

THESES AND DISSERTATION ABSTRACTS 1997

VISITORS' & OUTPATIENTS' PERCEPTIONS OF A HEALTHCARE WAYFINDING SYSTEM: A CASE STUDY

Noriani H. Ahmad

Proper wayfinding cues help direct people to their destinations, thus avoiding feelings of frustration and helplessness. The purpose of this study was to obtain and analyze adult consumers' perceptions of visual aspects of an existing hospital wayfinding system and to propose design solutions for its improvement. Based on Thiel's Notation System a two-part questionnaire was administered to a randomly selected sample of 125 visitors and outpatients visiting a Topeka, Kansas hospital over a two-week period.

The researcher concluded that for visitors and outpatients, the choice of parking location and entrance, purpose of the trip, and primary destination within the hospital are key factors in determining wayfinding behavior. With two exceptions, this hospital's landmarks and existing map were not used by visitors and outpatients as reference points in making their wayfinding decisions. For visitors and outpatients, this hospital's pictographs, directories and signs with arrows were more effective wayfinding aids than the existing map and medical terminology used on signs.

Master of Science
B. J. White
Kansas State University

EMPLOYER PREFERRED COMPETENCIES AND ATTRIBUTES IN INTERIOR DESIGN GRADUATES

Rekha Asthana

The purpose of this study was to ascertain key competencies and personal characteristics desired by interior design practitioners when hiring recent interior design graduates of baccalaureate interior design programs. A random sample of 150 members was drawn from a list of 700 members of: ASID, AIA, and IFMA. Out of the 150 practitioners contacted via mailing a survey package, a total of 55 questionnaires were returned for a response rate of (36%). The respondents completed a four part questionnaire, using a Likert Scale of 5 to 1, with 5 being very important and 1 very unimportant. Data were analyzed using the t-test with significance set at the 0.05 level.

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Findings indicated that the respondents considered 28 of the 29 variables (97%) important, based on the means of 3.0 or higher. An overwhelming majority of the respondents, irrespective of the demographics for the individual or firm, identified personal characteristics and communication skills as very important and desirable in new graduates. Although the respondents also considered the technical skills important, the responses were not as consistent. The essence of the person, not merely the training in skills that the graduates receive, emerged as being of more importance.

Master's Degree
Carol Borman
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HOME-BASED BUSINESS WORKSPACE: SATISFACTION OF NORTH DAKOTA WOMEN ENTREPRENEURS

Annette L. Bach

This study obtained data on North Dakota women entrepreneurs engaged in home-based businesses in order to provide a profile of this population. The study also determined what demographic characteristics and workspace conditions are related to satisfaction with the workspace.

The Women's Business Institute provided the database. The survey method was an opscan format mail questionnaire, which produced a 38% response rate. Chi-square and Phi Coefficient analysis of 116 responses provided answers to the research questions.

Testing of the model showed the following major findings: these North Dakota home-based businesses are small, part-time, developing businesses fulfilling personal as well as economic needs, and most are not the major source of income for the household. This group of entrepreneurs may be an indicator of an emerging style of home-based businesses, "Hobbypreneurs." Almost three-fourths of the sample expressed satisfaction with all five workspace variables: space, privacy, security, safety, and accessibility. Four significant associations are: (1) other household members in the business and satisfaction with space, (2) other household members in the business and satisfaction with privacy, (3) designated space for the business and satisfaction with space, and (4) storage for business items and satisfaction with privacy.

Doctor of Philosophy
Rosemary Carucci Goss & Kathleen Parrott
Virginia Polytechnic Institute and State University

INDEPENDENT LIVING: ARCHECTURAL AND ENVIRONMENTAL ACCESS THROUGH UNIVERSAL DESIGN

DeVonna L. Cunningham Cervantes

The focus of this research is an evaluation of the influence of Universal Design on home accessible adaptations and residential design as supportive and functional for people of all ages and abilities to live independently. The Bartlett Independent Living Laboratory on the campus of Oklahoma State University is a demonstration facility. Two groups were studied, person who had toured the Bartlett Laboratory and a randomly selected comparison sample. Participants in the studies were 249 and 131, respectively. An instrument to measure attitudes about disabilities, living independently and working productively was designed and disseminated. Demographic frequencies, factor analysis, t-tests and Chi-square were used to condense data into a usable form.

Between the two sample groups, those that had toured the Bartlett Laboratory had a general overall more positive attitude towards people with disabilities; i. e., "Could a person with (specific disability) live independently and work productively?", than did the random comparison sample. Results from t-tests indicated persons who had toured Bartlett scored significantly higher than did the random sample. Persons who had toured the Bartlett Laboratory were even willing to increase income taxes to subsidize persons with disabilities.

Master of Science
Margaret J. Weber
Oklahoma State University

COMPOSITIONAL ADAPTATION IN CORESIDENT HOUSEHOLDS IN DAEJEON, KOREA: A TEST OF HOUSING ADJUSTMENT THEORY

Lois Jean Edstrom Cutler

This research analyzed the living arrangements of households in Daejeon, South Korea. The effects of constraints, coresidence, and satisfaction with current living arrangements on intentions to engage in compositional adaptation were analyzed. Coresidence was defined as two adult generations, related as parent and child, living together in a dwelling as a single household. Compositional adaptation refers to the intentions of the household to change living arrangements. The Morris / Winter (1978, 1994) theoretical framework was used to guide the research. The data were gathered

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from a sample of 500 households in Daejeon, Korea. Interviews with the spouse of the male head of the household or the female head of the household were conducted by Korea Gallup Poll, Inc. Age of the respondent, family size, practice of ancestor worship, and type of structure of the dwelling were found to affect coresidence. Coresidence was negatively related to satisfaction with current living arrangement and positively related to expected duration of current living arrangement.

Doctor of Philosophy
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University of Minnesota

USER'S INFLUENCE ON ENERGY CONSUMPTION WITH COOKING SYSTEMS USING ELECTRICITY

Elizabeth Ann Demerchant

The purpose of this research was to explain the user's influence on energy consumption with cooking systems using electricity. This research was conducted in two phases. The research objective of Phase I was to determine if relationships exist that explain the user's influence (i.e., user characteristics – knowledge, experience, practices, and user interaction – and appliance operating time) on the energy consumption of cooking systems using electricity. The ultimate aim of Phase II, was to identify categories of cooking style that explain the user's influence (i.e., user characteristics and appliance operating time) on energy consumption of cooking systems using electricity. The data used to answer the research question consisted of videotapes of consumers preparing the research menu, a survey, and data recorded on a data collection sheet by the researcher (i.e., watt-hour consumption).

Phase I determined that energy consumption was correlated with knowledge, user interaction, practices, appliance operating time, cooking system interaction, goodness-of-fit, information, behavior, the user, and statistical interaction between the cooking system and goodness-of-fit. Independent variables explained 38.6% of the variation in energy consumption was explained. Phase II determined the three most important factors that distinguished the five cooking style categories based on user characteristics (i.e., patient style, average style, uninformed style, hurried style, and hurried style with no control) were (a) percentage of the sample that left the heat source on after cooking, (b) percentage of the sample that did not match the diameter of the heat source and the diameter of the cookware when using high heat, and (c) percentage of the sample that fried using high heat. Additional variables that differed among categories were: reusing hot elements, use of retained heat, and use of medium heat settings.

In summary, important factors in explaining variations in energy consumption include: inherent characteristics of the cooking system, user's knowledge, highest heat setting selected and matching the diameter of the heat source with the cookware diam-

eter, leaving the heat source on after cooking, and selecting highest heat setting when frying. Three categories of consumers cooking style were developed (i. e., low, average, high energy consumption) to summarize the data. The highest heat setting selected and leaving the heat source on after cooking was completed were factors that distinguished consumers among the three categories.

Doctor of Philosophy
Rebecca P. Lovingood
Virginia Polytechnic Institute and State University

AN ENVIRONMENTAL – BEHAVIOR ASSESSMENT OF A HISTORIC NEIGHBORHOOD AND ITS RESIDENTS: A MODEL OF PLACE ATTACHMENT

Christina Gray James

The purpose of this study was to examine the place attachment of the Swan Lake neighborhood located in Tulsa, Oklahoma. Participants in the study were 109 adult residents of the Swan Lake neighborhood. Each participant completed the Swan Lake Neighborhood Survey. Descriptive statistics as well as Chi-square and factor analysis were used to answer specific research questions regarding the common characteristics of the residents, the reasons that the residents chose to live in the neighborhood, the level of place attachment of the residents to their dwelling place and the surrounding neighborhood, and how the residents' attachment to place is manifested.

A Place Attachment Index (PAI) was created to measure the percentage of respondents who indicated an attachment to place. All of the respondents exhibited some degree of place attachment for their dwelling place and the Swan Lake neighborhood. The majority of respondents (76%) showed a high degree of attachment to place. The residents' self-image is connected to their dwelling place and neighborhood and it was found that self-identity is significantly related to place attachment. It was also concluded that length of residence, ownership, and personality type is significantly related with feelings of place attachment. Respondents who preferred historical neighborhoods and respondents who take pride in the Swan Lake neighborhood symbols reflect the common attitudes and values of the residents and allow them to communicate a neighborhood identity to others. Factor analysis identified several factors related to the residents' housing choice including comfort, age of the home, investment purposes, and economics. Factor analysis identified several factors related to the residents' neighborhood choice including historic quality, proximity to natural and community amenities, and proximity to workplace.

Master of Science
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Oklahoma State University

SYMBOL USAGE IN THE APPEARANCE OF SMALL BUSINESSES

Kimberly Rennea Wessels Jenlink

This study determined the importance of the symbols used in store fronts and store interiors on the meanings decoded by potential clients of bridal stores. One hundred and eighty single, female, students on the campus of Oklahoma State University participated in the survey. Subjects were asked to view a photograph of a store front and a photograph of a store interior and record their reaction to photographs by judging attributes on a Likert-type scale, and answering open-ended questions. The subjects were then asked to give a reaction to the overall appearance of the store based on the interior and exterior photograph together. Chi-square analysis and differences in the means were used to test the hypothesis. Answers to the open-ended questions were analyzed to find commonalties.

There was a significant difference among the different photographs of the store-fronts. Chi-square analysis found that the first two storefronts were perceived as better than the third. A mean score analysis determine one store was perceived the most positively for all characteristics. Store interior and the overall store image were not found to be significant. These findings indicted that people use symbols in the store appearance to make projective inferences about the store. This study indicated that people will use symbols to decode messages about the quality, variety, and cost of merchandise. Based on these inferences, a person will also determine whether the store will meet his or her expectations and may decide they do not want to enter after viewing the exterior of the store.

Master of Science
Cheryl Ann Farr
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NEW DIRECTIONS IN SHELTER STRATEGIES FOR THE URBAN POOR: THE CASE OF COLOMBO, SRI LANKA

Sevini D. Kirinde

This report describes housing policy in Sri Lanka with emphasis on the governments' policy for dealing with unauthorized squatter or shanty settlements. Policy has evolved from attempts to eliminate spontaneous settlement, which were viewed as evidence of failed economic and social policy, by bulldozing slums and constructing public housing, to the current paradigm in which every person and household is offered the opportunity to satisfy their individual shelter needs.

The analysis of Sri Lanka's pre-1983 and post-1983 housing policies and their outcomes revealed that citizen and community participation is essential in the provision of shelter for the low-income urban dwellers. Piecemeal approaches to the provision of housing do not have successful results. In essence, the new shelter strategies for the urban poor focus on the provision of land tenure, adequate credit, decentralization and devolution of the housing delivery approaches, and the comprehensive policymaking where the shelter strategies are integrated with national economic development and planning.

Master of Regional and Community Planning
Ray B. Weisenburger & B. J. White
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RESIDENTIAL INTERIOR ENVIRONMENTS OF RETIRED GOVERNMENT EMPLOYEES IN THAILAND

Benjamas Kutintara

The purpose of this study was to explain the safety and usability problems in the residential interior environment of Thai older adults. A sample of 163 retired government employees who live in Bangkok, Thailand were asked to complete a self-administered questionnaire which included questions about housing characteristics, interior environment features, personal information, health condition, and activity level.

When respondents were divided by age group, significant differences appeared in the degree of difficulty with two safety and usability features in the home. Divided by daily activity levels, respondents revealed significant differences in the degree of difficulty associated with eight safety and usability features. When the homes were broken down to five categories: entrance and stairs, bedroom, bathroom, kitchen, and other interior features of the house, it was these other interior features that seemed to have the most problems in safety and usability. The kitchen had the most problems in safety and usability when compared to other rooms. Based on these findings, design recommendations for Thai housing were developed.

Master of Science
Julia O. Beamish
Virginia Polytechnic Institute and State University

CHANGING TO THE TEAMWORK SETTING: A CASE STUDY

Youngwha Lee

The purpose of this case study was to examine one division's experimental change to the teamwork concept within a large organization. The researcher gathered relevant company documents, conducted personal interviews with middle managers, and distributed surveys to all 175 employees in the sample division. Of the 106 responses, 88 surveys were complete and usable. Nearly three-fourths of the respondents had been employed in the division since the change to teamwork in 1989. Almost one-half of the respondents were underwriters, clerks, or processors / checkers. About one-half of the subjects had some college or vocational training, and nearly one-fourth had a Bachelor's degree.

The study concluded that team members' involvement during the implementation of the division's to the teamwork concept generated more positive responses. The teamwork concept has resulted in increased team member satisfaction. Adoption of the teamwork concept, with its loosely coupled settings and subsequent physical and work process changes, has resulted in greater and more varied use of the total facility. For example, team members who previously reported that they spent the vast majority of the work day (6.48 hours) in their individual work stations now use the cafeteria and third floor center conference room more frequently and for new types of activities.

Master of Science
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Kansas State University

HISTORIC BUILDING REUSE IN DOWNTOWN TULSA, OKLAHOMA

Linda O. Pierce

The purpose of this study was two-fold: 1) to determine willingness to live in a renovated building in the downtown Tulsa, Oklahoma area, and 2) to determine the perceptions of renovated historic buildings. From this and other related inquiries, as well as basic demographic questions, information was obtained from a sample population.

Data were analyzed and used to create a design plan for a six-story structure currently located immediately north of downtown Tulsa, Oklahoma. The Tribune Building, listed on the National Register of Historic Places is a prime example of a vacated structure, which with the appropriate design can be adapted for use other than its original intent. The former manufacturing facility was redeveloped as a mixed-use project incorporating small retail and moderately priced rental apartment units. Research based

design provides the prospective tenant the opportunity to voice his or her needs and desires in their housing situation. Many popular amenities were not needed or even wanted by the sample population which allowed the designer to economize in more traditional areas and concentrate on the public spaces with impressive, yet cost-saving materials. Innovative design and building techniques were incorporated which provided a pared down look to keep the feel industrial, but yet maintained the original integrity of the historic building.

Master of Science
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Oklahoma State University

INDEPENDENT LIVING RETIREMENT FACILITIES: THE EFFECT OF PUSH AND PULL FACTORS ON RESIDENTIAL SATISFACTION

Sandra G. Reynolds

The purpose of this study was to examine the relationship between motivations for moving to independent living retirement facilities and subsequent satisfaction with that environment. Focus groups were convened with residents of townhomes leased to older adults in an age-segregated planned retirement community. Focus group findings were used to develop questionnaire with a self-administered four-point Likert scale which was sent to all residents of the townhomes. The instrument measured the influences on moving and residential satisfaction. The data were analyzed using descriptive statistics, correlation analysis, and multiple regression.

The research found that the variables that significantly predicted residential satisfaction were a preference for a homogeneous community, a desire to move closer to friends and family and the pull of the macroenvironment, which had an inverse relationship to residential satisfaction. The study also indicated a strong relationship between management and residential satisfaction.

Doctor of Philosophy
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Virginia Polytechnic Institute and State University

OLDER CONSUMERS' PRE- AND POST-TRIAL PERCEPTIONS OF RESIDENTIAL UNIVERSAL DESIGN FEATURES

Jinhee Sohn

The purpose of this study is to examine older adults' pre- and post-trial perceptions of universally designed kitchen and bathroom features that they "consumer tested" in a laboratory setting. Based on Rogers' theory of diffusion of innovations, this study posed questions to 20 older adults, before and after being introduced to and trying out 12 selected universally designed items. The research questions focused on older consumers' pre-trial universal design awareness, their post-trial perceptions, and perceived attributes of universal design features that promote independence and safety at home.

The study concluded that the adults overall lack of perceived needs and their success with behavioral adaptations in the home environment have given them little reason to become aware of or consider universal design features. The opportunity for these older consumers to try out selected universal design features appears to have reduced uncertainty relative to their usefulness. The products' perceived associations with functional limitations and the subject's relative lack of physical impairments, however, have reduced the likelihood of their purchase in advance of need. Regardless of perceived attractiveness and usefulness, both the perceived and actual costs of universal design features are another potential barrier to widespread adoption. The most immediate and cost-effective target market for universal design products is older persons who already acknowledge needs for residential features that will enhance their safety and prolong their independence.

Master of Science
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Kansas State University

ECHO HOUSING IN KANSAS: A DIFFUSION NETWORK CASE STUDY

Deborah Mathelsa Tomasowa

The Elder Cottage Housing Opportunity (ECHO), a small modular unit installed adjacent to a single-family home, is a nontraditional retirement housing option used in other countries, but rarely in the United States. This researcher conducted personal interviews, based on Rogers' "two-step flow model", with 11 individuals involved in the placement process and surveyed 34 local residents. The research questions were related to identifying diffusion networks and participants' perceptions regarding ECHO housing.

The researcher concluded that initial niche marketing may be a critical prerequisite to a broader phase of marketing designed to reach the critical mass. In order to clear local zoning and building code requirements the units had to be attached directly instead of only by utilities to the primary residence. The initial visibility provided by placement of the ECHO units may produce greater awareness. These ECHO units meet a recognized need and filled a housing market gap for families with a health crisis and no other alternative but a nursing facility.

Master of Science
B. J. White
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