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**The nature of the educational environment in adult learners'
educational development**

Smith, Richard, Ph.D.

City University of New York, 1993

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A

THE NATURE OF THE EDUCATIONAL ENVIRONMENT IN ADULT
LEARNERS' EDUCATIONAL DEVELOPMENT

BY

RICHARD SMITH

The dissertation submitted to the Graduate Faculty in Psychology
in partial fulfillment of the requirements for the degree of
Doctor of Philosophy, The City University of New York

1993

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This manuscript has been read and accepted for the Graduate Faculty in Psychology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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TABLE OF CONTENTS

	Page
LIST OF TABLES.....	x
I. INTRODUCTION.....	1
II. LITERATURE REVIEW.....	5
A. Early Beginnings of Education in Colonial America (1607-1783).....	5
1. Apprenticeships.....	6
2. Higher Education.....	8
3. Self-Education.....	11
4. Evening Schools.....	15
5. Settings for Education.....	16
6. Purpose of Schooling in Colonial America..	18
B. Education in the New Nation - Between the American Revolution (1775-1783) and the Civil War (1861-1865).....	21
1. Charity Schools.....	22
2. Common Schools.....	23
3. Academies.....	24
4. Adult Education.....	25
5. Franklin Institute.....	25
6. Lyceum.....	25
7. Lowell Institute.....	26
8. Copper Union.....	26
9. American Academy of Arts and Sciences.....	26
10. Settings for the Various Educational Forms in the New Nation.....	26
11. Purposes of Educational Forms in the New Nation.....	28
C. Education Between the Civil War (1866) and World War I (1920).....	31
1. Institutional Forms of Adult Education....	33
a. Chautauqua.....	33
b. Correspondence and Vocational Courses.....	33
c. Labor Colleges.....	34
d. Health Agencies.....	34
e. Economic Organizations.....	34

	Page
f. Settlement House Movement.....	35
g. The Americanization Program.....	35
h. Civil Rights Organizations.....	35
i. Agricultural Education.....	36
2. Purpose of Education.....	36
3. Settings for Adult Education.....	41
a. Settlement Houses.....	41
b. Labor Colleges.....	41
c. Homes.....	42
d. Churches.....	42
e. Public Schools.....	42
D. Adult Education in the Modern Era (1921 - 1960).....	43
1. Institutional Forms of Adult Education....	45
a. Leadership and Development Training..	45
b. Evening College and Extension Programs.....	45
c. Worker Education.....	45
d. Health Education.....	46
e. Vocational and Literacy Training.....	46
2. Purpose of Adult Education.....	49
3. Settings for Adult Education.....	51
a. College and University Facilities....	51
b. Business and Industrial Facilities...	52
c. Public School Facilities.....	52
d. Military Facilities.....	52
e. Trade Union Facilities.....	53
f. Library Facilities.....	53
E. Contemporary Issues.....	55
1. Qualities of the Physical Environment Which Impact on Human Behavior.....	59
a. Design.....	59
b. Interior Temperature.....	62
c. Interior Lighting.....	64
d. Location.....	66
2. Social Relationships in Adult Learners' Educational Experience.....	67
3. Educational Goals and Adult Learners.....	69
III. PERSPECTIVE AND PURPOSE OF STUDY.....	72
A. A Perspective on Adult Learners and the Educational Environment.....	72
B. Purpose of Present Research.....	79

	Page
IV. RESEARCH SETTING, DESIGN, AND METHODS.....	83
A. Setting.....	83
B. Research Design and Methods.....	85
1. Phase I of Research.....	86
a. Selection of Adult Learner Core Group.	87
b. Selection of Traditional Student Core Group.....	88
c. Selection of Teacher Core Group.....	90
d. Selection of Administrator Core Group.	92
e. Interview of Adult Learner Core Group.	93
f. Interview of Traditional Student Core Group.....	94
g. Interview of Teacher Core Group.....	95
h. Interview of Administrator Core Group.	96
2. Phase II of Research.....	97
a. Construction of Survey Questionnaire..	97
b. Selection of Adult Learners to Receive Survey Questionnaire.....	100
c. Selection of Traditional Students to Receive Survey Questionnaire.....	102
d. Selection of Teachers to Receive Survey Questionnaire.....	103
e. Selection of Administrators to Receive Survey Questionnaire.....	104
f. Return Rate of Survey Questionnaire...	105
g. Cleaning, Coding, Recording, Code Converting, Storing, and Analyzing of Questionnaire Data.....	105
h. Re-interview of Core Interview Groups.	106
V. FINDINGS	
1. Phase I - Qualitative Data	
a. Profiles of Adult Learners.....	108
b. Profiles of Traditional Students.....	119
c. Questions for Survey Questionnaire....	122
1. Teachers Educational Goals and Outcomes.....	124
2. Administrators Educational Goals and Outcomes.....	127
3. Barriers to Students' Educational Development.....	129

	Page
4. Effective Strategies for Coping With Barriers to Students' Educational Development.....	132
5. Reasons Why Students Form a Social Relationship	133
6. Outcomes of a Social Relationship.....	134
7. Features of the Physical Environment Which Attract Students to the School.....	137
8. Features of the Physical Environment Which Discourage Students from Coming to the School.....	140
9. Features of the Physical Environment Which Support Students' Educational Development.....	142
10. Features of the Physical Environment Which Do Not Support Students' Educational Development.....	145
11. Students' Educational Goals.....	146
2. Phase II	147
a. Demographics and Educational Profiles of Adult Learners and Traditional Students.....	147
b. Features of the Physical Environment Support Students' Educational Development.....	156
1. Comparison of Adult Learners' and Traditional Students' Responses...	156
2. Comparison of Adult Learners', Teachers', and Administrators' Responses.....	160
c. Features of the Physical Environment Which Do Not Support Students' Educational Development.....	162
1. Comparison of Adult Learners' and Traditional Students' Responses...	162
2. Comparison of Adult Learners', Teachers', and Administrators' Responses.....	166
d. Features of the Physical Environment Which Attract Students to the School..	167

	Page
1. Comparison of Adult Learners' and Traditional Students' Responses...	167
2. Comparison of Adult Learners', Teachers', and Administrators' Responses.....	170
e. Barriers to Students' Educational Development.....	172
1. Comparison of Adult Learners' and Traditional Students' Responses...	172
2. Comparison of Adult Learners', Teachers', and Administrators' Responses.....	175
f. Strategies for Coping With Barriers to Students' Educational Development..	177
1. Comparison of Adult Learners' and Traditional Students' Responses...	177
2. Comparison of Adult Learners', Teachers', and Administrators Responses.....	179
g. Features of the Physical Environment Which Discourage Students from Coming to the College.....	180
1. Comparison of Adult Learners' and Traditional Students' Responses...	180
2. Comparison of Adult Learners', Teachers', and Administrators' Responses.....	182
h. Significant Administrators' Educational Goals in Students' Educational Development.....	186
1. Comparison of Adult Learners' and Traditional Students' Responses...	186
2. Comparison of Adult Learners, Teachers', and Administrators' Responses.....	186
i. Outcomes of Administrators' Educational Goals.....	188
1. Comparison of Adult Learners' and Traditional Students' Responses...	188
2. Comparison of Adult Learners', Teachers, and Administrators' Responses.....	189
j. Significant Teachers' Educational Goals.....	190
1. Comparison of Adult Learners' and Traditional Students' Responses...	190

	Page
2. Comparison of Adult Learners', Teachers', and Administrators' Responses.....	192
k. Outcomes of Teachers' Educational Goals.....	193
1. Comparison of Adult Learners', Traditional Students', Teachers, and Administrators' Responses.....	193
l. Reasons Why Students Form A Social Relationship.....	194
1. Comparison of Adult Learners' and Traditional Students' Responses...	194
2. Comparison of Adult Learners', Teachers', and Administrators' Responses.....	196
m. Outcomes of Social Relationships Among Students.....	197
1. Comparison of Adult Learners' and Traditional Students' Responses...	197
2. Comparison of Adult Learners', Teachers', and Administrators' Responses.....	198
n. Students' Educational Goals.....	198
1. Comparison of Adult Learners' and Traditional Students' Responses...	198
2. Comparison of Adult Learners', Teachers', and Administrators' Responses.....	200
VI. CONCLUSION.....	201
APPENDIX A.....	219
APPENDIX B.....	250
REFERENCES.....	265

LIST OF TABLES

Tables	Page
1 Colonial Colleges.....	10
2 Number of Survey Questionnaires Distributed, Returned, and Discarded.....	105
3 Percentage of Adult Learners and Traditional Students Who Returned Usable Questionnaires by Sex.....	147
4 Percentage of Adult Learners and Traditional Students Born in Various Locations.....	148
5 Contributors of Major Financial Support to Traditional Students' and Adult Learners' Households.....	151
6 Payers and Percentage of Payers of Adult Learners' and Traditional Students' College Education.....	152
7 Type and Percentage of Living Arrangements for Adult Learners and Traditional Students.....	153
8 Percentage of Grade Point Averages for Adult Learners and Traditional Students.....	153

INTRODUCTION

Ever since the Seventeenth Century, education - the development of knowledge, skill, ability, or character through teaching, training, studying, or self-development - has played a role in solving practical problems and defining scientific and technological growth in America.

The present educational system in the United States evolved over many years. In Colonial America, Latin Grammar schools, dame schools, petty schools, English schools, apprenticeships, colonial colleges, evening schools, and mutual improvement groups were founded to promote a devotion to goodness, to nurture social development, to advance learning, and to create a skilled work force.

After the American Revolution, the new nation witnessed the beginning of the Industrial Revolution, population growth, westward migration, and a growing interest in technological development. During the same time period, other educational forms such as charity schools for the poor, free universal education, academies, and adult education were established to respond to rapid changes taking place in the new nation.

After the Civil War the United States Government passed a variety of proclamations and legislative acts to

extend democracy to the disenfranchised and to support economic development. Along with the regular curriculum, colleges and universities offered correspondence courses; labor colleges provided courses for working men and women; health care agencies became widespread; economic organizations provided courses; the Settlement House Movement and the Americanization Program provided training for immigrants; civil rights organizations were founded to protect the basic rights of American citizens, and farm bureaus and farmers' institutes were used to spread knowledge to Americans.

The period between 1921 and 1960 was mixed with failure and prosperity. In 1929 the national economy of the United States collapsed, but by the end of World War II the national economy had stabilized. After the Great Depression, business and industry, colleges and universities, labor organizations, health and welfare agencies, the Federal Government, libraries, public schools, and proprietary schools were involved in providing knowledge for Americans' consumption.

In the sixties a new generation of adults demanded peace, equality, justice, economic opportunity, and equal access to a higher education for all Americans. Many colleges and universities opened their doors to these adults. These older undergraduate students have been

characterized as being adult learners because they pursue a higher education after experiencing gaps in their educational development; have reached that stage of life in which they have taken on the responsibility of supporting themselves and in most instances supporting others; have a functionally productive role in society, and are usually enrolled in college less than full time.

Previous researchers have not investigated the significance of educational goals, social relationships, and the physical environment in which both occurs for the educational experiences of adult students while they pursue a college education. To explore these issues, the present study examines the similarities and differences in the experiences of adult students, teachers of adult students, traditional undergraduate students, and administrators of programs for adult students to understand the significance of educational goals, social relationships, and the physical environment of educational settings in the educational development of adult students.

The data from this study are expected to produce a set of themes or conceptual categories pertaining to the educational development of adult students which can be used to (1) construct theory, (2) improve the educational experiences of adult students, (3) improve the physical

experiences of adult students, (3) improve the physical environment at Brooklyn College, and/or (4) recruit and retain adult students.

LITERATURE REVIEW

Historical InformationEarly Beginnings of Education in Colonial America
(1607-1783)

The present educational system in the United States did not always exist. Various educational forms have been used to educate people ever since the first permanent British settlement in North America was established by British settlers in Jamestown, Virginia, in 1607.

During the Colonial Period (1607-1783) the Puritans who settled in Massachusetts in 1620 founded a Latin grammar school which provided a classical training for upper class boys, and an English school which provided practical training for the lower class. The Middle Colonies were settled by a mixed population of Dutch, English, Germans, Scots, Swedes, and Welsh and had a variety of parochial schools and private schools. Essentially the philosophy of the schools in the Middle Colonies was based on the religious beliefs of Anglicans, Calvinists, Catholics, Episcopalians, Huguenots, Lutherans, Mennonites, Moravians, and Quakers. Although the schools, which the above religious groups established, taught spelling, reading, writing,

arithmetic, and religion, there was no fully developed system of schools in the Colonies. For the poor, plantation workers, trappers, unskilled, and lumbermen, education was not a priority, and for some, schools were not available at all. Also, slavery was introduced by the Anglicans into Virginia in 1619 and slaves expected no education and their expectations were fulfilled.

In many upper class colonial households, teaching reading to children was a daily activity which was often carried out by parents, elders, siblings, or peers. For youngsters who grew up in a home environment where education was valued but without anyone with the ability to undertake the task of teaching reading, a "Dame School" could be found in the home of a New England housewife who taught reading on a regular basis for a modest fee. In Virginia, some upper class families brought in servants to undertake the task of teaching reading to their children. This was called a "Petty School" (Cremin, 1970).

Apprenticeships

Children who were not privileged in Colonial America had to work to live. Often this meant that boys would be taught how to farm and so on by their fathers, and girls would be taught by their mothers the art of weaving, spinning, and cobbling. Hence the family, the

principal unit of social organization, also became a source of educational significance in Colonial America.

However, according to Good and Teller (1973), some children in Colonial America did not have a family to rely on for skills training or socialization because they had been brought to the Colonies without their parents, or in some cases there were children whose parents had died. An educational form called apprenticeships existed in Colonial America to handle these situations. Apprenticeships involved the actual placement of poor children under direct supervision of an experienced journeyman to acquire knowledge and skills through observation and practice. Moreover, apprenticeships enabled poor children to obtain their rights to become citizens, a right denied to poor and unskilled youth in Colonial America. It was also a source of cheap labor and a way for unskilled youth to avoid vagrancy, idling, and begging. Also, apprenticeships enabled unskilled youth to acquire skills needed to replenish the skilled labor force.

The notion that children should have skills in Colonial America received legislative support. Good and Teller (1973) suggest that The Massachusetts Bay Colony Law of 1642 criticized parents and masters for failing to train their children in "learning and labor and other

employments which may be profitable to the Commonwealth" (p. 26). The law required that each town select a person who would be responsible for "calling and employment of children, especially of their ability to read and understand the principles of religion and the capital laws of the country" (p. 26). Children who were not receiving such education were to be placed in apprenticeships.

Three kinds of apprenticeships for children existed in Colonial America. First, a youngster could, with the consent of his parents or guardians, volunteer for an apprenticeship arrangement. Second, parents or guardians were permitted to place males under fourteen or females under twelve into apprenticeships. Finally, churches and civil officials were authorized by colonial legislatures to place poor and orphaned children in apprenticeships. These apprentices were usually three or four year arrangements in which masters taught a youngster a particular craft or trade that the youth could use to replenish the skilled labor force. Apprenticeship training activities were carried out by parents, clergymen, lay teachers, physicians, artisans, and lawyers, as well.

Higher Education

An educational form brought to Colonial America

by the settlers was higher education. Colonial colleges provided higher education training primarily for the sons of the wealthy and professional classes although a few farmers' sons were permitted to attend.

Colonial colleges were private and sectarian, and the primary purpose of several (for e.g., Harvard & Yale) was to provide educational training for privileged males to become ministers, although a few of them did provide other types of training. For instance, the College of Philadelphia offered training in medicine, and Queens College (now Rutgers University) trained its students in languages, liberal arts and sciences. But divinity training was also a major part of the training offered by Queens College.

Colleges which were founded during the Colonial Period were, according to Good and Teller (1973), "small and poor." "They did not have the noble architecture, velvet lawns or well stocked libraries. The buildings were mere shells and even when the outside was made of stone, the inside - floors and partitions - was of wood" (p. 59). Yet the colleges of the Colonial Period had the ability to grow and become the large and great institutions which they are today.

Colonial colleges were located mainly in the middle and upper colonies. The founding name of the

colleges, their founding date, their locations and present name are listed in Table 1.

TABLE 1

Colonial Colleges			
Founding Name	Name of Colony	Date Founded	Present Name
Harvard College	Mass.	1636	Harvard University
William and Mary College	VA.	1693	William & Mary College
Collegiate School, & Yale College	Conn.	1701	Yale University
College of New Jersey	N.J.	1746	Princeton University
King's College	N.Y.	1754	Columbia University
College of Philadelphia	PA.	1755	University of Pennsylvania
College of Rhode Island	R.I.	1764	Brown University
Queens College	N.J.	1766	Rutgers University
Dartmouth College	R.I.	1769	Dartmouth College

The early Colonial colleges, particularly Harvard, patterned their academic programs, customs, and administrative practices after universities found in England. The practice of having commencement at Colonial colleges duplicated an annual ritual which was held at the University of Edinburgh. Rules which were established to direct and guide the activities of students and faculty at Colonial colleges imitated the statutes which governed Oxford and Cambridge Universities.

At Colonial colleges, academic exercises, debates, lectures, and rhetorical exercises, were similar to the academic exercises found at Oxford and Cambridge Universities (Cremin, 1970).

Although Latin Grammar, Petty, and Dame Schools, apprenticeships, and colleges existed in Colonial America, they were not available to the masses of poor farmers, servants, and plantation workers because of their status in society. Nevertheless, Benjamin Franklin (1706-1790) encouraged all people in society to use their individual ingenuity to achieve. He felt that greatness could be achieved by using a form of adult education known as self-education.

Self-Education

Given some of the horrible situations which existed in Colonial America, it is not surprising that self-education was a significant learning activity. First of all, schooling was not available to everyone because of his/her status in colonial society. Also, religious persecution was openly practiced in Colonial America. For example, around 1650, Virginia, which was under the domination of Anglicans, refused to admit Puritans, Quakers, Presbyterians, and Baptists. In 1654, when the Puritans were in control of the Maryland Assembly they denied religious freedoms to English

Catholics. In addition, the Puritans committed serious acts of violence against the Quakers such as stripping, whipping, and confining them to stocks, cutting off their ears, dragging them through town after town behind carts, and executing them as well. Also, as the English gained control of the middle colonies they promoted slavery as a way of economic achievement. Consequently, African slaves were hanged for rape and murder. Moreover, in instances when African slaves were caught associating with Europeans or with Africans who were not slaves, they received sixty lashes, were placed in a pillory and had their ears severed from their head. Finally, jobless servants who had finished their indentures and redemptioners who had used their labor to gain passage to the Colonies needed an education (Good & Teller, 1973).

There is no way to determine how many people in Colonial America actually learned to read on their own, but one thing is certain, a range of means existed to achieve a self-education. An almanac published as early as 1639 was meant to provide information for "common people." Almanacs which were published later in the century in Colonial America contained calendars, weather predictions, poetry, remedies for minor diseases, and suggestions for succeeding as a farmer. Newspapers multiplied rapidly and became an important instrument for

the distribution of knowledge. Valuable information on farmers, merchants, legislative councils, courts, and literary and scientific activities was found in newspapers. At the onset of the Revolution, thirty-seven newspapers existed in the Colonies. Books meant for the untutored - the catechism and primer - were widely circulated in Colonial America. A much common text, The New-England Primer (1690), which contained the alphabet, Lord's Prayer, and a few words containing a consonant and a vowel was a popular source of information. Finally, a self-instructive manual, The American Instructor (1748) which could be studied without the assistance of a master was filled with instructions in English, form letters, bookkeeping information, measurements for carpentry and bricklaying, and other information which could be used to achieve desired goals.

Libraries provided instruments of self-instruction in Colonial America. Affluent members of colonial society purchased and collected books and pamphlets and started their own personal libraries. For instance, colonial intellectuals such as Cotton Mather who amassed a personal library with over 4,000 volumes and James Logan whose personal library contained over 2,000 volumes in 1749 demonstrate the significance of libraries as instruments for self-instruction.

Libraries at Colonial colleges were small, but their growth indicated how significant libraries were as instruments of self-instruction. Although institutional libraries relied on gifts from donors, the Harvard collection, which began with 400 volumes in 1638 had grown to 3,500 volumes in 1723. Yale which also relied on gifts and contributions had increased its volume of books to 2,500 in 1783.

The subscription library, an association of subscribers established through the efforts of Benjamin Franklin in 1731, contributed money for the purchase of books for their members' personal use is evidence that libraries were important instruments for self-instruction.

In addition, Benjamin Franklin formed a self-education club called the Junto in 1727. The purpose of the Junto was to provide for the mutual improvement for "ingenious men." The original members of the Junto included a carpenter, a deed reproducer, a self-educated mathematician, a shoemaker, a gentleman of wealth, a merchant's clerk, two printers, and an Oxford scholar who was a servant working without pay. Members of this mutual improvement group were required to exchange knowledge on topics such as politics, morals, or natural philosophy. Also, each member of the group was

responsible for developing an essay which had to be presented to the group. In addition to self-education, evening schools were another educational form used to achieve educational objectives in Colonial America.

Evening Schools

Evening schools were owned and operated by private individuals. According to Long (1976), evening schools were found in New York as early as 1661. Seybolt (1971) has made the argument that evening schools were directly related to apprenticeship contracts because when an apprentice signed a contract with a master the contract stipulated that the apprentice would be taught technical skills and reading and writing as well. Masters used evening schools to fulfill their contractual obligations to apprentices. In order to validate his point regarding evening schools, Seybolt identified over 100 contracts which were drawn up in New York City between 1698 and 1727 which stipulated sending apprentices to evening schools.

Essentially evening schools were open to those people who were willing and able to pay. Hence, several evening schools opened in Boston and Philadelphia between 1766 and 1774. Students who attended these schools were taught reading, writing, arithmetic, and in some instances courses were offered in bookkeeping,

navigation, and surveying.

There can be no denying that the absence of a well developed school system did not prevent the carrying out of educational activities in Colonial America. It is also important to note that classes were held in a variety of physical settings.

Settings for Education

Educational activities in Colonial America were carried out by clergymen, schoolmasters, school dames, masters, artisans, physicians, lay leaders, and lawyers. The settings which were used to house the numerous educational forms were as diverse as the people who provided the instruction.

According to Cremin (1970), "schooling went on anywhere and everywhere, not only in schoolrooms, but in kitchens, manses, churches, meeting houses, sheds erected in fields, and shops erected in towns" (pp. 192, 193). While carrying out their educational activities, clergymen used the church. The affluent in colonial society made their homes available for teachers and tutors to conduct educational activities. School dames used their kitchens to teach reading and writing to children. Masters provided apprenticeship training for their apprentices in sheds built in fields and shops constructed in towns. Members of the Junto, a

self-education group, interacted with each other in meeting houses to increase their knowledge about themselves and the world around them. Private schoolmasters provided evening instruction in reading, writing, arithmetic, bookkeeping, surveying, and navigation in their homes, and in shops erected in towns while college professors taught their students in small widely scattered and isolated poorly constructed and uncomfortable wooden buildings.

The history of the early beginnings of education in Colonial America suggest that physical settings for educational activities were carried out in sheds in fields, shops in townships, school houses, churches, kitchens in homes, and meeting houses. Terms such as inadequate, poorly constructed, and uncomfortable were used to describe the physical conditions of the facilities which housed the educational activities. However, this history fails to tell us about the students' experiences in these various physical settings.

What is missing in this historical information is whether the physical environments in which the educational activities were carried out contained qualities which attracted students to it, discouraged students from coming to it, or supported or not supported their educational development. In fact, the historical

information does not give us any insight into whether the location of the physical settings in which the educational activities were carried out had personal, functional, and/or symbolic significance in the educational experiences of the students.

Purpose of Schooling in Colonial America

As the Dutch and English settlers achieved the capacity to resist destruction in the middle and upper Colonies, schooling was not far behind. A prominent view among religious and educated men among the settlers was that education was to be used as a weapon to combat evil and especially ignorance which manifested itself in the form of laziness, uselessness, and worthlessness.

By 1647, twenty-years after the Puritans had settled in Massachusetts, they founded a college and had experimented with private schools, grammar schools, petty schools, and dame schools. In fact, the Massachusetts legislature saw fit to pass an education law in 1642 which required every township with fifty households to choose a selectman to teach all children to read and write (Cremin, 1970). Consequently, educational activities were carried out by private schoolmasters, dames, tutors, professors, and masters. Teaching was not found in one central location, as a matter of fact, it was found in churches, homes, meeting houses, school houses, sheds, and shops.

Schooling - education received in schools - in Colonial America had a purpose. For instance, schooling children in Latin grammar was meant to prepare youth for college, and public service of the church and colony. Teaching children to read and write was meant to make them civilized and free from barbarity, and to develop a reverence for God by observing religious duties and practices. Apprenticeships, another form of schooling in Colonial America, was meant to provide males in colonial society with a combination of education and technical training to maintain a skilled labor force. Also, apprenticeships provided a measure of social control since children of the poor and orphans in colonial society were required to receive apprenticeship training to prevent them from being dependent on public support. At the college level, the focus of schooling was on philosophical and theological inquiry. Self-education was meant, to a degree, to overcome the limited availability of schools in the Colonies. Evening schools were set up to transmit to students skills related to the world of work (e.g., reading, writing, and arithmetic).

The historical information regarding schooling in Colonial America shows that it was a process which was used to promote uniformity which produced obedience and control of students' actions and ideas. Nevertheless,

one positive benefit of schooling in the Colonial Period was that while the students were being socialized to conform, their minds were being exposed to new ideas and occupations.

As the Colonial Period came to an end the process of schooling was firmly established in America. However, the historical information on the schooling process during the Colonial Period does not provide insight into the experiences of students, teachers, and administrators. Any information on schooling which does not include the educational experiences of students, teachers, and administrators is, in my view, incomplete, especially when questions which are related to the similarities and/or differences in the educational goals of students, teachers, and administrators cannot be answered. Also, the historical information on schooling during the Period does not provide information on whether social relationships were formed among the students who participated in the schooling process or on the meaning of social relationships among students. Any information on the schooling process which fails to provide insight into social relationships among students is incomplete because social relationships might be a significant part of the educational process.

The historical information does tell us what the

different groups of people who created the educational settings wanted to happen. We do not know whether they were successful in achieving their goals.

The present research will focus on the educational development of undergraduate students in contemporary America. It seeks to understand how the educational goals of students, teachers, and administrators impact on students' educational development. Also, the present research will provide information on whether social relationships are significant in students' educational development.

The Colonial Period ended with the beginning of the American Revolution. Nevertheless, between the American Revolution and the Civil War new educational forms were created to provide schooling in the new nation.

Education in the New Nation - Between the American Revolution and the Civil War

The new nation witnessed the beginning of the Industrial Revolution, population growth, westward migration, and an interest in science.

Seaports dominated in New England while the Southern economy was dominated by production of cotton. Also, between the 1780's and the 1820's, the number of states in the Union increased from 13 to 24. More than

2,300,000 immigrants from England and Ireland poured into the United States. There were no barriers preventing this massive influx of people from getting into the United States except for the courage to cross the Atlantic Ocean (Coleman, 1972). In addition, seven cities in the United States contained more than 50,000 people whereas 16 cities comprised 25,000 or more (Sinclair, 1967). These population shifts created a steady rise in the school population in Northeastern cities. The church and business communities responded to this problem by developing a variety of educational forms.

Charity Schools

The monitorial or Lancasterian system developed in England by Joseph Lancaster, an English educator, to contend with the cost of schooling for large populations of children was used in the United States during the 1820's but was slowly discarded during the 1830's (Cremin, 1980). Classes were large and older children were used as unpaid monitors of younger children. Classes were presided over by a school master who was positioned at the front of the class on a raised platform. Subject matter was arranged sequentially because of a mix of children of different ages. Hence, a room in a Lancasterian school was divided into many sections, and up to 450 students were crammed inside it (Spring, 1972).

The second type of charity school was the Sunday school. Sunday schools met only one day and teachers sought to teach poor people's children appropriate conduct and standards of behavior.

The third type of charity school was the Infant school. The aim of the Infant school was to teach impoverished children whose ages ranged from 18 months to six years how to be obedient and polite. Children were removed from their homes during the day to limit their contact with their supposedly incompetent parents.

By 1830, charity schools were failing because poor families avoided sending their children to them. Poor people did not want charity. However, a major movement was starting to develop in the Northeast which favored free, universal education for all.

Common Schools

Horace Mann, a main protagonist in the Common School Movement called for the creation of a "Common School" which would be supported by the public and equally open to all. Mann believed that the means to success and security were through an education. But, the antagonists particularly the Irish, attacked the Common School because they felt that it aimed to destroy the Irish culture. In addition, the Irish argued that the textbooks which Protestant teachers used scorned the Irish and also

undermined Catholicism. Catholics withdrew their children from the schools and also boycotted the schools. Nevertheless, after many spirited debates and stiff opposition universal public education became a reality. According to Cubberly (1920), by 1850 Common Schools were an actuality in every Northern State. Katz (1971) suggests that by 1860 Common Schools almost dominated elementary education in the Northeast. In addition to Common Schools, private academies spread rapidly after the American Revolution.

Academies

As the population increased new educational forms such as academies were established in nearly all parts of the country. The United States Military Academy at West Point was established in 1802 to prepare military officers and engineers. Academies such as Phillips Exeter, founded in 1780 in Massachusetts, and Erasmus Hall and Clinton Academy, founded in New York in 1788, sought to prepare youth from prosperous families to become "great" citizens. According to Good and Teller (1973), by 1780 a total of 1,380 private academies were scattered across Indiana, Maryland, Massachusetts, New York, Ohio, Pennsylvania, and Virginia.

The growth of the nation brought with it an upsurge in interest in the natural sciences and

agriculture and a quest for the diffusion of knowledge. Public land was granted to states by the Federal Government to establish institutions of higher learning.

The Land Grant College Act of 1862 authorized that each state receive a grant of 30,000 acres of public land to endow a college of agriculture and mechanical arts. This act set the stage for the establishment of state land-grant colleges during the period after the Civil War.

An educational form which began in the Colonial Period became institutionalized between the American Revolution and the Civil War was adult education.

Adult Education

Several different forms of adult education were established during the period between the American Revolution and the Civil War to exert influence on local and national communities throughout the new nation.

Franklin Institute

The Franklin Institute, which was founded in Philadelphia in 1824, offered programs, sponsored research, passed along scientific information, and held exhibits which encouraged invention and discovery in science and industry.

Lyceum

The Lyceum, a network of study groups, was

founded in Milbury, Massachusetts in 1826. The Lyceum promoted study groups, lectures, debates, and concerts to expose adults to the ideas of Emerson, and Holmes to encourage intellectual development.

Lowell Institute

The Lowell Institute was founded in Boston, Massachusetts in 1836. The institute provided public lectures in philosophy, history, and the arts and sciences to spread useful knowledge which promoted self-improvement.

Cooper Union

Cooper Union, established in New York City in 1859, provided free instruction to promote the application of science in the areas of invention and industrial development.

American Academy of Arts and Sciences

The American Academy of Arts and Sciences, founded in Massachusetts in 1870, engaged in the diffusion of knowledge to encourage discovery and self-improvement by providing courses in the arts, natural history, mathematics, commerce, geography, astronomy, and medicine.

Settings for the Various Educational Forms in the New Nation

The settings for schooling activities were varied during the period between the American Revolution and the

Civil War. Schooling activities for poor children were held in makeshift facilities described as being "shacks" (McClintock & McClintock, 1970). According to Spring (1972), ... "an engraving of a early Lancasterian Classroom showed a large room holding 450 pupils that was divided into twelve sections" ... (p. 45). Good and Teller (1973) suggest that school buildings for the poor often were unfit for use.

During the period between the American Revolution and the Civil War, many of the well-to-do families sent their children to private academies. These schools were settings that were established by religious denominations or expensive boarding schools funded by private endowments. In addition to private academies, the Federal Government established the national Military Academy at West Point which provided professional training for military personnel.

The historical information regarding the settings which schooling activities for poor children were carried out describes the facilities as "shacks" and "unfit." Yet we know little about the children's feelings with respect to those facilities. For example, were there aspects of the physical setting which discouraged students from coming to them or interfered with their ability to learn? Were there features of the physical setting which

supported the students' educational development? Were students' views of the importance of education affected by the meager and "unfit" environment in which it took place?

Also, since much of the historical information is about childrens' educational experiences, it is difficult to generalize to adults. Finally, the historical information on school settings such as private academies and West Point fails to consider the qualities of the physical setting as a significant aspect of the educational experience.

Purposes of Educational Forms in the New Nation

The purposes of the various educational forms in the new nation were conditioning children to follow orders, promotion of self-improvement, and scientific development.

The Lancasterian, Sunday, and Infant schools placed emphasis on teaching poor children how to respect authority, be obedient, and well-mannered. According to Spring (1972), "When the Boston School Committee investigated the New York Lancasterian Schools in 1828, it reported that its effects on the habits, character, and intelligence of youth are highly beneficial; disposing their minds to industry, to readiness of attention, and to subordination, thereby creating in early life a love of order, preparation for business" (p. 40).

The Lyceum, Lowell Institute, Cooper Union, Franklin Institute, and the American Academy of Arts and Sciences provided courses to encourage scientific discovery and self-improvement.

The available historical information on the purposes of education during the period between the American Revolution and the Civil War does not include the views of the people who attended such institutions about their own purposes. Furthermore, we know little about the lives of students in these institutions and whether, in addition to serving as locations for learning, they also served as places in which social relationships between students became an important source of support.

In summary, when the period between the American Revolution and The Civil War came to an end, adult education was institutionalized. For example, organized educational programs which promoted self-improvement, invention, and discovery were offered to communities by the Lyceum, Lowell Institute, Cooper Union, Franklin Institute, and American Academy of Arts and Sciences.

The transmission of educational skills through adult education during the Colonial Period was mainly disorganized and relied primarily on self-motivation and encouragement to use educational materials such as almanacs, textbooks, and libraries.

Although different approaches were used to spread adult education between the Civil War and the American Revolution and the Colonial Period, adult education was not compulsory. However, public education became compulsory during the period between the American Revolution and the Civil War because Protestant controlled communities and state legislatures in Massachusetts passed compulsory school attendance laws in 1852 which required poor children to attend Common Schools which were under Protestant domination.

The physical settings in which adult education activities were carried out during the Colonial Period and the period between the American Revolution and the Civil War were different. For instance, during the Colonial Period adult education activities were found in homes, churches, sheds erected in fields, and shops erected in towns. During the period between the American Revolution and the Civil War adult education became institutionalized and adult education activities were carried out mainly in physical settings which housed adult education organizations such as the Lowell Institute, Cooper Union, Franklin Institute, and the American Academy of Arts and Sciences.

One missing link in the available historical information about the Colonial Period and the period

between the American Revolution and the Civil War is that it fails to deal with the relationship between people and the physical settings in which educational activities were carried out even though the nature of those settings changed through the institutionalization process. Did the existence of separate physical entities designed especially for adult education negate the value attached to self-education or non-institutionally based forms? Although the present historical information does not provide answers to these questions we do know that the institutionalization of adult education laid the groundwork for the creation of many other forms of adult education between the Civil War and World War I.

Education Between the Civil War and World War I
(1866-1920)

During the period between the Civil War (1861-1865) and World War I (1914-1918) the United States Government set out to expand democracy and to support economic development. Several things happened.

Over 23,500,000 immigrants from Italy, Poland, Greece, Russia, Lithuania, Latvia, China, Japan, Mexico, and Canada came to America (Kraut, 1982). The population of the United States swelled from just over 30 million in 1860 to well over 100 million by 1920 (Knowles, 1977). Accompanying these developments were actions by the

United States Government which guaranteed new freedoms for the disfranchised or enslaved, as evidenced by the Thirteenth Amendment (1865) which abolished slavery and involuntary servitude; the Civil Rights Act (1866) which proposed to safeguard the civil rights of people within states; the Fourteenth Amendment (1868) which made all persons born or naturalized in the United States citizens; the Fifteenth Amendment (1870) which prohibited the states from abridging the right of the citizens of the United States to vote on the account of race, color, or previous condition of servitude; the Ku Klux Klan Act (1871) which proposed to enforce the provisions of the Fourteenth Amendment to the Constitution of the United States, and the Nineteenth Amendment (1920) which prohibited states from denying citizens of the United States the right to vote on account of sex.

Between the Civil War and World War I, the United States Government adopted policies which favored the development of big business, Tariff laws and credit laws were passed to aid the development and growth of big business. Farm production between the Civil War and World War I increased tremendously due to the use of machinery.

In addition, transportation and communications networks were enhanced with the development of railway

and transcontinental railroad lines. The national income grew more than six times between the outbreak of the Civil War and 1910 (Sinclair, 1967).

A consequence of the Federal Government's expansion of democracy and support of economic development was an increase in urbanization as small farmers who could not compete with new farming technologies, immigrants, and previously disfranchised people moved to cities looking for work. Many of these people found themselves trapped within the web of poverty.

In keeping with rapid industrialization, population growth, urbanization, expansion of democracy, and economic development, several institutional forms of adult education were created to expand educational, economic, health care, and constitutional opportunities.

Institutional Forms of Adult Education

Chautauqua

The Chautauqua, a national adult education program was a four-year program of home reading and history. Diplomas were awarded for the successful completion of four years of study (Vincent, 1959).

Correspondence and Vocational Courses

Colleges and universities, for the first time, offered correspondence courses which reflected their

regular academic courses. Also, college and universities offered vocational courses through their extension programs.

Labor Colleges

Labor Colleges, founded specifically for working men and women (Elias & Merriam, 1980) also were new forms of adult education. For example, the Avalon College was established in Missouri in 1895 to provide courses for working men and women. The Bread Winners College, founded in 1898, and The Rand School of Social Science, founded in 1906, were established in New York City to provide courses in economics, science, philosophy, religion, and literature for working men and women.

Health Agencies

Health agencies were also among the new forms of adult education between the Civil War and World War I. Agencies like the American Red Cross, founded in 1881, the American Public Health Association, founded in 1872, the National Tuberculosis Association, founded in 1904, and the American Cancer Society, founded in 1913, supplied speakers to educate adult with regards to their health.

Economic Organizations

Other newly found forms of adult education were economic organizations. Economic organizations such as

the American Iron and Steel Institute, founded in 1855, and the Chamber of Commerce of the United States, founded in 1912, provided courses and conferences to keep businessmen and investors informed of the economic activity of the market place.

Settlement House Movement

Another form of adult education which spread throughout the nation after the Civil War was the Settlement House Movement which started around 1886. This movement provided cultural enrichment classes, individual counseling, team counseling and literacy classes for adults in deprived neighborhoods to help them learn how to better live together and to acquire good living conditions for themselves.

The Americanization Program

The Americanization Program, which came into being shortly before the United States' entrance into World War I, was another form of adult education. This program provided literacy training in elementary English and Americanization training to immigrants by offering them courses in American History, civics, and geography.

Civil Rights Organizations

In addition to the Settlement House and the Americanization programs, other new forms of adult education were founded. These new forms of adult

education included organizations which defended the civil liberties of American citizens. For example, the National Association for the Advancement of Colored People was founded in 1909 and the Anti-Defamation League was founded in 1913, held meetings, study groups, and conferences to inform adults of their civil rights.

Agricultural Education

Finally, agricultural education, another form of adult education was provided to farmers through farmers institutes and farm bureaus. In fact, the passage of the Hatch Act in 1887, provided funds for colleges to conduct experiments to discover new techniques in farming. This information was disseminated to farmers through conferences and public lectures (Knowles, 1977).

Purpose of Adult Education

During the years between the Civil War and World I many things happened that gave rise to the purpose of adult education. For instance, over 23,000,000 immigrants came to the United States. These people were not Protestant. They were racially different from the Anglo-Saxons who dominated American Society. Their dress was different from the Protestants, and the languages which they spoke were different from the Protestants. The majority of new immigrants were unskilled laborers. Many mistrusted law and government in the United States because

the government and the laws favored Protestants. Also, a significant number of immigrants lived in urban areas in poverty and in cramped living quarters. Prejudice was widespread because anti-Jewish and anti-native Americans of African ancestry sentiments were buried deep in the American Consciousness. Finally, American farmers were struggling to keep up with changing technologies.

Therefore, the purpose of adult education during the period between the Civil War and World War I was to transform the lives and attitudes of people through programmatic initiatives which were promulgated by adult education programs such as the Chautauqua, labor schools, health care organizations, Settlement House Movement, Americanization Program, agricultural programs, public schools, and civil rights organizations.

In addition to the above purpose, I believe that another purpose of adult education during this period was to control behaviors which were deemed unacceptable in American society. For example, the labor movement was extremely violent as epitomized by Chicago's Haymarket Riot in 1886. To control the violent behavior of people involved in the labor movement, labor colleges were founded to educate working men and women. Also, many immigrants were unskilled and from the point of view of the dominant classes, maintained a violent disrespect for

law and order when they competed for jobs. Hence, Americanization training was used to control what dominant classes perceived to be immigrants' undesirable behaviors. Furthermore, the transmission of disease among immigrants who lived in slum tenements and cramped living quarters was especially frightening and struck fear in the hearts of middle-class Americans. Thus, health education programs and the Settlement House Movement were used to control the spread of disease. Finally, discrimination was rampant in American society and civil rights organizations fought to change the behaviors of people who often made decisions on the basis of their prejudices.

The majority of the historical information pertaining to the purpose of adult education during the period between the Civil War and World War I does not contain information on the role of social relationships, the physical environment, or on the role of students', teachers', and administrators' educational goals in students' educational development. However, a notable exception is Horowitz's studies of the experiences of traditional undergraduate students at residential liberal arts colleges. Horowitz (1984) discussed specific functional aspects of architectural design of buildings on women's college campuses from their 19th Century beginnings to the 1930s. She demonstrated that the intentions of

those who designed the colleges and the actual way students experienced them were different. Also, Horowitz (1987) reported that the expectations that teachers and administrators held regarding students' college life were different from the behaviors which were observed. For example, an overwhelming number of students did not conform to the rules and regulations of the college, had disputes with faculty, devalued academics, favored social barriers among students, engaged in disorderly behavior such as drinking, pilfering and rioting, and extended protests against societal injustices beyond the boundaries of college campuses.

The historical literature shows that the goals of teachers and administrators and the experiences of students have been different during different periods. Also, the historical literature shows that the purposes of education have changed over time. These changes were related to the conditions which existed in society. For instance, during the Colonial Period schooling was not available for many people and evening schools were established to overcome the limited availability of schools in the Colonies. Also, since survival during the Colonial Period depended upon one's ability to produce the essentials of life, a purpose of education was to transmit skills related to the world of work.

However, a change in the purpose of adult education occurred after the Colonial Period. The change in the purpose of adult education occurred because the United States had become a self-governing nation. Thus, the purpose of adult education was to encourage scientific development and self-improvement.

Another change in the purpose of adult education occurred after the period between the American Revolution and the Civil War. This change is related to the fact that during the years between the Civil War and World I the United States Government enacted the Fourteenth Amendment to the Constitution and permitted over 23,000,000 immigrants to come to the United States as well. Hence, the purpose of adult education which was to transform the lives and attitudes of people was different from the purpose during the Colonial Period and the period between the American Revolution.

The changes which occurred in the purpose of adult education over time were related to the needs of people and the needs of the nation. For example, during the Colonial Period people needed skills in order to survive. During the period between the American Revolution and the Civil War scientific knowledge was needed to enhance invention and discovery. Finally, after the Federal Government passed legislation which made all people born

in the United States citizens and also permitted more than 23,000,000 immigrants to come to the United, the task of the Federal Government and various organizations was to create a citizenry which behaved in ways which were not threatening to the nation.

To accomplish the task of modifying people's behavior during the period between the Civil War and World War I, adult education activities were carried out in a variety of settings.

Settings for Adult Education

Settlement Houses

Settlement houses were places where a comprehensive array of services for adults could be found. These services included a wide range of vocational programs and courses in beginning English as well. Settlement houses were intentionally located in immigrant neighborhoods in Chicago and New York City in order to be accessible to people who were to use them. Also, a settlement house in an immigrant community could function as a social center which promoted social cooperation.

Labor Colleges

Labor colleges were residential schools which were controlled and operated by working men and women. These places were used to train working men and women how to deal with labor problems such as hours of work, working

conditions, and wages.

Homes

Adult education activities were also held in homes. For example, the Chautauqua established a program of home reading in which members of the local reading circle would meet in their homes for exercises in literature and history.

Churches

Physical settings such as churches were places in which adult education activities were found. Between 1885 and 1900 the Catholic Church provided adult education through the Sunday School Movement, Bible study, summer school, and weekly institutes.

Public Schools

Finally, in the early 1900's public school facilities increasingly became the place where Americanization training for immigrants was found. Public school facilities were large enough to bring together large groups of people after working hours for instruction in English, bookkeeping, arithmetic, and industrial and mechanical arts courses.

In summary, the physical settings for adult education activities during the period between the Civil War and World War I were often consciously related to educational objectives. For example, the Catholic Church

was used for Bible study and other religious activities. Public schools were used for Americanization Programs because they could accommodate large classes in English, and other commercial courses, and adults could be recruited from the neighborhoods in which the public schools were located. The Chautauqua, a four-year reading program, was held in homes to make the program available to people who did not have access or did not want to use institutionalized physical settings. Labor colleges were used to bring together large groups of working men and women to disseminate information about industrial abuses and working conditions in order to help strengthen unionization efforts among people. Finally, Settlement Houses were designed to be perceived by people as social centers because of their locations and the types of courses they offered.

Basically, the above information explains why different physical settings were used to carry out adult educational activities. Yet, it does not provide adequate information on the relationship between the physical settings and the educational experiences of students who used these facilities.

Adult Education in the Modern Era (1921 - 1960)

The 1920's were years of unregulated prosperity for industry and six million Americans left the farm for

cities.

During this period formal definitions of adult education began to appear in the literature. Lindeman (1926) indicated that adult education was a process which occurs "when an individual confronts life's situations" (p. 30).

Then, in 1929 the national economy of the United States collapsed. Banks failed all over the country, 13,000,000 working people became jobless, and families were evicted from their homes for non-payment of their mortgages.

The election of President Roosevelt in 1932 led to the formulation of a national policy by the Federal Government to break the cycle of human misery caused by the collapse of the national economy. The Federal Government stood behind home mortgage loans, bank loans, made loans to the housing construction industry, removed corporation anti-trust laws, and created public works programs to provide jobs.

Adult education was redefined as "any purposeful effort towards self-development carried on by an individual without direct legal compulsion and without such effort becoming his major field of activity" (Houle, 1938, p. 3).

World War II (1939-1945) stimulated the national

economy. The result was a highly automated mechanized industry. Adult education activities were expanded.

Institutional Forms of Adult Education

Leadership and Development Training

Business and industry provided leadership and development training for its employees. A study by Clark and Sloan (1966) shows that business and industry provided programs in managerial development, human relations training, technical and professional training, and general educational development. The employees who received this training were classified as senior executives, foremen, supervisors, junior executives, and technical and professional workers.

Evening College and Extension Programs

After World War II, colleges and universities began to broaden their relationship with government, labor, industry, and community organizations to increase their financial support. Through their evening colleges and extension programs, colleges and universities offered regular academic subjects as well as a wide range of short non-credit courses to adults.

Worker Education

After the Great Depression, union-operated adult education programs became a dominant part of the labor movement. Trade unions such as the United Auto Workers,

and the American Federation of Labor/Congress of Industrial Organizations provided management courses for their union officials, and sponsored adult education programs to improve their members' chances for promotions and to improve their members' understanding of collective bargaining, and labor policy.

Health Education

By the end of World War I health and welfare agencies were providing a wide variety of adult education services to individuals and families. Agencies such as the family service association, hospitals, community clinics, and visiting nurse association conducted workshops, and conferences aimed at raising the health standards of the public.

Vocational and Literacy Training

After having endured two world wars and a depression, the Federal Government established educational programs to provide training for farmers and governmental employees and their families.

One federal program, the Cooperation Extension Service, provided information to help individuals and families who lived in rural America attain: "greater ability in acquiring higher incomes and levels of living on a continuing basis; increases competency and willingness, by both adults and youth, to assume

leadership and citizenship responsibilities; and increased ability and willingness to undertake organized group action when such will contribute effectively to improving their welfare" (Knowles, p. 90).

Another government sponsored program, The United States Armed Forces Institute established in 1942, provided in-service, training correspondence courses, high school equivalency training, and literacy training for federal employees, and members of the armed forces.

Also, the G.I. Bill of Rights of 1944, and the Korean G.I. Bill of 1952 provided the impetus for veterans to learn vocational trades, or pursue an academic education.

Not only did the Federal Government provide vocational and literacy training, public schools and libraries provided training as well.

During the period after World War II, public schools began to establish adult education programs. These educational programs were established largely in response to the Federal Government's passage of the Servicemen's Readjustment Act which provided funds for veterans' education. In addition, public schools could receive support from state and local tax funds.

Adult Education programs at the public school level offered vocational training and academic subjects.

Academic courses were offered which prepared adults to take the General Educational Development Test. Many adults received their high school diploma through public school adult education programs.

Public schools also offered vocational courses to prepare adults for a vocation, to increase adults' vocational proficiency, and to retrain adults for new types of occupations. A typical vocational program in a public evening school consisted of courses in shorthand, typewriting, bookkeeping, and basic English.

Beginning in 1924, libraries became substantially involved in adult education. Libraries provided literacy training, books, films, exhibits, and audio-visual aids to meet the educational needs of adults.

Finally, an enormous growth of privately owned and operated proprietary schools to secure profits for their owners sprung up in the 1920's. These were mostly correspondence schools with diversified offerings. A large proportion of proprietary schools specialized in high school equivalency training.

A major criticism of proprietary schools was that they were commercial enterprises designed to make profits. Therefore, they differed greatly. Some schools had highly trained and proficient staff and the most recent technology and material while others were at the

other extreme. Despite this criticism, these schools continue to flourish throughout the United States.

The forms of adult education during the Modern Era were different from earlier forms of adult education because they were meant to achieve different purposes.

Purpose of Adult Education During the Modern Era

It was during the Modern Era that the nation experienced a collapse of its national economy, World War I, and World War II. Both wars stimulated the growth of the national economy and business and industry grew in leaps and bounds. The purpose of adult education was to develop a healthy workforce, a safe work environment, and prepare people for expanded job opportunities. Business and industry developed training programs which prepared people for leadership positions in business and industry. Colleges provided evening and extension programs so that working men and women could take regular credit bearing and non-credit courses after work. Labor organizations provided skills development training for its members. Humanitarian efforts to attack health problems stimulated campaigns by the American Red Cross, National Tuberculosis Association, and Cancer Society to improve public health. Finally, trade unions provided educational training to eliminate abuses by employers and to make the work environment safe for its members.

The purpose of adult education during the Modern Era was different from the purposes from earlier periods mainly because they were meant to achieve different objectives. Clearly, self-improvement through self-education during the Colonial Period; scientific development, discovery, and invention during the period between the American Revolution and the Civil War, and the transmission of values related to citizenship, health, labor, agricultural, and economic practices during the period between the Civil War and World War I were purposes related to issues which were important to society. Therefore, different purposes emerged for each period.

The difference in the purposes of adult education over time is clear. Nevertheless, the purposes of the students who pursued the education is not known. This historical information is presented as if the students were mechanized and were programmed to pursue the purposes set out by the different agencies and organizations who organized and administered the program's purposes. This simply is not the case when human beings are involved in the pursuit of educational objectives. Students have feelings regarding their educational objectives and the educational objectives of other people who are involved in the educational activities. Also, students frequently interact with each other. A weakness of the historical

information on the purpose of adult education during the Modern Era is that it does not reflect the purposes of students who engage in adult education activities at a large urban commuter college. As mentioned earlier, Horowitz described how the intentions of the people who designed the colleges and the actual way in which traditional students experienced the physical environment at residential liberal arts colleges were different. Also, Horowitz reported that the expectations which administrators and teachers had with respect to traditional students' college life at residential colleges were different from the students. But, more needs to be known about educational development of adult learners at an urban commuter college.

Settings Used to Pursue the Purpose of Adult
Education During the Modern Era.

College and University Facilities

Colleges and universities have used their regular on-campus facilities to conduct adult education activities. Also, in their attempt to make courses and adult education programs available to communities, colleges and universities established off-campus facilities. Off-campus facilities have included space in hotels, churches, libraries, public schools, and business offices.

During the 1950s, colleges and universities constructed on-campus residential Continuing Education Centers to facilitate adult education activities (Alford, 1968).

Business and Industrial Facilities

During the period after the Great Depression, business and industry began to construct their own adult education facilities. Corporations such as IBM, General Motors, Mobil Oil, Ford Motor, and General Electric erected facilities for their employees to receive job-related and general education development training.

Public School Facilities

An increased use of public school facilities for adults to acquire vocational and general educational development skills occurred after World War II. Veterans education programs after World War II were found primarily in public school facilities.

Military Facilities

The armed services provided training facilities for military and civilian personnel to receive in-service training and off-duty educational development. The United States Armed Forces Institute, established in Madison, Wisconsin, in 1940, used its facilities to provide training to promote efficiency in performance and self-improvement among civilian and military personnel.

Trade Union Facilities

Organized labor such as the AFL/CIO provided facilities which their members used to receive training in union administration, collective bargaining, leadership training, and grievance procedures.

Library Facilities

Public libraries supplied physical space which was used to conduct adult education activities. Activities such as group discussions, lectures, and literacy were among the adult education activities found in libraries.

Physical settings in which adult education activities were carried out have been similar over time to some extent. For example, adult education activities were found in homes up to World War I.

During the Modern Era an increasing emphasis was put on developing new institutional forms of adult education. As adult education programs were expanded changes occurred in the physical settings. Yet, most of the historical information does not provide basic information regarding the relationship of students and physical settings. For example, were there aspects of physical settings which supported or failed to support students' educational development? Were there features of the physical setting which were attractive to students or

were objectionable to students? Although we are not able to answer these questions at this time, Horowitz (1984) has provided a description of how architectural design of physical settings can have an influence on the experiences of traditional undergraduate students who live on campuses of liberal arts colleges.

Conclusion

The purpose for reviewing the historical information was to demonstrate that this information has not focused on the educational experiences of students who participated in the various adult education forms. We know a great deal about what was intended by the people who created the various educational programs but little about whether their purposes and goals were the same as the people who used them.

Although the historical information shows that physical settings in which adult education activities were found have changed over time and that those changes were related to the purpose of the educational activity and to the agency or organization that sponsored the educational activity, it never seemed to occur to the various investigators starting with the Colonial Period through 1960 that: (1) the environment in which the physical setting is located may have functional significance for students' educational development, (2) the physical

setting may have qualities which may attract students to it, discourage students from coming to it, and support or not support their educational development, (3) the varying educational goals of students, teachers, and administrators may differ and may impact on students' educational development, and (4) the social relationships among students may impact on their educational development.

The review of the historical information was beneficial on two levels. First, it clearly illustrates that the physical setting can be an important factor in the creation of adult education programs, and used consciously as part of its purpose. Second, it demonstrates that information regarding the significance of the educational environment in adult students' educational development is desperately needed when the educational environment is defined as the social and physical context in which the development of knowledge, skill, and ability by teaching, training, and studying takes place.

Contemporary Issues

During the sixties, a new generation of people demanded freedom, equality, peace, justice, and economic opportunity for all Americans. These demands set off a series of social and political actions in the form of protests, urban insurrections, and legislative acts set

forth by the United States Government.

In 1961, freedom riders zigzagged across Alabama, Georgia, Mississippi, North Carolina, South Carolina, and Virginia challenging racial segregation policies and practices. Over 200 thousand people marched on Washington, D.C. in 1963 to protest the Federal Government's failure to enforce the laws of the U. S. Constitution. Throughout the sixties urban insurrections occurred in swift succession in cities such as Berkeley, Birmingham, Cleveland, Chicago, Newark, Detroit, Los Angeles, Oakland, Washington, D.C., Boston, and New York City. Demonstrations and violent protests were held on 101 college and university campuses during the sixties to demand an end to oppression, racism, and imperialism (Manchester, 1974). In addition, community groups demanded that the Federal Government expand its role in dealing with poverty, ignorance drug addiction, unemployment, crime, and inadequate housing and health care. Community groups were also calling for colleges and universities to make higher educational opportunities more accessible to adults.

The Federal Government's response to the freedom rides, urban insurrections, and demonstrations was to pass legislation which aimed to provide opportunities for all Americans. The Area Redevelopment

Act (1961) and the Manpower Development Training Act (1962) intended to provide training for people who were unemployed due to geographical shifts in labor markets and technological change. The Economic Opportunity Act (1964) provided for the creation of the Job Corps, community action programs, and other work incentive programs to prepare people for successful competition in an expanding economy. The Civil Rights Act (1964) guaranteed voting rights, prohibited discrimination in public accommodations, provided for equal access to public facilities and schools, and forbade racial discrimination in programs receiving Federal aid. This legislation provided for a massive flow of funds into colleges universities to establish higher education programs for adults (Knowles, 1977).

During the sixties investigators began to provide definitions of adult education and of what was meant when they used the term adult.

Adult education was defined as "a relationship between an educational agent and a learner in which the agent selects, arranges, and continuously directs a sequence of progressive tasks that provide systematic experiences to achieve learning for those whose participation in such activities is subsidiary and supplemental to a primary productive role in society"

(Verner, 1964, p. 32).

Adults were defined as persons who had come into that stage of life in which he/she has assumed responsibility and plays a productive role in his community (Verner, 1964). Also, adults were defined as people over 21 years of age (Miller, 1967). These various definitions of adult defy consensus. However, the U.S. Department of Education (1987) defines a student in higher education who is under 25 as a traditional undergraduate student, and an adult student as one who enters college with large gaps in their educational experiences and is at least 25 years of age. For the present study, an adult learner is a person 25 years old or older who has taken on the responsibility of supporting himself or herself, and, in most instances, supporting others, and has a functionally productive role in society. This definition places a boundary on the range of people with whom this investigation will be concerned. For instance, students who are dependent on their parent(s) for support are not considered to be adult learners. Too, retired senior citizens engaged in leisure activities such as arts and crafts are not included in this definition because they are not engaged in an activity which can be characterized as a functionally productive one. Essentially, my definition provides for an understanding

of who is an adult learner from a view which includes age and function. A definition of an adult learner which only specifies a particular age is meaningless.

Many adults responded to the Federal Government's actions by enrolling in higher education programs. Many of the students had been away from academic life for some time. Others were single parents. Most were employed full time, and had dependents.

The current research focuses on adult learners who enrolled in a higher education program for adults and seeks to understand the issues which are significant in their educational development. However, before describing the current research, there is a body of literature which addresses issues related to the physical environment, social relationships, and educational goals.

Qualities of the Physical Environment Which Impact on Human Behavior

Much has been written about people's perceptions and the functions and consequences of the arrangement of physical settings in which educational activities take place. The importance of design has been understood by many.

Design

Getzels (1974) discussed the arrangement of physical settings in which education was the primary

objective. According to Getzel, the arrangement of physical settings in which education was the primary objective was based on different belief systems about the "child" as a learner. A rectangular shaped classroom with seats bolted to the floor in straight rows with a teacher's desk in the front center of the classroom represented a view that the child was an empty organism which needed to be controlled because the child was incapable of responding to any stimuli other than that which was presented by the teacher. The square shaped classroom with movable chairs and the teacher's desk in a corner represented a view that the child was an active organism. The circle shaped classroom which contained desks which could be arranged in a circle with no teacher's desk represented a view that the child was a social organism who learned by interacting with others. Finally, the large open space classroom represented a view that the child was innately curious, and searched for gratification through novelty, exploration, excitement, and challenge.

Not only does the arrangement of a physical setting in which education was the primary objective represent different belief systems, but according to Proshansky and Wolfe (1974), the design and arrangement of space and furniture for fifth grade children can

facilitate the learning process when properly managed or inhibit the learning process when poorly managed.

Goldman (1981) discussed the outcome of a project which used theories of group dynamics, human potential, and the psychology of adult learning to develop a model classroom to promote student retention and cognitive growth in adult students. In her discussion she indicated that design enhances retention. She states that:

within the classroom, the most interactive seating arrangement appears to be a circular one. The circle rather than rows of chairs or a horseshoe arrangement functions as a catalyst yielding both immediate, observable results and significant symbolic value. Circular seating allows for eye contact between all participants (p. 9).

The importance of spatial arrangement in a classroom setting has been recognized by others. Becker, Sommer, Bee, and Oxley (1973) discussed seating arrangement in college classrooms. In their discussion of row and column seating they indicated that academic achievement is a function of seating position. As the distance between teacher and students who sit on the sides of the classroom and in the direction of the rear of the room increased, students' grades decreased.

In discussing a place where the development of knowledge, intellectual skill, and ability through teaching and study takes place, it would be absurd to

ignore the importance of its design on students' educational development. However, studies which only consider spatial arrangement are one dimensional in that they consider only one important aspect of the classroom environment. To be able to achieve a deeper and more complex view of the impact of the classroom environment on students' educational development other elements or components of the classroom such as broken light fixtures, broken seats, cold classrooms in the winter, and nonairconditioned classrooms in the summer should be taken into consideration as well.

The importance of interior temperature and lighting has been stressed by various writers. Yet, there are conflicts in the discussions with respect to how temperature and lighting affects human behavior.

Interior Temperature

Nolan (1960) has reported that military students experienced physical discomfort and earned lower academic grades in classrooms with high temperatures. Other writings also indicate that temperature affects performance. McDonald (1960) demonstrated that both teacher and student performance improved on factors such as concentration, learning, less drowsiness and fatigue in air conditioned space versus nonairconditioned space.

Others have not reported that temperature

affects performance. For example, a report by Chiles (1958) on the importance of temperature on the performance of a complex mental task shows that temperature conditions had no significant effect on the performance. Furthermore, a report on the effects of humidity, air movement, and temperature on male college students' performance shows that when these students were encouraged to do their best, they did as much to increase their performance in hot, humid, and stagnant air conditions as in optimal conditions (Thorndike, McCall, & Chapman, 1916). Also, Mayo (1955) reported that the effect of temperature on two matched groups of U. S. Naval Trainees shows that there was no significant improvement in the performance of students in air conditioned classrooms. Finally, Wilkinson et al. (1964) demonstrated that when humans' body temperatures were raised, performance was increased under low levels of heat.

The literature on temperature and its effects on performance in classroom settings is difficult to understand because temperature appears to have useful effects for some, while for others it has harmful effects. This difference leaves the question of whether nonairconditioned classrooms in the summer or cold classrooms in the winter are perceived by adult students to be barriers to their educational development unsettled.

Furthermore, the present information on temperature and its effects on performance in classroom settings does not indicate whether nonairconditioned classrooms in the summer or cold classrooms in the winter discourage students from coming to their classes.

In addition to classroom temperature, interior lighting is an important component of the classroom environment.

Interior Lighting

Lighting in the classroom is needed for many purposes. A basic function of lighting is to assist students as they read, record written notes, undergo examinations, perform experimental tasks in laboratories, and participate in educational activities such as lectures and recitations. The performance of visual tasks has been shown to be directly affected by interior lighting (Boyce, 1975). Also, the level of lighting available for a visual task can directly affect performance (Logan & Berger, 1961). For instance, too much light can alter students' ability to carry out a visual task or students' visual abilities may be decreased.

However, there does not seem to be a preferred form of interior lighting. Reports on student preferences indicate that large differences in lighting preferences existed for various behaviors and settings (Butler &

Biner, 1987; Oregon School Study Council, 1987). In fact, the same form of lighting may not be appropriate for all learning environments (Papa-Lewis & Cornell, 1987).

This information represents a narrow view of the importance of lighting in students' educational development because it only tells us that performance on visual tasks is affected by the level of lighting, and that lighting preferences are not the same for all people. More needs to be known about people's perception of lighting in classrooms with a mixture of functioning and nonfunctioning fluorescent lamps. What are students' perceptions of these kinds of circumstances, and do these circumstances discourage them from coming to their classes?

In my previous work, (Smith, 1989), I conducted a pilot study to investigate the attitudes held by 20 adult learners with respect to aspects of the physical environment of a particular urban undergraduate college. I found that 70.0 percent of the participants indicated that they felt that aspects of the physical environment such as cold classrooms, unmaintained chairs, and poorly ventilated classrooms were barriers to their educational development. Although this was a small sample, the findings suggest that more should be known with respect to aspects of the classroom which are important in students'

educational development.

In addition to design, interior temperature, and lighting in the classroom, location is an environmental factor which impacts on people's behavior. As we have seen in the historical review, location often was a conscious aspect of educational planning.

Location

Issues related to the location of schools have focused on locating school sites or on features important for school site development.

Hiemstra (1972) identified several locations in which adults preferred to have adult education courses held. The locations included: (a) residential centers, (b) senior citizen centers, (c) high schools, and (d) community colleges. Blue-collar workers preferred their worksite as a place to study (Botsman, 1975). According to Cross (1981), courses for adults were offered in locations such as shopping centers, worksites, and in downtown stores and businesses for the purposes of convenience for shoppers and workers.

The information on features which are important for a school site focused mainly on safety and esthetics. Stein (1978) indicated that school sites for children should not be located near driveways, railroads, heavily traveled highways or high-tension electrical wires.

Castaldi (1969) recommended that schools for children should be located in areas "free from air pollution and noxious gases, and far from sources of noise or danger, such as heavily traveled highways, airports, and heavy industry" (p. 154). Also, Castaldi recommended that schools for children should be located near brooks, trees, parks, and even golf courses.

Information on preferred sites for courses facilitates planning, locating, and implementing educational programs for adult learners. However, it is not merely enough to know that facilities in which courses for adults were held for adult learners were strategically located for the purpose of convenience to the students. In order to create a deeper and more complex view of adult learners' educational development, elements of location which support or discourage adult students' educational development must be considered.

Before the literature review is completed, two other facets which I consider to be of major importance to adult students' educational development, social relationships and educational goals, will be considered.

Social Relationships

The contemporary literature contains information which suggests that a social relationship is an important dimension in adult learners' educational experiences. For

example, Cross (1981) explained that adult students form a social relationship "to fulfill a need for personal associations and friendships, to make new friends, 'and/or' to meet members of the opposite sex" (p. 86). Another view on the importance of a social relationship among adult learners was that it engenders acceptance of others and reaffirms students' value and worth, lessens competition and increases support among students (Jenkins, 1960). Finally, Murgatroyd (1977), indicated that the success of adult students is directly affected by learner-teacher relationships.

I agree with Murgatroyd's assumption that adult students' success is directly affected by learner-teacher relationships. But, others (e.g., Cross & Jenkins) have suggested that a social relationship was formed among adults to meet friends or to accept others value and worth. Therefore, I think that it is reasonable to suspect that a social relationship will be formed among adult learners for other reasons as well. In order to create a systematic conception of adult learners' educational development, our knowledge with respect to why social relationships are formed among adult students must be expanded.

In the process of expanding our knowledge with respect to the role of a social relationship in adult

learners' educational development, more should be known about the educational goals of specific people who participate in adult learners' educational development.

Educational Goals

A goal is something which one desires to achieve. In my previous work, (Smith, 1989) I conducted a pilot study to investigate what adult students expected to achieve by establishing a relationship with a large urban college. The results from the study suggest that different adult students expected to achieve several different objectives. Fifty percent of those who participated in the study expected to build their self-confidence, to achieve a heightening of their belief in their own abilities. Fifty percent expected to improve their lives in ways which would enable them to achieve a professional identity. Seventy percent said that they established a relationship with the college because they expected to acquire knowledge to advance their careers. These students felt that the knowledge resulting from attending college would be used to bring about positive consequences such as the actual movement from a current position, occupation, profession, or level of responsibility to a more challenging or better one. Finally, eighty-five percent of the participants expected to achieve personal enrichment from establishing a

relationship with the college. They thought that their lives would be enriched to the extent that they would have available to them more career options and better job opportunities.

Although the information from my research comes from a small sample of 20 adult students, it suggests that adult learners' educational goals may vary. Therefore, more needs to be known about the role of adult students' educational goals in their educational development. It is also possible that the educational goals of teachers of adult learners and administrators of educational programs for adult learners may differ from students' educational goals. Therefore, more should be known about the role of teachers' and administrators' educational goals in adult students' educational development and whether differences among these groups have implications for adult students' educational experiences and development.

Summary

As the historical review indicated, various forms of education for adults have existed since the Colonial Period in this country. The purpose of those who created these forms have varied as have their settings. This information provides a context for understanding the types, purposes and settings for adult education which exist today.

During the Modern and Contemporary Periods researchers have attempted to evaluate how qualities of the educational environment such as design, interior temperature, interior lighting, and location are perceived by students to be barriers to their educational development. This information is important because it provides a background for discovering elements of the physical environment which are important for adult students' educational development today.

As indicated in the literature review, social relationships are meaningful to adult students who share common concerns for friendship, values, and personal merit. This information provides a basis for contrasting the earlier purposes of a social relationship among adult learners with the reasons why adult learners form a social relationship today.

Finally, the information from the literature shows that adult students' educational goals are diverse. This information is not only important because it conveys a sense of diversity in what adult students expect to achieve, it provides a context for understanding the role of educational goals in a larger scheme of adult students' educational development. But, what is needed is a perspective on adult students and the educational environment which brings together the disparate elements.

PERSPECTIVE AND PURPOSE OF STUDY

A Perspective on Adult Learners and the Educational Environment

Adults continue to develop throughout their life cycle, and higher education is one possible part of adults' development. Therefore, adult learners' experiences in higher education need to be understood within a socio-physical environmental context.

Levinson (1978) believed that adult development was an important problem for psychology and an important link between psychology and other disciplines, such as biology, history, and sociology. His research led to a theory of adult development which he calls life structure development. According to Levinson, the life structure was the key concept which emerged from his research on the nature of a person's life at a particular time and the course of that life over the years.

Levinson indicated that the life structure was a way to conceptualize what life is like now, what are the important parts of one's life, how to invest time and energy, and issues related to meaningful and satisfying relationships and interests. The primary components of a life structure are "the person's relationships with various others in the external world. The other may be a person, a group, institution or culture, or a particular

object or place." Levinson notes that the concept of life structure requires us to examine the nature of an adult's relationship with all significant others.

For the present research, I have used Levinson's life structure theory to conceptualize the educational environment as the social and physical context in which the development of knowledge, skill and ability by teaching, and studying takes place. Based on this view, I will make the following propositions:

1. The educational environment may consist of physical or symbolic qualities which may attract adult students to it, discourage adult students from coming to it, and support or not support their educational development.

It has been reported that the physical environment impacts people's perceptions. Amos Rapoport (1969) reports that houses and household objects have symbolic qualities. It has also been suggested that houses are symbols which reflect a person's image and status in society (Wertman, 1968). The argument has been made that the house as a symbol of self is part of the human conscience and is deeply rooted in the American spirit (Cooper, 1974). Leavitt and Saegert (1989) maintain that people's care, commitment, and attachment to a place such as housing serve as a source of motivation

which prompts people to take control of their living environment in order to cope with problems of housing abandonment. The implication of this work is that the physical environment can have social meaning and reflect symbols of success and personal achievement.

The physical arrangement of space may be symbolic of a particular view of the learner. Getzels (1974), reported that a rectangular shaped classroom with chairs bolted to the floor suggests that the learner is an empty organism which need to be managed. The square shaped classroom, with movable chairs with the teacher's desk in a corner, is symbolic of an active learner who participates in the learning process. The circular shaped classroom is symbolic of a learner who interacts with others. A classroom with movable chairs and tables symbolizes a stimulus-seeking learner who seeks to interact with others and to explore the unfamiliar.

The physical arrangement of space may symbolize an educational philosophy. Therefore, "the design and arrangement of space and furniture are factors in implementing educational goals" (Proshansky & Wolfe, 1974).

Reports exist which suggested that the physical arrangement of space plays a role in enhancing the social climate and promoting retention among adult students

(Goldman, 1981). Becker, Sommer, Bee, and Oxley (1973), and Stires (1980), proposed that the physical arrangement of seats affects academic achievement.

Others have indicated that the physical environment has implications for adolescent's and children's emotional and cognitive development. Karmel (1965) reported that high school students were more unhappy and maladjusted in a windowless classroom. Weinstein (1987), suggested that there were connections between preschool children's developmental needs and the physical environment. She argues that the physical environment supports the development of children's self-esteem when the physical environment communicates meaning. Proshansky and Fabian (1987) assert that the physical environment has implications for cognitive development in children. They argue that spaces and places in physical environments such as a home, school, and neighborhood have important implications for the development of place identity in children. Place identity refers to cognitions about the physical environment that children develop while experiencing it.

Researchers have reported that there are qualities of the physical environment which affect human performance (Boggs & Simon, 1968; Eschenbrenner, 1971; Broadbent, 1954, 1958, 1971; Bronzaft & McCarthy, 1975;

Cohen, Evans, Krantz, & Stokols, 1980; Cohen, Glass, & Singer, 1973; Finkelman & Glass, 1970; Jerison, 1969; Woodhead, 1964). It has been shown that interior temperature may cause physical discomfort and may also affect academic performance (Nolan, 1960). Interior lighting also affects human performance. Boyce (1975) reported that interior lighting affects human performance on visual tasks. Also, glare, reflection, and brightness are factors which impact on human performance (Logan & Bergen, 1961).

While the physical environment is known to have social, symbolic, and personal meaning; to promote social relationships and retention among college students; to influence social and emotional development, and to contain qualities which affect human performance, it is not known what properties of the physical environment of an urban college attract adult students to it, discourage adult students from coming to it, support or do not support their educational development. Therefore, a better understanding of the role of the physical environment in adult learners' educational development is needed. It is needed to help expand the knowledge base regarding adult students' higher education experiences, and to provide information which can be used by higher education institutions to attract adult learners to it.

2. The location of an educational environment may have personal, functional, and symbolic significance in the educational experiences of adult students.

Previous investigations regarding location of learning environments for adult students have focused on where various groups have preferred to have adult education courses held. Among a group of senior citizens, five locations were identified: residential center, 33.0%; senior citizen center, 41.0%; high school, 6.0%; and community college 1.0% (Hiemstra, 1972). A study of workers in New York indicated that blue-collar workers prefer the worksite as a place of study (Botsman, 1975).

A view on the location of social centers, for adult students in public high schools, was that access to assembly rooms was "gained only by climbing flights of stairs, always with embarrassment and often with risk of accident from fire or other causes" (Spring, 1972, p. 79).

Finally, according to Cross (1981), educational providers have offered courses in locations such as shopping centers, worksites, and in downtown stores and businesses for the purpose of convenience.

Issues related to the location of educational environments for adults have primarily focused on where adults prefer to attend courses or on the reason why

courses were offered in a particular location. However, it is not known whether there are elements of location that support or do not support adult students' educational development. This information will not only add to the existing knowledge base on adult development, but it will also make available to higher education institutions information on those features of location which impact on adult students' educational development.

3. The educational environment consists of different people (e.g., adult students, teachers, and administrators) who form social relationships. Social relationships which adult students form with one another may be an important part of the educational environment and the formation of social relationships may be an important variable in adult students' educational development.

Two functions of a social relationship are to bring adult students together for personal associations and friendships (Cross, 1981) and to accept others' value and worth (Jenkins, 1960). Despite the apparent significance of a social relationship for adult learners, not enough is known about the meanings of social relationships for adult learners. This information can be used by higher education institutions to create self-help, mutual help, and foster a spirit of togetherness among

adult students who come to college after being away from academic life for some time.

4. The educational environment includes different people (e.g., adult students, teachers, and administrators) who pursue different educational goals. I have shown in my previous research that the educational goals of adult learners may vary considerably (Smith, 1989). It is also possible that the educational goals of teachers and administrators may differ from adult learners. Information on this issue suggests that the educational goals of teachers may be to provide a liberal education with emphasis on conceptual and theoretical understanding, (Elias & Merriam, 1980), as opposed to a concrete mode of learning favored by adults (Steltenpohl & Shipton, 1986). The educational goals of administrators may be to maintain the standards of the college, and to provide scheduling and program evaluation.

Research is needed which focuses on students', teachers', and administrators' educational goals to determine whether varying educational goals have implications for adult learners' educational development.

Purpose of the Present Research

The purpose of this research is to understand the experiences of adult learners, their teachers, and administrators of adult undergraduate programs in order to

assess the significance of the educational environment in adult learners' educational development.

The issues important for the present study are:

1. Factors which support adult learners' educational development.
2. Factors which do not support adult learners' educational development.
3. Factors which attract adult learners to a specific school.
4. Factors which discourage adult learners from coming to a specific school.
5. Adult learners', teachers', and administrators' educational goals.
6. Similarities and/or differences in adult learners', teachers', and administrators' educational goals.
7. The significance of social relationships for adult learners' educational development.

In order to understand the relationship between aspects of adult learners' educational environment and their educational development, I will not only focus on their experiences and those of teachers and administrators of their programs, I will also compare those findings with the educational experiences of a group of traditional undergraduate students. There are several reasons for using a comparison group of traditional undergraduate students.

First, by comparing the differences and/or similarities in the educational experiences of adult

learners and traditional undergraduate students pertaining to factors which support or do not support students' educational development, I want to discover whether there are issues of particular relevance only to adult learners.

Second, by comparing the differences and/or similarities in the educational experiences of adult learners and traditional undergraduate students with respect to properties of the physical environment which attract students to it or discourage students from coming to it, I want to find out if there are particular issues that only pertain to adult learners.

Third, by comparing the differences and/or similarities in the educational experiences of adult learners and traditional undergraduate students, I want to ascertain whether there are distinctive purposes, meanings, implications, and consequences of social relationships for adult learners who have returned to school after being away from academic life for an extended period of time.

Fourth, by comparing the differences and/or similarities in the educational experiences of adult learners and traditional undergraduate students, I want to determine if there are issues with respect to the educational goals which are unique to adult learners.

My goal is to use the information from this

research to (a) construct theory, (b) make recommendations on how to improve the educational experiences of adult learners, (c) make recommendations on aspects of the physical environment at Brooklyn College which need improving, and (d) make recommendations with respect to a policy to recruit and retain adult learners.

RESEARCH SETTING, DESIGN, AND METHODS

Setting

Several things were considered when selecting the research setting. Most importantly, Brooklyn College was selected as the setting for this study because it extends, through its School of General Studies, higher education opportunities to adults. One such program is the Small College Program, established in the Fall of 1968. It has both full-time and part-time programs which offer a Bachelors of Arts or a Bachelors of Science degree in economics, accounting, business, finance and management, elementary education, English, sociology, and psychology.

Brooklyn College was selected because it is a large public urban commuter college in Brooklyn, New York with a large undergraduate student body of approximately 12,000, and employs over 700 full-time faculty members. The size of the college's student body provided a large enough population to guarantee a sample with diverse opinions, feelings, and perceptions.

Brooklyn College was also selected as the setting for this research because it is located in a neighborhood which is diverse socio-economically, religiously, and ethnically. Many forms of public

transportation, such as subways, taxi cabs, and buses, service the neighborhood. Also, there are quick food establishments such as pizza shops, McDonald's, Kentucky Fried Chicken, several banks, and many small commercial businesses in the area.

Another reason for selecting Brooklyn College was that the college, although urban, has a campus. The campus consists of a complex of thirteen buildings scattered across twenty acres of land. The four original buildings (Boylan, Ingersoll, LaGuardia, and Roosevelt Halls) border a large open space, known as the quadrangle, that is a gathering point for students because it has trees, grass, and flowers. Other buildings were added over the years, the latest in 1968. Eleven out of the thirteen buildings are settings for instructional and student activities. The buildings vary in height, from one to seven floors, and represent different architectural styles. Among the thirteen buildings is a Student Center, seven stories high, which was constructed in the 1950's, and contains lounges, meeting and conference rooms, a cafe and pub, game rooms, art galleries, study rooms, music rooms, television lounges, a penthouse with a domed skylight, and a sun deck, that provide for the personal, professional, social, and cultural development of the students, staff, faculty members, and alumni of Brooklyn

College.

Furthermore, there are benches and raised platforms scattered around the outdoor campus which are frequently used by students. Finally, the campus has an outdoor athletic area, a place where students engage in recreational activities such as tennis, football, softball, handball, and soccer.

In conclusion, Brooklyn College, a large urban school, which has many physical features usually associated with non-urban academic settings seemed to be an ideal choice for evaluating the interrelationships between factors which impact on adult learners' educational development. Also, the college has suffered in terms of financial support due to an urban financial crisis and its staffing and physical plant has been deteriorating over the last fifteen years while enrollment among adult learners has increased.

Research Design and Methods

This study was designed in several phases, each phase employing a specific group of participants, and specific methods and techniques for obtaining pertinent data. The goal was to understand the following:

- (1) features of the physical environment which support or do not support adult learners' educational development,
- (2) features of the physical environment which attract or

discourage adult students from coming to it, (3) the significance of social relationships among adult students, and (4) the meaning of and the similarities and/or differences in adult learners', teachers', and administrators' educational goals and their relationships.

A research design employing both quantitative and qualitative methods seemed to offer the greatest hope for understanding the role of the physical environment, social relationships, and educational goals in the educational experiences of adult undergraduate students. The research design was designed to permit a progressive improvement of the research questions and the generation of hypotheses.

The multiple research methods used for the study included: (1) personal interviews (unstructured, focused, and exit) with adult learners and traditional undergraduate students, teachers, and administrators, and (2) a self administered survey of adult learners' and traditional undergraduate students', teachers', and administrators' attitudes, beliefs, and perceptions.

Phase I

This phase began in June 1990. Eight adult learners, four traditional undergraduate students, four teachers, and four administrators were chosen to serve as core interview groups to provide information which served

as the basis for generating questions to be used in phase II related to the role of the physical setting, location, social relationships, and educational goals in the educational development of adult undergraduate students.

Selection of Adult Learner Core Group

All (250) students in the Small College Program were mailed a letter which stated that eight volunteers were needed to participate in a study about the significance of the social and physical environments in adult undergraduate students' educational development (See p. 220 Appendix A). The letter provided a telephone number where students could reach me if they needed more information about the study and where they could leave their name and telephone number so that they could be contacted if chosen for the study. The letter also informed them that I was doing this research as a graduate student and that I would protect their privacy and confidentiality to the fullest extent possible.

One hundred Small College students (40.0%) responded to the request. Using their names, I assessed their transcripts in order to determine their gender. The decision to incorporate both male and female students was based on my assumption that their life experiences and responsibilities might be different and this would affect their views and experiences as adult learners.

Sixty of the respondents were female while forty were male. The names of the sixty females were put into a large urn with a top on it and the urn was well shaken to insure that the names were well mixed. Four names were drawn, randomly, without replacement, from the urn. The names of the forty males were then placed into the large urn and the same procedure was repeated to select four males.

The students were notified that their names had been selected and appointments were set up to begin the initial interviews with them in late June and early July.

Selection of Traditional Undergraduate Student
Core Group

In order to select four traditional undergraduate students for the core group, a computerized list of the names of 7,000 Brooklyn College traditional undergraduate students who were classified as upper freshmen, sophomores, juniors, and seniors was produced. To select 250 students who would be mailed a letter, the total number of pages (70) which contained the students' names was established. To determine which page would be the starting point for the name selection, each page number was written on individual pieces of paper and placed in urn I. Urn I was shaken well to make certain that a good mix of the page numbers had

occurred. The first page number was drawn, without replacement. All names on the page drawn were written on separate pieces of paper and placed in urn II. Urn II was shaken to ensure a good mix of the names and four names were drawn from urn II without replacement. The remaining names were removed from urn II. This procedure was repeated to select the remaining names.

After the names of the 250 traditional undergraduate students had been selected, they were mailed a letter which stated that four students were needed to participate in a core interview group which would be asked to offer their opinions and perceptions on the role of educational goals, social relationships, and the physical environment in the educational experiences of undergraduate students. Also, the letter stated that the purpose of the interviews would be to collect information which would be used to fulfill a partial satisfaction of the requirements for my doctoral degree. And, the interviews would be confidential and private. The letter contained a telephone number where students could reach me if they needed more information about the study. Finally, the the letter contained a room number where students could come to sign up to participate in the core interview (See p. 221 Appendix A).

Eighty-three (33.0%) traditional undergraduate students signed up to participate in the core interview group. The original computerized list of names also indicated the gender of the students. As with the adult students, the names of all traditional females (53) were written on separate pieces of paper and placed in an empty urn. The urn was shaken well to be sure of a good mix of the names. One name was drawn from the urn without replacement. The shaking and mixing of the names was repeated and the second name was drawn from the urn. A similar procedure was used to select two males from the 20 who volunteered.

The students were notified that they had been selected to participate in the core interview group, and appointments for interviews were scheduled for late June or early July.

Selection of Teacher Core Group

Four teachers of adult learners were selected to participate in the core group. All department chairpersons at Brooklyn College were asked to provide the names of faculty members in their departments who taught in evening undergraduate programs. Twenty-four departments supplied 117 names. A letter was sent through intra-college mail to each faculty member which asked for volunteers to serve as a core group for a study

that would investigate the significance of the social and physical environments in the educational development of adult learners at Brooklyn College. Also, the letter stated that as a graduate student I was conducting this investigation to fulfill a partial satisfaction of the requirements for a doctoral degree. Furthermore, the letter explained that the reactions of teachers to questions would be recorded, but their identity would not be revealed and the interview would be confidential. A telephone number for teachers to call was included in the letter so that they could find out more information about the investigation. A room number was included so that any interested teacher could come and sign up if he/she were interested in being a member of the core group (See p. 222 Appendix A).

Forty teachers (34.0%) responded to the letter, thirty males and 10 females. In order to select four names the names of the 30 males were written on separate pieces of paper and put into an empty urn and two names were drawn without replacement. The same procedure was used to select two females.

Each teacher who was selected was notified that he/she had been chosen to be a member of the core interview group, and appointments were scheduled for each of them to be interviewed in late June or in early July.

Selection of Administrator Core Group

A list was generated which contained the names of all personnel at Brooklyn College with administrative responsibility. The list of names was carefully screened to eliminate administrators with titles not related to the education of undergraduate students. After the screening process had been completed, 51 administrators were sent a letter which said that two males and two females were needed to serve as members of a core group for a study to investigate the role of the social and physical environments in the educational development of adult undergraduate students at Brooklyn College. The letter stated that the study was being conducted to satisfy a partial fulfillment of the requirements for my doctoral degree. Furthermore, the letter said that interviews would be conducted with each member of the core group and that the interviews would be recorded. However, the identity of anyone who volunteered to be a member of the core group would not be disclosed and the interview would be confidential. Finally, the letter contained a telephone number and room number where administrators could request information about the study (See p. 223 Appendix A).

Twenty administrators (39.0%) responded to the letter. Five of the respondents were female and 15 were

male. The names of female and male respondents were divided into two groups. The names of each male and female were written on separate pieces of paper. The same procedure used to select four teachers was used to select four administrators.

Interview of Adult Learner Core Group

The interviews of the adult learner core group were held in late June and in early July of 1991. During this period, eight adult learners were interviewed separately at Brooklyn College in an empty lounge in the Student Union Building and while on a walking tour of the outdoor campus.

Each interview was very intensive, the objective being to ask interviewees to express their individual opinions, feelings, and perceptions of the role of educational goals, social relationships, and features of the physical environment in their educational experiences. To make sure that information from each interview was not lost, the entire interview was recorded in written notes, and tape recorded as well.

An interview guide was used which contained the general issues related to the role of educational goals, social relationships, and the physical environment in the educational experiences of undergraduate students, and the questions which the students were asked during the

interview were open-ended (See pp. 224 & 225 Appendix A). Therefore, only two students a day were interviewed on four different days. Each interview lasted between two and two and one-half hours.

The students were excited about being chosen for the interview. They appeared to be very relaxed and seemed eager to discuss the issues. Also, the students appeared to understand the questions fully because they offered well-informed responses.

Interview of Traditional Undergraduate Student
Core Group

Four traditional undergraduate students were interviewed in late June or in early July 1991. The interviews were also held in an unoccupied room in the Student Center and while the students were taken on a walking tour of Brooklyn College's outdoor campus.

An interview guide similar to that used for adult learners was used (See pp. 224 & 225 Appendix A).

These students also showed great interest in the issues which were raised during the interview. The answers they gave demonstrated that they understood the content of each question.

Two students were interviewed each day on two different days. The time that was needed to conduct each interview ranged between two and two and one-half hours.

Written notes were taken during the interview and the interview was tape recorded as well.

Interview of Teacher Core Group

Four teachers who teach in the evening division at Brooklyn College, the division where adult degree programs are found, were interviewed in my office at Brooklyn College in late June or in early July 1991.

An interview guide which contained the general topics to be covered was used during the interview to ensure that the significant issues were covered (See pp. 226 & 227 Appendix A).

The questions which the teachers were asked during the interview were open-ended. Therefore, at the beginning of each interview each teacher was encouraged to rely on his or her own observations and on their experiences as teachers of undergraduate students when responding to questions.

Throughout each interview the teachers seemed to be relaxed. In fact, the responses which the teachers gave to questions were spontaneous and based on what they seemed to believe was right and fair.

Two teachers were interviewed each day on two different days. Each interview lasted from two to two and one-half hours. Written notes were taken during the interview and the interview was tape recorded as well.

Interview of Administrator Core Group

Four administrators whose responsibility included dealing with matters related to educating undergraduate students were interviewed in my office at Brooklyn College in late June and in early July 1991.

An interview guide which contained information on the general issues to be covered was used in order to cover the issues during the interview (See pp. 226 & 227 Appendix A).

The questions which the administrators were asked were open-ended. Although the answers which administrators gave to the questions were not planned in advance, they were answers which reflected a great deal of thought. In fact, each administrator appeared to be in a relaxed state and pleased about being interviewed.

Each interview was recorded in written notes and tape recorded to avoid the loss of information. The time taken to complete the interview with administrators ranged from two hours to two and one-half hours. Hence, two administrators were interviewed each day on two different days.

Transcribing and Analysis of Data from Interviews

The data from each recorded interview was transcribed. The principal technique used to analyze the

content of each transcript was "content analysis." This analysis generated themes or conceptual categories which were later used to develop a section of the survey questionnaire to discover the attitudes of students teachers, and administrators pertaining to educational goals, social relationships, and the physical environment in the educational development of undergraduate students.

Phase II

Phase II began in September 1990. It involved: (1) construction of a survey questionnaire, (2) selection of adult learners to receive survey questionnaire, (3) selection of teachers to receive survey questionnaire, (4) selection of administrators to receive survey questionnaire, and (5) re-interview of Core Interview Groups.

Construction of Survey Questionnaire

The purpose of the survey questionnaire for this study was to ascertain, through a larger sample, a broader range of people's attitudes concerning educational goals, social relationships, and the physical environment in adult learners' educational development.

The approach used to develop the survey questionnaire for this study was patterned after an approach other researchers have used to develop a questionnaire which measured people's attitudes toward

aspects of an educational environment. In particular, Moos and Gerst (1974) developed and used the University Residence Environment Scale (URES) to obtain people's attitudes concerning standard patterns of behavior among college fraternities and sororities, and among dormitory dwellers. The intent here is not to explain how the URES was used to measure people's attitudes for this study, but to explain how the framework used to develop part two of the survey questionnaire for this study is similar to the framework which Moos and Gerst (1974) followed to develop the URES.

Moos and Gerst (1974) reasoned that "consensus among individuals characterizing their environment defines the social or normative climate which exerts a powerful influence on student attitudes and behaviors" (Moos, 1979, p. 26). Therefore, Moos and Gerst (1974) held meetings with students to obtain a pool of items and to gain a "naturalistic understanding" of living group climates. These meetings with students produced a pool of items which were later sorted into categories. Hence, the initial items used to develop the URES were selected from the categories.

To finalize the development of the URES, Moos and Gerst (1974) gave the initial version of the URES to thirteen different groups living on the campus of a

private university, and subsequently, gave a revised version of the URES to a sample of students chosen from residence halls.

The survey questionnaire for my study has two different sections. The first section was designed to obtain demographic and background information, including age, socioeconomic circumstances, educational and occupational development, present living arrangements, present responsibilities, modes of travel, and time used to travel. The purpose for collecting these background and demographic data was to be able to compare and contrast the life and learning circumstances of adult and traditional undergraduate students.

The second section of the survey questionnaire was designed to ascertain responses of a larger sample of students, teachers, and administrators concerning educational goals, social relationships, and the physical environment in relation to the undergraduate students' educational development.

Therefore, the second section of the survey questionnaire was developed following the framework laid out by Moos and Gerst (1974). First, it utilized words, ideas, and opinions taken from the individual interviews with undergraduate students, teachers, and administrators. The information from the core interviews was transcribed,

content analyzed, and sorted into categories to identify consensus among individuals' responses concerning the educational environment. To finalize the development of section two of the survey questionnaire, an initial draft was given to a Math class of six freshmen, eight sophomores, eleven juniors, and nine seniors at Brooklyn College. The feedback given by the Math class in the form of comments and the advice of my dissertation committee produced a careful wording of a series of closed-ended questions intended to reveal people's attitudes pertaining to educational goals, social relationships, and the impact of the physical environment in adult undergraduate students' educational development. Although the questions had pre-selected response categories, respondents were allowed to register their comments in written form at the end of questions if they thought the choices did not totally or accurately reflect their experience (See pp. 228 through 247 Appendix A).

Selection of Adult Learners to Receive Survey Questionnaire

Since the entire population of adult learners (250) enrolled in the Small College Program at Brooklyn College was small, all were selected to receive the survey questionnaire. The names and addresses of all adult learners enrolled in the college's Small College Program

in the Spring Semester 1992, were obtained from Brooklyn College's Office of Management Information Systems. Each adult student was mailed a cover letter and a copy of the survey questionnaire which had to be filled out.

The cover letter to the students explained that I was an administrator of an undergraduate degree bearing program for adult learners at Brooklyn College and a Ph.D. candidate at the Graduate School of the City University of New York. Also, the letter stated the following: (a) that the research being conducted was to satisfy a partial requirement for my doctoral degree, (b) that I was interested in the role of educational goals, social relationships, and the physical environment in people's educational development, (c) that their participation in the study was completely voluntary, (d) that the survey questionnaire did not contain any identifying information to directly link responses to any participant, (e) that their consent or refusal to participate in the study would not affect their status as a student at Brooklyn College, and (f) that the results from the study would be summarized in a report and kept on file at Brooklyn College in room 3227 Boylan Hall for them to read if they desired to do so. Finally, the letter contained a telephone number for the students to call if they had any questions concerning any part of the survey

questionnaire, and they were told where to return the completed questionnaire (See p. 248 Appendix A).

Selection of Traditional Undergraduate Students
to Receive the Survey Questionnaire

Two hundred fifty traditional undergraduate students were selected to receive the survey questionnaire for two reasons. First, financial constraints dictated that the number of mailings to traditional undergraduate students was to be as small as possible. Second, a survey sample of 250 traditional undergraduate students was large enough to reflect a range of responses regarding traditional undergraduate students' educational development.

A computerized list of the names and addresses of all traditional undergraduate students classified as upper freshmen, sophomores, juniors, and seniors was obtained from Brooklyn College's Office of Management Information Systems. The computerized list contained the names and addresses of 7,000 students. Since only 250 people out of the 7,000 would be mailed the survey questionnaire, a procedure which ensured that every student whose name appeared on the computerized list had an equal chance of being selected was established.

The procedure involved counting the number of pages and the number of names on each page. There were

seventy pages and each page contained one hundred names. All names from page one were written on a separate piece of paper, folded, and placed in a urn. The urn was well shaken to ensure a good mix of the names and four names were drawn from the urn without replacement. The remaining names were taken from the urn and destroyed. This procedure was repeated for all page numbers and resulted in the selection of 280 names. Since only 250 of the 280 names would be used, the names were placed in the empty urn, shaken, and 250 names were drawn without replacement.

The 250 traditional students who were selected were mailed a cover letter, similar to the letter mailed to adult students (See p. 248), and a copy of the survey questionnaire to fill out (See pp. 228-247 Appendix A).

Selection of Teachers to Receive Survey

Questionnaire

All department chairpersons at Brooklyn College were notified, by telephone, that teachers whose teaching assignment was in the evening division of the college were needed to participate in a study which would be used as a partial satisfaction of the requirements for my doctoral degree. Twenty four department chairpersons supplied the names of 100 teachers.

Each teacher was mailed, through the intra-college mail, a cover letter and a copy of section

two of the survey questionnaire. The teachers were mailed only section two of the survey questionnaire because they were required to respond to specific issues which had been raised regarding educational goals, social relationships, and the physical environment in undergraduate students' educational development.

The cover letter contained information which explained to the teachers that I was an administrator of an undergraduate degree bearing program for adults at Brooklyn College and a Ph.D. candidate at the Graduate School of the City University of New York. The remaining information in the cover letter was the same as that which was sent to students (See p. 249 Appendix A).

Selection of Administrators to Receive Survey Questionnaire

Fifty Brooklyn College administrators whose responsibilities included planning, organizing, leading, and controlling institutional resources were identified by using an organizational chart which prescribes the administrative structure at the college.

Each administrator was sent, through intra-college mail, a cover letter and a copy of section two of the survey questionnaire. The cover letter contained the same information which was sent to teachers (See p. 249 Appendix A). And, the questionnaire contained

issues which had been raised regarding educational goals, social relationships, and the physical environment in the educational experiences of undergraduate students (See pp. 234 through 247 Appendix A).

Rate of Return of Survey Questionnaire

The survey questionnaire was designed to be self-administered for specific economic reasons such as the lack of trained staff and financial resources to conduct over four hundred personal interviews.

The return rate of the survey questionnaire was quite remarkable (See Table 2).

TABLE 2

Number of Survey Questionnaires Distributed, Returned, and Discarded				
	Distributed	Returned	Return Rate	Discarded*
Adult Learners	250	213	85.0%	3
Traditional Undergraduate Students	250	218	87.0%	8
Teachers	100	40	40.0%	-
Administrators	50	43	86.0%	3
<u>Total</u>	<u>650</u>	<u>514</u>	<u>79.0%</u>	<u>14</u>

*Several Questionnaires were discarded because they were returned without responses.

Cleaning, Coding, Recording, Code Converting, Storing, and Analyzing of Questionnaire Data

The following steps were taken to clean, code, record, convert, store, and analyze the questionnaire

data. Questionnaires were stored and inspected to eliminate any which were returned with responses. This was a surprisingly small number (See Table 2).

For each question the possible answers were assigned a numerical value to each choice which could be used to identify specific responses to questions and these were transferred to a National Computer System Trans-Optic MP01-4887-55 general purpose answer sheet. An Optimal Scanning Machine (NCS Model #7008) copied the numerical codes from the answer sheets and converted them into Alpha Codes and stored them on a magnetic tape. A computer program was written to convert the Alpha Codes into numerical values which represented the actual answers.

The principal techniques utilized in the analysis of the survey questionnaire data included descriptive statistics to determine the distributional characteristics of each variable. All analyses used SPSS version 4.1 (SPSS Inc., 1988).

Re-interview of Core Interview Groups

Focused interviews were conducted with each Core Interview Group to clarify specific research findings.

All members of each Core Interview Group were contacted by telephone and told that a re-interview was

needed to clarify issues related to the social and physical environments in undergraduate students' educational development. Also, time schedules were made to conduct interviews.

Each member of the Core Interview Group kept his/her appointment. The re-interviews were held in July 1992 in the Audio Visual Aid Center at Brooklyn College. Each interview lasted for two or two and one-half hours and was recorded in written notes and tape recorded.

All Core Interview Group members appeared to understand the questions because they offered intelligent responses.

FINDINGS

Phase I

Eight adult learners and four traditional undergraduate students were interviewed in order to identify issues to be used in subsequent surveys. In order for the reader to truly appreciate and understand their experiences and the issues they identified, I begin with profiles of each of the adult learners and traditional students who formed the core groups for this research.

Profiles of Adult Learners

Mr. JF

Mr. JF was 46 years old when I interviewed him. He was born in Brooklyn, New York and graduated from high school in Brooklyn. He did not attend college immediately after graduating from high school because he married and went into military service. He was away from school for 25 years before entering Brooklyn College. He said "I always wanted to come to Brooklyn College."

Mr. JF had a very busy schedule and tremendous responsibility. He worked full-time during the day and attended college at night. At the time of the interview he was supporting himself, a spouse, and two children. He had been employed by a major metropolitan municipal

government for 18 years. Mr. JF said that being employed full-time did not interfere with schooling because he had "enough seniority not to be bounced around the different night shifts."

Mr. JF talked about how important it was for him as well as other students to manage time effectively, study hard, work with other students, and plan in order to achieve their educational goals. Not only did he believe that the actions of students were important to their educational development, he also believed that adult learners faced a quandry at Brooklyn College because teachers inspire students to achieve but students have difficulties achieving their educational goals. For example, Mr. JF said that teachers "generate excitement in students" with respect to achievement, but the "lack of appropriate course offerings" due to budget cuts places an insurmountable barrier on students. He was unable to take student teaching courses which he needs for his major and to satisfy degree requirements because they were not offered at night.

Ms. LA

Ms. LA was 25 years old. She is a native of Brooklyn, New York and graduated from a high school in Brooklyn. She started college immediately after graduating from high school but dropped out to get a job.

She was out of school for one year before resuming her schooling. She never married, did not have children, and was employed full-time by a private company for five years. She was living with her parents who provided major financial support for the household. She chose Brooklyn College because it is located near her home. She said "I was working full-time, so I needed something that would fit into my schedule. I came home at 4:30 p.m., ate, hopped in the car, and got here in 10 minutes without any problems."

Ms. LA was pursuing a bachelors degree in business, management and finance in order to compete in the workforce. She said, "I felt that I was at a disadvantage not having a bachelors degree. I just didn't want the degree. I wanted to learn. That is why I came back to school."

Also, Ms. LA felt that when teachers came to class with an open mind and taught to the best of their ability, they had a big impact on whether students were turned on to something or turned off. For example, when teachers take their educational responsibility seriously students will take their studies seriously.

Ms. LA was concerned that the college supported students' educational development in some ways while in other ways it did not. She felt that the library and

Computer Center supported students' educational development. But aspects of the physical environment such as broken seats and unsanitary bathrooms did not support students' educational development. In fact, she said that those conditions often discouraged her from coming to the school. She was also concerned that budget cuts often affected evening programs more than they did day programs. But she felt that students could overcome some of the difficulties by working together to make the situation better.

Finally, Ms. LA was concerned that the outcomes of students' interactions with teachers leave a positive impression on students in the form of learning, enjoying, retaining, and applying what they learned in life.

Ms. KD

This 31 year old female was born in a small town in New York State but graduated from high school in Hawaii. She did not begin college immediately after graduating from high school because she obtained a job. Thus, she was away from school for nine years before she started college. But she had definite plans to become a lawyer. When I interviewed Ms. KD, she had never been married, was without children, was employed full-time by a private company for four years, and used the income to support herself.

Ms. KD was a night student who chose to attend Brooklyn College because it is located in an area which has access to public transportation on which she depends to commute to school from home and work. She is a very busy person but gains strength and confidence from relationships with fellow classmates. Ms. KD said that "the sense of community that I feel with my fellow classmates has given me the stamina to continue with my studies. I feel like we are all in this together. I have made some good friends and the majority of them hold down a full-time job."

Ms. KD discussed a number of issues with me. She was concerned that the "cutback" in course offerings in the evening division of the college was a barrier to students getting their bachelors degree in a planned amount of time. Ms. KD stated that "cutbacks have affected my courses. I was able to take an extra course weekends. But, presently I am only able to take two classes per semester. The cutbacks in course offerings have extended my tentative graduation date by at least a year." Also, Ms. KD was concerned that services for night students were sometimes non-existent. She complained that the hours of the language laboratories were for day students because they were not open at night.

However, Ms. KD did not entirely place all of the blame on cutbacks in course offerings. She indicated that a lack of time to study was a barrier to educational development. According to Ms. KD, "I have a future with the company where I work, and I cannot cut back on the hours I work. Therefore, my lack of time to study is a barrier to achieving my educational goals."

Mr. GA

Mr. GA was 33 years old when I interviewed him. He was born in Manhattan, New York but graduated from high school in a foreign country. He did not begin college immediately after graduating from high school because, according to him, higher education opportunities were not available to him. He was away from school for five years before he began college in the United States. He was separated from his wife, but was living with a significant other who he said helped him in many ways. For instance, she helped him study, provided moral support, spent time with him, and helped him arrange financial resources in a manner which prevented scrambling to pay for his education. Mr. GA did not have children. He was responsible for providing major financial support in his household. He had been employed full-time by a private company in a large metropolitan city for five years.

Mr. GA, by his own admission, was a procrastinator and suffered from a "lack of motivation at times." But, study groups and the formation of social relationships with other students enhanced his self-esteem and self-development, and provided feedback from other students and motivated him to achieve. In fact, Mr. GA said, "There have been many times when I have said that I was going to drop a course and take it the next semester; but, students in a study group encouraged and helped, and I sometimes ended up with a grade of "B" when I thought I would fail."

When I asked Mr. GA to identify features of the physical environment which attracted him to the college, he commented that the outdoor campus attracted him because it has a lawn and benches to sit on scattered around the campus which makes him feel welcome. He also said that there were qualities of the physical environment such as non air-conditioned classrooms in the summer and poorly heated classrooms in the winter which discouraged him from coming to classes at the college. Mr. GA felt that the conditions in the classrooms were either too hot or too cold. He wanted the college to regulate the temperature in the classrooms.

Ms. VM

When I interviewed Ms. VM, she was 27 years old.

She was born in Brooklyn, New York. She dropped out of high school there but obtained a General Education Diploma. She started college immediately after completing GED training but dropped out due to a lack of interest in a college education. After dropping out of college, she worked in a variety of jobs for 10 years before resuming her education because she wanted to become a Certified Accountant. She was never married, was without children, and was employed full-time by a private company for three years.

Ms. VM maintained that college administrators were vital to the functioning of an institution. She felt that college administrators' biggest educational goal was to keep students happy. Ms. VM suggested that in order for administrators to keep students happy they had to plan and provide educational programs to meet students' educational needs, to maintain efficient and effective programs, to utilize the college's budget to benefit students, and to attract and maintain a diverse student body. She explained that students accrued benefits such as feedback and cooperation between students and administrators when college administrators' supported educational programs.

Ms. VM believed that students' behavior in a classroom setting could be a barrier to students'

educational development. According to Ms. VM, sometimes students, instead of encouraging an answer to a question in class, "think you are a know-it-all and that you are just trying to show off when a question is answered."

Social relationships with other students were a major part of Ms. VM's life at Brooklyn College. She relished a social relationship because "adults are very insecure when they return to school after they have been out of school for awhile. If adults talk to other adults, they quickly learn that they have encountered similar problems in school. You learn how to handle problems, compare experiences, compare goals, and motivate others."

The architecture of older buildings, the location of the school, and the college's library were features of the physical environment which attracted Ms. VM to the college.

Mr. PR

Mr. PR was 36 years old when I interviewed him. He was born in a large U.S. island and graduated from a high school in Brooklyn, New York. He started college immediately after graduating from high school but stopped because he lacked direction, goals, and ambition. After Mr. PR left college, he stayed away for 12 years. Mr. PR

had never married and did not have children. He was employed full-time by a public school in a large urban city. He lived with his parents and according to Mr. PR, they have always supported him. He received financial aid to pay for his education.

Mr. PR said that he benefited from his previous college experience. He was nervous and anxious about college; but, after he left college the first time, he discovered that working full-time and socializing while in school caused overload. He realized that time management and planning were effective ways to cope with barriers to achieving educational goals.

Mr. PR had a very active physical fitness schedule. He walked to school or rode a bicycle, and played tennis and basketball to keep his body in good physical condition.

The school is located in an area which is accessible to public places and public transportation. He buys food in the area and uses public transportation to come to the college from work.

Ms. MR

At the time of the interview, Ms. MR was 47 years old. She was born in a large urban city in Pennsylvania and graduated from high school in that city. She did not start college immediately after graduating from high school. There was a 27 year gap between the year she

completed high school and the year she enrolled in college. She was "single", worked part-time as a College Assistant at a public college, and contributed major financial support to a household with two teenage children.

Ms. MR was attracted to Brooklyn College because it is "in an ideal location." Ms. MR made the following comments with respect to why location of the school was important to educational development. "Brooklyn College is surrounded by a multitude of shops. I can get my education and go shopping." Ms. MR explained that she needed to be able to attend classes, shop, and return home because she was responsible for supervising children.

Ms. MR enjoyed coming to the school to use the library because it gave her access to information. Nevertheless, she said that there were features of the physical environment at the college such as "grafitti written on bathroom walls" and "unsanitary bathrooms" which discouraged some students from coming to school.

Mr. XX

Mr. XX was 27 years old when I interviewed him. He was born in a small suburban community in New York and graduated from high school in that community. He began college immediately after completing high school but

stopped before completing college because he needed to get a job.

Mr. XX had been employed by a large corporation in a major metropolitan city for 6 years. Also, he had never married, was without children, and was supporting himself.

Mr. XX was anxious to complete college but felt that there were barriers to his educational development. He felt that teachers were less available for night students and that as a night student, he often encountered part-time office workers who were not familiar with policies and procedures of the college. Also, Mr. XX felt that too often there was a lack of appropriate course offerings for night students.

In order to overcome barriers to their educational development, Mr. XX felt that students needed to lobby faculty and college administrators. He reminded me that lobbying was a useful strategy because several students held a meeting with a department chair regarding course offerings and received support from the chairperson.

Profiles of Traditional Undergraduate Students

Mr. Senior

Mr. Senior was 21 years of age when I interviewed him. He was born in Brooklyn, New York and had graduated from high school in Brooklyn. He started college

immediately after high school and had not stopped. He had never married, did not have children, and worked part-time at a large urban college. He had been employed at the school for six months. He lived at home with his parents and was dependent on them for support.

During the interview, Mr. Senior expressed his concern that teacher unavailability did present a problem for students. He recommended that students work in study groups to overcome this problem.

Also, Mr. Senior indicated that the modern buildings "looked better" than the older buildings. Therefore, the modern buildings attracted him to the campus.

Finally, Mr. Senior explained that it was very difficult for students to gain access to the college campus. Therefore, the locked doors and gates discouraged him from coming to the campus.

Ms. Fresh

Ms. Fresh was 18 years of age at the time of the interview. She was born in Brooklyn, New York and graduated from high school in Brooklyn. She started college immediately after graduating from high school. Also, Ms. Fresh had never married, had no children, and lived at home with her parents. Although she was dependent on her parents for support, she worked part-time to pay half of the expense for tuition. She

had been employed by a major food chain in a large urban city for two years.

Ms. Fresh was concerned that the aspects of the physical environment did not support the achievement of students' educational goals because "classrooms and offices were hard to find." In addition Ms. Fresh suggested that because she often heard others stereotype the location of the school as unpleasant, she was discouraged from coming to the school.

Ms. Soph

Ms. Soph was born in a Carribean country. She attended high school in Brooklyn, New York and graduated from high in Brooklyn. She entered college immediately after graduating from high school and has been attending ever since. She had never married, did not have children, and resided with her parents. Miss. Soph was not employed and was dependent on her parents for their support.

Ms. Soph indicated that the Student Center (SUBO) was a place where students gathered to interact with others, play games, listen to music, or read. Therefore, the Student Center supported students' educational development.

In our discussion of features of the physical environment which did not support students' educational

development, Ms. Soph informed me that many classrooms at the college had chairs with broken legs and/or broken writing panels. She felt that "broken seats in classrooms" were uncomfortable and interfered with note taking and therefore did not support students' educational development.

Mr. Junior

Mr. Junior was 20 years old at the time of the interview. He was born in Brooklyn, New York and completed high school in Brooklyn. He began college without delay after high school. He had never married and had no children. He was unemployed, lived with his parents, and was dependent on his parents for support.

Mr. Junior was familiar with the campus and the surrounding community. During our discussion, Mr. Junior indicated that he used, with great frequency, coffee houses and restaurants in the vicinity of the college, the campus cafeteria, and the campus gymnasium for body building. He explained that the previously mentioned places were available to students on a daily basis. Hence, he felt that they supported students' educational development.

Constructing Questions for Survey Questionnaire

Interviews with adult learners and traditional students profiled earlier, as well as with teachers, and

college administrators interviewed in Phase I of the research were used to construct the questions for the survey questionnaire used in Phase II.

Core group members were asked to identify teachers' educational goals and the outcomes of those goals. Some students in answering this question specifically mentioned teachers' educational goals. For example, Ms. LA said:

I think the educational goals of teachers are to come to class with an open mind and teach to the best of their ability. I have taken a speech class where the teacher was a role model and came to class prepared, held conferences with students, and demonstrated openness. I wanted to be in class on time. Students will take a class seriously if the teacher takes it seriously.

Other adult learners perceived student success to be an outcome of teachers' educational goals. For example, Ms. VM stated:

I had a Spanish teacher who was very tough on me, but she began writing comments on my papers saying 'nice job, good job, I am proud of you.' Those words changed me from a 'C' student to an 'A' in one term and gave me the motivation to work harder.

Also, Ms. LA suggested that:

When teachers and students take their educational responsibility seriously, students learn and are able to apply what they learned in life. They enjoy their classes and retain what they learned when they leave the classroom.

Finally, a teacher made a definitive statement regarding the educational goals of a teacher. The

teacher said:

My goals are to get students to become aware of their capabilities. That is very important. They need confidence. Most of them are not very confident in themselves. I want to empower students in a practical way and to encourage their growth as individuals; to help them become aware of themselves as powerful persons and aware of the world as a place of opportunity, challenge, joy, satisfaction as well as problems, and to help them get a sense of learning as a lifelong activity.

The statements made by different members of the core group regarding teachers' educational goals and the outcomes of teachers' educational goals were different from the standpoint that each person focused on different issues. This was indeed useful because traditional students focused their comments on teachers' educational goals and administrators did not contribute any useful information.

The final format of the question to be used in the survey included the following aspects of teachers' educational goals drawn from the different core groups.

Teachers' Educational Goals and Outcomes

Teachers' educational goals were: (a) coming to class with an open mind, (b) teaching to the best of their ability, (c) taking educational responsibility seriously, (d) encouraging students, (e) generating excitement in students, and (f) flexibility with students.

The outcomes of teachers' educational goals were:

(a) students learned subject matter, (b) students applied what they learned, (c) students retained what they learned, and (d) students enjoyed their courses.

The second question which I posed required core group members to describe administrators' educational goals and the outcomes of those goals. In giving their answers to the question, some adult learners specifically referred to administrators' educational goals. Ms. VM described administrators' educational goals in the following manner:

College administrators are people who do planning. They get the budget for the school and divide it among departments. All departments have administrators who plan for the development of programs. Administrators set up programs that help students. They also allocate funds for programs that benefit students.

Adult students also spoke directly in terms of what they considered to be the outcomes of administrators' educational goals. Ms. KD said:

The outcome of administrators' educational goals is that I am able to finish my degree in a planned amount of time if the evening and weekend programs remain in place.

Another adult student discussed communication and cooperation as being the outcomes of administrators' educational goals. For instance, Ms. VM's view was:

The outcomes of administrators' educational goals

provides harmony between students and administrators. Students and administrators are here to work together. Each has a slightly different goal; but, basically everybody needs to be told that they are doing a good job. I think that students end up encouraging administrators to continue to do a good job and administrators encourage the students to continue doing a good job.

However, it was the administrators who added the following points on administrators' educational goals and outcomes of those goals. A chairperson of an academic department responded by saying:

I would say that my aim was to ensure that there would be a reasonable learning environment for students. This meant, in particular, that we would continue to have a reasonably full range of programs which would enable students to complete their majors.

As the interview process continued to move forward, I interviewed the Dean of Undergraduate Studies. He offered a personal view of his goal and the outcome of it. The Dean stated:

My personal goal as Dean is to work with the people here to provide everything that has to be provided to give an education to the students that come in. I try to take things that exist and maybe modify them to make them work better or to take things that are working well and support them.

The information from the interviews with traditional students and teachers was less focused than the information from the interviews with adult learners and administrators. The various statements from the interviews with adult learners and administrators

suggested that administrators' educational goals were budgeting, planning, providing, and maintaining educational programs.

Adult learners suggested that cooperation and feedback between students and administrators were the outcomes of administrators' educational goals.

Therefore, the final format of the question used in the survey contained the following information.

Administrators' Educational Goals and Outcomes

The educational goals were: budgeting, planning, providing, and maintaining educational programs.

The outcomes of administrators' educational goals were: (a) feedback and cooperation between students and administrators, and (b) that students finished their bachelors degree in a planned amount of time.

I raised other issues with core group members. For instance, I asked if there were barriers to students' educational development.

Adult learners spoke directly to the issue. Mr. JF unequivocally stated that budget cuts caused a lack of appropriate course offerings at night. Therefore, budget cuts was a barrier to students' educational development.

Another adult learner addressed the issue by referring to the classroom atmosphere. Ms. VM indicated that students' disruptive behavior in some

classes was a barrier to students' educational development.

Mr. XX, an adult learner, suggested that a barrier to night students' educational development was a "lack of appropriate course offerings."

Mr. Senior, a traditional student, discussed the attitudes of teachers, specifically of those teachers who did not make themselves available to students, as a barrier to students' educational development. He informed me that:

Teachers say they have office hours or they say, 'call me I am willing to talk' or 'I am willing to help.' You call and they don't want to talk to you. I had a problem and the teacher would not talk to me. He said "I have to go to lunch. I really have no time for you," and he walked away. But, as he walked away he stopped and talked with other students for at least a half hour. I watched.

I was informed by Ms. KD, an adult learner, who was employed full-time, that the lack of time to study was a barrier to students' educational development. She advised that:

The lack of time to study is a barrier to my educational development. I must work. And I must work full-time to maintain my life. I am the sole provider.

Furthermore, teachers and administrators added points in that they specifically focused on the abolition of academic programs, limited course offerings, and the lack of student services. A teacher informed me that:

The educational environment for students has deteriorated a good deal in the last 15 years. Few courses are offered. We frequently have complaints from students that we do not offer them a full range of courses. This is an understandable problem given the budgetary position of the college, but it certainly is an impediment for students.

In fact, the Dean of Undergraduate Studies spoke to the issue of barriers to students' educational development by citing the closing of Weekend College.

Finally, the Vice President of Student Services indicated that:

It is unfortunate that evening students don't have the same kinds of services as day students, and they need them. In light of the budget crisis, I think that students services are constantly decreasing as opposed to increasing.

To summarize, the responses of students, teachers, and administrators were similar regarding barriers to students' educational development in that they focused on students' educational development, the budget, academic programs, and course offerings. But, students added different dimensions such as classroom atmosphere, lack of time to study, attitudes of professional staff, and unavailable teachers.

Hence, the final question used in the survey included the following information.

Barriers to Students' Educational Development

The barriers were: (a) budget cuts, (b) abolished educational programs, (c) lack of appropriate course

offerings, (d) classroom atmosphere, (e) lack of time to study, (f) lack of services for students, (g) unavailable teachers, and (h) attitudes of professional staff.

I asked core group members if there were effective strategies that undergraduate students could use to cope with existing barriers to educational development. There were a range of answers to the question. Some students specifically mentioned time management and planning. For example, Mr. JF's response reflected a combination of both time management and planning as effective strategies for coping with barriers to educational development. He said:

When you are working full time, it is very important to manage your time very carefully. You have to plan ahead.

Some students focused on changing their employment schedules as a way to cope with existing barriers to students' educational development. In fact, Ms. MR said:

I gave up working full-time. I only work part-time. I decreased my work load.

Mr. Senior, a traditional student, suggested that a study group was an effective strategy to cope with a barrier such as teacher unavailability. His view was that students would benefit from forming a study group with someone in the class who was knowledgeable.

Ms. Soph, a traditional student, indicated that "studying hard" was an effective way for students to cope with a barrier such as unavailable teachers. She

explained that:

Education is sort of a self-development activity. If a question comes up most students probably believe that the answer is in the text book. If students read the text book, they don't have to worry about meeting with the teacher.

Mr. XX indicated that lobbying college personnel was an effective way to cope with a barrier to students' educational development such as lack of appropriate course offerings. Mr. XX said that he went to a certain academic department, along with a small group of students, and lobbied the chairperson about offering certain required courses for night students. He received support from the department chairperson.

Finally, teachers and college administrators emphasized time management as an effective strategy that students could utilize to cope with a barriers such as lack of time to study. A teacher said:

The first week or so we spend a good amount of time going over time management. This is crucial for the adult student. It is really crucial to their success.

Students and teachers suggested that time management was an effective strategy to cope with existing barriers to students' educational development. However, students felt that not only was time management an effective strategy, but there were other effective strategies.

Therefore, the final question for the survey consisted of the following information.

Effective Strategies for Coping with Existing
Barriers to Students' Educational Development

The strategies were: (a) time management, (b) planning, (c) studying hard, (d) part-time employment, (e) lobbying college personnel, and (f) study groups.

As I continued to interview, core group members were asked, why students formed a social relationship.

Ms. MR indicated that she formed a social relationship for mutual support. She said:

I am able to give and receive information from other students. I exchange books and class notes. I talk with other students about things that the teacher said or didn't say in class.

Ms. VM suggested that adult learners formed a social relationship because they needed to compare their experiences or to compare their goals with other students who returned to school after being away from academic life for awhile.

Mr. Junior indicated that he formed a social relationship to rival others. He explained:

When I see a friend zooming through class I will compete with him. I will study more. I will hang out less during the semester. I will actually try to complete my bachelors degree.

Teachers of adult learners and college administrators suggested that students formed a social relationship because it would facilitate the achievement of students' educational goals. A teacher explained that

a social relationship was very useful because:

If someone is absent from a class for awhile they know they can call someone and get an assignment.

Finally, Ms. VM suggested that adult learners formed a social relationship to meet friends. She said:

I met my best friend B at the college. She is supportive of me. We get together whenever we can to cheer each other up. We motivate each other.

In summary, teachers and administrators indicated that students formed a social relationship to facilitate students' educational development. Students suggested that a social relationship was formed for personal reasons. Therefore, the final question for the survey consisted of the following information.

Reasons Why Students Form a Social Relationship

The reasons were to: (a) establish mutual support, (b) stimulate competition, (c) compare experiences, (d) compare goals, (e) facilitate achievement of educational goals, and (f) make friends.

After discussing the reasons why students formed a social relationship, I asked core group members to discuss the outcomes of a social relationship. Mr. GA informed me that he had experienced "feedback from others." Also, Mr. GA told me that he had experienced an elevation in self-esteem, self-development, and motivation to achieve.

A teacher informed me that adult learners had a

wealth of life experience which they were encouraged to share with their peers. She said that sharing life experiences had a motivational effect.

Finally, an administrator said that some students who return to school after being away from academic life "feel isolated." She indicated that a social relationship made students feel like they were part of the student body.

Students, teachers, and administrators indicated that a social relationship had a motivational effect on students. Students also suggested that a social relationship enabled students to exchange information with other students and enhance their personal lives as well.

The final question for the survey consisted of the following information from the interview.

Outcomes of a Social Relationship

The outcomes were: (a) enhanced self-esteem, (b) motivation, (c) feedback from others, and (d) enhanced self-development.

During the final phase of the interview, I asked core group members a series of questions on features of the physical environment at the college. I asked core group members to identify features of the physical environment which attracted them to the school. Their responses were varied.

Some students specifically mentioned public

transportation and location.

Ms. VM said the following:

Public transportation is number one. Some students come from families without a car or with one car. They need to take a bus or train to travel to and from school. Access to public transportation enables me to commute to any part of Brooklyn to student teach. The most important thing is that public transportation allows me to get to school and return home in a reasonable time.

Mr. GA added the following information regarding location.

I live in Brooklyn, New York and I knew that I would be going to school in the evening so I figured that Brooklyn College was the safest place for me to be in terms of location. Many times I walk home from school when the weather is fine.

Ms. MR made the following statement with respect to location.

I chose Brooklyn College over other CUNY schools because of its location. Students have access to different forms of public transportation. There are banks, supermarkets, and restaurants in the area. And the school is located near my home. It is important for me to know that there is a Hallmark, printing shop, and a drug store if I need them.

Other students indicated that it was the outdoor campus and modern buildings which attracted them to the school.

Ms. VM commented that:

The first thing that attracted me to Brooklyn College was the campus itself. It is peaceful and serene. You don't feel trapped. In school you need that little freedom to unwind across campus. The openness of the campus gives me a sense of freedom. Also, modern buildings, especially

Ingersoll Extension, have many floors and you can wander in the corridors. A few classrooms in Ingersoll Extension have carpeting and air-conditioning.

Mr. Junior indicated that:

The outdoor campus grounds attracted me to the school. The campus grounds are kept very clean and the outdoor campus doesn't look like it is in the city. There is grass, trees, and squirrels running around. The buildings are very regal looking. It reminds me of what school must have been like years ago. When it snows in the winter the outdoor campus is breathtaking.

Other students focused on the architectural impressiveness of buildings on the campus or the Student Center where students gather for various activities.

Ms. MR commented that:

The architecture of older buildings makes me feel like the college is a place where I am going to really learn something. LaGuardia Hall is an impressive looking building. It looks like if you go in there you are going to get something out. It says to me that this community is old and it is lasting and permanent.

Mr. Senior indicated that he was attracted to the school because:

The Student Center (SUBO) is a place where students can play games, watch television, listen to music, and relate to other people. SUBO is comforting and fosters a spirit of togetherness and congeniality. It is a gathering place for everyone.

Finally, the health and athletic facilities attracted Mr. Junior to the college. He stated:

I feel that physical fitness is a very important part of my educational development. I use the athletic facilities to keep physically fit.

Teachers and administrators had some difficulty identifying features of the physical environment which attracted undergraduate students to the college. But, one teacher did identify the library.

The final question for the survey contained the following information which came from the interview with core group members.

Features of the Physical Environment Which Attract Students to the School

They were: (a) public transportation, (b) location of the school, (c) the outdoor campus of the school, (d) architecture of older buildings on the campus, (e) modern buildings and their contents, (f) the Student Center (SUBO), and (g) places for physical activity.

After completing the previous discussion, I asked members of the core group to identify features of the physical environment which discourage undergraduate students from coming to the school. The responses to the question centered mainly around elements contained within buildings.

Some students focused on lighting. For instance, Mr. XX indicated that:

Lighting is poor in some classrooms. That is a discouraging situation. It is a real turnoff and letdown to know that some of the students' basic needs are overlooked.

Other students indicated that elements of the physical environment such as the lack of building maintenance and non air-conditioned classrooms discouraged them from coming to the school. Ms. MR said:

Things which discourage me from coming to the school are dirty classrooms, non air-conditioned classrooms, cold classrooms, and poor lighting in some classrooms. The classrooms are squalid and it is uncomfortable, especially during the summer, in classrooms without air-conditioning. If I had known that some of these rooms were as hot as they are, I might have gone to another college for the summer.

Also, the graffiti which was scrawled on walls discouraged some students from coming to the school. Ms. MR commented that:

I don't like the graffiti on the bathroom walls. I know that it has to do with the level of intelligence of the students.

Other students were discouraged from coming to the school because of the large lecture halls. Ms. VM said:

When I go into a large lecture hall, it is overwhelming. I say, I am going to be one of more than eighty students in the class. This is intimidating because I feel lost right away.

The restroom facilities discouraged some students from coming to the school. Ms. LA explained:

The restroom facilities are unsanitary. They have unpleasant odors and often do not have an adequate supply of soap or paper towels. I avoid using the facilities. I wait until I get home.

Also, it was suggested that the college was located in an area which discouraged some students from coming to

school. Ms. Fresh said the following:

The college is located in an area that is stereotyped as unpleasant. When an area has been stereotyped, people just don't want to go there.

Chairs in classrooms are old and many are in poor condition. A few students were discouraged from coming to class because as Ms. Soph indicated:

The seats in some classrooms are broken. It would make the classroom atmosphere a lot more inviting if the desks and chairs were in good order. Some chairs are lopsided. Three legs work and one leg does not. I was taking an accounting exam and suddenly the desk fell down.

An administrator was concerned that the campus was locked during the intersession and obviously discouraged students from coming to the school. According to the administrator:

When classes are not in session students are not permitted to utilize campus facilities. Some students are forced to postpone their dreams and aspirations or even cancel them when they do not have access to the campus at a time when they are not attending classes. Also, a student who finds that crucial academic offices are open only once or twice a week has to spend an inordinate amount of time getting done certain kinds of crucial paper work.

To summarize, students contributed almost all information regarding features of the physical environment which discouraged students from coming to the school. But, students and administrators were similar since both groups felt that when the campus was locked it discouraged students from coming to the school.

The information from the interviews produced the following information for the final question used in the survey.

Features of the Physical Environment Which Discouraged Students from Coming to the College

The features were: (a) stereotyped location, (b) poor building maintenance, (c) large threatening lecture halls, (d) poorly heated classrooms, (e) non air-conditioned classrooms, (f) locked doors and gates, (g) unsanitary restrooms, (h) graffiti on restroom walls, and (i) poor lighting in some classrooms.

Next, I asked members of the core group to identify features of the physical environment which supported their educational development.

Some students referred to the Computer Center and the library. For example, Mr. Senior specifically stated the following:

The computer rooms and the library are features of the physical environment which support the achievement of my educational goals. These places are in good physical condition and students study in them. Also, students do research in the library.

Other students suggested that the outdoor campus was a feature of the physical environment which supported students' educational development. According to Ms. VM:

The outdoor campus is a feature of the physical environment which supports the achievement of educational goals. I like to be outside. I sit on

the grass and study if I get here early. The outdoor campus has trees, flowers, and grass. It is very comforting.

Some students identified places for physical activity, the Student Center, coffee houses and restaurants in the vicinity of Brooklyn College, and the college cafeteria as features of the physical environment which supported their educational development. For instance Mr. Junior explained that:

There are places for physical activity at Brooklyn College that support students' educational development. The tennis courts and the football and soccer field make me feel cheerful, joyous and happy. I study in the library. The Student Center is a place where I go and relate to other people. It fosters a spirit of togetherness.

Ms. Soph suggested that coffee houses and restaurants in the vicinity of the college supported students' educational development because students could meet off campus.

Finally, teachers and administrators suggested that the library and Computer Center were places which supported students' educational development. One teacher said:

The library is rally a great resource for students. It has many books. There are sections where students can meet and not be disturbed by others.

A college administrator said:

The Computer Center has many personal computers for students. More students are availing themselves at the word processing unit. Students work at their own

machines and learn the details of the word processing program. Some teachers in the English department teach English courses in rooms outfitted with personal computers which are linked to the Computer Center. My experience has been that students enjoy using the Computer Center.

Students, teachers, and college administrators suggested that the Computer Center and library were elements of the physical environment at the college which supported students' educational development, but students suggested additional elements.

Therefore, the final question for the survey contained the following information.

Features of the Physical Environment Which Support Students' Educational Development

The features identified were the: (a) Computer Center, (b) library, (c) outdoor campus, (d) places for physical activity, (e) coffee houses and restaurants in the vicinity of the college, (f) Student Center, and (g) college cafeteria.

After the core group finished answering the previous question, I asked them to identify features of the physical environment which did not support their educational development.

The answers to the question were varied but focused primarily on elements of the classroom environment. For example, Ms. MR said:

The trash cans in classrooms are overflowing with garbage in the late afternoon. In some classrooms the ceiling is half down with electrical cables hanging down. Buckets are in hallways to catch water from a leaking ceiling when it rains.

Some students identified non air-conditioned classrooms as features of the physical environment which did not support their educational development. Ms. VM stated that the hot conditions in classrooms in the summer were unbearable because "the classrooms are not air-conditioned."

Other students identified cold classrooms in the winter as a feature of the physical environment which does not support their educational development. Mr. GA said that cold classrooms affected his concentration.

A few students identified inadequate lighting in some classrooms as a feature of the physical environment which did not support their educational development. According to Ms. VM, inadequate lighting in some classrooms cause her to "squint" to see the blackboard.

Other students identified broken seats in classrooms as a feature of the physical environment which did not support their educational development. Ms. Soph said that she experienced difficulty sitting and writing when she had to sit in a broken seat.

A small number of students said that large lecture halls were impersonal and gave some students a feeling of

loneliness. Therefore, large lecture halls did not support their educational development. Ms. VM stated that she "felt alone and isolated in large lecture halls."

Finally, teachers and administrators suggested that there were elements of the physical environment which did not support students' educational development. An administrator said:

The heating and air-conditioning systems are unpredictable. Adult learners are making an effort to come here after working all day, and to enter into a situation that is uncomfortable is frustrating.

A teacher said:

The physical environment leaves a lot to be desired. The buildings are hot and stuffy. In the early fall and late spring, non air-conditioned classrooms impose additional hardships on students who have spent a day at work and traveled during the rush hour.

Another teacher said classrooms and offices were hard to find. Therefore, students were often late for their classes.

Students, teachers, and college administrators indicated that non air-conditioned classrooms and cold classrooms were features of the physical environment which did not support students' educational development. However, they added different elements as well.

Therefore, the following factors were part of the final question for the survey questionnaire.

Factors Which Did Not Support Students' Educational Development

The factors were: (a) lack of building maintenance, (b) cold classrooms in winter, (c) non air-conditioned classrooms, (d) lighting in some classrooms, (e) broken seats in classrooms, (f) hard to find classrooms and offices, and (g) large lecture halls.

Finally, I asked the core group to describe the educational goals of students.

Some students said their educational goal was "to earn a bachelors degree."

Other students were more elaborate in their answers to the question. For instance, Ms. LA said:

My educational goal is to complete by bachelors so I could compete in the workforce. I felt that I was at a disadvantage not having a bachelors. That is why I went back to school. It is not just important for me to get the degree but I want to learn.

A teacher said:

I think that most adult learners have quite a concrete idea of what they want to do. For some, it is a question of returning to complete a degree that they had begun many years before or for other it is achieving a degree that will assist them in a profession they have already undertaken.

An administrator answered the question in the following manner:

My observation suggests that they are trying to make a better life for their families. They are trying to climb the economic ladder. They have decided

that the best route for them is to have a bachelors degree. They seem to believe that a lack of a degree has prevented them from moving up the economic ladder and receiving promotions at work.

The responses of students, teachers, and administrators were similar in that they said students wanted to earn a degree and to prepare for the workforce.

The final format of the question to be used in the survey included the following information drawn from the different core group members.

Students' Educational Goals

The goals were to: (a) get a bachelors degree, (b) prepare to compete in the workforce, and (c) learn.

In conclusion, the various information taken from the core group of students, teachers and administrators in Phase I of the survey became the basis for conducting Phase II of the survey to determine if there were particular issues relevant only to adult learners.

Phase II

The qualitative data from Phase I was used to construct a survey questionnaire. It was mailed, as described in the methods section, to a sample of adult learners, traditional undergraduate students, teachers, and administrators. In this section, I describe the similarities and differences in the demographic profiles of the survey samples of adult learners and traditional students and then look at the differences between adult learners' and traditional students', teachers', and administrators' responses to the questionnaire.

Demographics and Educational Profiles of Adult Learners and Traditional Students

Sixty one male and 149 female adult learners and 77 male and 133 female traditional students returned usable questionnaires. Females represented a larger percentage of both groups of participants who returned the survey questionnaires (See Table 3).

TABLE 3

Percentage of Adult Learners and Traditional Students Who Returned Usable Questionnaires by Sex		
	Adult Learners	Traditional Students
Males	28.0%	36.3%
Females	72.0%	63.7%
TOTAL	100.0% (N=210)	100.0% (N=210)

The percentages shown in Table 3 actually reflect the enrollment statistics for the Small College Program,

in particular, and generally on college campuses throughout the United States (Smith, 1991; Yearbook of Higher Education, 1982-83).

The ages of adult learners who participated in this study ranged from 25 to 67, and the median age for the sample was 34. Traditional students' ages ranged from 17 to 24 and the median age for the sample was 21, 13 years younger than adult learners.

Not only were traditional students younger than adult learners, but also they were more likely than adult learners to have been born in Brooklyn, New York (See Table 4).

TABLE 4

Percentage of Adult Learners and Traditional Students Born in Various Locations		
	Adult Learners	Traditional Students
Brooklyn, New York	41.0%	54.3%
Foreign Countries	38.0%	29.0%
Other Areas U.S.A.	21.0%	16.7%
TOTAL	100.0% (N=210)	100.0% (N=210)

The large number of foreign born students in both samples can be attributed to the diversity of the general population in Brooklyn, New York, from which Brooklyn College draws its students. The general population in Brooklyn, New York is made up of many recent immigrants from Asia, Caribbean Islands, Russia, Eastern Europe,

Middle Eastern Countries, and parts of South America.

The data from the survey questionnaires show that 82.0% of adult learners and 97.1% of traditional students reported that they were high school graduates. Given this large percentage of high school graduates and the opportunities to obtain a higher education which have existed in the United States for some time, one might assume that many of the participants would have entered college after graduating from high school. Most traditional students (83.0%) indicated that they started college immediately after graduating from high school and most (76.0%) remained in college on a continuous basis. On the other hand, most adult learners (61.0%) did not start college immediately after they finished high school.

The high percentage of adult learners who did not attend college immediately after graduating from high school was, according to them, due to a range of factors such as getting married, going into military service, not being interested in a college education at the time, or the unavailability of higher education opportunities in some countries. However, if there was one strong indicator as to why the majority of adult learners who participated in this study did not go to college immediately after they graduated from high school, it was

that they went to work (30.0%).

Even though a large proportion of adult learners who participated in this study indicated that they did not attend college immediately after they graduated from high school, it is interesting to note that of the 37.0% who did start college immediately, 31.0% out of the 37.0% who started, or 84.0%, stopped attending college before completing their college education.

Adult learners who stopped attending college before completing their education gave the following reasons for doing so: (a) to raise a family, (b) loss of interest in schooling, (c) needed to get a job, (d) got married, (e) flunked out of school, (f) went into military service, or (g) went traveling.

At the time of the survey, the majority (55.7%) of traditional undergraduate students reported being employed, most part-time (45.7%) and some full-time (10.0%). However, the employment profile for adult learners was different; 79.6% were employed, with 62.9% working full-time and 16.7% working part-time.

In addition to the differences in employment patterns between adult learners and traditional students, the contributors of major financial support to their households were different (See Table 5).

TABLE 5

Contributors of Major Financial Support to
Traditional Students' and Adult
Learners' Households

<u>Contributor</u>	Adult Learners' Households	Traditional Students' Households
Student	30.5%	6.7%
Spouse	36.2%	3.8%
Parents	23.3%	85.6%
Sibling	6.2%	2.9%
Partner	3.8%	1.0%
TOTAL	100.0% (N=210)	100.0% (N=210)

Fully, 30.0% of adult learners were the only major financial contributor to their household. Also, there was a substantial sharing (69.5%) of financial support of households among adult learners with that coming mainly from spouses and parent(s). On the other hand, a substantial majority (85.0%) of traditional students' parents contributed major financial support to their household, while only about 9.0% of the financial support was shared with others.

The data from the survey showed that 52.4% of adult learners in this study had children, and 44.3% of the 52.4% reported they were challenged on a consistent basis to manage, protect, and supervise their children's progress. By contrast, 95.7% of traditional students did not have children. Hence, a very large proportion (96.0%) of the students reported that they were not responsible for caring for another person on a consistent

basis.

There were differences in ways in which adult learners and traditional students financed their college education (See Table 6).

TABLE 6

Payers and Percentage of Payers of
Adult Learners' and Traditional
Students' College Education

Payer	Adult Learners	Traditional Students
Student	48.1%	11.4%
Parent(s)	2.4%	45.2%
Spouse	3.7%	1.9%
Student & Parent(s)	1.9%	10.0%
Student & Spouse	6.2%	00.0%
Student & Partner	1.0%	00.0%
Employer	11.9%	1.9%
Financial Aid	24.8%	29.4%
TOTAL (N=210)	100.0%	100.0%

The largest proportion of adult learners (57.0%) was involved in paying part of their costs for their education, and 48.0% were sole payers. Only 21.0% of traditional students actually participated in financing their education, with only 11.4% being solely responsible.

A small proportion of adult learners indicated that they lived with their parent(s), friend, partner, or other relatives such as an aunt or uncle. However, as the data in Table 7 illustrate 76.0% had the task of providing shelter for themselves. Most were renters (55.0%), but a substantial number owned their houses (21.0%).

TABLE 7

Type and Percentage of Living Arrangements
for Adult Learners and Traditional
Students

Type of Living Arrangement	Adult Learners	Traditional Students
Rent House	10.5%	2.9%
Rent Apartment	45.1%	16.2%
Own House	21.0%	2.4%
Live With Parent(s)	13.8%	74.2%
Live With Friend	2.9%	2.4%
Live With Partner	1.0%	00.0%
Live With Relative	5.7%	1.9%
TOTAL	(N=210) 100.0%	(N=210) 100.0%

A considerable proportion (74.3%) of traditional students lived with their parent(s). Some traditional students had other living arrangements (See Table 7).

Finally, almost 51.0% of adult learners and 53.0% of traditional students reported having a Grade Point Average of "B" or better. Almost an equal number of adult learners (41.0%) and traditional students (38.0%) had a Grade Point Average of "C" (See Table 8).

TABLE 8

Percentage of Grade Point Averages for Adult
Learners and Traditional Students

Grade Point Average	Adult Learners	Traditional Students
Below 2.00	5.2%	3.3%
2.00 - 2.99	41.0%	38.1%
3.00 - 3.99	45.7%	51.0%
4.00 -	5.2%	1.9%
	(N=210)	(N=210)

In summary, adult learners and traditional students differed on the age dimension because of the definition

used to distinguish one group from the other.

The two samples differed in that most (53.3%) of traditional students were born in Brooklyn, New York, while most (59.0%) adult learners were born outside of Brooklyn, New York.

The number of people who came to college immediately after graduating from high school was different for each sample. Most traditional students (83.0%) entered college immediately after graduating from high school, but only 37.0% of adult learners entered college immediately after completing high school.

A difference in employment patterns existed between adult learners and traditional students. Most adult learners (63.0%) were employed full-time and only 10.0% of the traditional student sample was employed full-time.

There were differences between the samples in terms of responsibility. Over half (52.0%) of adult learners had children and 44.0% cared for children on a consistent basis. Over 95.0% of traditional students did not have children and were not responsible for caring for another person on a consistent basis.

Another difference in the samples related to payment for education. Most adult learners (57.0%) were involved in paying for their education while only 21.0% of traditional students were involved in paying for their

education.

A further difference between the sample of adult learners and traditional students had to do with living arrangements. Most (76.0%) adult learners were responsible for providing their own shelter, but 74.3% of traditional students lived with their parents.

The two groups were relatively similar in numbers on the sex dimension since almost an equal number of adult males and traditional males, and adult females and traditional females participated in the study.

Also, the groups were similar in that almost an equal number of adult learners (82.0%) and traditional students (97.0%) graduated from high school.

Finally, the groups were similar in their academic achievement. Almost an equivalent number of adult learners and traditional students had "C" averages or a "B" average or better.

Having noted the differences and similarities in the demographics, the question now becomes will these differences and similarities yield different or similar responses regarding: (a) factors which support adult learners' educational development, (b) factors which do not support adult learners' educational development, (c) factors which attract adult learners to a particular school, (d) barriers to adult learners' educational

development, (e) strategies for coping with barriers to adult learners' educational development, (f) factors which discourage adult learners from coming to a specific school, (g) the significance of adult learners', teachers', and administrators' educational goals in adult learners' educational development, (h) the similarities and/or differences in adult learners', teachers', and administrators' educational goals, and (i) the significance of social relationships for adult learners' educational development.

Features of the Physical Environment Which Support Students' Educational Development

Comparison of Adult Learners' and Traditional Students' Responses

A strong similarity existed between the responses of adult learners and traditional students regarding features of the physical environment which supported students' educational development (See Table 9, p. 252 Appendix B).

The highest percentage of students in both adult learner and traditional student groups agreed with the contention that the Computer Center (83.8% and 88.6%, respectively) and to a slightly lesser extent, the library (74.0% and 79.0%, respectively) supported students' educational development. In both groups, a

sizable though substantially lower percentage indicated that the outdoor campus (52.0% and 56.0%, respectively), coffee houses and restaurants (42.0% and 57.0%, respectively), Student Center (32.0% and 61.0%, respectively), places for physical activity (32.0% and 23.0%, respectively), and college cafeteria (34.0% and 48.0%, respectively) supported students' educational development.

Adult learners consistently registered a higher percentage of no opinion responses or disagreements than traditional students regarding the contention that places for extra curricular activities such as the: coffee houses and restaurants in the vicinity of the college, outdoor campus, places for physical activity, Student Center, and college cafeteria supported students' educational development (See Table 9, p. 252 Appendix B). Students gather in the above places to engage in extra curricular activities such as sitting on the lawn, meeting a friend for lunch, watching television, playing games or body building and swimming. The majority of adults who participated in this research was employed full-time, and a large percentage contributed major financial support to their households, had children which required their attention, paid for their education, and provided their own housing. Males and females in this

study, both single and married who had any of these responsibilities registered the highest proportion of the aggregate no opinion responses regarding the contention that the outdoor campus, coffee houses and restaurants, Student Center, college cafeteria, and places for physical activity supported students' educational development.

Among traditional students, a similar but somewhat smaller percentage of no opinion responses was registered regarding the notion that the: coffee houses, and restaurants, outdoor campus, places for physical activity, Student Center, and college cafeteria supported students' educational development. Traditional students did not have the same responsibilities as adult learners. But, a large percentage of the no opinion responses regarding the places for extra curricular activities were registered by traditional students who were employed which supports the notion that the above places were more salient for students who had time to utilize them.

In summary, adult learners consistently registered a higher percentage of no opinion and disagree responses than traditional students regarding the suggestion that places for extra curricular activities supported students' educational development. But, this is understandable since many adult learners had more

responsibilities than traditional students. Therefore, they probably did not have sufficient time to utilize the athletic field, tennis courts, Student Center, coffee houses, or swimming pools on a regular basis. Also, adult learners were not usually on the campus during daylight hours; they were at work. When they came to the college after work they attended classes and when their classes were over they did not use the outdoor campus. Thus, the extent to which features of the physical environment can aid students' educational development is related not only to their existence but to the extent to which students can actually make use of them.

Finally, the largest percentage of adult learners and traditional students agreed with the contention that the Computer Center and library supported students' educational development. This makes sense since both places are components of the physical environment which link students directly to resources which they need to achieve in college. The Computer Center is used by students to process information and develop new computer skills. And the library houses study space, instructional materials, government documents, circulation and reference services, and periodicals which students utilize to learn about the world around them.

Comparison of Adult Learners', Teachers', and
Administrators' Responses

The highest percentage of teachers and administrators agreed with the contention that the Computer Center (88.0% and 88.0%, respectively) and library (80.0% and 95.0%, respectively) supported students' educational development. These percentages are not very different from those registered by adult learners (See Table 9, p. 252 Appendix B).

The percent of teachers (55.0%) and administrators (63.0%) who agreed with the suggestion that the Student Center was a component of the physical environment which supported students' educational development was similar to that of traditional students but much higher than the 32.0% of adult learners who agreed. In fact, 49.0% of adult learners expressed no opinion regarding the contention that the Student Center supported students' educational development.

In addition to the above, a sizable percentage of administrators agreed with the contention that coffee houses and restaurants (63.0%) and the outdoor campus (68.0%) supported students' educational development. By contrast, adult learners registered the following percentages: 42.0% for coffee houses and restaurants and 52.0% for the outdoor campus. Adult learners registered

39.0% and administrators registered 35.0% no opinion responses regarding coffee houses. However, administrators registered a sizable percentage of disagree responses with respect to the notion that the outdoor campus supported students' educational development (See Table 9, p. 252 Appendix B). These disagree responses suggest that a few administrators were possibly more aware of adult learners' activities. In fact, I was informed during the re-interview with the core group of administrators that night students attend their classes and leave the campus when their classes are over. Therefore, they do not use the outdoor campus and coffee houses and restaurants in the vicinity of the college.

Teachers' responses were similar to adult learners with respect to the notion that the coffee houses and restaurants (45.0% and 42.0%, respectively), outdoor campus (45.0% and 52.0%, respectively), places for physical activity (23.0% and 32.0%, respectively), and college cafeteria (48.0% and 33.0%, respectively) supported students' educational development. There was a substantial percentage of teachers who registered no opinion or disagree responses with respect to these issues (See Table 9, p. 252 Appendix B). I was informed during the re-interview with teachers that some faculty

felt that a very significant part of students' educational development took place in the classroom and with whatever personal interaction that students had with faculty. Therefore, places for extra curricular activities did not contribute substantially to students' educational development.

In summary, the Computer Center and library were components of the physical environment which a substantial percentage of adult learners, teachers, and administrators felt supported students' educational development. The existence of the other components does not indicate that they support all students' educational development because some students were not able to utilize them.

Finally, all participants were asked to suggest other components of the physical environment which supported students' educational development if the categories listed on the survey questionnaire did not totally or accurately reflect their experience. No new categories were suggested.

Features of the Physical Environment Which Do Not Support Students' Educational Development

Comparison of Adult Learners' and Traditional Students' Responses

A similar pattern of agree responses was registered

by adult learners (81.0%) and traditional students (77.0%) regarding the suggestion that non air-conditioned classrooms did not support students' educational development.

During my re-interview with the adult learner and traditional student core groups, I was informed that in non air-conditioned classrooms heat from atmospheric temperatures rise to a level which can be debilitating. In fact, both core groups suggested that the debilitating heat in non air-conditioned classrooms caused headaches, restlessness, fatigue, drowsiness, or even loss of concentration. Some students even suggested that their capacity to respond to educational activities such as recording written notes, undergoing examination, or participating in lectures was impaired.

Also, a substantial percentage of adult learners and traditional students registered a similar pattern of agree responses regarding the contention that: (a) lack of building maintenance (69.0% and 69.0%, respectively), (b) cold classrooms in winter (63.0% and 67.0%, respectively), (c) lighting in some classrooms (74.0% and 62.0%, respectively), and (d) broken seats in classrooms (64.0% and 58.0%, respectively) did not support students' educational development (See Table 10, p. 253 Appendix B). Members of both core groups indicated that

many classrooms became progressively squalid after they were used by several thousand students, that cold classrooms were physically discomforting, that inadequate lighting interfered with students' ability to see blackboards, and that broken seats were a nuisance.

Almost an equal percentage, within and between the groups of adult learners and traditional students, agreed by gender, employment, marital status, and Grade Point Average that the above features of the physical environment did not support students' educational development.

But, there were students who registered no opinion with respect to the features of the physical environment which did not support students' educational development. There were similarities in the pattern of no opinion responses registered by adult learners and traditional students regarding lack of building maintenance, cold classrooms, non air-conditioned classrooms, lighting in classrooms, and broken seats in classrooms (See Table 10, p. 253 Appendix B). According to the core groups of adult learners and traditional students, the no opinion responses were an indication that a few students probably had not experienced these conditions.

Furthermore, there were similarities in the percentage of no opinion responses registered by adult

learners and traditional students regarding hard to find offices and classrooms and large lecture halls (See Table 10, p. 253 Appendix B). During my re-interview with the adult learner and traditional student core groups they suggested that some students possibly knew the college campus very well, while other students probably were less concerned with intimacy in a large lecture hall. Therefore, a fairly large percentage of students from both groups registered no opinion responses.

In summary, the largest percentage of adult learners and traditional students indicated that non air-conditioned classrooms were features of the physical environment at the school which did not support students' educational development. A smaller but substantial percentage of students in both groups indicated that the lack of building maintenance, cold classrooms in winter, lighting in some classrooms, and broken seats in classrooms did not support students' educational development.

Large lecture halls and hard to find offices and classrooms were features of the physical environment a large percentage of students placed within the context of individual responsibility.

Comparison of Adult Learners', Teachers', and
Administrators' Responses

The percentages of agree responses registered by adult learners, teachers, and administrators were similar regarding the contention that (a) non air-conditioned classrooms, (b) lack of building maintenance, (c) cold classrooms, (d) lighting in some classrooms, and (e) broken seats in classrooms did not support students' educational development (See Table 10, p. 253 Appendix B).

A sizable percentage of adult learners, teachers, and administrators registered no opinion and disagree responses with respect to the previous features of the physical environment. There was not a consistent pattern of these responses which may suggest that these responses were based on individual preferences. What is clear is that most people in each survey group agreed that features of the physical environment which do not provide a comfortable learning situation for students do not support students' educational development.

Finally, only a small percentage of teachers and administrators, like adult learners, agreed with the contention that hard to find offices and classrooms and large lecture halls did not support students' educational development (See Table 10, p. 253 Appendix B). The

majority of people in each group did not seem to connect wayfinding or the size of classrooms with students' educational development.

In summary, while the largest percentage of adult learners, teachers, and administrators agreed with the contention that non air-conditioned classrooms were features of the physical environment which did not support students' educational development, a fairly large proportion agreed that: (a) lack of building maintenance, (b) cold classrooms in winter, (c) lighting in some classrooms, and (d) broken seats in classrooms did not support students' educational development.

Each participant was asked to submit other features of the physical environment if the statements on the questionnaire did not totally or accurately reflect their experience. They did not submit any.

Features of the Physical Environment Which Attract Students to the School

Comparison of Adult Learners' and Traditional Students' Responses

The largest proportion of adult learners and traditional students agreed with the contention that public transportation (75.0% and 69.0%, respectively) and location of the school (81.0% and 71.0%, respectively) were features of the physical environment which attract

students to the school. In each case, location received a slightly higher percentage of agree responses than public transportation. This is understandable because the college is located in the "real world" where many services are found. It is not isolated from the larger community. Therefore, many forms of public transportation and other services are available. Urban students who attend the school are able to pursue their education while having access to major services. This is critical for adult learners with household responsibilities because they can possibly combine them with trips to the college. Also, public transportation enables students to come to school from home or from work in a reasonable time.

In addition to location and public transportation, a fairly large percentage of adult learners (59.0%) and traditional students (57.0%) agreed with the suggestion that the library was a feature of the physical environment which attracts students to the school. However, a sizable percentage of students in both groups registered no opinion responses regarding the suggestion (See Table 11, p. 254 Appendix B). These no opinion responses may be due to the fact that the quality of the library was something which was not known by some students prior to their enrollment in school. But, many

students were knowledgeable of the location of the school and the availability of public transportation.

There were no differences by sex, employment, and marital status in the percentages of adult learners who agreed that public transportation, location of the school, and the library were features of the physical environment which attract students to the school.

There were differences in the percentage of adult learners and traditional students who registered agree responses that the campus grounds (39.0% and 53.3%, respectively), Student Center (24.0% and 54.0%, respectively), and places for athletic activity (41.0% and 51.4%, respectively) attracted students to the college. This finding suggests that the majority of traditional students were attracted to the school by features of the physical environment which connect them to home, school, employment, and provide for social activities as well. Indeed, the majority of adult learners were also attracted to the school by features of the physical environment which connect them to work, place of residence, and school, but the above information suggests that only a small percentage were attracted to the school by places which connect students to social activities.

Comparison of Adult Learners', Teachers', and
Administrators' Responses

A similar percentage of adult learners, teachers, and administrators agreed with the contention that public transportation, location of the school, and library were features of the physical environment which attract students to the school (See Table 11, p. 254 Appendix B).

And, teachers, like adult learners, registered large percentages of no opinion responses regarding the suggestion that the campus grounds (53.0%), architecture of older buildings (63.0%), modern buildings (55.0%), Student Center (50.0%), and places for physical activity (50.0%), were features of the physical environment which attract students to the college. During my re-interview with the teacher core group, they informed me that the high percentage of no opinion responses was probably an indication that a substantial percentage of teachers felt that features of the physical environment which connect to their home and schooling is what attract students to the school.

Also, a sizable percentage of administrators agreed with the proposition that the campus grounds (50.0%), Student Center (55.0%), and places for physical activity (55.0%), attract students to the school. These percentages were substantially higher than those for

adult learners (See Table 11, p. 254 Appendix B).

Finally, administrators, like adult learners, registered a fairly large percentage of no opinion responses regarding the above places and on the architecture of buildings and modern buildings as well (See Table 11, p. 254 Appendix B). I raised this issue during my re-interview with the core group of administrators. I was told that some administrators felt that features of the physical environment which were not directly related to students' educational development probably do not attract students to the school.

In summary, some variation did exist between adult learners and administrators regarding features of the physical environment which attract students to the school. Some administrators agreed that students were attracted to the school by features of the physical environment which connect students to their home, schooling, and social activities. Other administrators indicated that it was unlikely that adult learners were attracted to the school by features of the physical environment which connected students to social activities.

Despite the above differences, the results from this study indicate that the largest proportion of adult learners, teachers, and administrators agreed that

students were attracted to the college by features of the physical environment which have a specific functional role in their educational development rather than by features which connect students to extra curricular activities.

Participants were asked to identify other features of the physical environment at the college which attract students to the school but none was identified.

Barriers to Students' Educational Development

Comparison of Adult Learners' and Traditional Students' Responses

Over 90.0% of adult learners and traditional students agreed with the suggestion that budget cuts and abolished educational programs were barriers to students' educational development (See Table 12, p. 255 Appendix B). Students who were members of the adult learner and traditional student core groups felt that budget cuts and the closing of Weekend College had delayed some students' graduation. In fact, members of the adult learners' core group suggested that the closing of the Weekend College Program forced many adult learners to drop out of school or transfer to expensive private colleges.

By contrast, 95.0% of adult learners but only 67.0% traditional students agreed with the contention that the lack of appropriate course offerings was a barrier to

students' educational development. This difference was due primarily to the fact that over 30.0% of traditional students registered a no opinion response regarding the lack of appropriate course offerings. Students who were members of the traditional students' core group indicated, during the re-interview, that the lack of appropriate course offerings was an unusual experience for traditional students. In my discussions with adult learners, I was informed that the lack of course offerings was an ongoing problem for night students.

Also, a substantial percentage of adult learners (86.0%) agreed with the notion that the lack of student services was a barrier to students' educational development, but only 59.0% of traditional students agreed. The adult learner core group explained that they could not get their identification cards validated to gain access to the library or could not gain access to various department offices, academic advisement, student records, and the Bursar because those offices were not open at night on a regular basis. Members of the core interview group of traditional students explained that day students had access to student services but some students were concerned that they had to stand in long lines for hours to register for their courses or to pay their tuition.

A similar percentage of adult learners (88.0%) and traditional students (79.0%) agreed with the proposition that the lack of time to study was a barrier to students' educational development. This is understandable because a considerable percentage of adult learners and traditional students were working.

Furthermore, a sizable percentage of adult learners (82.4%) and traditional students (75.0%) agreed with the suggestion that unavailable teachers was a barrier to students' educational development. Both core groups of adult learners and traditional students indicated that adjuncts, in particular, were not available before or after classes because they did not have office space or office hours.

Finally, almost an equivalent percentage of adult learners and traditional students registered agree responses regarding the contention that the attitudes of professional staff (68.0% and 68.0%, respectively) and classroom atmosphere (68.0% and 62.0%, respectively) were barriers to students' educational development. More than 20.0% of adult learners and traditional students registered no opinion responses with respect to the above barriers (See Table 12, p. 255 Appendix B).

During the re-interview with members of the adult learner and traditional student core groups, I asked them

to explain why some students had recorded no opinion responses. They suggested that it was possible that some students had not experienced a classroom situation in which students were rude or had not encountered members of the professional staff who were not helpful.

An analysis of the percentage of agree responses registered by adult learners and traditional students regarding budget cuts, abolished educational programs, classroom atmosphere, lack of time to study, unavailable teachers, and attitudes of professional staff indicated that the same patterns held for all response categories regardless of marital status, employment status, Grade Point Average, or gender.

In summary, at the time of this study a variety of circumstances existed which were perceived by a fairly large percentage of students to be barriers to students' educational development. However, two barriers in particular, the lack of appropriate course offerings and the lack of student services, were perceived by a larger percentage of adult learners to impact unfavorably on their educational development.

Comparison of Adult Learners', Teachers', and
Administrators' Responses

A similar percentage of adult learners, teachers, and administrators agreed with the proposition that

budget cuts, abolished educational programs, lack of appropriate course offerings, lack of time to study, unavailable teachers, classroom atmosphere, and attitudes of professional staff were barriers to students' educational development (See Table 12, p. 255 Appendix B).

Although there was a consistent pattern in the percentages of agreement between adult learners, teachers, and administrators regarding the preceding barriers to students' educational development, a small percentage of no opinion responses was registered by all groups regarding classroom atmosphere because, as members of the core groups explained, "not all adult learners, teachers, and administrators had experienced a situation in the classroom in which students were ridiculed for answering questions."

Also, a small percentage of teachers and administrators registered no opinion responses with reference to the contention that lack of student services and attitudes of professional staff were barriers to students' educational development (See Table 12, p. 255 Appendix B). According to the core groups of teachers and administrators, these responses indicate that a small group of teachers probably were only concerned with teaching. On the other hand, the administrators' no opinion responses suggest that a few administrators were

not knowledgeable of students' dissatisfaction with respect to these particular issues.

In summary, a large percentage of adult learners, teachers, and administrators agreed that there were obstacles to students' educational development. All participants were asked to list other barriers but none was submitted.

Strategies for Coping With Barriers to Students' Educational Development

Comparison of Adult Learners' and Traditional Students' Responses

Over 90.0% of adult learners and traditional students agreed with the contention that time management, planning, and studying were strategies which students used to cope with barriers to their educational development (See Table 13, p. 256 Appendix B). There was no difference in the within and between group percentage of agree responses by gender, marital status, employment, and Grade Point Average.

A smaller percentage of adult learners and traditional students agreed with the proposition that lobbying college personnel (56.2% and 62.0%, respectively) and study groups (72.0% and 65.0%, respectively) were strategies for coping with barriers to students' educational development. However, a fairly large

percentage of students in both groups registered no opinion responses with respect to these strategies (See Table 13, p. 256 Appendix B). During my re-interview with members of the adult learner and traditional student core groups, they suggested that lobbying college personnel involved organizing students which was a difficult task to achieve with working students. With respect to study groups, both core groups indicated that the no opinion responses were probably registered by students who preferred to study alone. An analysis of the no opinion responses showed that adult learners and traditional students who had a Grade Point Average of 3.00 registered the highest percentage of the aggregate no opinion responses regarding study groups which suggest that these students possibly had less need for study groups.

A smaller percentage of adult learners (45.2%) and traditional students (35.0%) agreed with the notion that part-time employment was a strategy for coping with barriers to students' educational development. A fairly large percentage of no opinion responses was registered by both groups of students on this strategy (See Table 13, p. 256 Appendix B). I discussed this finding with both core groups of adult learners and traditional students. The adult learner core group indicated that

part-time employment was not financially viable for most adult learners since their commitments required them to work full-time. The core group of traditional students explained that they were already working part-time and could not afford to reduce their employment.

In summary, students encounter a variety of barriers while pursuing their education, but the majority agreed that time management, planning, studying, lobbying college personnel, and study groups were strategies which many students used to cope with obstacles to their educational development.

Comparison of Adult Learners', Teachers', and
Administrators' Responses

Adult learners, teachers, and administrators registered a fairly large and similar percentage of agree responses regarding the premise that time management, planning, and studying were strategies which students used to cope with barriers to their educational development. Each of the above groups registered a smaller but similar percentage of agree responses with respect to the notion that students used study groups to cope with barriers to their educational development (See Table 13, p. 256 Appendix B).

The above groups also registered much lower percentages of agree responses with reference to

part-time employment and lobbying college personnel. In fact, a sizable proportion of adult learners, teachers, and administrators registered no opinion responses with respect to these issues (See Table 13, p. 256 Appendix B). During the re-interview with the core group of teachers and administrators, they suggested that the lobbying of teachers and administrators by students was seen by a sizable percentage of teachers and administrators as an "irritating inconvenience." Also, they felt that a large percentage of students were required to work full-time instead of part-time to subsidize their responsibility.

To summarize, a shared consciousness existed among and between adult learners, traditional students, teachers, and administrators about effective strategies for coping with barriers to students' educational development.

All participants were asked to identify other strategies for coping with barriers to students' educational development, but no new categories were identified.

Features of the Physical Environment Which Discourage Students from Coming to the College

Comparison of Adult Learners' and Traditional Students' Responses

A similar and high percentage of adult learners and

traditional students registered agree responses pertaining to the contention that unsanitary bathrooms, broken seats in classrooms, graffiti on walls, and lighting in some classrooms discouraged students from coming to the school (See Table 14, p. 257 Appendix B).

Although the features listed above did not prevent students from coming to the school, the core groups of adult learners and traditional students indicated that these situations were demoralizing because (a) the bathrooms were dirty and often had inadequate supplies, (b) demeaning comments were written on walls, (c) broken seats in classrooms were a distraction and created a perception among students that the classroom atmosphere was not inviting, and (d) inadequate lighting in classrooms impaired students' ability to function.

The percentage of adult learners and traditional students who registered agree responses regarding the above features did not differ among or between groups by gender, marital status, employment, or Grade Point Average.

At least 25.0% of adult learners and traditional students registered no opinion responses pertaining to broken seats in classrooms and graffiti on walls (See Table 14, p. 257 Appendix B). The core groups explained that some students were concerned with maintaining a

quality Grade Point Average. Therefore, the physical environment was probably not a major concern.

Furthermore, both groups of students registered at least 40.0% no opinion responses with respect to the notion that the location of the school was stereotyped as unpleasant and large lecture halls discouraged students from coming to the school (See Table 14, p. 257 Appendix B). Core group members suggested that these features of the physical environment were not relevant in the lives of most students.

Finally, a larger percentage of adult learners (71.4%) as compared to traditional students (58.0%) registered agree responses regarding non air-conditioned classrooms as a feature of the physical environment which discourages students from coming to the school. This is understandable because after having worked all day, it is difficult for adult learners to be motivated to attend class in a room with a relatively high temperature.

In summary, students who participated in this study were disheartened because there were features of the physical environment at their school which were not comforting, inviting, supportive, or friendly.

Comparison Adult Learners', Teachers', and
Administrators' Responses

A substantial and similar proportion of adult

learners, teachers, and administrators agreed with the suggestion that unsanitary bathrooms, broken seats in classrooms, graffiti on walls, and lighting in some classrooms were features of the physical environment which discouraged students from coming to the college.

During my second interview with the core groups of teachers and administrators, they informed me that some teachers and administrators felt that a very significant part of students' education takes place in the classroom and broken seats in classrooms and poor lighting in some classrooms constituted a major inconvenience. Students often sat on the floor or it was not easy for students to take good notes when the lighting was horrendous. A sizable percentage of teachers registered no opinion responses regarding these issues. The core group of teachers suggested that some teachers perhaps teach their courses in classrooms in which the lighting is good and can't appreciate a situation in which the lighting in a classroom is poor. Also, the core group of teachers indicated that maybe some teachers have not taught in classrooms with a substantial number of broken seats and really can't understand the extent of the problem.

The teacher and administrator core groups suggested that unsanitary bathrooms and graffiti on walls was an annoyance, and it was a situation to which the college

needed to pay more attention.

Smaller but similar percentages of adult learners, teachers, and administrators agreed that non air-conditioned classrooms, poor building maintenance, and poorly heated classrooms were features of the physical environment which discouraged students from coming to the school. Clearly, the non air-conditioned classrooms were discouraging for a larger percentage of adult learners because many of them worked all day before coming to their classes. The notion of having to sit in a hot classroom after work probably frustrates many students.

All groups registered a sizable percentage of no opinion responses regarding the preceding features of the physical environment (See Table 14, p. 257 Appendix B). The core groups of teachers, and administrators indicated that poor building maintenance and poorly heated classrooms were situations which interfered with students' educational development, but students managed to tolerate the poor conditions.

A substantial percentage of each group registered no opinion responses pertaining to the contention that the location of the school was stereotyped as unpleasant and large lecture halls discouraged students from coming to the college (See Table 14, p. 257 Appendix B). During

my re-interview with the adult learner, traditional student, teacher, and administrator core groups they informed me that the majority of students perceive the location of the college as pleasant and that the size of a classroom does not discourage most students from coming to the school. This analysis seems to be appropriate because only 28.0% of adult learners and 36.0% of traditional students agreed with the proposition that the location of the school discouraged them from coming to school. The percentages were even smaller for adult learners (22.0%), and traditional students (21.0%) who agreed that large lecture halls discouraged them from coming to the college.

To summarize, the school is a physical entity in which schooling takes place and when students know that they are coming to a situation which is physically and emotionally discomfoting they possibly perceive it as not inviting and even threatening to their well being. The fact that a majority of adult learners, traditional students, teachers, and administrators agreed with the contention that poorly heated classrooms, non air-conditioned classrooms, unsanitary bathrooms, broken seats in classrooms, lighting in some classrooms and graffiti on walls discouraged students from coming to the school suggest that the above aspects of the physical

environment can have a negative impact on students.

All participants were given the opportunity to submit additional features of the physical environment which discouraged students from coming to the school, but they did not.

Significant Administrators' Educational Goals in Students' Educational Development

Comparison of Adult Learners' and Traditional Students' Responses

A similar percentage of adult learners and traditional students agreed that administrators' educational goals were to provide educational programs, plan educational programs, maintain educational programs, and utilize the budget to benefit students (See Table 15, p. 258 Appendix B).

There were no differences in the percentage of agree responses among or between groups by gender, employment, Grade Point Average, or marital status.

Comparison of Adult Learners', Teachers', and Administrators' Responses

Adult learners, teachers, and administrators registered a similar percentage of agree responses regarding the suggestion that the role of administrators' educational goals in students' educational development was to provide educational programs, plan educational

programs, maintain educational programs, and utilize the budget to benefit students.

However, more than 20.0% of administrators registered no opinion responses with respect to providing educational programs, planning educational programs, and utilizing the budget to benefit students. This was a higher percentage than the percentage registered by adult learners (See Table 15, p. 258 Appendix B). The core group of administrators suggested that this small group of administrators probably felt that the budget was used for many other purposes while other administrators devoted a substantial amount of their time to solving students' problems instead of planning and providing educational programs for students.

In summary, all groups recognized that specific administrators' educational goals were significant to students' educational development.

All participants were asked to identify other administrators' educational goals if the goals listed on the questionnaire did not accurately reflect their experience. None was submitted.

During the initial interview with the adult learner, traditional student, teacher, and administrator core groups, they suggested that the process of planning, providing, and maintaining educational programs, and

utilizing the budget to benefit students produced certain outcomes.

Outcomes of Administrators' Educational Goals

Comparison of Adult Learners' and Traditional Students' Responses

Between 44.0 and 58.0 percent of adult learners and traditional students agreed with the notion that feedback occurred between students and administrators, that cooperation occurred between students and administrators, and that students finished their bachelors degree in a planned amount of time when administrators provided, planned, and maintained educational programs, and utilized the budget to benefit students (See Table 16, p. 259 Appendix B).

In fact, more than 30.0% of adult learners and traditional students in both survey groups registered no opinion responses and between 10.0 and 20.0 percent disagreed with the contention regarding the above outcomes of administrators' educational goals (See Table 16, p. 259 Appendix B). I brought this matter to the attention of the core group of adult learners and traditional students when I re-interviewed them. Members of both core groups suggested that some students had not experienced the outcomes listed above. These data suggest that the outcomes of administrators' educational

goals are not clear cut.

There was no difference in the percentage of adult learners and traditional students who registered no opinion responses regarding the outcomes of administrators' educational goals by gender, employment profile, Grade Point Average, or marital status.

Comparison of Adult Learners', Teachers', and Administrators' Responses

A similar pattern of responses was registered by adult learners, teachers and administrators regarding the outcomes of administrators' educational goals (See Table 16, p. 259 Appendix B).

Adult learners registered fewer agree responses than teachers and administrators regarding the contention that cooperation occurred between students and administrators, and students finished their bachelors degree in a planned time (See Table 16, p. 259 Appendix B).

During my re-interview with the core groups of adult learners, teachers, and administrators, I asked them to explain why a substantial percentage of people had registered no opinion responses with regards to the outcomes of administrators educational goals (See Table 16, p. 259 Appendix B). I was informed that a sizable percentage of teachers and administrators were not sure that administrators' educational goals produced feedback

and cooperation occurred between students and administrators, or that students finished their bachelors degree in a planned time. As I stated earlier, the adult learner core group indicated that a sizable percentage of adult learners had not experienced these outcomes.

These data indicate that the outcomes of administrators' educational goals were not sufficiently clear. But, all participants were encouraged to submit other outcomes of administrators' educational goals if the ones listed on the questionnaire did not totally or accurately reflect their experience. None was submitted.

Significant Teachers' Educational Goals

Comparison of Adult Learners' and Traditional Students' Responses

A similar percentage of adult learners and traditional students agreed with the premise that teachers' educational goals were significant to students' educational development when they: (a) came to class with an open mind (86.0% and 74.3%, respectively), taught to the best of their ability (93.0% and 85.2%, respectively), (c) took educational responsibility seriously (88.0% and 83.0%, respectively), (d) generated excitement in students (72.0% and 54.0%, respectively), and (e) were flexible with their students (57.0% and

43.0%, respectively).

An analysis of the above information shows that students prioritized significant teachers' educational goals. For instance, the highest percentage of agree responses was registered for teachers who taught to the best of their ability, followed by teachers who took educational responsibility seriously, and teachers who came to class with an open mind was last.

A fairly large percentage of adult learners registered agree responses to the notion that teachers should generate excitement in students, whereas a much smaller percentage of traditional students registered agree responses regarding the same issue (See Table 17, p. 260 Appendix B). I raised this issue with the adult learner and traditional student core groups when I re-interviewed them. Members of the adult learner core group suggested that many adult learners needed to be excited because they probably were not self starters. But, the traditional student core group indicated that most traditional students were not concerned with issues related to teacher stimulation.

Lower percentages of both adult learners (57.1%) and traditional students (43.0%) agreed with the proposition that flexibility with students is a teachers' educational goal which is significant for students' educational

development. In fact, a fairly large percentage of both survey groups of adult learners (34.0%) and traditional students (45.0%) registered no opinion responses to this issue. I asked the core groups of adult learners and traditional students to explain why a fairly large percentage of students registered no opinion responses. They indicated that they felt that many students were less concerned with teachers being flexible than they were with teachers' openness, seriousness, and abilities which are prerequisites for students' success.

Comparison of Adult Learners', Teachers', and
Administrators' Responses

Adult learners, teachers, and administrators registered similar percentages of agree responses to the contention that coming to class with an open mind, teaching to best of ability, taking educational responsibility seriously, and generating excitement in students were significant to students' educational development (See Table 17, p. 260 Appendix B).

A smaller percentage of participants in each group indicated that teachers' flexibility with students was significant for students' educational development (See Table 17, p. 260 Appendix B). In fact, teachers registered 58.0% and administrators registered 45.0% no opinion responses regarding the contention that teacher

flexibility was significant for students' educational development, as compared to only 34.0% of adult learners. The teacher and administrator core groups suggested that it was possible that a sizable percentage of teachers and administrators felt that teacher flexibility was not a prerequisite for students to achieve.

In summary, a large and similar percentage of adult learners, teachers, and administrators agreed that teacher qualities such as open-mindedness, effective teaching, seriousness, and, to a lesser extent, ability to electrify students were significant for students' educational development.

All participants were asked to submit other suggestions with respect to teachers' educational goals which were important for students' educational development, but no suggestions were returned.

Outcomes of Teachers' Educational Goals

Comparison of Adult Learners', Traditional Students', Teachers', and Administrators' Responses

A large and similar percentage of people in each group agreed with the premise that the outcomes of teachers' educational goals were that (a) students learned subject matter, (b) applied what they learned, and (c) retained what they learned. In fact, similar percentages of adult learners, traditional students, and

teachers agreed that an outcome of teachers' educational goals was that students enjoyed their courses.

Administrators registered nearly 50.0% no opinion responses regarding the above issue (See Table 18, p. 261 Appendix B).

The administrator core group indicated that the reason for the high percentage of no opinion responses to the issue is that most administrators do not teach.

In summary, positive teachers' educational goals were central to students' educational development and they produce positive results in students' development.

All participants were given an opportunity to submit other outcomes of teachers' educational goals, but none was submitted.

Reasons Why Students Form A Social Relationship

Comparison of Adult Learners' and Traditional Students' Responses

Adult learners and traditional students registered the following similar and high percentages of responses to the following reasons why they formed a social relationship: (a) establish mutual support (82.3% and 78.1%, respectively), (b) make friends (70.0% and 82.3%, respectively), (c) facilitate achievement of educational goals (73.0% and 67.2%, respectively), (d) compare experiences (75.0% and 71.0%, respectively), and (e)

compare educational goals (72.0% and 70.0%, respectively). Adult learners registered the highest percentage of agree responses for mutual support which was followed by comparisons of experiences, facilitation of achievement of educational goals, and making friends.

The above information suggests that among adult learners a supportive and comparative social relationship was foremost. By contrast, traditional students formed a social relationship for support and friendship reasons.

The fact that a large percentage of adult learners were working full-time, over 50.0% had children which required supervision, 57.0% was involved in paying for their education, and 76.0 provided shelter for themselves helps to explain why adult learners wanted to form mutually supportive relationships. Most traditional students did not have the same level of out-of-college commitment and responsibility as adult learners and therefore, college was a place for them to form friendships.

A fairly large percentage of adult learners and traditional students registered no opinion responses to the reason that students formed a social relationship was to stimulate competition. The core groups of adult learners and traditional students indicated that a social relationship was based on an understanding between

students rather than competition.

Comparison of Adult Learners', Teachers', and
Administrators' Responses

Adult learners, teachers, and administrators registered similar percentages of agree responses regarding the contention that students formed a social relationship to (a) establish mutual support, (b) make friends, (c) facilitate achievement of educational goals, (d) compare experiences, (e) compare educational goals, and (f) stimulate competition (See Table 19, p. 262 Appendix B).

Teachers and administrators, like adult learners, registered the highest percentage of agree responses for the suggestion that students formed a social relationship first, for supportive reasons and second, for comparative reasons followed by facilitative and friendship.

Only a small percentage of teachers and administrators, like adult learners, registered agree responses with respect to the notion that students formed a social relationship to stimulate competition. The majority of teachers and administrators registered no opinion or disagree responses with respect to this issue (See Table 19, p. 262 Appendix B). The core group of teachers and administrators suggested that social

relationships among students tended to foster supportive social relationships rather than competitive social relationships.

Participants were asked to submit other reasons why students form a social relationship, but none was submitted.

Outcomes of Social Relationships Among Students

Comparison of Adult Learners' and Traditional Students' Responses

Adult learners and traditional students registered similar percentages of agree responses with respect to the suggestion that the outcomes of social relationships among students were (a) enhanced self-esteem, (b) motivation, (c) feedback from others, and (d) self-development (See Table 20, p. 263 Appendix B). There were no differences in the percentage of agree responses among and between adult learners and traditional students by gender, employment profile, marital status, or Grade Point Average.

Both of the above groups registered the highest percentage of agree responses for feedback from others followed by motivation as outcomes of social relationships among students.

In summary, the highest percentage of adult learners and traditional students agreed that the benefits of a

social relationship were feedback from others which had an impact on students' motivation, self-esteem, and self-development.

Comparison of Adult Learners', Teachers', and Administrators' Responses

A fairly large percentage of teachers and administrators, like adult learners, registered agree responses regarding the suggestion that (a) feedback from others, (b) motivation, (c) enhanced self-esteem, and (d) enhanced self-development were outcomes of social relationships among students (See Table 20, p. 263 Appendix B).

Teachers and administrators, like adult learners, registered the largest percentage of agree responses for the suggestion that feedback from others was an outcome of social relationships among students. This information suggests that feedback from other students is linked to students motivation, self-esteem, and self-development.

All participants were given the opportunity to submit other outcomes of social relationships among students, but none was submitted.

Students' Educational Goals

Comparison of Adult Learners' and Traditional Students' Responses

A similar pattern existed in the percentage of agree

responses registered by adult learners and traditional students that the educational goals of students were to: (a) get a bachelors degree (79.0% and 91.4%, respectively), (b) prepare to compete in workforce (85.2% and 85.0%, respectively), and learn (90.5% and 83.4%, respectively). There were no differences in the percentages of agree responses among and between adult learners and traditional students by gender, employment status, marital status, or Grade Point Average. However, as compared to traditional students, a larger percentage of adult learners indicated that their educational goal was to learn. But, the largest percentage of traditional students indicated that their educational goal was to get a bachelors degree. Almost an equal percentage of both of the above groups were preparing to compete in the workforce (See Table 21, p. 264 Appendix B).

Although a slightly larger percentage of traditional students was pursuing a bachelors degree, adult learners' reasons for being in college cannot be characterized as mainly job related. A large percentage of adult learners were in school to increase their knowledge and to develop their academic skill.

Comparison of Adult Learners', Teachers, and
Administrators' Responses

A fairly large percentage of teachers and administrators, like adult learners, agreed with the contention that the educational goals of students were to (a) get a bachelors degree, (b) prepare to compete in workforce, and (c) learn. Adult learners and administrators registered the highest percentage of agree responses for learning. Teachers registered the highest percentage of agree responses for earning a bachelors degree which perhaps indicate what their goals were for students (See Table 21, p. 264 Appendix B).

In summary, a large percentage of teachers and administrators were fully aware that students are in school to learn, earn a degree, and prepare to compete with others, but a larger percentage of administrators were aware that adult learners were in school to increase their knowledge.

Teachers and administrators were given a chance to submit other educational goals of students, but they did not.

CONCLUSION

The purpose of this research was to understand the experiences of adult learners, their teachers, and administrators of adult undergraduate programs in order to assess the significance of the educational environment in adult learners' educational development. Also the experiences of adult learners were compared with the experiences of a group of traditional students to (a) discover issues of particular relevance only to adult learners, (b) discover distinctive purposes, meanings, implications, and consequences of social relationships for adult learners, and (c) discover the similarities and differences in adult learners' and traditional students' educational goals.

The literature review revealed that the physical environment had been given a considerable amount of attention regarding design of the physical setting (Getzels, 1974; Proshansky & Wolfe, 1974; Goldman, 1981; Becker, Sommer, Bee, & Oxley, 1973; Horowitz, 1984), interior temperature and its effects (McDonald, 1960; Chiles, 1958; Thorndike, McCall, & Chapman, 1916; Mayo, 1955; Wilkinson, 1955), the effects of interior lighting (Boyce, 1975; Logan & Burger, 1961; Butler & Biner, 1987; Oregon School Council, 1987; Papa-Lewis & Cornell, 1987),

and the significance of school siting (Hiemstra, 1972; Botsman, 1975; Cross, 1981; Stein, 1978; Castaldi, 1969).

Also, the contemporary literature contained information which suggested that a social relationship was an important dimension in adult learners' educational experiences (Cross, 1981; Jenkins, 1960; Murgatroyd, 1977). Finally, the literature review indicated that different students expected to achieve different objectives when they established a relationship with a college (Smith, 1989).

The findings from this research indicate that there were: (a) features of the physical environment which support adult learners' educational development, (b) features of the physical environment which did not support adult learners' educational development, (c) features of the physical environment which attract adult learners to the school, (d) barriers to adult learners' educational development, (e) strategies which adult learners used to cope with barriers to their educational development, (f) features of the physical environment which discourage adult learners from coming to the school, (g) significant administrators' educational goals in adult learners' educational development, (h) outcomes of administrators' educational goals in adult learners' educational development, (i) significant teachers'

educational goals in adult learners' educational development, (j) reasons why adult learners form a social relationship, (k) outcomes of social relationships among adult learners, and (l) adult learners' educational goals.

The previous findings will be discussed separately with the implications of each finding.

Features of the Physical Environment Which Support Adult Learners' Educational Development

The findings from this research indicate that the library and Computer Center were features of the physical environment at the college which support adult learners' educational development. Therefore, this finding has implications for school policy. For instance, these facilities should have operating hours which are convenient for adult learners. The college could possibly seek to implement a schedule for these facilities which has day, night, and weekend hours.

It is important to note that a large percentage of teachers and administrators agreed with the contention that the library (88.0% vs. 88.0%) and Computer Center (80.0% vs. 95.0%) supported students' educational development. Since this issue received substantial support from teachers and administrators it is not a one dimensional or student only issue. In fact, the percentage of responses registered by adult learners and

traditional students were similar regarding the support of the library and Computer Center in their educational development. Therefore, the administration of the college should make sure that the facilities are available for adult learners on the weekend when they are not working.

Features of the Physical Environment Which Did Not Support Adult Learners' Educational Development

The findings from this research indicate that there were features of the physical environment which did not support adult learners' educational development. For instance, non air-conditioned classrooms, lighting in some classrooms, lack of building maintenance, broken seats in classrooms, and cold classrooms in winter were considered by a fairly large percentage of adult learners as factors which did not support their educational development.

Adult learners reported that the heat from atmospheric temperatures in the early fall and summer was debilitating. The students also indicated that they had experienced headaches, restlessness, fatigue, drowsiness, and even the loss of concentration in non air-conditioned classrooms. Also, the students explained that lighting in some classrooms hampered their ability to see material written on the blackboard, that when they came to school

at night the classrooms were unclean, that broken seats in classrooms interfered with their ability to record written notes and take examinations, and that cold classrooms reduced their ability to function because it was physically discomforting.

A fairly large percentage of traditional students agreed that the above features of the physical environment did not support students' educational development. In fact, a substantial proportion of teachers and administrators agreed also.

The above findings have implications for future research and school policy as well. First, a study which investigates the relationship between dirty, cold, non air-conditioned classrooms with inadequate lighting and broken seats, and students' performance on mental tasks is needed to determine what effects these conditions have on students' academic performance. Second, the school could use this information to justify the development and implementation of a school policy which prevents the scheduling of classes in classrooms without windows which can be opened to enhance the circulation of air in the classrooms.

Also, the school could use these findings to implement a policy which requires the maintenance department to schedule frequent inspections of classrooms

to repair and replace broken fluorescent lamps and light switches in classrooms. In addition, the policy would require the maintenance department to test the heating system on an annual basis, to clean classrooms regularly, and to remove and replace broken seats in all classrooms. Future research could focus on features of the classroom environment which support the educational development of students who come to school after working a full day.

Features of the Physical Environment Which Attract Adult Learners to the School

The findings from this research indicate that public transportation, location and the library were features of the physical environment which attract a sizable proportion of adult learners to the school. These three features were critical to all students but specifically to adult learners because they used public transportation such as buses and subways to commute to the college from home and work on a consistent basis. Also, the college is located in an area which is accessible to public transportation, supermarkets, clothing stores, and banking institutions. These elements of location enable adult learners to combine their trips to the college with shopping and other household responsibilities. Finally, the college's library provides study space, integrated information for research, sound recordings, circulation

and reference services, and government documents which the students utilize to develop their intellectual skills.

The largest proportion of adult learners were attracted to the college by features of the physical environment which linked them to home, employment, responsibility, and schooling. They were not attracted to the school by features of the physical environment which connected them to social activities. This is an issue of particular relevance only to adult learners because a sizable percentage of traditional students were attracted to the school by the Student Center and the campus grounds.

A fairly large percentage of traditional students, teachers, and administrators, agreed with the contention that public transportation, location, and the library were features of the physical environment which attract students to the college. These findings clearly indicate that adult learners were not different from other groups with respect to these issues.

Therefore, these findings have implications for school policy. For example, the college could utilize the evidence that public transportation, location, and the library were features of the physical environment which attract adult learners to the school to mount a

publicity campaign to increase the enrollment of adult learners. In fact, the campaign would inform the public that the college has a library that brings adult learners in close contact with the world around them, that the college is located in an area which is accessible to public transportation, and that the location of the school supports the combining of job, household responsibilities, and schooling.

Finally, the findings regarding features of the physical environment which attract students to the school has implications for higher education program development for adult learners. For example, educators could use the information to create higher education programs which facilitate adult learners' educational development.

Barriers and Strategies for Coping With Barriers to Adult Learners' Educational Development

Although there were features of the physical environment which did not support adult learners' educational development, they were not considered to be barriers to students' educational development. Adult learners indicated that (1) abolished educational programs, (2) lack of appropriate course offerings, (3) budget cuts, (4) lack of student services, (5) lack of time to study, (6) unavailable teachers, (7) classroom atmosphere, and (8) attitudes of professional staff were

barriers to their educational development. I have rank ordered the barriers in numerical order so that the reader will get an indication of the importance of each barrier for adult learners.

Teachers and administrators registered similar percentages of agree responses indicating that the above circumstances were barriers to students' educational development.

In fact, traditional students registered similar percentages of agree responses for each of the previous barriers with the exception of lack of appropriate course offerings and lack of student services.

One administrator summed up this situation by saying:

There are quite a number of administrators, including department chairs, who are not nearly so conversant with adult learners as I would like them to be. It is the responsibility of department chairs to ensure that there are adequate course offerings. But, the educational environment for adult learners had deteriorated a good deal in the last 15 years as a result of various financial circumstances. Many fewer courses are being offered at night.

Another administrator summed up the lack of services situation for adult learners in the following manner.

It is unfortunate that adult learners don't have the same kind of services as the day students. They need them. I think they are being shortchanged. If I had my druthers, the college would be just as active in the evening and at night as it is during the day. In light of the budget crisis, I think that student services are constantly decreasing.

Clearly, the previous statements indicate that the barriers mentioned earlier have particular relevance for adult learners. Hence, adult learners utilize planning, studying, time management, and study groups to cope with barriers to their educational development.

The findings with respect to barriers to adult learners' educational development and the strategies utilized to cope with barriers have implications for program development. For instance, the college could support the development of work-shops and focus groups which emphasize the significance of time management, planning, studying, and study groups in adult learners' educational development. The work-shops and focus groups would be supervised by faculty and staffed by adult learners.

Features of the Physical Environment Which Discourage Adult Learners from Coming to the College

The features of the physical environment which discouraged a large percentage of adult learners from coming to the school can be categorized as: (1) elements which did not function to meet personal needs such as unsanitary bathrooms, (2) elements which did not provide a comfortable learning environment such as lighting in some classrooms, non air-conditioned classrooms, poorly heated classrooms, and (3) elements which were irritating

such as graffiti on walls and poor building maintenance.

A sizable percentage of traditional students, teachers, and administrators agreed that unsanitary bathrooms, broken seats in classrooms graffiti on walls, and lighting in some classrooms had a disheartening effect on students' courage to come to school.

Unsanitary bathrooms were particularly discouraging for adult learners because they come to school at a time when the bathrooms are uncleaned.

The classroom is a place where the development of knowledge, intellectual skill, and ability through teaching and study takes place. Students listen to lectures, take examinations, record written notes, and recite prepared lessons. The activities take place while the students are seated in chairs. Therefore, it is essential that seats in the classroom are not broken.

Lighting in classrooms also functions to support students' performance on visual tasks. Therefore, lighting should not be perceived by students to be a hindrance to their educational development.

Graffiti on walls is simply a "turn off" and should not be a factor which discourages students from coming to the college.

The college could use the findings regarding features of the physical environment which discourage students from

coming to the school to develop a policy which focuses on the re-distribution of human resources to remove and replace broken seats in classrooms, replace non functioning fluorescent lamps in classrooms, and establish a cleaning schedule which focuses on efficiency and frequency.

The findings from the final phase of this research show that administrators' educational goals, teachers' educational goals, social relationships, and students' educational goals were significant in students' educational development.

Significance of and Outcomes of Administrators' Educational Goals in Adult Learners' Educational Development

A fairly large percentage of adult learners agreed that when administrators provided, planned, and maintained educational programs, these activities were significant in their educational development. In fact, a fairly large percentage of traditional students, teachers, and administrators supported the contention that the above activities of administrators were significant in students' educational development. This is an important finding because it suggests that program administrators are not perceived to provide different types of services for adult learners and traditional students.

The outcomes of administrators' educational goals in adult learners educational development is unclear. For example, a much lower percentage of adult learners agreed that the outcomes of administrators educational goals were feedback and cooperation between adult learners and administrators, and adult learners finished their bachelors degree in a planned amount of time when administrators performed the above activities. In fact, only a small percentage of traditional students, teachers, and administrators agreed with the contention regarding the outcomes of administrators' educational goals.

Administrators are an integral part of adult learners' educational development, but the results of their activities are not well known. Therefore, the college needs to support a publicity campaign which provides the college community, and adult learners in particular, with information regarding the achievements of program heads and program directors.

Role of and Outcomes of Teachers' Educational Goals in Adult Learners' Educational Development

A large percentage of adult learners were of the opinion that teachers' roles in their educational development were to teach to the best of their ability, take educational responsibility seriously, come to class with an open mind, generate excitement in students, and

show flexibility with students. A sizable percentage of adult learners indicated that teachers who possessed these qualities enabled students to learn, apply what they learned, retain what they learned, and enjoyed their courses.

The largest proportion of traditional students did not support the contention that a role of teachers in students' educational development was to be flexible. It should be noted, that traditional students who participated in this research did not have as much responsibility as adult learners. Therefore, teacher flexibility was less of an issue for them. Moreover, a sizable proportion of teachers and administrators did not support the contention because they felt that it was an unfair position to take.

The findings from this research indicate that teacher flexibility is an issue which needs to be investigated further if the college intends to meet the needs of its older students.

Reasons Why Adult Learners Form Social Relationships and the Outcomes of Social Relationships Among Adult Learners

Social relationships among students engendered mutual support, friendship, comparison of goals and experiences, and facilitated achievement. Students benefited from social relationships through self-esteem and

self-development enhancement, motivation, and being able to communicate with others.

The largest percentage of traditional students, teachers, and administrators supported the reasons why students form a social relationship and the outcomes of social relationships among students as well.

This is an important finding because it suggests that social relationships among students produce positive results. Therefore, these findings can be used by the college to justify the establishment of a course for all students, and adult learners in particular, which focuses on the role of social relationships and the outcomes of social relationships in students' educational development. After the course is established, a study which examines the attrition rate of students who took the course would produce valuable information for the school and students as well.

Adult Learners' Educational Goals

The reasons why adult learners were in school were: (1) to learn, (2) prepare to compete in workforce, and (3) to earn a bachelors degree. I have rank ordered the reasons to enable the reader to understand which reason is a priority for adult learners.

The largest proportion of traditional students indicated that they were in school for the reasons given

earlier. However, earning a degree was a priority for most traditional students.

In fact, a fairly large percentage of teachers and administrators agreed that students were in school for the reasons listed earlier.

It is hoped that this information will help dispel the long standing notion that adult learners were in school for reasons which have been characterized as solely job related.

Summary

First, the present findings and the historical findings with regards to the physical environment were similar in that educational settings for adult learners were described as inadequate or insufficient learning environments. In fact, physical settings for adult learning activities were still consciously related to educational objectives rather than with a simultaneous concern with the inherent attributes of the physical setting in which educational activities were carried out.

Second, the findings from this study and the historical findings were similar regarding the students', teachers', and administrators' educational goals in that their educational goals continue to be different.

Third, the present and the historical findings were similar in that both indicated that social relationships

among students influenced students' educational development.

Finally, the findings from this study showed that adult learners and traditional students were similar in that most students in both groups worked and had similar Grade Point Averages. Yet, adult learners were treated differently in that they faced greater obstacles to their educational development such as lack of appropriate course offerings, lack of student services, and non air-conditioned classrooms.

The present research discovered various elements of the physical environment which support or do not support adult learners' educational development. Also, the present research discovered that there were components of the physical environment which attract adult learners to the school or discourage adult learners from coming to the school.

Furthermore, the present research discovered that there were barriers to adult learners' educational development and there were strategies which adult learners used to cope with the barriers.

Moreover, the present research discovered that there were specific administrators' and teachers' educational goals which had particular outcomes which were significant to adult learners' educational development.

Finally, the present research discovered that adult learners had specific educational goals and formed social relationships and those relationships had specific outcomes.

As far as I can tell, other researchers failed to consider the above issues seriously in adult learners' educational development.

In summary, the college can use the findings from this study to: (1) establish school policy, (2) justify the re-allocation of resources, (3) support future research, (4) increase adult learner enrollment, and (5) support the establishment of courses which will facilitate students' educational development.

Also, the survey instrument can be used to evaluate the discrepancies in adult learners', traditional students', teachers', and administrators' perceptions regarding students' educational development in other circumstances or to assess differences between schools.

Finally, it is hoped that the results of this research on the physical and social contexts which influence students' educational development will stimulate an interest in developing environmental psychological theory that reflects the educational development of adult learners.

APPENDIX A

June 13, 1990

Dear Student:

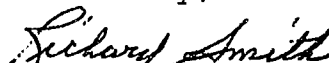
I am an administrator of an undergraduate degree-bearing program for adult learners at Brooklyn College and a Ph.D. candidate at the Graduate School of the City University of New York.

Eight adult learners are needed to participate in the initial phase of my dissertation research which investigates the nature of social relationships, educational goals, and the physical environment in adult learners' educational development. Your consent or refusal to participate in this study will not affect your status as a student at Brooklyn College. I will protect your privacy and confidentiality to the fullest extent possible.

If you decide to participate, please leave your name and telephone number in room 3227 Boylan Hall. Also, please feel free to contact me at (718)780-5525 with any questions concerning this research.

Thank you in advance for your assistance.

Sincerely,


Richard Smith

June 13, 1990

Dear Student:

I am an administrator of an undergraduate degree-bearing program for adult learners at Brooklyn College and a Ph.D. candidate at the Graduate School of the City University of New York.

Four traditional undergraduate students are needed to participate in the initial phase of my dissertation research which investigates the nature of social relationships, educational goals, and the physical environment in adult learners' educational development. Your consent or refusal to participate in this study will not affect your status as a student at Brooklyn College. I will protect your privacy and confidentiality to the fullest extent possible.

If you decide to participate, please leave your name and telephone number in room 3227 Boylan Hall. Also, please feel free to contact me at (718)780-5525 with any questions concerning this research.

Thank you in advance for your assistance.

Sincerely,



Richard Smith

June 13, 1990

Dear Faculty Member:

I am an administrator of an undergraduate degree-bearing program for adult learners at Brooklyn College and a Ph.D. candidate at the Graduate School of the City University of New York.

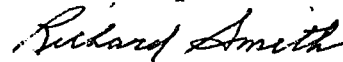
Four teachers of adult learners are needed to participate in the initial phase of my dissertation research which investigates the nature of social relationships, educational goals, and the physical environment in adult learners' educational development.

I will protect your privacy and confidentiality to the fullest extent possible.

If you decide to participate, please leave your name and telephone number in room 3227 Boylan Hall. Also, please feel free to contact me at (718)780-5525 with any questions concerning this research.

Thank you in advance for your assistance.

Sincerely,



Richard Smith

June 13, 1990

Dear Faculty Member:

I am an administrator of an undergraduate degree-bearing program for adult learners at Brooklyn College and a Ph.D. candidate at the Graduate School of the City University of New York.

Four administrators of undergraduate degree programs for adult learners are needed to participate in the initial phase of my dissertation research which investigates the nature of social relationships, educational goals, and the physical environment in adult learners' educational development.

I will protect your privacy and confidentiality to the fullest extent possible.

If you decide to participate, please leave your name and telephone number in room 3227 Boylan Hall. Also, please feel free to contact me at (718)780-5525 with any questions concerning this research.

Thank you in advance for your assistance.

Sincerely,

Richard Smith
Richard Smith

INTERVIEW GUIDE FOR ADULT LEARNERS AND
TRADITIONAL UNDERGRADUATE STUDENTS

1. Since coming to Brooklyn College, have you formed a social relationship with anyone? If yes, with whom? If no, why not?
2. Why did you form a social relationship?
3. What was the purpose of the social relationship?
4. Has the social relationship affected the achievement of your educational goals? Explain
5. Are social relationships important for achieving your educational goals? Explain
6. Would you encourage adult learners/traditional undergraduate students to form a social relationship? Explain
7. Does a social relationship play a role for adult learners/traditional undergraduate students? Explain
8. Are social relationships related to educational goals? Explain
9. Did you ever study with someone? Who was it?
10. Why did you study with _____?
11. Were there any consequences of studying with _____? Elaborate
12. Would you recommend the formation of study groups among adult learners/traditional students?
13. What are teachers' educational goals? Elaborate
14. What are college administrators educational goals? Elaborate
15. What role do teachers play in the achievement of your educational goals?
16. What role do college administrators play in the achievement of your educational goals?

17. What are the outcomes of positive administrators' educational goals?
18. What are the outcomes of positive teachers' educational goals?
19. What are adult learners' educational goals?
- or
20. What are traditional undergraduate students' educational goals?
21. Describe effective ways which are used by you to achieve your educational goals.
22. Are there situational barriers which you think prevent students from achieving their educational goals? Explain
23. Are there effective ways which students could use to cope with the existing barriers which prevent them from achieving their educational goals? Explain
24. Describe institutional circumstances which interfere with the achievement of your educational goals.
25. Describe dispositional circumstances which interfere with the achievement of your educational goals.
26. Identify situational circumstances which interfere with the achievement of your educational goals.
27. Identify features of the physical environment at Brooklyn College which attracted you to the school.
28. Describe features of the physical environment which discourage you from coming to school.
29. Identify features of the physical environment at Brooklyn College which support the achievement of your educational goals.
30. Discuss features of the physical environment at Brooklyn College which do not support your educational development.
31. Identify changes that you would like to see made in the physical environment at Brooklyn College.

INTERVIEW GUIDE FOR TEACHERS AND ADMINISTRATORS

1. Do adult learners form social relationships with other students? Explain
2. What is the purpose of social relationships among adult learners?
3. Would you recommend the formation of social relationships among adult learners? Explain
4. Do adult learners form study groups?
5. What is the purpose of study groups among adult learners?
6. Would you favor the formation of study groups among adult learners?
7. What are teachers' educational goals? Explain
8. What are college administrators' educational goals? Explain
9. What are adult learners' educational goals?
10. What role do teachers/college administrators plan in the achievement of adult learners educational goals?
11. What are the outcomes of teachers'/college administrators' educational goals?
12. Describe effective way which adult learners use to achieve their educational goals.
13. Are there barriers which prevent adult learners from achieving their educational goals? Explain
14. Identify effective ways which adult learners could use to cope with existing barriers which prevent them from achieving their educational goals? Explain
15. Describe institutional circumstances which interfere with the achievement of adult learners' educational goals.

16. Describe dispositional circumstances which interfere with the achievement of adult learners' educational goals.
17. Identify situational circumstances which interfere with the achievement of adult learners' educational goals.
18. Do you think that there are features of the physical environment at Brooklyn College which attract adult learners to the school? If yes, identify.
19. Do you think that there are features of the physical environment at Brooklyn College which discourage adult learners from coming to the school? If yes, identify.
20. Do you think that there are features of the physical environment at Brooklyn College which support the achievement of adult learners' educational goals? If yes, identify.
21. Do you think that there are features of the physical environment which do not support adult learners' educational development? If yes, identify.
22. Are there changes that you would like to see made in the physical environment at Brooklyn College?

SURVEY QUESTIONNAIRE

SECTION 1

1. What is your age?
2. Sex: Male___ Female___
3. Place of Birth:
If born in the Untied States:

City_____, State_____
- If not born in the United States:

Country_____, City_____

EDUCATION

4. Do you have a GED? YES___, NO___. If yes, what year did you get your GED?_____ (If you have a GED go to question 6, If NO continue with question 5).
5. Did you graduate from high school? YES___, NO___.

YEAR GRADUATED_____
- NAME OF HIGH SCHOOL_____
- LOCATION OF HIGH SCHOOL_____
6. Did you start college immediately after you completed your high school education? YES___, NO___. (If NO, go to question 9, If YES, continue with question 7).
7. If you started college immediately after you completed your high school education, did you stop before completing your college education? YES___, NO___. If NO go to question 10. If YES, continue with question 8, then skip question 9).
8. Why did you stop before completing your college education? CHECK ALL THAT APPLY

To raise a family_____
Needed to get a job_____
Got married_____

Flunked out _____
 Went into military service _____
 Lost interest _____
 Lost control of my life _____
 Other(Please Specify) _____

9. Why didn't you come straight to college after completing your high school education?
CHECK ALL THAT APPLY

Got married _____
 Went to work _____
 Went into military service _____
 Wasn't interested _____
 Other(Please Specify) _____

10. What is your major? _____

11. What is your Grade Point Average? _____

12. Who pays for your education? CHECK ALL THAT APPLY

I do _____
 Parents(s) _____
 Spouse _____
 Partner _____
 I share the cost with my parents(s) _____
 I share the cost with my partner _____
 Employer _____
 I use financial aid _____
 Other(Please Specify) _____

13. How many years have you been attending Brooklyn College? _____

14. How many college credits do you have? _____

PRESENT ARRANGEMENT

15. How would you describe your present arrangement?

Married living with spouse _____
 Separated _____
 Divorced _____
 Widowed _____
 Single (never married) _____
 Single (living with partner) _____

16. If separated, divorced, widowed, or single never married, Do You?

Live alone _____
 Live with friend(s) _____
 Live with parent(s) _____
 Live with relative(s) _____
 Live with my children _____
 Other(Please Specify) _____

17. Do you?

Rent a house _____
 Rent an apartment _____
 Own your house _____
 Own your apartment _____
 Other(Please Specify) _____

18. Where do you live?

Brooklyn _____
 Bronx _____
 Manhattan _____
 Queens _____
 Staten Island _____
 Long Island _____
 Other(Please Specify) _____

19. Do you provide major financial support for your household? YES _____, NO _____. If YES, go to question 21. If NO, answer question 20.

20. Of the following, who contributes major financial support to your household.

Spouse _____
 Parent(s) _____
 Partner _____
 Sibling(s) _____
 Other(Please Specify) _____

EMPLOYMENT PROFILE

21. What is your present employment status?

Employed full-time (35 hours or more per/week) _____
 Employed part-time (less than 35 hours per/week) _____
 Employed part-time (less than 35 hours per/week) _____

Unemployed____
 Retired____
 Other(Please Specify)_____

ANSWER QUESTIONS 22 THROUGH 25 ONLY IF YOU ARE
 EMPLOYED FULL OR PART-TIME. OTHERWISE SKIP TO
 QUESTION 26

22. Do you have a second job? YES____, NO____

23. What kind of work do you do? (Be as specific as possible)

1st Job_____

2nd Job_____

24. What days and hours do you work?

<u>1st Job</u>		<u>2nd Job</u>	
<u>Days</u>	<u>Hours</u>	<u>Days</u>	<u>Hours</u>
Sunday	_____	Sunday	_____
Monday	_____	Monday	_____
Tuesday	_____	Tuesday	_____
Wednesday	_____	Wednesday	_____
Thursday	_____	Thursday	_____
Friday	_____	Friday	_____
Saturday	_____	Saturday	_____

25. My employment interferes with the classes which I take at Brooklyn College (CHECK ONE ONLY)

Frequently____ Occasionally____ Never____

DEPENDENTS

26. Do you have children? YES____, NO____
27. Do you take care of anyone on a consistent basis?
YES____, NO____, IF YES, What are their ages?
____' ____' ____' ____' ____'
28. Who has the primary responsibility for your children while you are at work? (Skip this question if you are not employed or you do not have children.)
- I do____
Family____
Friend(s)____
Child care service (Babysitter, Day Care, etc.)____
The children take care of themselves____
Spouse____
Other(Please Specify)_____
29. Who has the primary responsibility for your children while you are in school? (Skip this question if you do not have children.)
- I do____
Family____
Friend(s)____
Child care service (Babysitter, Day Care, etc.)____
The children take care of themselves____
Spouse____
Other(please Specify)_____
30. My responsibility for others interferes with the classes which I take at Brooklyn College (Skip this question if you are not responsible for others.)
- Frequently____ Occasionally____ Never____

COMMUTING

31. Where do you usually come from when you come to your class(es) at Brooklyn College?_____
32. What form(s) of transportation do you use to get to your class(es) at Brooklyn College?_____
33. What form(s) of transportation do you use to get home from Brooklyn College?_____

34. Commuting interferes with the class(es) which I take
at Brooklyn College

Frequently____ Occasionally____ Never____

SURVEY QUESTIONNAIRESECTION 2

The statements in this section are related to information that I have collected by interviewing a small group of Brooklyn College students. I want to find out how you feel about the issues which those students have raised. Please put a check mark underneath the term that most accurately reflects your response to the statement.

1. When I interviewed the small group of students, I asked what they thought the educational goals were of teachers with whom they had taken courses at Brooklyn College. They said that teachers have a variety of educational goals. Based on their experiences with different teachers, the small group of students said that the educational goals of teachers were those listed below. Please check whether you agree, disagree, or have no opinion.

	<u>CHECK ONE ONLY</u>		
	Agree	Disagree	No Opinion
To come to class with an open mind	___	___	___
To teach to the best of their ability	___	___	___
To take educational responsibility seriously	___	___	___
To generate excitement in students	___	___	___
To be flexible with students	___	___	___

If the above statements do not totally or accurately reflect your experience, is there anything that you want to add regarding what you think are the educational goals of teachers at Brooklyn College based on your experience?

2. While interviewing the small group of students, I asked each of them what he/she thought the educational goals were of administrators who are responsible for planning, organizing, leading, and controlling the utilization of institutional resources at Brooklyn College. They indicated that since they had interacted with administrators who serve in different capacities at the college, administrators have multiple educational goals.

Below is a list of statements which reflects what they think the educational goals of administrators at Brooklyn College are. Please check whether you agree, disagree, or have no opinion.

	<u>CHECK ONE ONLY</u>		
	Agree	Disagree	No Opinion
To provide educational programs	___	___	___
To plan educational programs	___	___	___
To maintain educational programs	___	___	___
To utilize the college's budget to benefit students	___	___	___

If the above statements do not accurately reflect your experience, is there anything that you want to add regarding the educational goals of administrators at Brooklyn College?

3. During the interview, I also asked each student to tell me what were his/her educational goals. The students indicated that their educational goals were those below. Please check whether you agree, disagree, or have no opinion.

	<u>CHECK ONE ONLY</u>		
	Agree	Disagree	No Opinion
To get a bachelors degree	_____	_____	_____
To prepare to compete in the workforce	_____	_____	_____
To learn	_____	_____	_____

If the above statements do not totally or accurately reflect your present educational goals, is there anything that you want to add regarding your educational goals?

4. During my interview with this small group of students, I asked each student to tell me what he/she thought happened when teachers' educational goals are positive, such as: coming to class with an open mind, teaching to the best of their ability, taking their educational responsibility seriously, generate excitement in students, and flexibility with students.

The students said the following occurred. Please check whether you agree, disagree, or have no opinion.

	<u>CHECK ONE ONLY</u>		
	Agree	Disagree	No Opinion
Students learn subject matter	___	___	___
Students apply what is learned	___	___	___
Students retain what is learned	___	___	___
Students enjoy their courses	___	___	___

If the above statements do not totally or accurately reflect your experience, is there anything that you want to add?

5. I asked each student whom I interviewed to tell me what he/she thought the outcomes would be when educational administrators at Brooklyn College pursued positive goals such as: providing educational programs for students, planning educational programs, maintaining educational programs, and utilizing the college's budget to benefit students. The students said the following occurred. Please check whether you agree, disagree, or have no opinion.

	<u>CHECK ONE ONLY</u>		
	Agree	Disagree	No Opinion
Feedback occurs between students and administrators	___	___	___
Cooperation occurs between students and administrators	___	___	___
Students finish their bachelors degree in a planned amount of time	___	___	___

If the above statements do not totally or accurately reflect your experience, is there anything that you want to add?

6. The students whom I interviewed were asked if there were situational barriers which they thought prevented them from achieving their educational goals. They indicated that there were barriers such as those below. Please check whether you agree, disagree, or have no opinion.

	<u>CHECK ONE ONLY</u>		
	Agree	Disagree	No Opinion
Budget	___	___	___
Abolished programs	___	___	___
Lack of appropriate course offerings	___	___	___
Lack of time to study	___	___	___
Lack of student services	___	___	___
Unavailable teachers	___	___	___
Attitudes of professional staff	___	___	___

If the above statements do not totally or accurately reflect your experience, is there anything that you want to add regarding situational barriers which prevent you from achieving your educational goals?

7. After the students whom I interviewed had suggested the barriers which they thought prevented them from achieving their educational goals, I asked if there were effective ways which students could use to cope with the existing barriers which prevented them from achieving their educational goals. The students suggested those listed below. Please check whether you agree, disagree, or have no opinion.

	<u>CHECK ONE ONLY</u>		
	<u>Agree</u>	<u>Disagree</u>	<u>No Opinion</u>
Time management	___	___	___
Planning	___	___	___
Studying hard	___	___	___
Part-time employment	___	___	___
Lobbying College Personnel	___	___	___
Study groups	___	___	___

If the above statements do not totally or accurately reflect your experience, is there anything that you want to add regarding effective ways which you utilize to cope with existing barriers which prevent you from achieving your educational goals?

8. When I asked the students whom I interviewed to tell me why they thought social relationships are formed among students, they suggested that social relationships are formed for the following reasons. Please check whether you agree, disagree, or have no opinion.

	<u>CHECK ONE ONLY</u>		
	Agree	Disagree	No Opinion
Establish mutual support	___	___	___
Make friends	___	___	___
Facilitate achievement of educational goals	___	___	___
Compare experiences	___	___	___
Compare educational goals	___	___	___
Stimulate Competition	___	___	___

If the above statements do not totally or accurately reflect your experience, is there anything that you want to add?

9. The small group of students whom I interviewed indicated that after they had formed social relationships with other students they had experienced the following reactions. Please check whether you agree, disagree, or have no opinion.

	<u>CHECK ONE ONLY</u>		
	Agree	Disagree	No Opinion
Enhanced self-esteem	___	___	___
Motivation	___	___	___
Feedback from others	___	___	___
Enhanced self-development	___	___	___

If the above statements do not totally or accurately reflect your experience, is there anything that you want to add?

A phase of my research focuses on features of the physical environment at Brooklyn College which attract students to the school, on features of the physical environment which discourage students from coming to the school, on features of the physical environment which support the achievement of students' educational goals, and on features of the physical environment which do not support the achievement of students' educational goals.

10. I asked the students whom I interviewed to identify features of the physical environment at Brooklyn College which attracted them to the school. They identified the following features. Please check whether you agree, disagree, or have no opinion.

	<u>CHECK ONE ONLY</u>		
	Agree	Disagree	No Opinion
Public transportation	___	___	___
The location (The geographical position of the school)	___	___	___
The campus grounds	___	___	___
The architecture of older buildings	___	___	___
The modern buildings	___	___	___
The Student Center	___	___	___
The library	___	___	___
The places for athletic activities	___	___	___

If the above statements do not totally or accurately reflect your experience, what other features of the physical environment which attracted you to Brooklyn College?

11. I also asked the students whom I interviewed to describe features of the physical environment which discourage them from coming to the school. They said that they were discouraged by the following features. Please check whether you agree, disagree, or have no opinion.

	<u>CHECK ONE ONLY</u>		
	Agree	Disagree	No opinion
The notion that the location of the school is stereotyped as unpleasant	___	___	___
The poor building maintenance	___	___	___
The large lecture halls	___	___	___
The non air-conditioned classrooms	___	___	___
The poorly heated classrooms	___	___	___
The locked doors and gates	___	___	___
The broken seats in classrooms	___	___	___
The graffiti on the walls of restrooms	___	___	___
The poor lighting in some classrooms	___	___	___

If the above statements do not totally or accurately reflect your experience, what other features of the physical environment discourage you from coming to Brooklyn College?

12. I asked students who I interviewed to tell me about any features of the physical environment which they felt did not support the achievement of their educational goals. They indicated the following features. Please check whether you agree, disagree, or have no opinion.

	<u>CHECK ONE ONLY</u>		
	Agree	Disagree	No Opinion
Coffee houses and restaurants in the vicinity of the college	---	---	---
The Computer Center	---	---	---
The library	---	---	---
The outdoor campus	---	---	---
The places for physical activity	---	---	---
The Student Union Building (SUBO)	---	---	---
Brooklyn College Cafeteria	---	---	---

If the above statements do not totally or accurately reflect your experience, what other features of the physical environment support the achievement of your educational goals?

13. I asked students whom I interviewed to tell me about any features of the physical environment which they felt did not support the achievement of their educational goals. They indicated the following features. Please check whether you agree, disagree, or have no opinion.

	<u>CHECK ONE ONLY</u>		
	Agree	Disagree	No Opinion
Lack of building maintenance	___	___	___
Cold classrooms in winter	___	___	___
Non air-conditioned classrooms	___	___	___
Lighting in some classrooms	___	___	___
Broken seats in classrooms	___	___	___
Hard to find classrooms and offices	___	___	___
Large lecture halls	___	___	___

If the above statements do not totally or accurately reflect your experience, is there anything that you want to add regarding features of the physical environment which do not support the achievement of your educational goals?

March 3, 1992

Dear Student:

I am an administrator of an undergraduate degree-bearing program for adult learners at Brooklyn College and a Ph.D. candidate at the Graduate School of the City University of New York. Currently I am engaged in dissertation research which investigates the educational experiences of undergraduate students. I am interested in the role of educational goals, social relationships, and physical environment in people's educational experiences.

Please fill out the attached questionnaire. It takes about one hour to complete. There is no identifying information on the questionnaire to directly link the responses to any participant. Your participation in the study is completely voluntary. Your consent or refusal to participate in this study will not affect your status as a student at Brooklyn College.

The results of the study will be summarized in a report and kept on file in room 3227 Boylan Hall for you to read if you desire to do so.

After you have completed the questionnaire, please return it to room 3227 Boylan Hall.

Please feel free to contact me at (718) 780-5525 with any questions concerning any part of this research.

Thank you in advance for your assistance.

Sincerely,

Richard Smith
Richard Smith

March 3, 1992

Dear Faculty Member:

I am an administrator of an undergraduate degree-bearing program for adult learners at Brooklyn College and a Ph.D. candidate at the Graduate School of the City University of New York. Currently I am engaged in dissertation research which investigates the educational experiences of undergraduate students. I am interested in the role of educational goals, social relationships, and physical environment in people's educational experiences.

Please fill out the attached questionnaire. It takes about one half hour to complete. There is no identifying information on the questionnaire to directly link the responses to any participant. Your participation in the study is completely voluntary.

The results of the study will be summarized in a report and kept on file in room 3227 Boylan Hall for you to read if you desire to do so.

After you have completed the questionnaire, please return it to room 3227 Boylan Hall.

Please feel free to contact me at (718) 780-5525 with any questions concerning any part of this research.

Thank you in advance for your assistance.

Sincerely,

Richard Smith
Richard Smith

APPENDIX B

Tables 09 through 21 show the core interview group or source(s) that provided the information which was used on the survey questionnaire which was ultimately circulated to a larger survey group of adult learners, traditional students, teachers, and administrators to be evaluated.

The above Tables also indicate the percentage of the larger survey group that agreed, disagreed or registered no opinion or no answer with respect to the information which the original source or core interview group provided. For example, the core interview group of adult learners and teachers indicated that time management was a strategy for coping with barriers to students' educational development. The survey group of adult learners and teachers supported the core interview group's contention.

TABLE 9

Components of the Physical Environment Which Support
Students' Educational Development

Adult Learners' Responses	Components	Source	Percent			
			Agree	Disagree	Opinion	No Answer
	Coffee Houses & Restaurants	[1] TS	41.9	17.6	39.0	1.4
	Computer Center	[2] ALL	83.3	2.4	13.3	.5
	Library	[3] ALL	73.8	6.7	19.0	.5
	Outdoor Campus	[4] AL&TS	52.4	7.6	39.5	.5
	Places for Physical Activity	[5] TS	31.9	10.5	56.6	.5
	Student Center	[6] TS	31.9	17.1	48.6	2.4
	College Cafeteria	[7] TS	33.3	13.3	51.9	1.4
<hr/> N=210						
Traditional Students' Responses		[1] TS	56.7	6.2	35.2	1.9
		[2] ALL	88.6	1.4	9.0	1.0
		[3] ALL	79.0	5.7	15.3	-
		[4] AL&TS	55.7	6.2	38.1	-
		[5] TS	36.7	10.0	53.3	-
		[6] TS	61.0	9.5	29.5	-
		[7] TS	43.8	9.5	45.7	1.0
<hr/> N=210						
Teachers' Responses		[1] TS	45.0	15.0	37.5	2.5
		[2] ALL	87.5	-	12.5	-
		[3] ALL	80.0	2.5	17.5	-
		[4] AL&TS	45.0	-	55.0	-
		[5] TS	22.5	5.0	72.5	-
		[6] TS	55.0	10.0	35.0	-
		[7] TS	47.5	2.5	50.0	-
<hr/> N=40						
Administrators' Responses		[1] TS	62.5	2.5	35.0	-
		[2] ALL	87.5	-	12.5	-
		[3] ALL	95.0	2.5	2.5	-
		[4] AL&TS	67.5	25.0	5.0	2.5
		[5] TS	35.0	7.5	55.0	2.5
		[6] TS	62.5	7.5	30.0	-
		[7] TS	42.5	15.0	42.5	-

N=40

SOURCE - Refers to the Core Interview Group that introduced the category (See preceding page for an explanation of source).

AL=Adult Learners, TS=Traditional Students,
T=Teachers, A=Administrators, All=AL,TS,T,A.

This information is true for Tables 10 through 21.

TABLE 10

Features of the Physical Environment Which Do Not
Support Students' Educational Development

Adult Learners' Responses		Percent			
		Agree	Disagree	Opinion	No Answer
Features	Source				
Lack of Bldg.Main.	[1]ALL	69.0	10.0	20.0	.5
Cold Classrooms in Winter	[2]AL,T & A	62.9	11.4	24.3	1.4
Non Air-Cond. Classrooms	[3]AL,T & A	80.5	3.8	15.2	.5
Lighting in Some Classrooms	[4]AL	73.8	9.0	16.2	1.0
Broken Seats in Classrooms	[5]TS	63.8	11.0	23.8	1.5
Hard to find Offices & Clasrms.	[6]TS&T	38.6	25.7	35.2	.5
Large Lect. Halls	[7]AL	24.3	25.2	50.0	.5
N=210					
Traditional Students' Responses	[1]ALL	69.0	10.5	20.0	.5
	[2]AL,T,A	67.1	10.5	21.9	.5
	[3]AL,T,A	77.1	6.2	16.7	-
	[4]AL	61.9	11.9	25.2	1.0
	[5]TS	58.1	11.9	30.0	-
	[6]TS&T	25.7	37.1	35.7	1.6
	[7]AL	25.2	33.4	41.4	-
N=40					
Teachers' Responses	[1]ALL	62.5	7.5	30.0	-
	[2]AL,T,A	50.0	12.5	37.5	-
	[3]AL,T,A	75.0	5.0	20.0	-
	[4]AL	57.5	7.5	35.0	-
	[5]TS	70.0	10.0	20.0	-
	[6]TS&T	27.5	25.0	47.5	-
	[7]AL	37.5	20.0	42.5	-
N=40					
Administrators' Responses	[1]ALL	62.5	20.0	15.0	2.5
	[2]AL,T,A	62.5	20.0	15.0	2.5
	[3]AL,T,A	90.0	7.5	2.5	-
	[4]AL	67.5	15.0	17.5	-
	[5]TS	65.0	17.5	17.5	-
	[6]TS&T	45.0	22.5	32.5	-
	[7]AL	30.0	25.0	45.0	-
N=40					
CODES:AL=Adult Learners,TS=Traditional Students, T=Teachers, A=Administrators, All=AL,TS,T,A					

TABLE 11

Features of the Physical Environment Which Attract
Students to the School

Adult Learners' Responses		Percent				
		Agree	Disagree	Opinion	No Answer	
Features	Source					
Public Trans. Location	[1] AL	75.3	5.2	19.5	-	
Campus Grounds	[2] AL	81.9	4.8	12.4	1.0	
Architecture of Older Bldgs.	[3] AL,TS	39.0	16.7	42.4	1.9	
Modern Buildings	[4] AL	24.3	20.0	54.7	1.0	
Student Center	[5] TS	25.7	23.8	49.5	1.0	
Places for Athletic Act.	[6] TS	23.7	21.0	54.8	.5	
Library	[7] TS	41.0	11.9	45.7	.4	
	[8] T	59.0	11.0	29.5	.5	
N=210						
Traditional Students' Responses	[1] AL	68.6	6.1	24.8	.5	
	[2] AL	71.0	10.0	19.0	-	
	[3] AL,TS	53.3	15.7	28.6	2.4	
	[4] AL	26.7	27.1	44.3	1.9	
	[5] TS	34.8	21.4	43.8	-	
	[6] TS	53.8	12.9	32.9	.5	
	[7] TS	51.4	11.4	37.2	-	
	[8] T	56.7	11.4	31.4	.5	
N=210						
Teachers' Responses	[1] AL	82.5	5.0	10.0	2.5	
	[2] AL	72.5	2.5	25.0	-	
	[3] AL,TS	42.5	5.0	52.5	-	
	[4] AL	15.0	20.0	62.5	2.5	
	[5] TS	30.0	15.0	55.0	-	
	[6] TS	45.0	5.0	50.0	-	
	[7] TS	40.0	10.0	50.0	-	
	[8] T	60.0	2.5	37.5	-	
N=40						
Administrators' Responses	[1] AL	72.5	5.0	22.5	-	
	[2] AL	72.5	7.5	20.0	-	
	[3] AL,TS	50.0	7.5	40.0	2.5	
	[4] AL	37.5	15.0	47.5	-	
	[5] TS	35.0	27.5	37.5	-	
	[6] TS	55.0	17.5	27.5	-	
	[7] TS	55.0	17.5	25.0	2.5	
	[8] T	82.5	2.5	12.5	2.5	

N=40

CODES:AL=Adult Learners, TS=Traditional Students,
T=Teachers, A=Administrators, All=AL,TS,T,A

TABLE 12

<u>Barriers to Students' Educational Development</u>					
<u>Adult Learners'</u>		<u>Percent</u>			
<u>Responses</u>		<u>Agree</u>	<u>Disagree</u>	<u>No Opinion</u>	<u>No Answer</u>
<u>Barriers</u>	<u>Source</u>				
Budget Cuts	[1]ALL	94.3	.5	1.4	3.8
Abolished Programs	[2]A	96.2	.5	2.9	.5
Lack of Appropriate Course Offerings	[3]AL,T	94.8	3.8	1.4	-
Classroom Atmosphere	[4]AL	68.1	5.2	26.2	.5
Lack of Time to Study	[5]AL	85.7	2.9	9.0	2.4
Lack of Student Services	[6]A	86.2	2.4	11.4	-
Unavailable Teachers	[7]TS	82.4	4.8	11.4	1.4
Attitudes of Professional Staff	[8]TS	67.6	4.8	23.8	3.8
<u>N=210</u>					
Traditional Students' Responses	[1]ALL	91.9	1.9	6.2	-
	[2]A	93.8	1.4	4.8	-
	[3]AL,T	66.7	1.4	31.4	.5
	[4]AL	62.4	8.6	29.0	-
	[5]AL	78.6	2.4	15.2	3.8
	[6]A	59.0	.5	39.5	1.0
	[7]TS	74.8	4.3	20.5	.5
	[8]TS	67.5	4.8	24.8	2.9
<u>N=210</u>					
Teachers' Responses	[1]ALL	85.0	-	12.5	2.5
	[2]A	87.5	-	10.0	2.5
	[3]AL,T	75.0	-	22.5	2.5
	[4]AL	62.5	5.0	30.0	2.5
	[5]AL	80.0	-	17.5	2.5
	[6]A	67.5	5.0	25.0	2.5
	[7]TS	70.0	2.5	22.5	5.0
	[8]TS	65.0	7.5	25.0	2.5
<u>N=40</u>					
Administrators' Responses	[1]ALL	95.0	-	2.5	2.5
	[2]A	97.5	-	2.5	-
	[3]AL,T	80.0	-	20.0	-
	[4]AL	70.0	7.5	22.5	-
	[5]AL	80.0	2.5	12.5	5.0
	[6]A	70.0	-	30.0	-
	[7]TS	90.0	5.0	5.0	-
	[8]TS	62.5	7.5	30.0	-
<u>N=40</u>					
CODES:AL=Adult Learn.,TS=Trad. Student,T=Teach.,A=Admini.					

TABLE 13

Strategies for Coping With Barriers to Students'
Educational Development

Adult Learners' Responses	Source	Percent			
		Agree	Disagree	Opinion	No Answer
<u>Strategies</u>					
Time Management	[1]AL,T	95.2	.5	3.8	.5
Planning	[2]AL	97.6	.5	1.4	.5
Studying	[3]TS	96.6	.5	2.4	.5
Part-Time Employment	[4]AL	45.2	8.5	44.8	1.5
Lobbying College Personnel	[5]AL	56.2	9.0	34.3	.5
Study Groups	[6]TS	71.9	1.9	28.8	1.4
<hr/> N=210					
Traditional Students'	[1]AL,T	92.9	1.0	6.1	-
Responses	[2]AL	91.4	-	8.1	.5
	[3]TS	91.4	.5	8.1	-
	[4]AL	41.0	14.8	43.2	1.0
	[5]AL	61.9	5.7	32.4	-
	[6]TS	65.7	4.3	28.1	1.9
<hr/> N=210					
Teachers'	[1]AL,T	92.5	-	5.0	2.5
Responses	[2]AL	92.5	-	5.0	2.5
	[3]TS	95.5	-	2.5	2.5
	[4]AL	35.0	7.5	52.5	5.0
	[5]AL	45.0	7.5	45.0	2.5
	[6]TS	65.0	5.0	27.5	2.5
<hr/> N=40					
Administrators'	[1]AL,T	97.5	-	2.5	-
Responses	[2]AL	97.5	-	2.5	-
	[3]TS	92.5	-	7.5	-
	[4]AL	40.0	10.0	50.0	-
	[5]AL	50.0	5.0	42.5	2.5
	[6]TS	80.0	2.5	15.0	2.5

CODES: AL=Adult Learners, TS=Traditional Students,
T=Teachers, A=Administrators

TABLE 14

Features of the Physical Environment Which Discourage Students from Coming to the College					
Adult Learners' Responses (N=210)			Percent		
Features	Sources	Agree	Disagree	No Opinion	No Answer
Location Stereotyped	[1]TS	27.6	25.2	46.2	1.0
Poor Bldg. Main.	[2]AL	52.4	19.5	28.1	-
Lge. Lecture Halls	[3]AL	21.9	32.4	44.3	1.4
Poorly Heated Crms	[4]AL	52.9	14.7	32.4	-
Non air-cond. Crms	[5]AL	71.4	9.5	18.6	.5
Locked Doors & Gates	[6]TS,A	43.3	18.2	37.1	1.4
Unsanitary Bathrms	[7]AL	82.8	6.7	9.5	1.0
Broken Seats in Crms	[8]TS	66.2	8.0	24.8	1.0
Graffiti on Walls	[9]AL	63.3	7.6	28.1	1.0
Light in Some Crms	[10]AL,TS	72.4	6.1	20.5	1.0
Traditional Students' Responses (N=210)	[1]TS	35.7	20.5	41.4	2.4
	[2]AL	44.3	19.5	36.2	-
	[3]AL	20.5	39.5	39.5	.5
	[4]AL	48.1	21.4	30.5	-
	[5]AL	57.6	16.2	26.2	-
	[6]TS,A	46.7	20.0	32.8	.5
	[7]AL	78.6	5.2	15.7	.5
	[8]TS	60.0	8.5	31.0	.5
	[9]AL	65.7	6.7	27.6	-
	[10]AL,TS	71.4	8.6	19.5	.5
Teachers' Responses (N=40)	[1]TS	17.5	20.0	60.0	2.5
	[2]AL	50.0	12.5	37.5	-
	[3]AL	20.0	30.0	50.0	-
	[4]AL	47.5	15.0	35.0	2.5
	[5]AL	57.5	12.5	30.0	-
	[6]TS,A	35.0	12.5	52.5	-
	[7]AL	70.0	5.0	25.0	-
	[8]TS	65.0	10.0	25.0	-
	[9]AL	60.0	10.0	30.0	-
	[10]AL,TS	65.0	10.0	25.0	-
Administrators' Responses (N=40)	[1]TS	32.5	17.5	47.5	2.5
	[2]AL	45.0	25.0	30.0	-
	[3]AL	22.5	37.5	40.0	-
	[4]AL	50.0	25.0	25.0	-
	[5]AL	57.5	17.5	25.0	-
	[6]TS,A	42.5	25.0	32.5	-
	[7]AL	65.0	12.5	20.0	2.5
	[8]TS	60.0	17.5	22.5	-
	[9]AL	62.5	22.5	15.0	-
	[10]AL,TS	70.0	15.0	15.0	-

CODES:AL=Adult Learn.,TS=Trad. Students.,T=Teach.,A=Adm.

TABLE 15

<u>Administrators' Educational Goals</u>					
<u>Adult Learners'</u>		<u>Percent</u>			
<u>Responses</u>		<u>Agree</u>	<u>Disagree</u>	<u>No Opinion</u>	<u>No Answer</u>
<u>Goals</u>	<u>Source</u>				
Provide Ed. Programs	[1]A	87.1	3.8	8.1	1.0
Plan Ed. Programs	[2]AL,A	87.6	1.9	10.0	.5
Maintain Ed. Programs	[3]AL,A	83.8	7.1	8.6	.5
Utilize Budget to Benefit Students	[4]AL	73.3	11.4	14.8	.5
<u>N=210</u>					
Traditional Students' Responses	[1]A	79.0	5.8	15.2	-
	[2]AL,A	75.2	5.3	19.5	-
	[3]AL,A	73.8	10.0	15.7	.5
	[4]AL	61.9	21.0	17.1	-
<u>N=210</u>					
Teachers' Responses	[1]A	77.5	7.5	12.5	2.5
	[2]AL,A	80.0	5.0	12.5	2.5
	[3]AL,A	85.0	2.5	7.5	5.0
	[4]AL	67.5	10.0	20.0	2.5
<u>N=40</u>					
Administrators' Responses	[1]A	72.5	-	27.5	-
	[2]AL,A	75.0	2.5	22.5	-
	[3]AL,A	82.5	2.5	15.0	-
	[4]AL	62.5	15.0	22.5	-
<u>N=40</u>					

CODES: AL=Adult Learners, A=Administrators

TABLE 16

Outcomes of Administrators'
Positive Educational Goals

Adult Learners' Responses	Source	Percent			
		Agree	Disagree	Opinion	No Answer
<u>Outcomes</u>					
<u>Feedback Occurs</u>					
Between Students and Administrators	[1]AL	57.6	10.5	31.9	-
<u>Cooperation Occurs</u>					
Between Students and Administrators	[2]AL	43.8	17.1	39.0	-
Students finish their Bachelors Degree in Planned Time	[3]AL,A	49.0	18.6	31.4	1.0
N=210					
Traditional Students'	[1]AL	53.8	9.0	37.1	-
Responses	[2]AL	46.2	18.1	35.2	.5
	[3]AL,A	47.6	20.0	31.9	.5
N=210					
Teachers' Responses	[1]AL	50.0	15.0	35.0	-
	[2]AL	47.5	7.5	42.5	2.5
	[3]AL,A	65.0	12.5	22.5	-
N=40					
Administrators' Responses	[1]AL	60.0	-	40.0	-
	[2]AL	52.5	10.0	37.5	-
	[3]AL,A	55.0	12.5	30.0	2.5
N=40					
CODES: AL=Adult Learners, A=Administrators					

TABLE 17

Teachers' Educational Goals						
Adult Learners' Responses	Goals	Source	Percent			No Answer
			Agree	Disagree	Opinion	
	Come to Class With an Open Mind	[1]AL,T	85.7	3.3	11.0	-
	Teach to Best of Ability	[2]AL,T	92.9	1.9	5.2	-
	Take Educational Responsibility Seriously	[3]AL,T	87.6	2.9	8.1	1.4
	Generate Excitement Students	[4]T	71.9	6.2	21.4	.5
	Flexibility With Students	[5]AL	57.1	8.1	33.8	1.0
N=210						
Traditional Students' Responses		[1]AL,T	74.3	4.3	20.5	1.0
		[2]AL,T	85.2	2.9	11.9	-
		[3]AL,T	83.3	2.9	13.3	.5
		[4]T	53.8	11.9	33.8	.5
		[5]AL	42.8	11.9	44.8	.5
N=210						
Teachers' Responses		[1]AL,T	75.0	-	25.0	-
		[2]AL,T	90.0	2.5	7.5	-
		[3]AL,T	82.5	-	15.0	2.5
		[4]T	67.5	5.0	27.5	-
		[5]AL	35.0	-	57.5	7.5
N=40						
Administrators' Responses		[1]AL.T	77.5	2.5	17.5	2.5
		[2]AL,T	87.5	2.5	10.0	-
		[3]AL.T	90.0	-	10.0	-
		[4]T	55.0	2.5	42.5	-
		[5]AL	45.0	10.0	45.0	-
N=40						
CODES: AL=Adult Learners, T=Teachers						

TABLE 18

Outcomes of Positive Teachers'
Educational Goals

Adult Learners' Responses	Outcomes	Source	Percent			
			Agree	Disagree	No Opinion	No Answer
<hr/>						
Students Learn	Subject Matter	[1]AL	81.4	3.3	14.8	.5
Students Apply	What is Learned	[2]AL	72.9	7.6	19.5	-
Students Retain	What is Learned	[3]T	61.0	8.0	30.0	1.0
Students Enjoy	Courses	[4]AL	63.3	8.6	27.6	.5
<hr/>						
N=210						
Traditional		[1]AL	79.5	3.8	16.7	-
Students'		[2]AL	66.2	7.1	26.7	-
Responses		[3]T	55.2	14.3	30.0	.5
		[4]AL	61.0	15.2	23.8	-
<hr/>						
N=210						
Teachers'		[1]AL	77.5	2.5	17.5	2.5
Responses		[2]AL	75.0	5.0	20.0	-
		[3]T	65.0	10.0	25.0	-
		[4]AL	77.5	2.5	17.5	2.5
<hr/>						
N=40						
Administrators'		[1]AL	80.0	-	20.0	-
Responses		[2]AL	62.5	-	37.5	-
		[3]T	62.5	7.5	27.5	2.5
		[4]AL	47.5	10.0	42.5	-
<hr/>						
N=40						
CODES: AL=Adult Learners, T=Teachers						

TABLE 19

<u>Reasons Why Students Form A Social Relationship</u>						
<u>Adult Learners'</u>		<u>Percent</u>				
<u>Responses</u>		<u>No</u>		<u>No</u>		
		<u>Agree</u>	<u>Disagree</u>	<u>Opinion</u>	<u>Answer</u>	
<u>Reasons</u>	<u>Source</u>					
Establish Mutual Support	[1]AL,T,A	82.3	4.8	12.9	-	
Make Friends	[2]AL,TS	70.0	3.8	25.7	.5	
Facilitate Achievement of Educational Goals	[3]T,A	72.8	6.7	20.5	-	
Compare Experiences	[4]AL	74.8	4.7	20.0	.5	
Compare Educational Goals	[5]AL	71.9	5.7	21.0	1.4	
Stimulate Competition	[6]TS	44.8	17.1	38.1	-	
<u>N=210</u>						
Traditional Students' Responses	[1]AL,T,A	78.1	4.8	17.1	-	
	[2]AL,TS	82.3	2.9	13.8	1.0	
	[3]T,A	67.2	7.1	25.2	.5	
	[4]AL	71.0	5.2	23.8	-	
	[5]AL	70.0	5.7	23.8	.5	
	[6]TS	43.8	16.2	40.0	-	
<u>N=210</u>						
Teachers' Responses	[1]AL,T,A	85.0	2.5	12.5	-	
	[2]AL,TS	70.0	7.5	20.0	2.5	
	[3]T,A	72.5	7.5	17.5	2.5	
	[4]AL	75.0	5.0	20.0	-	
	[5]AL	72.5	5.0	22.5	-	
	[6]TS	27.5	22.5	50.0	-	
<u>N=40</u>						
Administrators' Responses	[1]AL,T,A	72.5	2.5	25.0	-	
	[2]AL,TS	65.0	2.5	30.0	2.5	
	[3]T,A	62.5	2.5	35.0	-	
	[4]AL	67.5	7.5	22.5	2.5	
	[5]AL	55.0	12.5	32.5	-	
	[6]TS	35.0	12.5	52.5	-	
<u>N=40</u>						
CODES:AL=Adult Learners,TS=Traditional Students, T=Teachers, A=Administrators						

TABLE 20

<u>Outcomes of Social Relationships Among Students</u>						
<u>Adult Learners'</u>		<u>Percent</u>				
<u>Responses</u>		<u>Agree</u>	<u>Disagree</u>	<u>No</u>	<u>No</u>	
<u>Outcomes</u>	<u>Source</u>			<u>Opinion</u>	<u>Answer</u>	
Enhanced Self-Esteem	[1]AL	76.1	6.7	16.7		.5
Motivation	[2]AL,T,A	81.4	3.8	13.8		1.0
Feedback From Others	[3]AL	81.4	3.8	14.3		.5
Enhanced Self-Development	[4]AL	74.8	5.7	19.5		-
<u>N=210</u>						
Traditional	[1]AL	70.0	7.1	21.9		1.0
Students'	[2]AL,T,A	76.7	3.3	18.1		1.9
Responses	[3]AL	79.6	3.8	15.2		1.4
	[4]AL	71.4	5.7	20.5		2.4
<u>N=210</u>						
Teachers'	[1]AL	82.3	2.5	22.5		2.5
Responses	[2]AL,T,A	77.5	-	22.5		-
	[3]AL	87.5	5.0	7.5		-
	[4]AL	80.0	2.5	17.5		-
<u>N=40</u>						
Administrators'	[1]AL	72.5	2.5	25.0		-
Responses	[2]AL,T,A	82.5	-	17.5		-
	[3]AL	82.5	-	17.5		-
	[4]AL	75.0	2.5	22.5		-
<u>N=40</u>						
CODES: AL=Adult Learners, T=Teachers, A=Administrators						

TABLE 21

Students' Educational Goals					
Adult Learners' Responses		Percent			
		Agree	Disagree	No Opinion	No Answer
Goals	Source				
Bachelors Degree	[1]ALL	79.0	2.9	17.1	1.0
Prepare to Compete in Workforce	[2]AL,T,A	85.2	1.9	12.9	-
Learn	[3]AL	90.5	2.4	7.1	-
N=210					
Traditional	[1]ALL	91.4	.5	8.1	-
Students'	[2]AL,T,A	91.0	8.1	1.0	-
Responses	[3]AL	83.4	5.2	11.4	-
N=210					
Teachers'	[1]ALL	97.5	-	2.5	-
Responses	[2]AL,T,A	85.0	-	12.5	2.5
	[3]AL	85.0	-	12.5	2.5
N=40					
Administrators'	[1]ALL	65.0	-	35.0	-
Responses	[2]AL,T,A	82.5	5.0	12.5	-
	[3]AL	92.5	-	7.5	-
N=40					

CODES: AL=Adult Learners, T=Teachers, A=Administrators,
ALL=AL,T,A

REFERENCES

- Alford, H. J. (1968). Continuing education in action: Residential centers for lifelong learning. New York: Wiley & Sons.
- Becker, F., Sommer, R., Bee, J., and Oxley, B. (1973). College classroom ecology. Sociometry, 36 (4), 514-525.
- Boggs, D. H., and Simon, J. R. (1968). Differential effect of noise on tasks of varying complexity. Journal of Applied Psychology, 52, 148-153.
- Botsman, P. B. (1975). The learning needs and interests of adult blue collar factory workers. Ithaca: New York State College of Human Ecology.
- Broadbent, D. E. (1954). Some effects of noise on visual performance. Quarterly Journal of Experimental Psychology, 6, 1-5.
- _____. (1958). Effect of noise on an intellectual task. Journal of the Acoustical Society of America, 30, 824-827.
- _____. (1971). Decision and stress. New York: Academic Press.
- Bronzaft, A. L., and McCarthy, D. P. (1975). The effect of elevated train noise on reading ability. Environment and Behavior, 7, 517-529.
- Butler, D. L., and Biner, P. m. (1987). Preferred lighting levels: Variability among settings, behaviors, and individuals. Environment and Behavior, 19 (6), 696-721.
- Castaldi, B. (1969). Creative planning of educational facilities. Chicago: Rand McNally.
- Chiles, W. D. (1958). Effects of elevated temperatures on performance of complex mental task. Ergonomics 1, 89-96.
- Clark, H. F., and Sloan, H. S. (1966). Classrooms on main street. New York: Teachers College.

- Cohen, S., Glass, D. C., and Singe, J.E. (1973). Apartment noise, auditory discrimination, and reading ability in children. Journal of Experimental Social Psychology, 9, 407-422.
- Cohen, S., Evans, G. W., Krantz, D. S., and Stokols, D. (1980). Physiological, motivational, and cognitive effects of aircraft noise on children: Moving from the laboratory to the field. American Psychologist, 35, 231-243.
- Coleman, T. (1972). Going to America. New York: Pantheon.
- Cooper, C. (1974). The house as symbol of the self. In J. Lang, C. Burnette, W. Moleski, and D. Vachon (Eds.), Designing for human behavior (pp. 130-146). Stroudsburg, PA: Dowden, Hutchinson, and Ross.
- Cremin, L. A. (1970). American Education: The colonial experience 1607-1783. New York: Harper and Row.
- _____. (1980). American Education: The national experience 1783-1876. New York: Harper and Row.
- Cross, K. P. (1981). Adults as learners. San Francisco: Jossey-Bass.
- Cubberley, E. P. (1920). The history of education. Boston: Houghton Mifflin.
- Elias, J. L., and Merriam, S. (1980). Philosophical foundations of adult education. Florida: Krieger.
- Eschenbrenner, A. J., Jr. (1971). Effects of intermittent noise on the performance of a complex psychomotor task. Human Factors, 12, 59-63.
- Finkelman, J. M., and Glass, D. C. (1970). Reappraisal of the relationship between noise and human performance by means of a subsidiary task measure. Journal of Applied Psychology, 54, 211-213.
- Getzels, J.W. (1974). Images of the classroom and visions of the learner. School Review, 82 (4), 527-540.

- Goldman, R. E. (1981). The classroom as living room: Using group support systems to promote student retention and cognitive growth in adult developmental students. Los Angeles: American Educational Research Association Conference. (ERIC Document Reproduction Service No. ED 203 792).
- Good, H. G., and Teller, J. D. (1973). A history of American education. New York: Macmillan.
- Hiemstra, R. P. (1972). Continuing education for the aged: A Survey of needs and interests of older people. Adult Education, 22 (2), 100-109.
- Horowitz, H. L. (1985). Design and experience in the women's colleges from their nineteenth century beginnings to the 1930's. New York: Knopf.
- _____. (1987). Undergraduate cultures from the end of the eighteenth century to the present. New York: Knopf.
- Houle, C. O., et al, (1938). Adult Education. New York: McGraw-Hill.
- Illinois, State of, Board of Higher Education (1980). Report on the 1978-79 survey of adult learners. Springfield: Illinois Board of Higher Education.
- Jenkins, D.S. (1960). Conditions underlying good learning. In M. V. Miller (Ed.), On teaching adults. Boston: Center for the Study of Liberal Education for Adults.
- Jerison, H. J. (1969). Effects of noise on human performance. Journal of Applied Psychology, 43, 96-101.
- Karmel, L. (1965). Effects of windowless classroom environment on high school students. Perceptual and Motor Skills, 20, 277-278.
- Katz, M. (1971). Class, bureaucracy and school. New York: Praeger.
- Knowles, M. S. (1977). A history of the adult education movement in the United States. Malabar, FL: Krieger.

- Kraut, A. M. (1982). The huddled masses: The immigrant in American society, 1880-1921. IL: Davidson.
- Leavitt, J., and Saegert, S. (1989). From abandonment to hope: Community households in Harlem, New York. New York: Columbia University Press.
- Levinson, D. J. (1978). The seasons of a man's life. New York: Knopf.
- Lindeman, E. C. (1926). The meaning of adult education. New York: Republic.
- Logan, H. L., and Berger, E. (1961). Measurement of visual information cues. Illuminating Engineering, 56, 393-403.
- Long, H. B. (1976). Continuing education of adults in Colonial America. Syracuse, NY: Syracuse University.
- McClintock, J., and McClintock, R. (Eds.), (1970). Henry Barnard's School Architecture. New York: Teachers College Press.
- McDonald, E. G. (1960). Effect of school environment on teacher and student performance. Air Conditioning, Heating & Ventilation, 57, 78-79.
- Manchester, W. (1974). The glory and the dream. Boston: Little, Brown & Co.
- Mayo, G. D. (1955). Effect of temperature upon technical training. Journal of Applied Psychology, 29, 244-249.
- Miller, H. L. (1967). Participation of adults in education: A force-field analysis. Boston: Center for the Study of Liberal Education for Adults, Boston University.
- Moos, R. H. (1979). Evaluating educational environments. San Francisco: Jossey-Bass.
- Moos, R. H., and Gerst, M. (1974). The University Residence Environment Scale Manual. Palo Alto, CA: Consulting Psychologists Press.

- Murgatroyd, S. (1977). Observing adult learning groups. Studies in Adult education, 9 (2), 177-196.
- Nolan, J. A. (1960). Influence of classroom temperature on academic learning. Automated Teaching Bulletin: 1, 33-38.
- Oregon School Study Council, Eugene (1987). Celebrating students' diversity through learning styles. Oregon School Study Council Bulletin, 30 (9), 8-12.
- Papa-Lewis, R., and Cornell, C. E. (1987). Selecting the best lighting for your school facility. School-Business-Affairs, 53 (1), 32-35.
- Proshansky, E., and Wolfe, M. (1974). The physical setting and open education. In T. G. David and B. D. Wright (Eds.), Learning Environments (pp. 31-48). Chicago: The University of Chicago Press.
- Proshansky, H. M., and Fabian, A. K. (1987). The development of place identity in the child. In C. S. Weinstein, and T. G. David (Eds.), Spaces for children: The built environment and child development (pp. 21-40). New York: Plenum Press.
- Rapoport, A. (1969). House form and culture. Englewood Cliffs: Prentice-Hall.
- Seybolt, R. F. (1971). The evening school in America. New York: Arno Press.
- Sinclair, A. (1967). A concise history of the United States. New York: Viking Press.
- Smith, R. (1989). Adult education and the physical environment: An investigation of adult students' expectations, feelings, and views. Unpublished manuscript, The City University of New York, Ph.D. Program in Environmental Psychology, New York.
- Spring, J. H. (1972). Education and the rise of the corporate state. Boston: Beacon Press.
- SPSS Inc. (1988c). SPSS/PC+ V4.0 update manual. Chicago: SPSS Inc.

- Stein, C. S. (1978). Toward new towns for America. Cambridge: M. I. T. Press.
- Steltenpohl, E., and Shipton, J. (1986). Facilitating a successful transition to college for adults. Journal of Higher Education, 57 (6), 637-658.
- Stires, L. (1980). Classroom seating, location, student grades and attitudes: Environment or self-selection? Environment and Behavior, 12 (2), 241-254.
- Thronrdike, E. L., McCall, W., and Chapman, J. (1916). Ventilation in relation to mental work. Contributions to Education, 27, 1-88.
- U. S. Department of Education (1987). The condition of education: A statistical report. Center for Educational Research. Washington, DC.
- Verner, C. (1964). Definitions of terms. In G. Jensen, A. A. Liveright, W. Hallenbeck (Eds.). Adult education: Outlines of an emerging field of university study. Adult Education Association of the U. S. A.
- Vincent, J. (1959). The rationale of the Chatauqua Movement. In C. H. Gratian (Ed.). American ideas about adult education (pp. 112-132). New York: Teachers College.
- Weinstein, C. S. (1987). Designing pre-school classrooms to support development: Research and reflection. In C. S. Weinstein and T. G. David (Eds.). Spaces for children: The built environment and child development (pp. 159-181). New York: Plenum Press.
- Werthman, C. (1968). The social meaning of the physical environment. Ph.D. dissertation in sociology, University of CA, Berkeley.
- Wilkinson, R. T., Fox, R. H., Goldsmith, R., Hampton, I. F., and Lewis, H. E. (1964). Psychological and physical responses to raised body temperatures. Journal of Applied Psychology, 29, 287-292.
- Woodhead, M. M. (1964). Visual searching in intermittent noise. Journal of Sound Vibration, 1, 157-161.