results from the pilot were satisfactory.

The female adult students sampled had the following characteristics: 212 women were married, 7 women were widows, 57 women were divorced, 10 women were separated from their spouses, and 65 women were married. Of the 351 women who completed the questionnaire, 307 women were White, 22 were Black, 5 were American Indians, 2 were Asian Americans, 12 were Foreign/Non-US Citizens, and 1 woman indicated Spanish American as her ethnic background.

The results indicated 179 of the women were 25-30 years of age, 66 were 31-35 years of age, 56 were 36-40, and 49 women were between the ages of 41 and 60.

Women with children living at home were as follows: 95 indicated having children under 6 years of age, 108 women had children 7-12 years of age, and the remaining 83 had children between 13 and 18 years of age.

Factors that can be attributed to a female adult student's decision to continue her education are: increased job potential and potential for increased income. Education may be seen as a vehicle by which upward mobility can be achieved.

The female adult student's choice of educational institution was based on the following factors: traveling distance, finances, and availability of courses offered at the institution.

Student services which female adult students perceived as necessary for a successful experience were ranked in the following order:

(a) the financial aid office, (b) the counseling center, and (c) the placement offices on campus. A concern about the availability of financial resources was expressed by the majority of the female adult students sampled. The most important educational goals reported by the women sampled were: to obtain a degree, to increase job potential, and self-satisfaction.

The following conclusions were drawn from the data:

1. The largest age category among the female adult students sampled was 25-30.

- 2. Over 50% of the sample had completed a bachelors degree. Most of the women resumed their studies 3-5 years after their initial college graduation.
- 3. The female adult students sampled indicated their primary source of financial assistance was self or a combination of self and spouse.
- 4. There was no significant relationship reported between educational institutions and each of the variables age and educational goals.
- 5. There was a significant relationship reported between educational institutions and each of the variables current academic status, ethnic background, present marital status, degrees completed, combination of roles, sources of financial support, counseling services, and programs.
- 6. There was no significant relationship reported between age and each of the variables current academic status, ethnic background, age, degrees completed, and financial support.
- 7. There was a significant relationship reported between age and each of the variables of present marital status and combination of roles. This was also true between age and programs.

The institutions sampled indicated that there were only two student services offices that offered assistance designed specifically for female adult students. All of the counseling centers indicated they had services which were designed to help female adult students assume their new role with minimal difficulty. Three of the five institutions had women's centers, but none of the centers were administered by the student affairs area.

The financial aid office at only one of the institutions sampled offered assistance to female adult students who did not qualify under the same guidelines used for awarding financial aid packages for the majority population.

The following recommendations are based on the data collected through the female adult students' study: Caution should be exercised in interpreting the data because other samples might have produced other recommendations.

- 1. Establish new quidelines and policies which would make funds more available for female adult students.
- 2. Revise application procedures to better evaluate the needs of female adult students.
- 3. Offer more programs, groups, and seminars to assist female adult students to adjust to their new roles.
- 4. Establish more flexible office hours, which will be more congruent with the students' flexible schedules.
- 5. Reorient or redirect the faculty/staff understandings of the needs of female adult students.
- 6. Develop new instruments to evaluate the interest of these female adult students.
- 7. Cooperation and collaboration among collegiate, community, and alternate educational agencies should be encouraged so that new and more diverse educational possibilities in program and structure may come into being.

Female adult students are increasing in number in institutions of higher education. The following are considerations for further research in evaluating and meeting the needs of mature women returning to school:

- 1. The actual population of women combining professional roles and educational roles. How many female adult students at the institution are also on staff.
- 2. The educational goals of female adult students in high school as compared to college and whether these goals were met.
- 3. The effectiveness of standardized evaluation devices to assess interests.
- 4. Prediction of academic success of female adult students compared to women under 25 years of age.
- 5. Prediction of academic success of female adult students compared to adult male students.

References

- Alexandra, Pamela. History of the women's re-entry to education program. San Jose, CA: San Jose City College, 1976. (ERIC Document Reproduction Service No. ED 125 706)
- Andrews, Dorothy E. Continuing education for women at Mattatuck Community College

 Materbury, CT: Mattatuck Community College

 Counseling Center Report, 1973.
- Bergevin, Paul. A philosophy for adult education. New York: The Seabury Press, 1967.
- Bolton, Mary G. Re-entry women: Some programmatic considerations.

 The Chronicle of Higher Education, December 23, 1974.
- Brandon, I. C. An assessment of counseling needs of continuing education students and non-interrupted students. Unpublished masters thesis, California State University-San Jose, 1973.
- Clements, Kathleen. Characteristics of mature women students in education. Paper presented at the meeting of the American Educational Research Association, Chicago, April 15, 1974.
- Doty, B. A. Why do mature women return to college. <u>Journal of the</u>

 <u>National Association of Women Deans and Counselors</u>, Summer 1966,

 30, 163-165.
- Doty, B. A. Some academic characteristics of the mature co-ed.

 Journal of Educational Research, 1967, 45, 171-174.
- Erickson, E. H. Womanhood and the inner space. In <u>Identity</u>, youth and crisis. New York: Norton Publishers, 1968.

- Furniss, W. Todd, & Graham, Patrici. A. (Eds.). Women in higher education. Washington, DC: American Council on Education, 1974.
- Helfter, I. T. Emotional characteristics of mature women students in education. Paper presented at the meeting of the American Educational Research Association, Chicago, April 15, 1962.
- Holmstrom, Engin. Educational development of american women: A

 historical view. Ann Arbor, MI: International Society for the
 Study of Behavioral Development, 1973.
- Knowles, Malcolm S. The modern practice of adult education: Androgogy vs. pedagogy. New York: Association Press, 1976.
- Koontz, E. Counseling women for responsibilities. <u>Journal of the</u>
 National Association of Women Deans and Counselors, Fall 1970, 52.
- Letchworth, G. E. Women who return to college: An identity-integrity approach. Journal of College Student Personnel, March 1970, 50, 63-65.
- Leutkens, Charlotte. Women at school. In L. John Edwards (Ed.),
 Women and a new society. New York: Essential Books, 1946.
- Lichtenstein, H., & Block, J. R. Middle-aged co-ed in evening colleges. Adult Education, Summer 1963, 40, 95-99.
- Maki, Marguerite, et al. <u>Continuing education for women at Mesabi</u>

 <u>Community College</u>. Virginia, MN: Mesabi Community College, 1974.
- Mattfeld, J. A. <u>A decade of continuing education: Dead end or open</u>
 <u>door</u>. Unpublished manuscript, Sarah Lawrence College, 1971.
- McCollough, Celeste, & Van Atta, Loche. Statistical concepts: A program for self-instruction. New York: McGraw-Hill Book Company, Inc., 1963.

- Nie, Norman H., Hull, C. Hadlai, Jenkins, Jean G., Steinbrenner, Karen, & Brent, Dale H. (Eds.). SPSS: Statistical package for the social sciences (2nd ed.). New York: McGraw-Hill Book Company, Inc., 1975.
- Oliver, Laurel W. Counseling implications of recent research on women.

 Personnel and Guidance Journal, February 1975, 53, 174-177.
- Osborn, Ruth H. <u>Characteristics</u>, motivation and problems of mature

 married women college students: A status study of selected students at George Washington University. Unpublished doctoral dissertation, George Washington University, 1963.
- Reby, Pamela. Women and american higher education. Annals of the

 American Academy of Political and Social Sciences, November 1975,

 404.
- Ruud, Josephine Bartow, & Hall, Olive A. Adult education for home and family life. New York: John Wiley and Sons, Inc., 1974.
- Scott, Anne Firor. The american woman--who was she. Englewood Cliffs,

 NJ: Prentice-Hall, 1971.
- Seifer, Nancy. Absent from the majority: Working class women in America. New York: National Project on Ethnic America, 1973.

Acknowledgments

The assistance and support of many people has made this study possible. Among those to whom the investigator wishes to express appreciation are:

Dr. Wilbur L. Layton, major professor, for his support and encouragement throughout the graduate program.

Dr. Larry Ebbers, advisor and major professor, for his guidance, support, and encouragement throughout this endeavor.

Dr. Richard Warren for his help with the statistical analyses involved in this study, as well as the encouragement as a committee member.

Dr. Charles Jones for his support and willingness to serve as a committee member.

Dr. William Hunter for his willingness to serve as a committee member.

The Vice Presidents of Student Affairs at Drake, the University of Northern Iowa, and the University of Iowa for their cooperation and support for this study.

The Registrar--DMACC for his cooperation and support in making this study possible.

My colleagues and friends at Student Counseling Service for their consistent support and encouragement.

The women who participated in this study.

The many friends who always had words of encouragement and tidbits of wisdom to let me know the effort was worth it.

Nancy and Roger Heckman who willingly typed the dissertation.

My family to whom I can't say thank you enough for giving me strength and encouragement when the road was rough.

Courtney for her willingness to manage with a part-time mother and her constant support and encouragement during graduate study.

Appendix A. Correspondence

Initial Contact Letter

January 17, 1977

Dear Adult Student:

The adult student population is increasing at many institutions of higher learning. I feel it is important to study the adult student population, and more specifically, the female student, and determine which student services can best assist her with her academic endeavors, as well as her personal adjustment.

Enclosed please find a questionnaire designed to explore the characteristics of the female adult student who has decided to continue her education and the factors which influenced that decision.

Questions have been arranged so that a check mark or a number will provide a sufficient response. Please select the response(s) that most closely reflects your current status or opinion. Please select the number(s) which most closely reflect your opinion or status. Please comment as openly as possible. ALL OF YOUR RESPONSES WILL BE HELD IN STRICTEST CONFIDENCE.

Realizing that many of you may be pressed for time, this questionnaire will take approximately 20 minutes to complete. It is not necessary to complete the entire questionnaire in one sitting.

Your effort in completing and returning this questionnaire is greatly appreciated. Please return the questionnaire in the enclosed envelope by February 15, 1977, or within ten (10) days of receiving it.

Thank you for your cooperation.

Sincerely,

Cecilia A. Willis, Coordinator Academic Support Services

njh

Enclosure

Follow-Up Letter

February 21, 1977

Dear Adult Student:

A few weeks ago you should have received a questionnaire inquiring about the factors which influenced you to continue your education. In order to assess what student services are being used and what student services need to become more aware of the needs of the female adult student, I need your input.

I know as an adult student many demands are placed on your time. However, the information gathered from the enclosed questionnaire will hopefully benefit not only you and services at your particular institution, but other female adult students who have also decided to continue their education.

Therefore, again I am asking for your cooperation by completing this questionnaire.

Please return the questionnaire within ten (10) days after receiving it, or no later than March 7, 1977.

Thank you again for your cooperation.

Sincerely,

Cecilia A. Willis, Coordinator Academic Support Services

njh

Enclosure

P.S. If you have already filled out the questionnaire and returned it, please disregard this letter; and thank you.

Appendix B. Research Instrument

FACTORS INFLUENCING ADULT FEMALE COLLEGE

STUDENTS TO CONTINUE THEIR EDUCATION

Please respond to <u>all</u> the questions which apply to you.

Part	<u>I</u>
1.	Current enrollment status: full-time undergraduate (12 or more credit hours)part-time undergraduate (11 or less credit hours)full-time graduate (9 or more credit hours)part-time graduate (6 or less credit hours)other (please specify)
2.	Ethnic background:
3.	Your present age: 25-30 41-45 56-60 31-35 46-50 61-65 36-40 51-55 65 or older
4.	Present marital status:singledivorcedseparatedwidowed
5.	Total number of children:
6.	Present ages of children currently living at home (please specify number of children in each space):
	7-12 years18 years or older
7.	Highest education level attained by you: high schooljunior or community collegecollege (0-3 years)college (4 or more years)college (currently enrolled)

8.	Present college classification:freshmangraduatesophomorespecialjuniorothersenior (please specify
9.	Degrees completed:
10.	What influenced your decision to continue your education: (check <u>all</u> that apply and rank order your responses; #1 = most important, etc.)
	fellowship or scholarship prestige of a degree potential for increase in income financial self-sufficiency obtaining a feeling of achievement prevent "boredom" children more capable and thus provided the opportunity family encouragement increased job potential update of education interest in specific course offerings encouragement of others (friends, employers, etc.) social pressure other (please specify)
11.	Are you presently combining:
12.	Which of the following factors influenced your choice of institution: (check <u>all</u> that apply and rank order your responses; #1 = most important, etc.)
	finances traveling distance household responsibilities child care other (please specify) spouse's attitude special counseling program for women college advising office recruitment by college representative

	employment (full-time)employment (part-time)availability of courses desired
13.	location of spouse's job Source of financial support for education: selfspouseparentsfellowships orscholarshipsgovernment funds(GI bill,Vocational Rehabilitation,etc.)other(s) (pleasespecify)
Part	<u>II</u>
14.	What is your present major:
15.	Do you anticipate changing your major: Yes No
16.	If yes, what will be your new major and why:
17.	What are your present educational goals: (check all that apply and rank order your responses; #1 = most important, etc.) obtain a degreeincrease job potentialobtain self-sufficiencyself-satisfactionopportunity for occupational advancementdesire for educational advancementother (please specify)
18.	In what ways are your educational goals related to your occupational goals?
19.	What has been your contact with your present institution's counseling center:

20.	What has been your contact with programs at your institution which are designed to assist the adult female student who has returned to continue her education:
	been in contact with programshave had little contact with programshave had no contact with programsdid not know programs existed at my institution
21.	What student services do you feel will be necessary to be used while attending your institution: (check <u>all</u> that apply and rank order your responses; #1 = most important, etc.)
	financial aid office adult programs office counseling service women's center minority programs office placement offices office of student activities other (please speci- Dean of Students fy)
22.	Which student services would you like to know more about: (check <u>all</u> that apply and rank order your responses; #1 = most important, etc.)
	financial aid officeadult programs officewomen's centerminority programs officeplacement officesoffice of student activitiesother)please speci—bean of Studentsfy)
23.	How can the counseling service at your institution best meet the needs of the adult female student continuing her education:
	more female counselors groups designed to meet the specific needs of women special counseling program for adult female women continuing their education offering services other than psychological counseling other (please specify)