THE HOUSING GAME: A SIMULATION GAME OF HOUSING CHOICES

By

SHARON LEE BURGESS

Bachelor of Science

Oklahoma State University

Stillwater, Oklahoma

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Thesis Adviser

Dean of the Graduate College

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CHAPTER I

INTRODUCTION

Since man first sought refuge from the elements of weather, he has been concerned with housing. The continuous progression of technology has not left the area of shelter untouched, and consequently, man's expectations, desires and demands have steadily increased. People soon begin to "need" things and services that were formerly luxuries afforded only a few.

Like food and clothing, housing is of concern to all members of society. According to Meyerson, Terett and Wheaton (1962, p. 4),

> Everyone has a stake in housing: some only as consumers and taxpayers, others as builders, building laborers, mortgage lenders, landlords, building materials and equipment suppliers, building code and zoning officials, Federal appraisers, housing inspectors, public officials responsible for schools, highways, public works, fire and police, and finally, as businessmen--merchants and industrialists.

Housing education has not historically received much recognition as an important field of study, even though people in all facets of society make many far reaching personal and family decisions concerning housing. Faulty housing decisions have often led to much unhappiness and even to disaster. It is of increasing importance to help people make these decisions and "To create an awareness of the housing needs of contemporary families and how these may be met in our culture now and in the future" (McKinney, 1972, p. 1).

Statement of Problem

The purpose of the study was to develop a simulation game to be used as a teaching device in a beginning or intermediate Housing and Interior Design course on the college level, and to develop a questionnaire to obtain reactions of the participants of the game.

Significance and Background

Housing

Gross and Crandall (1963) recognize that decent housing is "...a justifiable aim for all families." They state further that not only is the number of dwellings important but also the adequacy of those dwellings. In order to understand what will make the housing adequate, "We need more understanding of family life today and of the physical setting required to enhance it..." (Agan, 1972, p. 17). Agan lists the reasons that 2.6 million new housing units will be needed yearly until 1980.

1. It is believed that during the decade of the seventies, 1.3 million new households will be formed annually.

2. The number of one-person households is increasing rapidly.

3. The number of two-person households has also risen proportionately, with less larger households and almost no three generation households.

4. With the Federal Government becoming more involved in the housing market, the scrapping of substandard dwellings will increase. There will be low-cost public housing, low-cost loans, rent subsidies, and rehabilitation projects for urban renewal.

5. The rising level of personal income will stimulate the demand

for housing. Many will own two houses, others will want to move up to a "better" house.

6. The distress with the conditions within the dense population centers has brought a demand for new housing in outlying areas. "Housing adapted to the preferred life style and available at costs affordable by the person" (Agan, p. 19) is the goal designers and planners must strive for in their educational and professional pursuits.

Simulation Gaming

Within the last decade, educators have increasingly been aware of the need to make learning more closely related to the social sphere and all the activities in which one becomes engaged in life during and after school. A continually growing number of teachers and researchers have become involved in designing and implementing simulation games as a way of meeting this need for "relevancy."

The information in support of simulation gaming is quite impressive. The advantages of including this technique in a learning environment are numerous. One advantage of gaming in education is "...that it often leads to more imaginative and less emotional decisions" (Abt, 1970, p. 103).

Educators have ascertained that to be most meaningful, learning must take place through interaction of the person with his environment (Tuckman, 1969). That is basically what is meant by educational simulation gaming. Ward and Koeninger (1971) have formulated a definition for simulation as a representation "... of the central features of a real circumstance aimed at providing the learner with a relatively safe, simplified and germane learning environment" (p. 4). The designer is able

to pull out the essential elements of reality and put together a situation which gives the student a chance to practice theories and abilities, while not threatening him with real life consequences. Simulation gaming can make some real contributions to education including housing education which is still relatively untapped.

CHAPTER II

REVIEW OF LITERATURE

This study involved the development of a simulation game for use as a teaching device for a beginning or intermediate course in Housing and Interior Design at Oklahoma State University. The review of related literature is presented in two sections. The first section deals with housing as an aspect of society and as a field of study. Simulation games and their roles as educational tools make up the concluding area.

Housing

Housing and Society

The growth of housing is directly related to the growth of the population. Spengler (1968, p. 5) feels that "... the role of housing is significantly affected by the growth and concentration of population, control of which is essential to the easing of the so-called housing problem." If those concerned about housing are to make any gains on the housing situation, they must be able to predict population trends and foresee ways of meeting these changes. The world populations are increasing at a rate that is alarming to many scientists and statisticians. Many of the reasons for concern about population growth relate to housing.

With the increasing ability of man to lower the death rate through improved medical care and better eating habits, the rise in world

population and even the lesser rate of this country are posing a threat to the quality of life and possibly to life itself. The Commission on Population Growth and the American Future has pointed out that the total of the world's population has doubled in the last fifty years, and the rate of growth as projected now appears to double every seventy years. The population growth of the United States is leveling off, but the problems are not ending. A continuation of this rate would mean that in a few hundred years, there would only be enough space for "... one square yard per person over the whole face of the earth, including oceans and mountains" (Agan, 1972, p. 16).

One of the major trends of the population and technology growth is the move to metropolitan areas. The Commission (1972) has stated that while most families live in metropolitan areas and most migration is toward these areas, the traditions and memories are of small towns and farms. In fact, in 1900 60 percent of the population was rural and today it is two-thirds metropolitan. The people are still trying to cope with this rapid transition. Little and Mitchell (1971, p. 2) claim that "megalopolis is where some three-quarters of all Americans live--yet it is but two percent of the land area of the United States." The Commission's Report further states that "population growth <u>is</u> metropolitan growth in the contemporary United States, and it means different things to different people" (p. 25). The space of American cities has grown even faster than their population, and is claiming more than a million acres of land a year. Little and Mitchell make another thought provoking statement--that if there is no green, open space nearby people are not going to survive.

An accompanying problem of the rapid growth of population and

increasing technology is that of the rapid consumption of natural resources and open space. Ehrlich and Harriman (1971, p. 5) have stated that "we are all completely dependent upon the life-support systems of our planet for every bit of our food, for the oxygen in our atmosphere, for the purity of that atmosphere, and for the disposal of our wastes." Even though the United States is not posing the extreme threat to world population that many developing countries are, its use of resources and potential damage to the environment are greater than that of any other country (Commission Report, 1972). Production of housing for the populace makes use of many resources and much space. Technology has the opportunity and the obligation to provide better planned, more efficient use of natural resources and natural open space to give man a system of shelter that will prolong his life and enhance it. Recently, the speed of change has not allowed time for evaluation of where technology is now, to give an indication of where it should go (Agan, 1972). This time must be found and there must be people prepared to do the evaluation.

Another trend in population growth and change, besides increasing the total number of people and their consumption of natural resources, is altering the age make up of the population. In fact, for the first time "... the aged and the youth almost balance out" in the United States (Agan, 1972, p. 15). This situation poses some special problems about which many people and groups are becoming concerned. The aged have special problems, including housing, which affect the society as a whole and for which solutions must be found.

Studies have shown that a large portion of the aged live in cities and a great number of these city dwellers reside in decaying

neighborhoods in the core area. Although a large number of retired persons own a home, the value of most of their homes is low. These dwelling units are frequently old and in a state of disrepair, often lacking sufficient heating and plumbing (Montgomery, 1972). Many of the programs of the federal government, in efforts to provide better housing, have displaced older residents. Riley and Foner (1968) discovered that of some 220,000 households relocated by urban renewal between 1949 and 1963 about one-fifth of them were headed by those aged sixty or more.

The suitability of housing facilities is important to all persons of the society, but especially to those of the upper age brackets. Gottlieb (1965) defines environment as being all the conditions which affect life and human behavior. She goes on to say that there is mutual influence on the part of the environment and people. As a person reaches old age, he begins to have less influence over the environment because of decreasing physical abilities and decreasing economic well being. They are more affected by the environment because they are more socially isolated and spend more time in their dwellings (Loether, 1967), and because so many have little or nothing to do (Anderson, 1963). Proppe (1969, p. 62) agrees that "with age, life space constricts..." Life space has been described by the following words:

> The life space consists of the person, a particular field, the psychological environment, and the total environments within the field and life space. The life space also includes his needs, goals, cognitive structures, the total environment values, family relationships, social interactions, the work world, and other phenomena that affect him as a living person and actor. The field is not closed but there is an order of priorities in what actually affects one or in what one affects (Lissitz, 1970, p. 299).

The study of one's life space or environment must take into account

his whole being--physical, psychological and social aspects.

In discussing the elements of environment, Anderson (1963), sees the possibility that the psychological environment is, in a sense, narrower than the physical in that the human being takes in only a limited amount of information at one time, and that a person can act only as a unit--involved in only one major action at a time. What he perceives is not only affected by objective stimuli, but also by "... the condition of his sense organs and his readiness to respond" (Anderson, p. 227). The psychological environment can also be broader than the physical one because the person is possibly reacting to past events or future possibilities rather than to the present stimuli. There is a continuity of experience which develops within each person as he goes through life which shapes his expectancies and behavior. A person moves from one environment to another in a physical psychological sense, carrying with him this continuity which is beyond the present set of stimuli (Anderson, 1963). As he moves, he may continue at the same level, move to a richer environment or move to a less stimulating one. It is hoped that through continuing research it will be learned how to plan environments which will be enriching not only to the elderly, but to all people, thus improving the quality of life for everyone.

The physical and social environments are intimately interrelated. Langdon (1966, p. 462) feels that physical features "... are so infiltrated with social values that they may be viewed as concretizations of the social environment." This view of all the aspects of life space fitting together is becoming more widely accepted.

Life space is critical to all, not only the elderly, as seen in the developing social problems which are complicated by concentration of

more and more people into dense population centers. The need to find the causes bringing about man's adaptation, or lack of it, to the city is evident.

Man relates to his urban environment through his perception of it. There are many factors which influence the parts of the surroundings actually perceived and the effects of this perception on mental attitude. The stored knowledge from past experiences beginning in childhood has much influence. Most people see forces around them as beautiful if they are creative and ugly if they are destructive (Abse, 1966). This view is one arrived at on a subconscious level.

In order to survive, man must find ways of maintaining his identity. In small rural communities, he has relationships with living plants and animals, and this tie with the natural environment gives him some sense of the continuity of life. He can also maintain relationships with people who give him feedback as to who he is. His opportunities to observe space and structures which he can comprehend in relation to himself all help maintain his equilibrium. Life in an urban center seldom provides these chances to feel as if one had a place in the social environment.

The sheer size of the buildings, streets and highway systems and the seemingly endless number of them can be overwhelming to the person seeking to find his importance as an individual. This extreme in size and number may lead to distortion of perception, bringing on anxiety and possibly feelings of insecurity (Moller, 1968). This problem of scale is ever increasing as more skyscrapers are being built and more rural people are moving into the urban areas. Establishment and maintenance of communities within the cities can bring about a sense of

belonging and participation for the inhabitants and bring the environment into a more closely human scale. Hall (1966, p. 160) says that "... home is not merely an apartment or a house, but a local area in which some of the most meaningful aspects of life are experienced." Complicating the situation for planners, urban scale is not necessarily the same for all ethnic groups and should be developed for each group individually as they have needs.

Man is the only animal capable of adapting his environment to fit him, but in turn he is molded by his surroundings. Sir Winston Churchill once said, "We shape our buildings and our buildings shape us." This shaping may be for the good--such as bringing about a greater level of appreciation of art--or this may be detrimental as seen in the increasing social upheaval. With the lack of concern for beauty as an essential part of building design, there has been a lack of taste in new structures and remodeling of old ones (Sloane, 1966). There is also a lack of effective dealing with the appearance, growth and spread of depressed areas.

The structures of our cities are more enduring than most other forms of art and science and so have a very long range effect on the inhabitants and others in the society who come in contact with these creations. Designers of housing and other structures must be sensitive to the needs of the present and of the future so that the man-made environment will be one that influences the psyche of society for the good and thus has a role in the betterment of that society.

Housing Education

The impetus to learn more about the housing needs of people and

ways to meet those needs are increasing, and they are coming from all segments of society. Along with the increasing population to be housed and the rising expectations of this population, there has been greater coverage of social problems by the news media. This has made an impact on the average citizen, who in turn, has put pressure on governmental agencies to improve the situation of the people.

Gross and Crandall (1963) make the point that housing is the second largest item in the budget of the average family and buying a home is usually the largest single expense. College classes of housing and interior design prepare people not only to be better housing consumers, but also to become better leaders, designers and policy makers for business and government.

The concern for increasing and improving the housing education in colleges and universities has received some national attention, especially by home economists. The Association of Administrators of Home Economics met and set forth a number of National Goals and Guidelines for Research in Home Economics. Housing and interior design received a great deal of attention in the comprehensive outline.

Among the many proposed directions for research, there are several which are particularly appropriate to the area of study undertaken here. The social and emotional aspects of housing are of great importance because they generally determine one's satisfaction with the "near environment." The effects of the actual physical components of the surroundings of the person upon his self-concept and his social acceptance are of importance to his well-being and his ability to function. The administrators defined housing as "... the spatial environment in which man exists and interacts" and went on to affirm that "the

immediate environment should satisfactorily accommodate man and his many activities and interactions [and] ... should provide function, comfort, contentment, health, economic, psychological and aesthetic satisfactions" (p. 34). In order to plan and furnish housing that will so comprehensively meet man's needs, several things must be determined. It should be learned what the physical environmental requirements are to meet special needs of individuals, what roles housing and furnishings play in influencing and meeting the needs and aspirations of individuals and families, and the effects of deprivation of housing and furnishings on man. Housing the increasing number of retired and elderly people is a matter that is of great importance, and educators must learn more about their perception of their housing needs and specifically how these may be met.

Other questions to be investigated are how factors of culture, history and geography affect the social and physical environment, how new or changing environments affect patterns of family development and interaction, and how man is affected by and/or influences his physical environment.

Man's need for and response to aesthetics are under consideration by various researchers. They are investigating the levels of need for aesthetic surroundings, the roles of housing and furnishings in fulfilling aesthetic needs, the relationships between personal values and aesthetic expression and the connection between choice-making and functional and aesthetic considerations.

A group of housing educators in colleges and universities put their ideas together and set forth their findings in relation to housing education. They began by emphasizing some important facts. They stated

that housing is a subject that affects all persons as consumers (and many also as producers and distributors) economically, technically, financially and socially. They felt that a broad approach to housing education was needed, and that universities should examine their roles in education for housing and be ready to reenforce and extend their programs so that they might better prepare students for jobs in housing. The committee added that there is an increasing need for a greater understanding of the effects of housing upon the individual.

The American Association of Housing Educators is an organization founded in 1965 with the purpose of promoting housing education "... to strengthen research and teaching in producing new knowledge and better understanding of the role of housing in the life of American families" (A.A.H.E.). Their objectives include strengthening undergraduate and graduate programs at the college level, improving research and exchanging ideas and information among people, agencies and professional organizations concerned with housing.

The departments on college and university campuses that are responsible for teaching housing each develop their own goals and objectives. Oklahoma State University's Housing and Interior Design Department within the Division of Home Economics is no exception. The goals of the department, as set forth in 1972, include the need "to create an awareness of the housing needs of contemporary families and how these may be met in our culture now and in the future." Also there is the thrust to prepare students for careers in interior design and housing fields and problem-solving of individuals' and families' wants and needs in the area of shelter. More specifically, in setting forth the objectives for the beginning course in the department entitled "Housing for

Contemporary Living" the faculty has emphasized understanding the relation between housing and individual and family needs, values and goals, developing a philosophy to guide housing choice and being actively involved in housing concerns on the local, national and international levels.

Agan, (1973) a spokesman for housing concerns, contends that education--especially not formal education--is needed in all communities to meet the requirements of youth and adults at their point of need, helping them to grow as persons. This is a cry for professionals trained in housing who have an understanding of all aspects of the relationship of people to their immediate environment.

Simulation Gaming

From the time of early childhood, people are involved in simulation games. These games are a major learning device for children, helping them try out roles and relationships with other people and with things. As man's capacity for learning develops with age and experience, his instruments of instruction become more complex. Accordingly, this is true for simulation games, since they still maintain a role in his learning.

Definition

A simulation is a representation or a model of real things or events. Kibel (1972, p. 13) describes simulation as a "... cross between a portrait and a caricature of reality." Simulations as educational devices are shaped by the author to suit his purpose and may range from children playing "house" to a wind tunnel for testing an

aircraft or a model economic system. Though the forms vary greatly, the essence of simulation is creating a model with "a similarity of ideas or a conceptual likeness" (Barton, 1970, p. 1). Because of space, time and other factors, simulation games are not exact replicas of actuality; however, they should contain two key factors--"the systematic selection of a small number of features of reality for explanation, manipulation and analysis and the collapsing and/or expanding of the time scale" (Kibel, p. 13).

More specifically stated by Cruickshank (1966, p. 23) simulation is "... the creation of realistic games to be played by participants in order to provide them with lifelike problem-solving experiences related to their present or future work." Defined another way, simulation is a procedure for testing or teaching in which a model of a real situation is created (Beck and Monroe, 1969, p. 45). Coleman describes a game as being a caricature of social life, magnifying some aspect of social interaction and placing it in its own context (1966, p. 3). Later he goes on to say that a social simulation game makes explicit certain social processes which may be difficult to discern in everyday life (Boocock and Schild, 1968, p. 30). Abt, an innovator in educational gaming, feels that those games which are of most interest to educators are those which simulate a specific process or relationship (1967, p. 92).

Keeping the idea of simulation in its proper perspective, Tansey and Unwin (1969, p. 23) affirm that it is merely a means to an end, an alternative strategy, rather than the ultimate goal to be achieved.

Advantages of Simulation Games

There are two major uses of "educational" simulation games, the first being an instrument of research. A great volume of the output of simulation situations has come from the areas of social science, and much of their interest has been to develop an environment in which to study various facets of social behavior and to test theories of social interaction. In most instances, it is impossible for a researcher to test an entire group of people, not to mention an entire society. By developing a simulation that is a miniature of the society or a specified segment of that society, the social scientist will have a group within his scope to study. As House and Patterson (1969) stated it, social scientists need laboratory techniques to properly study man's behavior, and simulations may very well be the long awaited laboratory.

The reason that so many educators have been drawn to simulation games is that they believe that learning can take place as a result of participation in these activities. The most widespread use of simulation gaming is as a teaching device, and in this capacity it has many outstanding features. It is only one of many ways to present ideas and methods of dealing with them, but it is one that is gaining recognition as a bona fide technique. Educators, sociologists and businessmen from the United States and other countries are developing and using simulations games in teaching and training at an ever increasing rate.

A major goal of education is the eventual application or pulling together and putting to use of all the information acquired by a person in a given length of time. A simulation game provides an arena for a trial application of this knowledge.

> First, simulation makes it necessary to make sure of the facts; to collect, evaluate, and analyze the available information. Then there is an obligation to see the whole of the problem, or to diagnose the situation as it appears. Finally, it could be possible to find alternative situations for any given circumstance (Tansey and Unwin, 1969, p. 22).

Abt (1970) states that a person cannot learn to correct mistakes if he is never allowed to make them and making them in social science means taking a practical decision, not remembering the wrong date. In real life experience, these mistakes could be exceedingly costly. Abt thinks that a simulation experience is the best answer. One can get involved, make decisions, and when making mistakes, not be compelled to take the disastrous consequences that often occur when these mistakes are made in reality.

Instructors using conventional methods of teaching often find lack of motivation to be a characteristic of their students. It has been found in many instances that simulation games increase interest. This is thought by some to be the most definite advantage. Cruickshank (1966) has found that participants consider the simulation experience stimulating and highly motivating. According to Twelker, (1969), simulation techniques brought about sustained learner activity and motivation, while Abt (1967) concluded that educational games provide motivation to become deeply involved in the problem and provide gains in achievement at costs less than those of other instructional methods. Tansey and Unwin (1969) found students highly motivated to learn and with a high degree of commitment and involvement. Alger (Guetzkow, et al., 1963) believes that the motivational aspects of simulation are brought about because of three inherent characteristics of the medium. The first is that the technique is more fun than more conventional ones. It also has

the ability to involve the participants extensively, and give them shared experiences about which they can converse outside of class more readily than with usual course work.

This high degree of involvement with the "responsive environment" (simulation) is another favorable aspect of simulation gaming according to Beck and Monroe (1969). They state further that this responsiveness gives the learner a chance to see the effects of alternative decisions. Emphasizing the point, Abt (1970) affirms that retention of learning is greater when students interact and really put to use their skills, than when they listen to lecture. Successful simulation requires participants to assume roles, thus making each active and involved.

> Simulation takes learning out of the area of abstraction and makes it a participatory. It involves learning by doing and this is of particular benefit where human reaction, interactions and emotions are involved. Skill is acquired through practice, and enables participants to learn facts, processes, and alternative strategies (Abt, 1970, p. 25).

Simulation games provide for experience with a wide range of educational objectives from the cognitive (intellectual) domain to the affective (emotional or attitudinal) domain and acts to integrate these different types of knowledge and behavior (Beck and Monroe, 1969 and Twelker, 1969). The affective domain is often difficult to deal with and holds an important place in the social sciences.

Simulation gaming changes the social conditions under which learning takes place (Abt, 1970). The teacher is less directly concerned with judging the performance and discipline. He is no longer the authoritarian (Tansey and Unwin, 1969). It may be said that the "... control of the class shifts from the teacher to the learning materials themselves--and in a sense ultimately to the students" (Boocock, 1967, p. 94).

This allows many students, especially those who have previously not excelled to feel they have a chance to succeed, and it provides opportunities for learning from peers which can be most effective (Abt, 1967). It gives the students more freedom in and more responsibility for their own learning (Boocock, 1967). However, Boocock goes on to caution that while this shift away from the authority figure of the teacher may be more productive, it may also be more threatening to those teachers and students locked into conventional methods. There may be greater empathy between teacher and those who are taught or there may be greater discomfort.

Through designing a simulation, the author (in this case a teacher and/or researcher) can abstract those parts of society which he feels need concentration, thus making complex problems simpler and more easily understood (Abt, 1970 and Tansey and Unwin, 1969). When this is done, the learner is often allowed to learn faster than first hand field observation would permit (House and Patterson, 1969).

For the last few years, there has been a cry from students and others involved in the educational system to make the subjects taught more relevant. They want the situation in class and the situation outside to be explicitly comparable. Simulation games inject this feeling of realism and relevance (Abt, 1970 and Kibel, 1972). Boocock reiterates this lifelike quality of the medium, which gives the students a confrontation with the real world, as opposed to the ideal. She says that there is not just one right answer, but that "... some strategies are more successful than others" (1967, p. 94).

Often students are not able to look into the future and foresee possibilities, but this technique enables teaching for the long range

future even for less motivated pupils (Abt, 1970), many times providing a vicarious experience of things to come (Tansey and Unwin, 1969). Simulation allows the participants to be placed in a situation which they may never have experienced before and lets them get the feel of it. This may be preparation for a specific activity or problem to be solved or it may be a more generalized projection.

In most educational situations, it is hoped that the information and skills gained will be carried over into the life situation. Since simulations are representations of life circumstances, Beck and Monroe (1969) have concluded that a real benefit of this technique in teaching or training is the probability of greater transfer of learning to non-school activities. Cruickshank (1966) felt that with teacher training courses, behavior on the job of the students was modified positively as a result of the simulation experience which they received before going into the teaching situation. He was so impressed with the results that he stated that this technique "... may be the 'integrative stem' that will wed theory and practice" (p. 24).

Problem solving is a part of the thrust of educational objectives of most levels of training. Simulation games not only provide a logical framework for problem analysis, but also require and reward the synthesis of solutions to problems by both logic and intuition (Abt, 1967). These games require one to be sure of the facts, look at the whole problem and diagnose the problem as it appears (Tansey and Unwin, 1969). The participants are confronted with a specific instance and do not need to try to deal with generalities (not what might be, but what is). To reinforce the solutions, concepts, research evidence and behavior patterns may be included, in contrast to a real life problem-solving situation.

"The very process of developing serious games for analyzing and/or solving social, economic, and political problems encourages an objective but empathetic viewpoint towards the various factions involved in a conflict" (Abt, 1970, p. 130).

Another important process emphasized in education and going hand in hand with problem solving is that of decision-making. Gross and Crandall (1963) state that basically training in decision-making is having occasions to make decisions. Nickell and Dorsey (1959) corroborate this view by their statement:

> Thus, experience gained in meeting one situation or problem may be helpful in making decisions regarding another. Out of this fund of experience, well-established habits of decision-making are gradually built up. These habits lead to rapid action and ultimately become the basis for value judgments. In this way one develops decision-making skill (p. 39).

Simulations provide this experience by giving the participants opportunities for practicing decision-making. Alger (Guetzkow et al., 1963) gives three reasons that simulation enhances one's ability to make decisions. He says that in most simulations participants are involved in making decisions. This means that they go through the actual process rather than just analyzing the decisions of others. Experience with simulation provides opportunities to see the actual problems of deciding specific things peculiar to the situations being simulated. Tansey and Unwin (1969) agree that simulation can be very useful in the development of skills of decision-making. Abt recognizes the important relationship between decision-making and games when he states "Reduced to its formal essence, a game is an activity among two or more independent decision-makers seeking to achieve their objectives in some limiting context" (underlining his) (1970, p. 6).

A problem educators, particularly those in public schools, have long faced is that of relating to students of many different abilities simultaneously. The research studies on the use of simulation game with a variety of age groups substantiate the hypothesis that this technique is one of the best for relating information and ideas to differing ability levels at one time. Abt, one of the foremost developers of simulation games, has made the following statement about the learning which comes from experience with these "serious games:"

> Even relatively simple games are sufficiently rich in content to provide several different levels of learning simultaneously to students of different abilities. The slow learners will concentrate on the concrete, static elements of the game. The moderately fast learners will develop concepts of cause and effect and attempt to apply them. The most advanced learners will consider the strategic interactions of several parallel causal chains (1970, p. 23).

Culturally deprived students often respond better to game techniques than to more conventional methods (Abt, 1966).

It is generally believed that people are better able to respond and to learn when they do not feel threatened, and when they feel that they have some impact on their environment. While involved in the simulation game, the participants are in less threatening positions than those of real life, because the consequences are not those of real life (Abt, 1970). Ward and Koeninger (1971) add that while in this non-threatening situation participants may evaluate their own behavior through interaction and feedback from others. In many segments of the ever more complex society, many people (especially the young) rarely get a chance to have control over their environment. A feeling of helplessness and lack of confidence in their abilities may develop, which may be detrimental to the future of these individuals. Involvement in simulation games provides opportunities to take action and see results, thus giving

participants positive feedback of their effect upon their environment (Tansey and Unwin, 1969 and Boocock, 1966).

Limitations of Simulation Games

Like any teaching technique, simulation games have minuses as well as plusses. The research accompanying the use of educational simulations and other games has proven rather conclusively that they produce a great deal of interest and positive motivation (Coleman, 1966). However, Abt (Boocock and Schild, 1968) identifies some limitations of this method of instruction. He sees the attitude of teachers toward this medium as a possible deterrent to the effective use of it. They often doubt the validity and the accurateness of the portrayal of the event or process being simulated. Abt (1966, p. 23) states that "... the object of the game is to involve the student in the types of situations, motives, practical constraints, and decisions that are the subject of study, not the specific details."

Cost is another factor which may be against the use of simulation games on a wide scale. Beck and Monroe have identified three areas of cost:

1. Development of the program, including field, testing and revision.

2. Environmental requirements for installation and use of the simulation program after it is developed.

3. Training personnel for effective supervision of simulation training programs.

These costs would be far less for many of the simulation games being produced because of their size and scale. In many instances also only

the teacher is needed to oversee the implementation of the simulation.

Most of the research accompanying development of simulation games for educational purposes has revealed that little evidence exists to support their use from the standpoint of actual cognitive learning. Schild (1966, p. 3) states that "... a simulation game does not teach more than could have been learned in the real-life situation or process simulated." Coleman (1966) agrees since he has found no evidence to support the thesis that participants learn more facts or principles from a simulation experience than from more conventional methods. Boocock (1966) however, obtained supporting evidence for the idea of factual learning when students took part in her Life Career game. There was also greater role empathy and increased feelings of efficacy.

Wing (1966) found that even though the same amount of learning took place after the simulation experience as that resulting from conventional methods, the time spend with the former was much less.

Simulations aim at doing more than just teaching mere facts that may some day be put together in the minds of the participants. They give insights into the workings of processes and human relationships, thus making evaluation often difficult (Twelker, 1969). This partly explains the unsatisfactory results that testing the simulations have produced.

Abt (1966) sees the attractiveness of educational games as a potentially serious disadvantage. They are not appropriate for teaching all topics and they cannot serve as a replacement for other methods. But as a complement to them, they can enhance and add excitement to the educational process. McKenney and Dill (1966, p. 28) agree that simulation gaming "... is only one resource for building a meaningful

educational experience."

Designing Simulation Games

As researchers have developed simulation games, they have also developed techniques and guidelines for the process. Barton (1970, p. 46) has listed some essential steps for designing simulations.

1. Choose goals and objectives to be served by the simulation.

2. Specify the object system to be simulated.

3. Decide what portion of the object system will be represented by a model and what portion by live participants.

4. Specify operations by both model and man to make these representations.

5. Establish the forms of communication between man and model.

6. Describe the type of participants desired.

7. Develop administrative procedures for carrying out the simulations runs.

There are three phases of the simulation project. The first is the design phase, this is followed by the execution or running phase and the evaluation or report phase. The latter two may or may not be carried out by the designer (Barton, p. 47).

Another experienced simulator has set down some steps for designing gaming simulation. Kibel (1972, p. 57) specifies:

1. Define the situation to be simulated.

2. Identify the critical individuals or groups in the situation and their specific roles with respect to the situation.

3. Identify the initial resources available to each player.

4. Establish the range and types of transactions which may occur among the players.

5. Determine the sequence for these transactions.

6. Define how the players use their resources to achieve their target objectives.

The model must be transposed into an action situation. The following steps are needed:

7. Select the specific issues or problems on which the simulation is to focus.

8. Isolate the player roles, player objectives, and the resources needed to adequately deal with the selected subset of issues and problems.

9. Translate these roles and resources into a series of subplots, event, and character situations which clearly dramatize the key dynamics of the setting and issues being considered.

10. Develop win-lose criteria for the players.

Refinements may be needed and the following types should be considered:

11. Modify the game to make it more or less realistic.

12. Modify the game to make it more or less comprehensive.

13. Modify the game to make it more or less melodramatic and tense.

Kibel stresses three important points--gaming simulation should have a minimum of objectives, sacrifices of reality should be avoided if they would interfere with the overriding objectives, and the winning or losing of game players is less important than the play of the game.

CHAPTER III

DEVELOPMENT OF THE HOUSING GAME

The problem was to develop a simulation game for use in a college level class of Housing and Interior Design which would enhance the learning by providing insight into housing choices faced by people in various family, economic and age situations. The majority of the literature does not support the contention that factual recollection is evidenced after participation in simulation gaming experiences (Chapter II). For this reason, the researcher did not use the pretest-posttest method to obtain data concerning the retention of information. Instead, a questionnaire was developed to obtain reactions and suggestions of the students who took part in the execution of the game.

Objectives for the Game

After reviewing the literature on simulation games including that of design, the researcher setdown some objectives for The Housing Game. Barton (1970) has suggested this as the first step for designing simulations.

Upon completion of the game, the participants should be able to:

1. recognize the existence of a relationship between a person's values and his choice of dwelling,

2. recognize the existence of a relationship between a person's values and his choice of acquisition of furnishings and other objects

for the home,

3. recognize the existence of a relationship between a person's family situation and his choice of dwellings,

4. recognize the existence of a relationship between a person's family situation and his acquisitions for the home,

5. see a need for further investigation of the social, psychological and economic aspects of housing choices.

Roles for the Game

After reading the literature, studying a variety of simulation games and deciding on the objectives for The Housing Game, it was decided to develop a number of roles. The roles were to be diverse, including varieties of age, sex, educational level, economic condition, race, source of income, number of dependent, marital and health status. The role descriptions are given in Appendix A.

Choices, Chances and Rules

Since it was found that housing is the second largest item in the family budget (Chapter II), it was decided that choosing a dwelling was of importance to the essence of the game--as taken from the objectives. The relationship between a person's values and his housing choice was also emphasized.

A list of values was compiled. These were chosen because they are found in American society and specifically relate to housing. The fifteen values (found in the Appendix) were explained by a few words to give greater clarity and a more reliable choice, since less individual interpretation could be made. The values chosen were privacy, comfort,

safety, location, family centeredness, health, financial security, economy, status, leisure, aesthetics, personal interests, friendship activities, cleanliness and convenience.

The dwellings chosen were divided into those which were owned and those which were rented by the characters. There were nine of the "owned" ones and eight of those "rented". Each described the size, location, amenities, accessibility, services provided or near at hand and cost. These descriptions were listed in Appendix A. The owned residences ranged from a two bedroom home in a declining neighborhood valued at $4,500 to an apartment house owned cooperatively by eight families and valued at $50,000 and a large four bedroom house in a new development, near a country club, valued at $55,000. The other dwellings to be owned included a mobile home in a mobile home part in a town of 35,000, valued at $4,800; a large three bedroom house in a 15 year-old residential area with spacious lots, valued at $50,000; a small three bedroom home near an industrial area, valued at $6,000; a three bedroom condominium in a newly developed area within easy access to other areas of the city and valued at $35,000; a medium-sized three bedroom home on a spacious lot in a quiet 20 year-old neighborhood, close to school and community services, valued at $15,500; and a medium-sized two bedroom home on a five acre plot at the edge of town, valued at $18,000.

The rented dwellings ran the gamut from a small company-owned two bedroom house in poor condition for $50.00 per month and a room in an old downtown hotel for $75.00 per month to an apartment in a luxury complex with many social and other services. The list of rented residences also included a less expensive apartment, a mobile home, a small two

bedroom home in an older neighborhood, a duplex in a government housing project with federally subsidized rent available for low income occupants and a room in a nursing home with federal aid payments also available.

Each person (or group if the number of participants exceeds twelve--the number of roles) chooses from the list of values four that he thinks would be held by the character he represents and lists them in order of importance. Using the values chosen and the ROLE DESCRIPTION for his character, each person or group makes a choice of a rented or owned dwelling from the DESCRIPTION OF DWELLINGS. This selection is recorded on the ROLE DESCRIPTION sheet beneath the four values.

The choices related to housing do not end with the selection of a place of residence. Furnishings and equipment must be added or replaced continuously as a person or family goes about the process of living. The decisions concerning these household products are of great import because they affect daily living and often are major expenses in the budget of the household.

It was decided that these choices should be included in the actions of the characters. The list of acquisitions that was developed ranged from a swimming pool to a handrail for the bathroom. Cards were finally chosen as a means for putting these selections into play. There were a total of 153 cards with the number of cards per item ranging from 1 to 6. Each item was given a point value which was arbitrarily set to loosely represent a monetary relationship. The points were set in numbers divisible by five, to ease use when scoring. The largest point value was given to the swimming pool (60 points) and there were items ranging all the way down to several at five points. The entire list is given in the

Appendix.

In gaming, the element of chance is important to keep up the interest of the players (Clements, 1970). Keeping this in mind, the researcher decided to interject this element through the medium of cards also. Since some unexpected events change the financial picture for the benefit of those involved, almost half of the cards were news of economic gain. Other happenings do not affect the economy of the family or person, thus, a few cards contained no change. Finally, more than half of the CHANCE CARDS relayed bad news (that of financial loss). There was even a card which eliminated the character from the game because of failure to make mortgage payments and repossession of the dwelling. Some of the cards, both good and bad, affected only renters or only owners, and others affected renters and owners in different degrees. Like the ACQUISITION CARDS, the CHANCE CARDS reflect their financial gain or loss by the point value listed on the cards. They range from being out of the game and a loss of all points, but continuing in the game to the addition of twenty points. There are twelve plus cards and twenty minus cards. There are also two with no change indicated.

After each person or group has become familiar with the character they represent and have chosen the four values and the dwelling best suited for the situation, they participate in six (6) rounds of play. During the rounds, each character is dealt ACQUISITION CARDS and CHANCE CARDS. Three ACQUISITION CARDS are dealt in the first round and any number may be kept or discarded according to the household situation of the character, his values chosen and dwelling choice. The point range for winning which differs for each character is also a factor to be

considered. The second round introduces chance by giving each character a CHANCE CARD. The players must follow the instructions on the card to add or subtract points or make no change. The third and fifth rounds follow as ROUND 1 and the fourth round is a repeat of ROUND 2. The sixth and final round is different in that each character is dealt one final ACQUISITION CARD which may be kept or discarded. There is a SCORE SHEET on which the points are recorded from each ACQUISITION CARD retained and each CHANCE CARD chosen. For each ACQUISITION CARD recorded, a plus (+) or minus (-) is placed by each value, reflecting a positive relationship or lack of a positive relationship. This is done also for the dwelling and each ACQUISITION CARD. In order to win, the players must have come within the point range for their characters and have twice as many plusses as minuses.

CHAPTER IV

FINDINGS

It was not the purpose of this study to prove that The Housing Game is an instrument which will cause great changes in knowledge and behavior, but rather it was intended to create a simulation game that would bring about an awareness and an interest on the part of the participants in the complexity of decisions relating to housing. A questionnaire was developed to obtain reactions of those participating in the running of the game. The instrument was placed in Appendix B.

A trial run was held approximately two weeks before the actual testing of the game to work out the aspects which prevented smoothness in the running of it. There were eight subjects who were all graduate students or former graduate students in Housing and Interior Design and/or Family Relations and Child Development and had had previous experience with research. They made suggestions about adjusting the number of rounds to facilitate moving through the game and finding a way to see a relation between values and acquisitions.

The actual test took place in an intermediate Housing and Interior Design class called Design and Space. There were 32 students who are undergraduates in Housing and Interior Design and Architecture. The class was divided by twelve for the twelve characters who are represented in the playing of the game. Some of the groups consisted of three and some were made up of two students. From observation only by the

researcher and the teacher of the class, it was determined that the groups of three had more sharing of ideas and more enthusiasm for putting themselves into the roles and making the choices as they felt their character would.

The answers to the questions asked after playing the game reveal some facts which may be helpful in further use of it. Twenty-two (22) of the participants responded that the instructions were easy to follow, while 10 felt that sometimes they could have been more easily understood and none thought that they were too difficult. When asked if they had fun playing the game, 24 answered yes, eight responded with sometimes and one replied with no. The chance cards were met with mixed responses, with two feeling that they added no interest or realism, while 11 replied with sometimes and 19 players put their mark on "Yes, not knowing what was to happen made the game more interesting and realistic."

When answering the fourth question "Since completing the game, do you feel you are better able to make good judgments about housing?" nine simply said "yes" and eight others also replied affirmatively with comments such as "A little better" and "Just a little bit." Another commented "Maybe, you just never know what life can bring" and still another said "Yes, I now better realize some of the things considered in a home and living relative to cost." One participant felt that he was better able to make good judgments "after the second time." Besides the 17 affirmative replies, there were 15 who answered negatively. Most of them replied by saying only "no" or "not necessarily" but one student said "No, housing is a complex problem."

The fifth question asked "After playing the game, do you feel you have a better understanding of different people's housing choices?" To

this question only five answered no, with one person saying "not a whole lot." There were 26 affirmative replies to this question, ranging from "a little better," to "Yes, I can see more clearly the problems being confronted by different people." Most simply said "yes."

Answers were varied to the question regarding the part of the game that was best liked. Seven of the respondents felt that choosing of the values and/or the dwelling was the best part, while four listed winning as the best and five like the acquisition cards most. Seven preferred the chance cards--one of whom specified the "good" chance cards. Three of the players enjoyed the character descriptions most, one stated specifically "having to think as the character himself." One person responded that he liked it all and one did not like any of it because he felt it was too simple. Other comments included: "Getting close to what points one needed and getting a chance card--made the game more exciting;" "Trying to decide the best values and housing for different lifestyles," "... figuring what the family really needs and wants" and "Picking the most important priorities."

The views were equally varied in response to the question of the part liked least. Seven listed aspects of scoring, three of those commented specifically on the use of plusses and minuses. Five liked choosing the values least, six disliked getting the chance cards, two did not like being put out of the game with a chance card and three referred to choosing between the acquisition cards or getting the wrong cards for their characters. One did not like "writing it all down," two mentioned losing because of not having enough financial resources with their character's ROLE DESCRIPTION, one stated dislike of "The hidden reference--was a small carpet economical and compared to what?" and one person did

not like the fact that all the acquisitions were available to all the characters when in fact they would not come within the range of some people.

The last question asked for comments or suggestions for the game and many were given. Two players felt that more information should have been supplied for the characters. Three people stated that the acquisition and chance cards should all be passed at once and one person requested that more possibilities be given for the acquisition and chance cards, while another suggested that the designer "Denote the acquisition cards that only certain people could acquire." One participant called for an easier scoring technique, another said that it could be more challenging and still another felt that it got "a bit tedious at times." Four respondents gave a general but favorable comment, two saying that it was interesting. Another player said "Good overall game, very appropriate 'cause it deals with everyday living." Lastly, another comment--"It's a good game. I wished we could have played more often. A lot can be learned from a game like that."

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Housing is of concern to all members of society, but as an area of study it has not received much recognition. It is predicted that because of the rapidly increasing number of households being formed and with the growing concern of the average citizen pushing the Federal Government into action, there will be a tremendous increase in the number of housing units built in the next decade. It is imperative that leaders in housing be trained and ready to meet this challenge. Simulation gaming is a developing technique which is receiving attention as a contributor to "relevant" learning. It provides a nonthreatening environment where lifelike decisions can be made and acted upon. The purposes of this study are: (1) to develop a simulation game to be used in a beginning or intermediate college level housing and interior design class to provide insight into housing choices faced by people in various life situations, and (2) to develop a questionnaire to obtain reactions of the participants of the game.

The researcher began by establishing a list of behavioral objectives for the game. These objectives were slanted toward obtaining an overall feeling or empathy rather than learning specific facts. Because of this direction of the game with basis in research, it was decided not to use a pretest and a posttest, but rather develop a questionnaire to obtain reactions of the participants.

The game itself consisted of twelve character roles which were to be assumed by the players. The roles were diverse and included variation in age, sex, educational level, economic condition, race, source of income, number of dependents and marital and health status. Of the 32 students participating in the game, only three listed the characters as their favorite part, and two players suggested that more information be given for the characters. From this it is recommended that the CHARACTER ROLES be reviewed and possibly be given more facets. It is not believed that more characters are needed.

The basic idea of determining the values for the character, and then choosing a dwelling which will coincide with the character and his values are not recommended for change. Seven of the players responded that they liked this part of the game most, though five listed choosing the values as their least favorite. No one suggested altering these choices when asked to make further suggestions. Though the list of 15 values seems workable, no one selected "cleanliness" and this one could be eliminated. It was felt by the researcher that the brief description accompanying the values eliminated confusion and the need to ask questions about this aspect of the game, making it run more smoothly and satisfactorily for all those involved.

The choice of dwelling was listed as most preferred by several of the players, while not being listed at all as the part least liked. The final list included nine "owned" dwellings and eight "rented" ones, both groups varying greatly in assets and expense. There was not an incentive to buy written into the selection process, but there were advantages and disadvantages on both sides. After the trial playing of the game by the panel of graduate students and former graduate students

and at their suggestion, it was decided to expand the number of choices of dwellings to the present number. Although none of those answering the questionnaire suggested it, the researcher recommends a review of and possible additions to this list of residences. Other examples might include different locales with greater descriptions of the neighborhood, city or town, and even part of the country. There might also be a greater range in cost and greater description of loans and other kinds of aid available.

Furnishings and equipment must be added and/or replaced throughout the life of a person or family. Choosing these items was provided for in the game through use of a series of cards, each representing one item. They ranged from a swimming pool to a handrail for the bathroom. There were 52 items with 1 to 6 cards for each. The ACQUISITION CARDS were given in four of the six rounds in groups--three, three, three, and one. During each round the players were able to keep or discard any number. Five people listed the ACQUISITION CARDS as the favorite part, but three commented that they liked least having to choose between the ACQUISITION CARDS or getting the wrong cards for their character. In the two playings of the game with the class of undergraduates, nine items were not chosen and eleven were chosen only once. The average point value (here related to monetary value) of these cards not chosen was definitely above the total, and since there was no character who made more than $22,000, it would seem that there should either be fewer choices of costlier items or more of the less expensive ones. This was verified by the comments and suggestions of the students, one suggesting that there be more possibilities for the ACQUISITION CARDS. Others suggested that all the cards, including the ACQUISITION CARDS, be passed

out at once, and one person felt that the ACQUISITION CARDS be marked for certain characters, since some in reality would not have many of the items to choose from for his family. It is hoped that the players will achieve enough insight to be able to automatically discard those cards which would be unrealistic choices for his character. It is believed that marking the cards would take away too much of the basic design of the game. It is felt however, that some improved method is needed to facilitate use of the cards. Much of the selection of the ACQUISITION CARDS that a particular character had was left to chance, since the choice of cards was at random, and many times the characters would be dealt duplicates. When this was done, they were allowed to exchange one of these for another card selected at random. It is believed that some of this chance factor should remain, but not all. One student brought forth the idea of a list containing all the possible acquisitions which could be given to each player. This is believed to be a definite possibility to be tried. Another would be to allow the characters to trade cards with each other. This would provide a chance for interaction as well as giving greater chances for acquisitions which would fall within the lifestyle of the characters.

A chance element is important to give challenge and possibilities for action to all players. In The Housing Game, this factor was introduced through the use of CHANCE CARDS which represented unexpected happenings in the life of the characters which provided gain, loss or no change in the financial situation. There were 12 cards of addition, 20 of subtraction and two of no change. The CHANCE CARDS were favored by seven of the players and were liked least by six. When asked if the CHANCE CARDS added realism and interest, the largest number (19)

responded with "yes," 11 replied with "sometimes" and only two said "no." It is felt that the CHANCE CARDS definitely add realism to the situation, but that they are possibly weighted too heavily toward losses and that there are not enough of those indicating no change. It is recommended that they remain and that they be added to to expand the situations.

The Housing Game was played once with all of the students participating as a member of a group representing a character. The ROLE DESCRIPTIONS were passed out at random, and after finishing the first game, the groups traded and played it again. The second time went much faster and smoother, with seemingly more enjoyment on the part of the players. Two of the students commented specifically on playing the game twice, one saying he did not like playing it twice and the other saying that only after the second time did he feel that he really got into the character. The researcher believes that it is important to play the game more than once to establish ease and ability to empathize and more accurately make the choices as the character would.

The scoring technique seemed to be easily understood by the participants, since only one requested a change in that area and there were not many questions or misunderstandings while the game was in play, except those about the plusses (+) and minuses (-). These were designed to establish a tie between the values and the choice of dwelling and acquisitions. This was only partially successful and it is recommended that the instruction for this part of the game be clarified.

The verbal instructions and the written directions describing the ROUNDS were apparently generally easy to follow, because there were no participants who responded negatively in this area and 22 of the 32

answered that they were easy to follow.

Games are intended to be an enjoyable way of learning, and apparently The Housing Game succeeded in this area. No one said that they did not have fun playing the game and only eight of the 32 replied that they enjoyed it "sometimes."

In the area of ability to make good housing judgments after playing the game, 17 replied affirmatively and 15 responded negatively, giving no clear cut proof of strength in gaining ability in making judgments. On the other hand, 26 of the 32 affirmed that they felt they were better able to understand other people's housing choices, thus supporting the belief that simulation gaming conveys a feeling for a situation.

It is felt that The Housing Game was initially a success and that it will be strengthened by additions in some areas. It is also felt that simulation gaming is a technique which can be used successfully in housing education and that there are many possibilities for the development of other games to be used in the area of study.

The researcher feels that The Housing Game may be used with other adult groups and, with slight modifications, may be used with younger people. Further use of the game will include the modifications suggested by the class. Study is needed to determine the optimum number of players for best results. The Housing Game may be used as a part of a teaching unit on housing for the elderly in which case more roles would be developed of aged characters and their alternatives would be considered in greater depth.

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APPENDIX A

THE HOUSING GAME

INSTRUCTIONS

Each of you (individually or as a group) represents the head of a household.

Each character is in a different family situation.

Study your ROLE DESCRIPTION. Introduce yourself to the other players.

Now examine the sheet entitled SELECTED VALUES OF AMERICAN SOCIETY. From this page choose four (4) values which are most significant to your character. List these values in order of importance.

Read carefully the DESCRIPTION OF DWELLINGS and choose the one that best meets the needs of your household.

There are six (6) rounds of play in which you will be dealt ACQUISITION CARDS and will pick CHANCE CARDS. The ACQUISITION CARDS represent household items which may be obtained by a family to improve their lifestyle. Because of the wide range in cost, products for the home must be acquired at varying rates, so each card is given a point value. The CHANCE CARDS represent events that may occur unexpectedly in the life of a family. They may be good or bad.

The object of the game is to achieve a winning score at the end of five rounds that is specified for each character.

ROLE DESCRIPTION

Name: Juan

Points needed to win:

Age: 36

35-60

Sex: male

Race: Spanish American

Marital status: married

Education: completed 8th grade

Source of income: migrant laborer (wife and 4 oldest children help with the work) $4,000

Dependents: wife and 8 children

Health: fair

List four (4) values in order of importance.

1.

2.

3.

4.

Choose the dwelling that is most appropriate for your situation.

ROLE DESCRIPTION

Name: Glenda

Points needed to win:

Age: 28

50-75

Sex: female

Race: black

Marital status: single

Education: completed 11th grade

Source of income: Welfare and Aid to Families with Dependent Children, $2,640

Dependents: 4 children, 11, 8, 6, 3 yrs.

Health: good

List four (4) values in order of importance.

1.

2.

3.

4.

Choose the dwelling that is most appropriate for your situation.

ROLE DESCRIPTION

Name: Otto

Age: 70

Sex: male

Race: white

Marital Status: married

Education: 8th grade

Source of income: pension, $1,320

Dependents: wife

Health: poor

Points needed to win:

50-75

List four (4) values in order of importance.

1.

2.

3.

4.

Choose the dwelling that is most appropriate for your situation.

ROLE DESCRIPTION

Name: Charlie

Points needed to win:

Age: 45

60-90

Sex: male

Race: black

Marital status: married

Education: completed 10th grade

Source of income: semi-skilled labor, $5,000

Dependents: wife and 5 children, 16, 15, 12, 8 and 4 yrs.

Health: good

List four (4) values in order or importance.

1.

2.

3.

4.

Choose the dwelling that is most appropriate for your situation.

ROLE DESCRIPTION

Name: Ella

Points needed to win:

Age: 82

65-90

Sex: female

Race: white

Marital status: widowed

Education: completed 9th grade

Source of income: welfare old age assistance and children's help, $2,100

Dependents: none

Health: poor

List four (4) values in order of importance.

1.

2.

3.

4.

Choose the dwelling that is most appropriate for your situation.

ROLE DESCRIPTION

Name: Betty

Points needed to win:

Age: 34

80-110

Sex: female

Race: white

Marital status: divorced

Education: high school diploma

Source of income: secretary, $6,000; occasional help from children's father

Dependents: 3 children, 9, 7, and 6 yrs.

Health: good

List four (4) values in order of importance.

1.

2.

3.

4.

Choose the dwelling that is most appropriate for your situation.

ROLE DESCRIPTION

Name: Jim

Points needed to win:

Age: 23

100-130

Sex: male

Race: white

Marital status: married

Education: completed 1 year of college, currently in school

Source of income: GI Bill and wife working as secretary $5,400

Dependents: none, since both have an income

Health: excellent

List four (4) values in order or importance.

1.

2.

3.

4.

Choose the dwelling that is most appropriate for your situation.

ROLE DESCRIPTION

Name: Jason

Points needed to win:

Age: 27

120-160

Sex: male

Race: white

Marital status: single, living with female roommate

Education: college degree and finishing a law degree

Source of income: lawyer for the American Civil Liberties Union, roommate runs a day care center, $8,400

Dependents: none

Health: excellent

List four (4) values in order of importance.

1.

2.

3.

4.

Choose the dwelling that is most appropriate for your situation.

ROLE DESCRIPTION

Name: Joe

Points needed to win:

Age: 38, wife 35

130-180

Sex: male

Race: white

Marital status: married

Education: high school diploma, vo-tech certificate

Source of income: airplane mechanic, $10,000

Dependents: wife and 2 children, 10 and 13 yrs.

Health: good, wife confined to wheelchair, otherwise good

List four (4) values in order of importance.

1.

2.

3.

4.

Choose the dwelling that is most appropriate for your situation.

ROLE DESCRIPTION

Name: James

Points needed to win:

Age: 26

150-200

Sex: male

Race: black, wife, white

Marital status: married

Education: completed master's degree

Source of income: college teacher, $10,000

Dependents: wife and 1 daughter, 2 yrs.

Health: excellent

List four (4) values in order of importance.

1.

2.

3.

4.

Choose the dwelling that is most appropriate for your situation.

ROLE DESCRIPTION

Name: Jack

Points needed to win:

175-225

Age: 30

Sex: male

Race: white

Marital status: married

Education: college degree

Source of income: photographer; wife artist and art teacher
$15,000-$20,000 variable

Dependents: 2 children, 2 and 5 yrs.

Health: excellent

List four (4) values in order of importance.

1.

2.

3.

4.

Choose the dwelling that is most appropriate for your situation.

ROLE DESCRIPTION

Name: Richard

Points needed to win:

Age: 60

200-250

Sex: male

Race: white

Marital status: married

Education: college + dentistry school

Source of income: dentist, $22,000

Dependents: wife and wife's mother who is living with them

Health: fair

List four (4) values in order of importance.

1.

2.

3.

4.

Choose the dwelling that is most appropriate for your situation.

SELECTED VALUES OF AMERICAN SOCIETY

Privacy--opportunity to be alone when desired

Comfort--ease and quiet enjoyment

Safety--physical security, freedom from danger

Location--nearness to services and people with whom contact is desired

Family centeredness--major goals and activities are oriented toward family

Health--good physical and mental well-being

Financial security

Economy--careful management of money resources

Status--prestige, recognition by others

Leisure--having free or spare time

Aesthetics--beauty, art

Personal interests--pursuing one's personal interests such as hobbies, sports, attending cultural events

Friendship activities--social activities with friends, such as parties, dining together, conversation

Cleanliness--clean and sanitary surroundings

Convenience--having things handy and easy to use

DESCRIPTION OF DWELLINGS

Owned

1. Two bedroom home, near downtown of a city of 60,000, in a declining neighborhood, within easy access (walking or driving) to grocery shopping, a small park and churches, valued at $4,500.

2. Apartment house owned cooperatively by eight families, in a city of 800,000, in a neighborhood that is fifty years old but well preserved, composed of people of various ages, within easy access to transit system and shopping and park facilities, valued at $50,000.

3. Mobile home, in town of 35,000, in a newly developed area of town, mobile home park facilities and aesthetics minimal, near school and shopping area, easy movement by car to all of town, valued at $4,800.

4. Large three bedroom home, in a 15 year-old residential area, spacious well-kept yards, space for entertaining, no through traffic, no shopping, recreation or church facilities within walking distance, valued at $50,000.

5. Small three bedroom home, in 25 year-old neighborhood, small yard space, near industrial area, close to local shopping, church and recreational facilities, valued at $6,000.

Rented

1. Small two bedroom home, in 25-30 year-old neighborhood, with little yard space, with moderate traffic, not far from downtown area, shopping, school and recreation facilities within short driving distance, $60.00 a month plus utilities.

2. Apartment in a large complex providing a large variety of social and recreational facilities and useful services, near business district in newly developed area, large, 3 bedroom, $300.00 a month utilities paid.

3. Apartment in a complex of about 40 apartments, in a twelve year-old neighborhood, two bedrooms, useful services such as laundry facilities provided, but no planned social and recreational activities, within short drive of shopping and business, $175 per month.

4. Mobile home, two bedrooms, small living space, very small yard space, in mobile home park at edge of town, easily reached by car from educational, recreational and business areas, $85.00 per month plus bills.

5. Room in old hotel in the heart of the city which leases to long-term residents, provision made with coffee shop for daily meals services such as laundry provided, near shopping and other business and recreation facilities, (within walking distance) $75.00 per month plus meals.

Owned	Rented
6. Three bedroom condominium, in a newly developed neighborhood of townhouses and other multi-family dwellings, near major thoroughfare, leading to business district shopping facilities and school, entertainment space readily usable, valued at $35,000.	6. Small, company-owned two bedroom house, located on a work site in a grouping of other houses just like it, poor upkeep, minimal cooking and sanitation facilities, available to company employees for short term use, $50.00 per month bills included.
7. Medium-sized three bedroom home, on spacious lot, in 20 year-old neighborhood, little through traffic, near school, within driving distance of shopping, business and community services, space for entertaining, quiet area, valued at $15,500.	7. Room in nursing home, meals provided, some recreational facilities provided, special care services provided, religious services available, may furnish occasional free transportation to shopping areas, many older people living in the same building, $350 per month, including meals (may be partially paid by government).
8. Medium-sized two bedroom home, just outside town, on five acre plot of land, much yard space and large garden area, a few fairly close neighbors, within short distance to grocery shopping, but farther from church, school, business and recreational facilities, valued at $18,000.	
9. Spacious four bedroom house, in new residential development area at the edge of town, well-landscaped lots, winding streets with no through traffic, plenty of space for outdoor entertaining, near country club, no shopping facilities near, valued at $55,000.	

RULES

ROUND 1

Each player is dealt 3 cards.
Keep or discard any number of these cards in keeping with the household situation, values, dwelling and points for winning.
Record the point value of the cards kept on the SCORE SHEET.

ROUND 2

Pick a CHANCE CARD.
Follow the instructions on the card.
Record any change of points.

ROUND 3

Play as ROUND 1.

ROUND 4

Play as ROUND 2.

ROUND 5

Play as ROUND 1.

ROUND 6

Each player is dealt one final card.
Keep or discard as needed.
Record points on SCORE SHEET.
Total points for the 6 rounds.
For each card chosen, put a plus (+) or minus (-) under each value that you have recorded for your character.
Do this also for the dwelling you have selected.

If you have twice as many plusses as minuses and have stayed within the number of points specified for your character, you are a winner.

SCORE SHEET

ROUND	ACQUISITION CARDS	CHANCE CARDS	POINTS
1			
2			
3			
4			
5			
6			
			Total
plusses / minuses	= _____	=	_____

ACQUISITION CARDS

SINGLE BED
15 points

ROCK GARDEN
25 points

SMALL RUG
10 points

STEREO SOUND SYSTEM FOR ENTIRE HOME
35 points

SWIMMING POOL
60 points

HOT WATER HEATER
15 points

VACUUM SWEEPER
15 points

FIRE PLACE
40 points

CARPORT
45 points

GAS GRILL FOR OUTSIDE
20 points

LANDSCAPING
30 points

DESK
20 points

COLOR TV
25 points

STEREO UNIT
15 points

LAMP
10 points

SEWING MACHINE
20 points

DINING TABLE AND CHAIRS
40 points

PAVED DRIVEWAY
25 points

FURNACE
40 points

OUTDOOR FURNITURE
25 points

EASY GRIP UTENSILS
5 points

HANDRAIL IN BATHROOM
5 points

PATIO
40 points

CHILDREN'S SWING SET
20 points

POOL TABLE
25 points

SWING OUT CABINETS
10 points

IRONING BOARD
5 points

NEW CURTAINS
10 points

OUTDOOR GREENHOUSE
30 points

DOUBLE BED
25 points

QUEEN SIZE BED
35 points

REFRIGERATOR
30 points

GARBAGE DISPOSER
20 points

CARPET FOR ENTIRE HOME
30 points

SMALL DINETTE SET
20 points

BABY FURNITURE
30 points

BAR
30 points

BLACK AND WHITE TV
15 points

LOUNGE CHAIR
20 points

LAMP TABLE
15 points

WASHING MACHINE
25 points

NEW SLIP COVERS FOR LIVING ROOM FURNITURE
15 points

ORIGINAL SCULPTURE
40 points

PUBLIC LIABILITY INSURANCE
10 points

NEW PAINT FOR OUTSIDE OF HOUSE
20 points

NEW PAINT FOR INSIDE OF HOUSE
15 points

EXTRA BEDROOM
50 points

CENTRAL AIR CONDITIONING
40 points

ANTIQUE SETTEE
35 points

GLASS TOP TABLE
15 points

SOFA
25, 20 and 15 points

ORIGINAL OIL PAINTING
40 points

HOME OWNERS INSURANCE
10 points

CHANCE CARDS

Receive a large settlement from insurance
ADD 20 POINTS

Family member received inheritance of $1,000
ADD 20 POINTS

Last child becomes financially independent
ADD 15 POINTS

House in Urban Renewal destruction area, must move, but will be paid 1 1/2 times the value of house
ADD 20 POINTS

Receive money back on income tax
ADD 10 POINTS

Win small amount at the tracks
ADD 5 POINTS

From entering a drawing at a local store, win free siding for house
ADD 15 POINTS

Bread winner gets promotion on job
ADD 15 POINTS

Finish paying off car
ADD 15 POINTS

Someone is hurt in an accident on your property
SUBTRACT 15 POINTS IF PROPERTY OWNER

Furnace breaks down
SUBTRACT 5 POINTS IF PROPERTY OWNER

Severe hail storm strikes
SUBTRACT 15 POINTS IF PROPERTY OWNER
CANCEL IF HOME OWNERS INSURANCE IS CHOSEN

Because of street improvements, property value is raised
ADD 10 POINTS IF PROPERTY OWNER

Because of over-building in city, rent is lowered
ADD 15 POINTS IF RENTING

Because of a change in city administration, property taxes reduced
ADD 10 POINTS IF PROPERTY OWNER

Hang in there
NO CHANGE

NO CHANGE

Repairs needed because of plumbing failure
SUBTRACT 10 POINTS

Bread winner laid off job for a few weeks
SUBTRACT ALL BUT 25 POINTS

Vandals break in and the result is much damage
SUBTRACT 20 POINTS

Neighborhood baseball game broke out a window
SUBTRACT 5 POINTS

Property taxes raised
SUBTRACT 10 POINTS IF PROPERTY OWNER ONLY

Because of housing shortage in city, rent is raised
SUBTRACT 10 POINTS IF RENTER ONLY

Bread winner gets job transfer
SUBTRACT ALL BUT 20 POINTS

Bread winner loses job
SUBTRACT ALL BUT 20 POINTS

Family member is taken ill
SUBTRACT 10 POINTS

Someone is hurt in an accident on your property
SUBTRACT 15 POINTS IF PROPERTY OWNER
CANCEL IF PUBLIC LIABILITY INSURANCE IS CHOSEN

Because of termites, much damage results
SUBTRACT 10 POINTS IF RENTER
20 POINTS IF PROPERTY OWNER

Neighborhood ravaged by flood
SUBTRACT 15 POINTS IF RENTER
20 POINTS IF PROPERTY OWNER

Food costs rising very rapidly
ALL PLAYERS SUBTRACT 15 POINTS

Elderly family member moved in
SUBTRACT 5 POINTS

Family member is chronically ill
SUBTRACT 20 POINTS

House burns down
LOSE ALL POINTS

Because of failure to make mortgage payments, house is repossessed
YOU ARE OUT OF THE GAME

APPENDIX B

STUDENT QUESTIONNAIRE

1. Were the instructions of the game easy to follow?

_____ Yes, the instructions were clear and easy to follow.

_____ Sometimes they could have been more easily understandable.

_____ No, I often had difficulty following the instructions.

2. Did you enjoy playing the game?

_____ Yes, I had fun playing the game.

_____ Sometimes, but occasionally it was boring.

_____ No, it was too time consuming and difficult to play

3. Did the chance cards make playing the game more interesting and realistic?

_____ Yes, not knowing what was to happen made the game more interesting and realistic.

_____ Sometimes the chances added interest and realism.

_____ No, the chance cards added no interest or realism.

4. Since completing the game, do you feel you are better able to make good judgments about housing?

5. After playing the game, do you feel you have a better understanding of different people's housing choices?

6. The part of the game I liked best was:

7. The part of the game I liked least was:

8. Other comments or suggestions for the game are:

VITA

Sharon Lee Burgess

Candidate for the Degree of

Master of Science

Thesis: THE HOUSING GAME: A SIMULATION GAME OF HOUSING CHOICES

Major Field: Housing and Interior Design

Biographical:

Personal Data: Born in Okmulgee, Oklahoma, August 25, 1946, the daughter of Dent L. and Ruth S. Burgess.

Education: Graduated from Tishomingo High School, Tishomingo, Oklahoma, May, 1964; received a Bachelor of Science degree in Home Economics Education from Oklahoma State University, Stillwater, Oklahoma, May, 1968.

Professional Experience: Vocational Home Economics teacher, Pauls Valley High School, Pauls Valley, Oklahoma, 1968-1971; Graduate Teaching Assistant, Home Management, Equipment, and Family Economics Department, Oklahoma State University, 1971-1972.

Professional Organizations: American Home Economics Association, Oklahoma Home Economics Association, American Vocational Association, Oklahoma Vocational Association, National Education Association, Oklahoma Education Association, Phi Upsilon Omicron, Omicron Nu, American Association of University Women.