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Evaluation of Activity Programming at Nursing Homes

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EVALUATION OF ACTIVITY PROGRAMMING AT NURSING HOMES

by
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TABLE OF CONTENTS

LIST OF TABLES AND FIGURES

Table

Figure

INTRODUCTION

In 1988, people aged 65 and older composed only 12.4% of the population. By 2030, nearly 22 percent of the population, 65.6 million people, will be aged 65 and older (U.S. Census, 1989). With this burgeoning sector of the population needing public funds, taxpayers will probably increase attention on how public money is being spent. In an attempt to reduce waste, it may be tempting to eliminate any health program which does not obviously extend life. Furthermore, the programs which cannot be evaluated in any systematic, quantifiable manner will become most vulnerable to cuts. Activity programs which may only have indirect impact on lengthening life and are difficult to evaluate in a systematic, quantifiable manner, are extremely vulnerable to budget cuts. Thus researchers who believe in the impact activities have on an older adult's quality and quantity of life, must discover systematic, quantifiable approaches which can be used to evaluate the effectiveness of activity programs. These evaluation tools will be valuable to taxpayers who want to insure that their funds are being well spent. However, these tools will be valued even more by nursing home administrators and direct caretakers of older adults who are motivated to find the most vital living

environment possible for their older adult clientele.

A nursing home administrator is committed to providing quality care for a resident's psychological and physical needs; physical health concerns are the obvious priority. Nursing home administrators, constrained by budget limitations, can not maintain state-of-the-art activity programming when the sole purpose of such programming is to improve the home's public relation image with staff, visitors or residents. Furthermore, only an irresponsible administrator would sacrifice dollars which could be spent on basic human needs in order to maintain superfluous programs. Administrators who may be forced to eliminate programs which do not obviously contribute to residents' psychological and physical needs, should not, however, simply abandon all activity programming. The dual purpose of the following report is (a) to review the important role that "high quality" activities can play in improving residents' psychological and physical health, and (b) to document the application of a tool which measures the quality of activity programming.

Literature Review

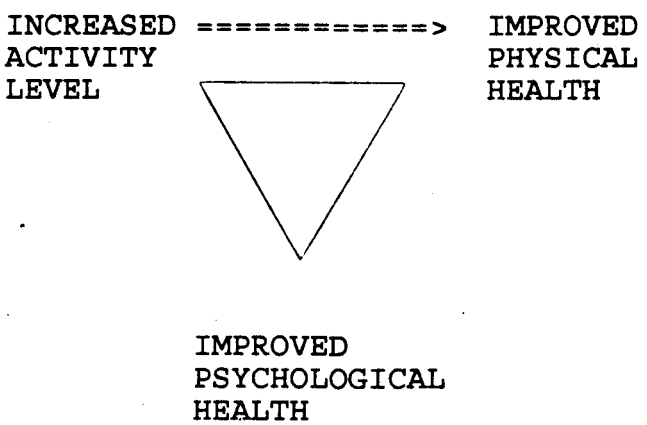
The relationship between leisure activities and an older adult's psychological and physical health is not entirely clear. It could be argued that there are mediating variables in any of the relationships which are discussed

below. For example, personal control variables like "optimism" may mitigate the causal relationship which exists between activity and health. However, this evaluation will focus on external variables which are the most accessible to nursing home administrators and activity department staff. Nathan Caplan and Steven Nelson (1973) refer to this approach as a "system-centered" intervention.

Providing a convincing argument for activity programming as preventive medicine, Charles Bonner (1969) determined that the degenerative process of aging increases when the older individual is inactive. More recently, House, Robbins, and Metzner (1982) in a prospective study, found a relationship between level of activity, amount of contact with friends, and the subsequent mortality rate for adult men and women. After factoring out age (which accounts for the greatest proportion of variance in predicting mortality among ten potentially confounding risk factors) seven of their nine selected activities, had a significant relationship with the mortality rates of 2754 men and women aged 35 to 69 in 1969. The mortality rate for men who died in or before 1979, is inversely correlated with their self-reported activity level. Men who report that they engaged in any of the seven selected activities an average of "zero to five times in the past twelve months" had a mortality rate of 29.8% (n=62). Whereas only 7.7% of the 197 men who engaged in any of the seven selected

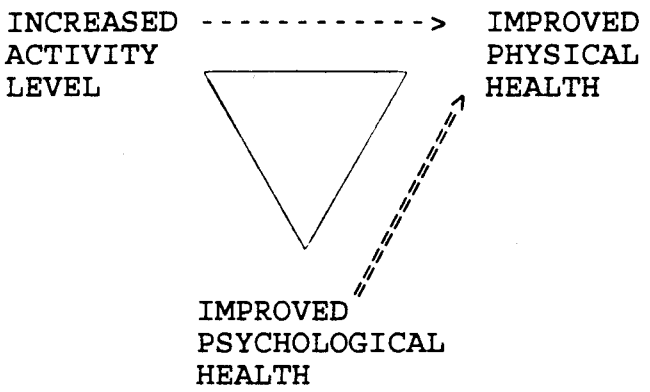
activities an average of "more than once a week in the past twelve months" died.

An inactive male has more than three times the mortality rate of his active counterpart. This suggests that a nursing home concerned with reducing the mortality rate of its residents, and maintaining their functional levels, should work to increase the number of social interactions each resident experiences daily. This research may appear to support the unidirectional relationship between activity and health, but active residents are healthier, it does not follow that improved health causes improved activity. The following triangle diagram highlights the relationship between activity level and physical health which is supported by the research of Bonner (1969) and House, Robbins and Metzner (1982). The double lines indicate the relationship which their research most directly supported.



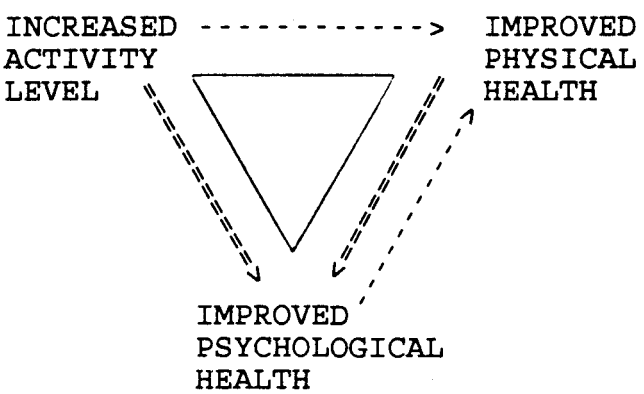
There exists quite a bit of evidence which suggests that both strong psychological health and high levels of activity are associated with good physical health. For example, Mossey, Mutran, Knowtt and Craik (1989) found that individuals with high depression scores did not recover from surgery for hip fracture as quickly as their less-depressed counterparts. This suggests that, for an injury common to older adults, strong psychological health may facilitate recovery, or, at least, poor adjustment impairs recovery.

In addition to improving the "injured" status of an older adult, strong psychological health can be used as "preventive medicine." In a review of 160 different studies, David Jenkins (1971) concluded, "The accumulated evidence places several of the psychosocial variables reviewed among the major risk factors to coronary disease" (p. 315). Thus, it follows that nursing home administrators concerned with preventing coronary disease should focus some of their efforts on improving residents' psychological health. The following triangle diagram highlights the relationship between psychological health and physical health which is supported by the findings of Mossey et. al. (1989) and Jenkins (1971). The double lines between psychological health and physical health indicate the relationship which their research most directly supported. Previously discussed research is documented with the single dashed line between activity and health.



Regardless of whether physical health is always improved by good psychological health, a responsible administrator seeks to improve residents' psychological health as an end in itself. In addition, improved physical health is one of the factors positively affecting psychological health. Thus, the relationship between psychological health and physical health is not unidirectional. For example when comparing level of activity, self-reported health, income, and education, Markides and Martin (1979) determined that "level of activity" and respondent's "health" stand out as the two most important variables affecting the life satisfaction of people aged 60 and older. Not only did this discovery highlight the bi-directional relationship between psychological and physical health, but it also closed the triangle (refer to diagram below) with the connection between psychological health and activity level. This last connection was further examined by Riddick and Daniel (1984)

who found that the psychological health of women over 65 is affected more by leisure roles (i.e., time spent socializing with friends, reading, gardening, walking, in clubs, doing volunteer work, or playing sports) than by other factors (i.e., income, health, and employment background). This result underscores the necessity of providing activities which directly improve psychological health and indirectly improve physical health. The following triangle diagram highlights the findings of Markides and Martin (1979) and of Riddick and Daniel (1984). The double lines represent the effect of improved physical health and increased activity level on psychological health. The single dashed line represents the relationship from previously discussed research.



Looking closer at the features that an activity program designed to improve psychological health must have, Ragheb and Griffith (1982) separated both (a) quality of activity from quantity of activity and (b) leisure satisfaction from general satisfaction. They found that a set of six leisure components (i.e. satisfaction with standard of living, leisure satisfaction, satisfaction with family relations and activities, satisfaction with health, leisure participation, and marital status) explain 39 percent of the variance in life satisfaction of people age 55 and older. Of these six factors, leisure satisfaction was the single most important factor, accounting for 20 percent of the variance in life satisfaction. This finding suggests that leisure activities which are considered "satisfying" by older adults have the most dramatic effect on their relative life satisfaction, or psychological health.

The Present Study

It is evident that both the psychological and physical health of nursing home residents are greatly affected by the quantity and quality of leisure activities in which they participate. Therefore, the Activity Department should provide leisure activities that the residents are motivated to attend and will find satisfying. It is a challenging task to sponsor leisure activities that help enrich the lives of elderly residents rather than merely keeping them

busy. The population to whom an Activity Department caters, is often heterogeneous in terms of the era in which they were raised, their socioeconomic background, their pre-retirement leisure and career activities, and their current cognitive ability. All of these factors must be considered when tailoring activities to nursing home residents. Certainly there may be some activity programs that transcend personal/historical differences between clients or that seem to interest a large proportion of the residents. Under these circumstances, an activity director would undoubtedly continue these programs and might even consider offering them more often.

Constrained by economic realities, activity directors must cautiously expand "popular" programs while eliminating those that seem "unpopular." By and large, they rely on informal, non-empirical feedback when making decisions. Some of the more common sources of feedback they receive include: attendance sheets, reports from activity therapists delivering the services, feedback from residents who compliment or complain about a program, and their reading of a vast and conflicting body of leisure research. These sources of information are usually relayed to activity directors on a haphazard basis and often represent the opinions and concerns of a vocal minority of clients. Other than attendance sheets, there are typically no objective, quantitative measures of a program's success available.

Indeed, Connolly (1982) determined that the unavailability of sophisticated program evaluation methods and procedures is a widespread limitation for program directors attempting to improve established therapeutic programs.

The primary purpose of this study is to measure residents' satisfaction with activities at a local health care facility for older adults--The Presbyterian Home--something needed to form suggestions for program improvement. Not incompatible with this goal is the effort to document the use of the evaluation tool so that its utility can be expanded to a variety of programs in many different settings. When generalizing the use of this tool to other settings, one must consider the relatively limited characteristics of the selected programs and the somewhat uniform Presbyterian Home population.

The Presbyterian Home is a "Life Care Center" catering to the needs of a wide variety of residents. Some residents live with great autonomy in free-standing housing units, accepting only minimal custodial and medical services and having the option to eat meals with other residents in any of the Presbyterian Home's dining rooms if they choose not to cook. Not all residents enjoy such independence, many residents' mobility has been greatly reduced by age-related illness and injury. Residents with diminished cognitive and/or physical functioning are more likely to reside in the "Health Care Center" which more closely resembles a typical

nursing home with private rooms arranged around a nursing station. Although the Activity Director is responsible for coordinating the activities for the entire Life Care Center, she was most interested in evaluating the quality of activity programming in the Health Care Center complex. Within the Health Care Center, there is a wide variety of physical and cognitive impairment, however it is fairly homogeneous with respect to other demographic factors. With the exception of only a couple of Church-Sponsored residents, most of the residents are economically well off, thereby making their expensive stay at the Presbyterian Home possible. With only one Asian, the remaining residents are all white and predominantly Presbyterian. Only one man attended any of the activities. Most of the women are widowed or have never been married. Thus, the results of this study are somewhat limited. Although tool development techniques presented here are transferrable to other populations, a slightly different tool is required by nursing homes which cater to different populations (eg. non-white, poor, males). Obviously, the precise feedback collected is only relevant to this particular nursing home.

To reflect some of the diversity of the nursing home and to increase generality of results, three distinct types of activities were selected; they include: (1) arts and crafts activities; (2) a recreational game; and (3) a social event. The selected activities, "Seasonal Sampler" and

"Hobby Shop, were examined for their arts and crafts qualities. "Bingo" was selected to represent the game category. "Coffee Hour" and "Tea Parties" were selected to represent social events. Using the vernacular of the nursing home staff, these 5 different activities will be referred to as "programs."

The Importance-Performance Technique

To help maximize the number of quality programs and to improve the quality of current programs, the activity director needs objective, quantitative feedback to determine which program elements are most important to satisfying the needs of residents at the Presbyterian Home. The Importance-Performance (I-P) technique, as developed by Martilla and James (1977), has previously been used for this purpose in similar health care settings. Using the I-P technique, the activity director can compare many different programs in order to accurately distinguish attributes which are central to high quality programs from attributes which are more peripherally associated with high-quality programs.

History of the Importance-Performance Technique

In the field of leisure research, the definition and measurement of "quality leisure activities" is a much debated issue. The subjective quality of leisure activities seems to be best defined abstractly as existing "in the eye

of the beholder" (Tinsley & Tinsley, 1986). Thus, the most important judges of "quality programming" are the consumers of that programming, the current Presbyterian Home Residents.

The I-P technique makes central the opinions of Presbyterian Home residents. The I-P scales quantify and combine the opinions of resident "consumers" and make it possible to tailor current activities to the needs and interests of most current residents.

The I-P technique is based on the empirically validated theory that consumer satisfaction is a function of both client expectations of a service and client judgments of how well the service meets these expectations (Myers & Alpers, 1968; Swan & Coombs, 1976). The I-P scale asks respondents to rate both importance of and their satisfaction with critical features of a particular service. The most important benefit of the I-P scale is that it helps the activity director "...sense, serve and satisfy the needs and wants of its clients and publics within constraints of its [the facility's] budget" (Kotler, 1982, p.78).

METHOD

As mentioned earlier, three types of programs were targeted for evaluation, including: (a) arts and crafts activities; (b) a recreational game; and (c) a social event. Working with coordinators from each program, an I-P scale, specific to these three types of programs was developed. The I-P scale was administered to 33 residents through individual interviews. (For a thorough description of sampling techniques and cooperation refer to "Data Collection" section.) To insure that the program attributes measured are meaningful to residents at the Presbyterian Home and to insure that the program attributes measured are features over which the Activity Department has some control, much care and deliberation went into developing the I-P scales.

From the beginning, the activity coordinators were recruited to assist in conducting the evaluation. Calling on their expertise had many benefits. First, it is necessary to insure that the selected features are those which the staff intends to include in their program delivery--only the staff experts can define what they intend the program to consist of.

Second, only the staff themselves can report on how

much control they have over delivering the feature. And third, if the staff are involved in developing the evaluation tool, then they will be more motivated to examine and use the study's results.

Developing The Importance-Performance Scales

By recruiting the Activity Department staff, the Importance-Performance Scales were developed in three distinctive steps. These three successive steps are described below.

STEP 1: Brainstorming

Coordinators from each program identified specific features of the program that are important to consider in the evaluation. These features varied widely in the degree of subtlety with which they affected residents' enjoyment of a program. Some coordinators included subtle features, such as "whether or not the room is appropriately decorated." Other coordinators concentrated on more obvious features affecting resident enjoyment, such as "whether or not the staff person is enthusiastic and confident." Thirty-two unique features were generated by the nine participating coordinators. If all features had been retained, then the survey would have had a total of 64 questions. To prevent respondent fatigue, however, the feature list was reduced to the 14 most essential features using the "voting" procedure

outlined in step 2 (refer to Tables 1, 2, and 3).

STEP 2: Voting

After combining lists produced from Step 1, the composite lists of 34 features were returned to each coordinator with instructions to rate each feature on an importance rating scale as either "very important," "somewhat important," or "not very important." Each coordinator also indicated, for each feature, whether: (a) they personally have some degree of control over it (b) another department at the Presbyterian Home has some control over it, (c) only residents themselves have control over it, or (d) no one has control over it.

Because there was such diversity in the number of features each staff member generated, it was apparent that some coordinators were concerned with limiting their lists to only the features they considered most "important" to residents' enjoyment of a program. Other coordinators, however were more concerned with providing a complete list of features affecting resident enjoyment--even though some of the features were peripheral. Furthermore, when all the features were combined into one list, coordinators admitted that some listed in Step 1 were clearly peripheral to the residents' enjoyment of the program--to the point that

TABLE 1
Selected Factors for the Bingo Game

		Importance Scores	Performance Scores
(1)	Whether or not the staff person is enthusiastic and confident	2.51	2.50
(4)	Whether or not a staff person has come by their room to formally invite the resident to attend bingo	2.39	2.35
(5)	Whether or not the equipment is set up approapriately	1.66	2.59
(6)	Whether or not the staff deal smoothly and confidently with conflicts	2.33	2.19
(8)	Whether or not the floor staff (eg. nurses, aides) are participating in the activity	1.48	1.69
(13)	Whether or not there are enough staff to talk to the resident	1.66	1.43
(14)	Whether or not the activity is located near the resident's room	1.06	1.81
(15)	Whether or not the room is too noisy	2.50	2.44
(16a)	Whether or not the activity is too long	1.82	2.15
(16b)	Whether or not the activity is too short	1.55	2.55
(17)	Whether or not the residents are familiar with the staff in charge of the activity	1.63	2.28
(19)	Whether or not the staff person is well groomed	2.00	2.89
(20)	Whether or not the room has adequate furniture	1.27	2.36
(21)	Whether or not there are good prizes (bingo only)	1.96	2.64

Note: Mean scores are based on votes from 11 residents.

TABLE 2
Selected Factors for the Social Event

		Importance Scores	Performance Scores
(1)	Whether or not the staff person is enthusiastic and confident	2.74	2.69
(4)	Whether or not a staff person has come by their room to formally invite the resident to attend the social event	2.18	1.92
(5)	Whether or not the equipment is set up approapriately	1.95	2.40
(6)	Whether or not the staff deal smoothly and confidently with conflicts	2.40	2.78
(8)	Whether or not the floor staff (eg. nurses, aides) are participating in the activity	1.87	1.69
(13)	Whether or not there are enough staff to talk to the resident	2.06	2.05
(14)	Whether or not the activity is located near the resident's room . . .	1.97	2.75
(15)	Whether or not the room is too noisy	2.66	2.26
(16a)	Whether or not the activity is too long	1.85	2.67
(16b)	Whether or not the activity is too short	2.50	2.67
(17)	Whether or not the residents are familiar with the staff in charge of the activity	1.93	2.11
(19)	Whether or not the staff person is well groomed	2.46	2.84
(20)	Whether or not the room has adequate furniture	1.42	2.75

Note: Mean scores are based on votes from 12 residents.

TABLE 3
Selected Factors for Arts and Crafts

		Importance Scores	Performance Scores
(1)	Whether or not the staff person is enthusiastic and confident	2.83	2.61
(4)	Whether or not a staff person has come by their room to formally invite the resident to attend arts and crafts	2.42	1.82
(5)	Whether or not the equipment is set up approapriately	2.33	2.17
(6)	Whether or not the staff deal smoothly and confidently with conflicts	2.19	2.84
(8)	Whether or not the floor staff (eg. nurses, aides) are participating in the activity	1.67	1.41
(13)	Whether or not there are enough staff to talk to the resident	2.20	1.96
(14)	Whether or not the activity is located near the resident's room	1.92	2.39
(15)	Whether or not the room is too noisy	2.09	2.06
(16a)	Whether or not the activity is too long	1.89	2:46
(16b)	Whether or not the activity is too short	2.20	2.78
(17)	Whether or not the residents are familiar with the staff in charge of the activity	2.35	2.28
(19)	Whether or not the staff person is well groomed	2.56	2.76
(20)	Whether or not the room has adequate furniture	1.50	2.44

Note: Mean scores are based on votes from 10 residents.

the residents did not consciously notice them. Because the composite list included such a large number of features, of varying importance, and because the questionnaire which resulted from this list would be too long for most residents to complete, the above-mentioned importance rating scale was used to reduce the number of features to include only the most important.

We cannot possibly predict every variable which will be considered important to another person. What is trivial to a coordinator may be central to a resident's enjoyment of a program. One of the goals of this study is to determine--and point out to coordinators--which variables residents find important. Thus, the above-mentioned staff-generated importance ratings should not be relied on too heavily when weeding out non-essential features from the questionnaire. The second rating, concerning how much control an activity coordinator has over the delivery of the feature, draws more upon the expertise of the coordinator, and less on their speculation of what is important to resident enjoyment of a program. Each feature earned a mean rating score based on the degree of control coordinators felt that they, personally, had over the variable. It is critical that the selected features are those over which the staff believe they have some control. For example, all residents' enjoyment of the bingo game may be affected by whether or not they win. However, since the staff would have

difficulty controlling the delivery of this "win" feature, it would be meaningless to measure their performance on it. Because it is central to the study, the "control" mean score was double weighted and added to the mean "importance" score. Based on the summed mean ratings, the 34 features were rank-ordered and then converted into questions.

STEP 3: Selecting The Best Features

Working with the activity director, 14 of the 20 highest ranked I-P questions were selected. All 14 items had been ranked by coordinators to be within their control or within the control of some other department in the nursing home.

When reading the final questionnaire, each item was followed by referring to one of two Likert-type rating scales printed on cards held by the interviewer (see Figure 1). The first scale measures the importance of various features of the program using a 3-point scale ranging from "not important" to "somewhat important" to "very important." The second scale measures the Presbyterian Home's performance (i.e. the resident's satisfaction with the feature) on a 3-point scale ranging from "rarely" to "sometimes" to "always."

Figure 1: Examples of 3 Point Likert-Type Scales.

Question: How IMPORTANT is ____ to your enjoyment of the activity?

```
NOT                SOMEWHAT                VERY
IMPORTANT          IMPORTANT               IMPORTANT
1--------------------2-------------------------3
```

Question: How OFTEN is ____ well performed?

```
RARELY             SOMETIMES               ALWAYS

1--------------------2-------------------------3
```

Data Collection

During a six-week period, every meeting of the targeted arts and crafts, game and social programs were observed. Most programs were followed by at least one successful interview. Sometimes as many as four successful interviews followed a program. Factors affecting the number of interviews completed include: number of residents attending the activity that day, cognitive ability of the residents attending the daily activity (i.e. some days the participating residents had very limited memory spans), amount of time between the activity's end and meal time or the next activity, and amount of time spent on previous interview(s). Each of the 33 interviews was completed in 15 to 30 minutes.

Sampling

The 33 residents were selected based on their level of cognitive functioning relative to other residents at the activity that day. Assessments of cognitive functioning were made informally by coordinators naming the four or five residents most likely to be able to complete the interview. None of the 36 approached residents refused to be interviewed and only 2 residents chose to terminate the

interview--one woman was ready to eat lunch and the other woman was interested in helping the nurses. Both of the incomplete interviews were discarded. The third unused interview was discarded when it became obvious that the respondent was talking about creating lesson plans when she was teaching rather than talking about the activity she just completed. Twenty-nine different residents were interviewed. Four of the residents were interviewed twice, for two different programs. No residents were interviewed three times. An attempt was made to collect interviews from as many new residents as possible, however, the small size of each activity combined with the tendency for the residents who participate at all, to participate in many programs, made this impossible.

Interview Setting

Although residents were introduced to the researcher by the activity coordinator at the beginning of a program, she briefly reintroduced herself when beginning each interview, describing herself somewhat vaguely as "a student researching leisure activities." None of the residents requested further detail about the nature of the research until the end of the interview, when a more detailed description of the study was offered.

With few exceptions, interviews were conducted in residents' rooms, or at least far enough away from other

residents to prevent bias caused by an attempt to keep attitudes consistent with those of their peers. With one exception, none of the completed interviews were conducted with the activity coordinator observing. In this case, the researcher determined that the nearby presence of the activity coordinator who was busily cleaning up the room did not bias the respondent's answers.

Each interview began with two open-ended questions intended to help set the respondents at ease. These questions were: "What did you like most about going to bingo ?" "Is there anything you dislike about the tea party ?" (see Questionnaire, Appendix A). More importantly, these questions were intended to bring any memory impaired residents mentally "back" to the previous activity. Focusing a resident's thoughts on a previous segment of time is critical to the validity of responses. As previously mentioned, during one interview, it became apparent that the resident was not thinking of the previous activity, had drifted back further in time, using her career as a teacher as a foundation for her answers to the I-P questions, thus her questionnaire was not used.

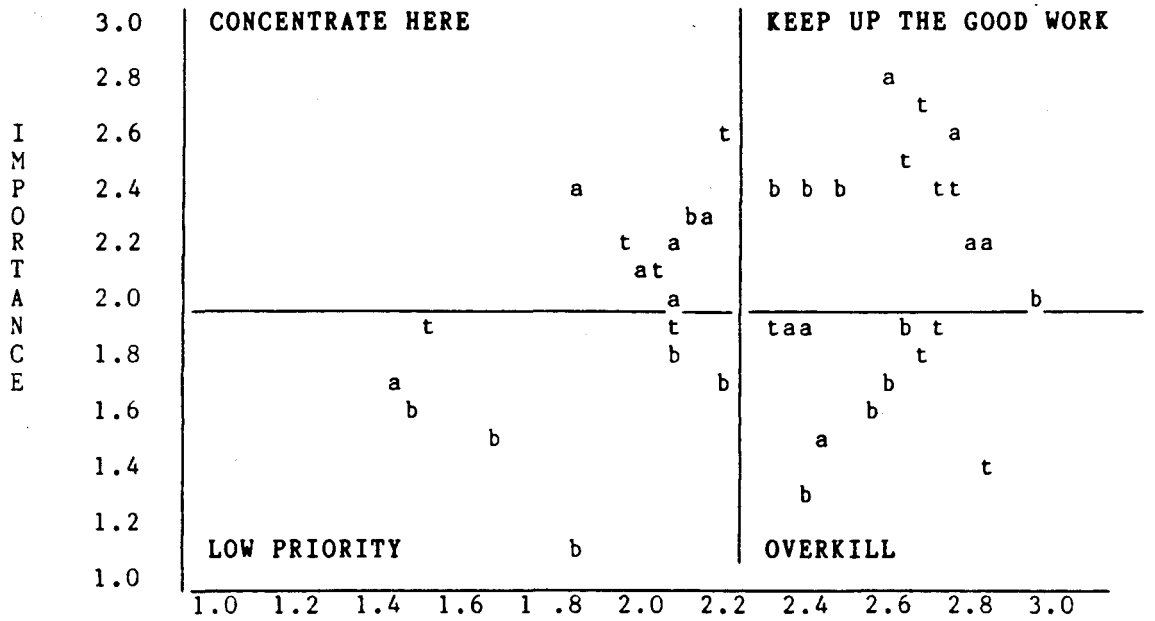
After explaining the objectives of the I-P questions, the first Likert-type-scale card was given, and explained to the residents (see Figure 1). To prevent the PERFORMANCE items from being biased by the answers given by the IMPORTANCE items, all 15 IMPORTANCE items were asked first.

When these items were completed, their matching PERFORMANCE items were asked. Pilot testing revealed that residents would frequently report their opinion about activity staff PERFORMANCE to an IMPORTANCE item. Thus, a booklet format was adopted, so that the interviewer could record the performance rating when it was initially offered. Thus, item numbering was not strictly followed during the interview. This not only reduced the time of a potentially lengthy interview, but also helped the interviewer avoid asking for PERFORMANCE information which had already been volunteered by the respondent. Finally, this booklet format made the relatively lengthy interview appear less foreboding to respondents.

Data Analysis

For each of the 12 to 18 features, a mean score for the group of participants was calculated for both importance and performance ratings (refer to Tables 1, 2 and 3). These average scores are displayed graphically on the two-dimensional I-P grid (see Figures 2 and 3). The importance component is displayed on the vertical axis while the satisfaction (performance) component is displayed on the horizontal axis. Martilla and James (1977) refer to these axes as "crosshairs." This grid is then divided into 4 quadrants that clearly discriminate between factors which need improvement (labeled as "concentrate here") and factors

FIGURE 2: Mean Importance-Performance Ratings for All Programs.



b=bingo
t=tea/coffee
a=arts/crafts

FIGURE 3: FACTOR LIST: Divided by Recommended Action and Program.

IMPORTANCE	CONCENTRATE HERE	KEEP UP THE GOOD WORK
	BINGO 6*	1 4 15 19 BINGO
	ARTS 4 13 15 17 5	1 6 16B 19 ARTS
	TEA 4 13 15	1 6 16B 19 TEA
	BINGO 8 17 13 14 16A	5A 5 16B 20 BINGO
	ARTS 8	14 16A 20 ARTS
	TEA 8 17	5 14 16A 20 TEA
	LOW PRIORITY	OVERKILL

PERFORMANCE

* Numbers correspond to factor numbers listed in Tables 1a, 1b, and 1c.

which are performed well (labeled as "keep up the good work"). The grid provides staff with important feedback on where they should concentrate their administrative and self-improvement efforts.

Suggested plans of action for the staff hinge on the location of the vertical and horizontal crosshairs on the I-P grid. The location where these crosshairs intersect, determines whether a resident's assessment will be interpreted as positive (above and to the right of the crosshairs) or negative (below and to the left of the crosshairs). Delivery of factors which receive positive assessments should not change, whereas delivery of those that receive negative assessments should be changed. The relative "goodness" of a factor's delivery depends on the staff's self-imposed standards. Although standards may vary from activity to activity, the Activity Director's initial goal was to examine an overview/comparison of the different programs offered. Thus the crosshairs were placed in a "compromise" position which allowed each activity to have at least one feature per cell. Further affecting crosshair placement, previous researchers, using a three-point Likert-type scale, positioned both vertical and horizontal crosshairs at 2.5. They reasoned that positioning the crosshairs above the midpoint of the scale is consistent with the goals of the nursing home at "...achieving performance above an average level" (Gillespie, Kennedy &

Soble, 1989). Thus, an attempt to move at least the PERFORMANCE crosshair above the 2.0 midpoint was made while insuring each program had at least one feature per cell. Accordingly, the PERFORMANCE crosshair 2 was placed at 2.3. Using the same "striving for excellence" argument, the IMPORTANCE crosshair should be placed as low as possible in order to pinpoint even the marginally important features for improvement. Therefore, the IMPORTANCE crosshair was placed centrally at 2.0.

RESULTS

The results of the Importance-Performance analysis for each program are shown numerically in Tables 1, 2, and 3, and graphically in Figures 2 and 3. In the following sections, the strengths and weaknesses of the activity programs in general are first discussed, and then suggestions for individual programs are made.

Overall Results

Before looking at individual programs, it is necessary to review Presbyterian Home activity programming in general. Dividing the analyses into these two levels will help Activity Department staff focus both on general efforts and program-specific goals.

Upper Right Quadrant: Keep up the Good Work

In examining Figures 2 and 3, factors plotted in the upper right quadrant are well performed and important to the resident's satisfaction. Thus, for factors falling in this quadrant, the staff is instructed to "Keep up the Good Work." Staff enthusiasm (Factor 1) is consistently regarded as both important and well-performed by residents from all three programs. Similarly, staff's ability to take care of

problems (Factor 6) is consistently seen as important by residents from all three programs. Although residents were pleased with the staff's performance in Arts and Crafts and in Social Events, respondents reported the problem-solving factor (Factor 6) was the only poorly performed importance factor listed when examining the recreational game. With one exception, residents who participate in any of the three activities agree that the activity lasts for an appropriate amount of time (Factors 16A & 16B). Residents responding to both "Social Event" and "Arts and Crafts" activities, stress the importance of a program lasting a long enough time (Factor 16B). The above-mentioned exception involves the residents attending the Game activity who report that the game tended to end too quickly (Factor 16A). However, they felt that this was not important to their enjoyment of the activity (importance mean = 1.545). Residents from all three programs felt that the Activity Department staff were well groomed (Factor 19) however, this factor had borderline importance to the game-playing residents.

Overkill

In examining Figures 2 and 3, factors plotted in the lower right quadrant are well performed but are not important to the resident's satisfaction. Thus, for factors falling in this quadrant, the staff is informed that their efforts amount to "Overkill," thus they need not spend as

much effort working on them. Residents from all three programs felt that the activity locations were not crowded by extra furniture (Factor 20). However, no one felt that this was a particularly important feature. All of the sampled residents agreed that the nursing staff and aides do not participate in activities (Factor 8). Again, however, no one felt this feature affected their enjoyment of the activity.

Concentrate Here

In examining Figures 2 and 3, factors plotted in the upper left quadrant are important to the resident's satisfaction but are poorly performed. Thus, for factors falling in this quadrant, the staff is instructed to "Concentrate Here." Both residents who attended "Arts and Crafts" and "Social Events" put up three or four red flags on which staff members must focus their attention, because these characteristics are highly important, yet poorly performed. Three of these four "problems" concern the degree of social interaction the staff has with residents either before or during the particular activity. The staff doesn't always drop by residents' rooms to invite them to attend the activity (Factor 4). In addition, the staff doesn't always talk to residents during the activity (Factor 13) and the residents don't feel that they are familiar with the staff (Factor 17) and it is often too noisy in the

activity room (Factor 15).

Low Priority

In all three activities, the residents felt that floor staff's (e.g. nursing staff, nurses aides, etc.) participation was neither important to their enjoyment, nor well performed (Factor 8). In both the game and the social event, the residents reported that lack of familiarity with staff was not important to their enjoyment of activities, nor was it well performed (Factor 17). Similarly, game participants felt that having enough staff to talk to was neither important nor well performed (Factor 13). Game players also reported that close location of the game (Factor 14) and a game which lasts for too long a time (Factor 16a) are not important to their enjoyment, nor are they well performed features of the bingo game.

Overall Reactions of Residents

In general, staff preparation and execution of the various activities are favorably received by residents. This includes generally high performance scores for the following factors: enthusiasm (Factor 1); grooming (Factor 19); problem solving (Factor 6); length of activity (Factor 16A & 16B); room maintenance (Factor 20); and room set up (Factor 1). However, residents would like more personal contact with the staff in the form of: more personal

invitations to the activities (Factor 4); more one-to-one interactions with staff during the activities (Factor 13); and greater familiarity with the staff running the activities (Factor 18).

Furthermore, residents are not interested in increasing personal contact with just anyone, as is evident in the low importance ratings of Staff/Aides Participation (Factor 8). Thus, it would seem that the Activity Department would benefit residents most by increasing the one-to-one interactions between Activity Department and Volunteer staff both before and during activities. To increase the number of one-to-one interactions with residents, it is necessary to consider all the possible reasons why the current number is so low. The number of staff may be too small and overworked to be able to provide the number of one-to-one interactions which would satisfy the needs of the residents. This problem suggests that the Activity Department staff should be increased. If the Activity Department staff cannot be increased, the staff may have to sacrifice important preparation work and paperwork to free up time.

Personality differences may also explain resident's low satisfaction with one-to-one interactions. Once aware of how much impact these interactions have on residents' satisfaction, staff will be motivated to learn how to better relate to residents. In addition, the residents themselves, can be taught how to get what they need in social

interactions with staff. Some type of assertiveness training could help residents who are shy about asking staff for time.

Game: Bingo

Of the factors residents felt were most important to their enjoyment of the bingo game, three were well performed and one was poorly performed (refer to Figure 4). Residents found the remaining ten factors unimportant to their enjoyment of the bingo game; this indicates that the I-P scale includes many factors (69%) which are irrelevant to the residents' enjoyment of bingo. The residents feel that the bingo staff: are enthusiastic (Factor 1), keep the noise level down (Factor 2), and consistently remember to stop by their room to invite them to the bingo game (Factor 4). The only important feature the bingo staff should concentrate on is dealing with conflicts smoothly and confidently.

Social Events: Coffee/Tea Parties

Of the factors residents felt were most important to their enjoyment of the coffee and tea parties, four were well performed and three were poorly performed (see Figure 5). The residents feel that the coffee/tea staff are enthusiastic, deal with conflicts smoothly and confidently, are well groomed, and don't let the activity last for too long. Detracting from the resident's enjoyment (quadrant

FIGURE 4: Mean I-P Ratings for the Game (Bingo) Programs.

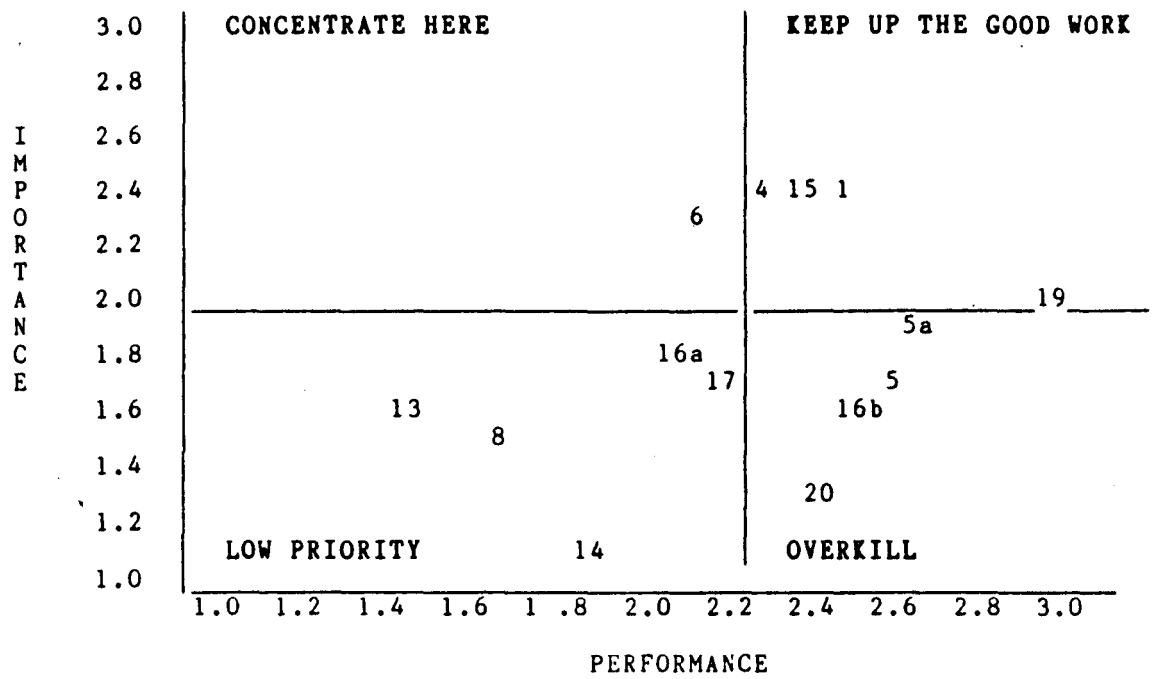
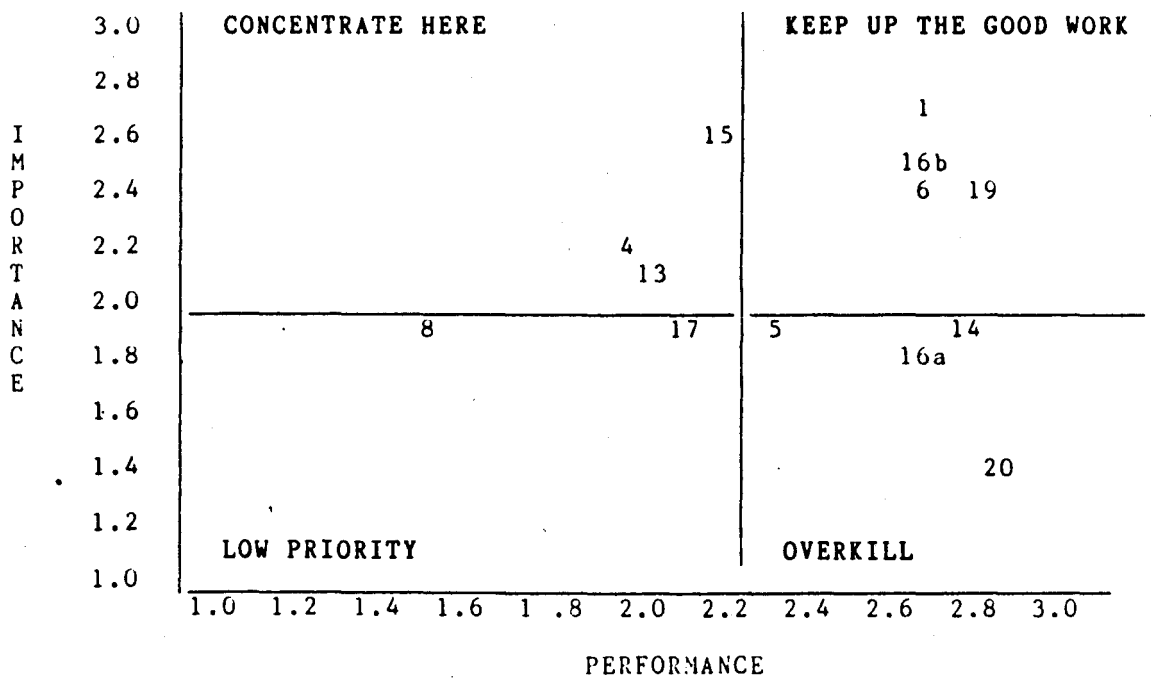


FIGURE 5: Mean I-P Ratings for Social Events (Tea/Coffee parties).



CONCENTRATE HERE, Figure 5) is the staff's failure to consistently stop by their rooms to invite them to the party, the staff's failure to keep the noise level down, and the Activity Department's failure to provide enough staff to talk with the residents at the Coffee and Tea Parties.

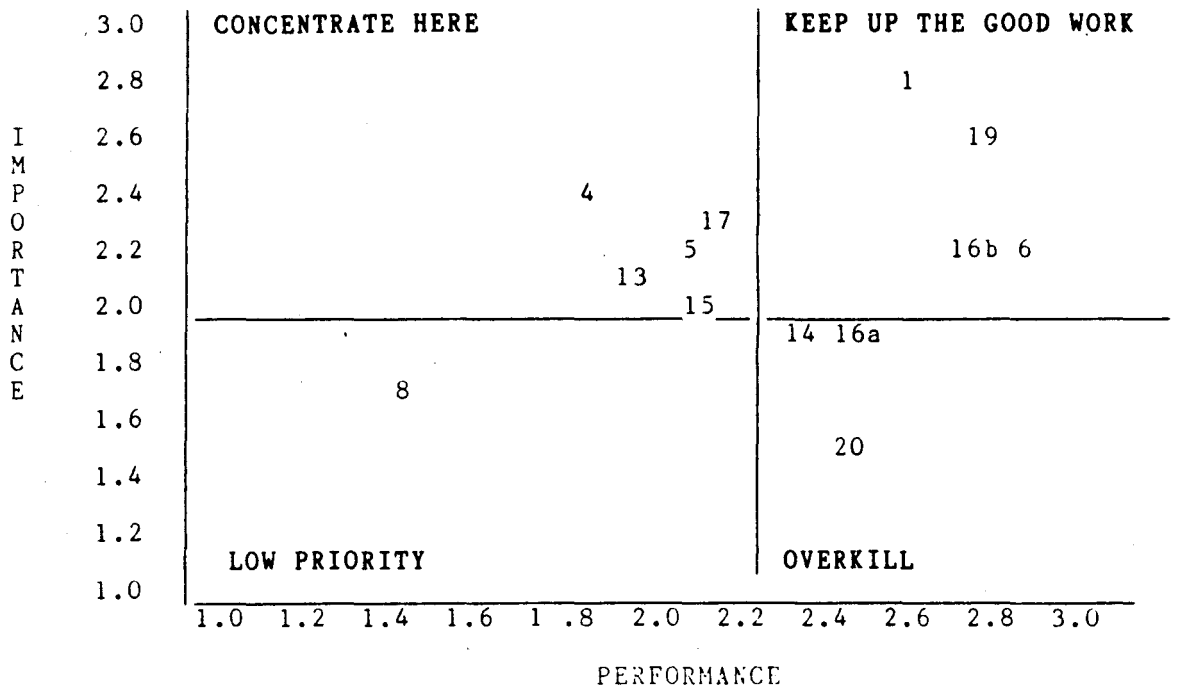
Arts and Crafts

Because the arts and crafts programs tend to be so small, the data for two similar programs, Seasonal Sampler and Hobby Shop, was merged in the overall analyses. Because different staff are involved in these two arts and crafts programs, I have dissaggregated the analyses in the following sections, but have reported aggregate scores in Figure 6.

1. Seasonal Sampler

Of the factors residents felt were most important to their enjoyment of the Seasonal Sampler, four were well performed and five were poorly performed (refer to Figure 6). The residents only considered three factors (25%) non-central to the Seasonal Sampler. Thus, the I-P scale appears to be a tool well-suited for pinpointing factors that need work. The residents feel that the staff: are well groomed (Factor 19), deal with conflicts confidently and

FIGURE 6: Mean I-P Ratings for Arts and Crafts Programs (Seasonal Sampler and Hoby Shop).



smoothly (Factor 6), and hold the activity close enough to their rooms (Factor 14). Detracting from the residents' enjoyment is the staff's failure to: have all the equipment set up when they arrive (Factor 5), keep the room quiet enough (Factor 15), stop by their room to invite them to attend the activity (Factor 4), spend time talking to each resident during the activity (Factor 13), and become familiar with each resident attending the activity each week (Factor 17).

2. Hobby Shop

Of the factors residents felt were most important to their enjoyment of the Hobby shop, six were well performed and only three were poorly performed. The residents were pleased that the staff: are enthusiastic and confident (Factor 1), are well groomed (Factor 19), deal with conflicts confidently and smoothly (Factor 6), make sure that the activity room is set up appropriately when they arrive (Factor 5), make sure that the activity lasts long enough (Factor 16b), and make sure that they get to know each resident (Factor 17). Detracting from the residents' enjoyment is the staff's failure to: keep the room quiet enough (Factor 15), stop by their rooms to invite them to attend the activity (Factor 4), and spend time talking to each resident during the activity (Factor 13). Again, only three factors (25%) were considered non-central to the Hobby shop by the residents.

CONCLUSIONS and LIMITATIONS

Preventing Bias When Sampling Respondents

Because this study only examined the opinions of residents who attended activity programs, an entire group of potential program benefactors, non-attenders, was ignored. The effects of this biased sample are twofold. First, the selected sample is more likely than their non-attending counterparts to give positive, satisfied opinions. Second, the non-attending residents may find different **types** of program features central to their enjoyment. If the Presbyterian Home had a larger population of non-attenders who could benefit from activity programming, a needs analysis would be essential. Without the information from a needs analysis, data should be interpreted with caution.

The sample is more likely than their non-attending counterparts to give positive opinions of the programs. It stands to reason, that the non-attenders would find a greater number of essential features poorly performed and/or would be less satisfied with all features. Further restricting the generality of results, is the widely acknowledged tendency for elderly to yea-say (Gillespie et al., 1989; McAuley, 1987; Ragheb & Griffith, 1982). Thus, the elderly program-attenders are more likely

to give glowing reports than non-attending counterparts and younger counterparts.

Two steps were taken to reduce the effects of bias caused by sampling only elderly, program-attending individuals. To prevent a probable ceiling effect, an unbalanced Likert-type scale was selected (see Figure 1). For example, when asking "How often does the staff talk to you during the Bingo game?" a resident can respond, "rarely," "sometimes," or "always." A balanced scale would use "never" instead of "rarely." Using a symmetric scale would risks an extremely negative skew, thus an asymmetric scale was selected.

In preventing ceiling effects from restricting response variance, a second precaution was taken: a non-staff interviewer was used. Residents who criticize staff performance fear reprisals from staff. Thus, they respond to in-house interviewers with diplomatic, if not sugar-coated, responses as a means of self-protection from anticipated reprisal. To reduce this perceived threat of reprisal, a non-staff interviewer was selected for this study.

A second limitation caused by sampling only program-attenders concerns the different types of programs which attract non-attenders. Different types of residents with different needs seek out different types of programs. The types of program characteristics a non-attender might want

to improve may look very different from the types of program characteristics program-attenders look to improve. For example, non-attenders may only like programs which their Aide can attend. Looking at the above section on "overkill," the program-attenders rate aide participation as a well-performed, low-priority feature. By expanding the sampling procedure to include non-attenders, the rank-order of important variables could change which might affect the staff's plan of action. To examine diverse activity programs, from games to social events to arts and crafts, etc., it was possible to sample individuals with a wide variety of needs. Thus, the effects of sample-bias on importance ratings is reduced.

Sample-bias can affect both the measured level of satisfaction with the program, and which types of variables are found essential to the program. Further research, in the form of a needs analysis, could measure the extent of this bias. A needs analysis becomes more essential as the size of the non-attending population increases. Furthermore, in some nursing homes where the non-attending population is large, a needs analysis may be more beneficial than a quality-of-delivery analysis.

Preventing Bias When Collecting Data

When collecting the respondents' opinions through interviews, a primary source of bias, possible memory deficits of residents, must be examined. Many of the residents can better remember what happened to them 40 years ago than they can remember what occurred 40 minutes ago. Thus, a concerted effort to "bring" the residents' frame of reference back to the activity program was made. As the time between the end of the program and the interview increases, so does the need for this kind of referencing. However, all interviews were initiated within the first hour following a program. It is the validity-conscious interviewer's responsibility to check with the residents at several points during the interview to make sure that he or she is referring to the just-completed program when answering. The current questionnaire can be improved by adding structured validity checkpoints throughout. By folding knowledge items into the opinion-measuring questionnaire, it is possible to estimate the validity of residents' frame of reference.

Preventing Bias in Data Analysis

In this study, the pressure to create a tool which would be compatible for all three types of activities precludes tailoring a factor list for each individual activity. The advantage gained by having a generic tool,

which can be used to make comparisons in program quality, must be carefully weighed against the resulting validity limitations. For example, when developing a list of factors describing each program, there will obviously be some factors on each descriptive list which differ. The factor list used for the I-P scale represents the intersection of these three descriptive lists, i.e. a "mutual-factor-list" which samples each activity's descriptive list in differing proportions. Furthermore, the mutual-factor-list samples factors which differ in their centrality to the program's description.

As an indicator of how "central" the mutual-factor-list factors are to each individual program, percentages of the number of factors voted IMPORTANT (greater than 2.0 on a three-point scale) were generated. Bingo players voted only 31% of the factors IMPORTANT, whereas 53% and 69% of the mutual-factors were considered important to residents attending the social event and the arts and crafts program, respectively. Thus, using the mutual-factor list, the arts and crafts program is better described than the bingo game. Furthermore, the resulting "generic" I-P tool may be more appropriate for evaluating arts and crafts programs than bingo games. Thus, caution must be used when making comparisons between differing programs.

Again, catering to the need for comparable between-program feedback, a subjective decision regarding data

analysis was made. Placement of crosshairs on the I-P grid reflects a compromise between the results from all three programs. The crosshairs were placed in a position where all three programs have at least one feature per cell. This technique has the net effect of maximally discriminating between good and bad program features. In practical terms, however, it is very difficult for a staff to agree on a numerical value which meaningfully represents their quality of performance standards. Thus, anchoring such standards onto results via maximal discrimination between good and bad, may be the best solution.

In conclusion, Importance-Performance analysis has proven to be a tool which is useful when generating quantitative feedback for the Activity Department staff. To facilitate comparisons between a wide range of programs, tailoring the scale to each individual program was sacrificed. The conclusions drawn from a "generic" multi-factor I-P scale may focus on factors which are more central to some programs than others. Furthermore, standards set in "compromise" positions may be better at discriminating between good and bad features for some programs than others.

Further work focused on checking the validity of residents' frame of reference, by incorporating knowledge items in the questionnaire, may be useful when interviewing a population with memory deficits. In addition, this quality-of-performance analysis could be coupled with a

needs analysis to gain insight on how different types of residents, with different needs and expectations feel about the activity programs. This needs analysis would become more essential if the non-attending population were to grow.

APPENDIX A

Importance-Performance Questionnaire

introduce: I'M A STUDENT AT LOYOLA UNIVERSITY, RESEARCHING LEISURE ACTIVITIES. I'D LIKE TO ASK YOU A FEW QUESTIONS ABOUT THE BINGO GAME YOU JUST ATTENDED.

(1) HAVE YOU BEEN PLAYING bingo HERE REGULARLY? _____yes
_____no

(2) WHAT DO YOU LIKE MOST ABOUT GOING TO THE BINGO GAME?

(3) IS THERE ANYTHING YOU DISLIKE ABOUT THE BINGO GAME? (what?)

read: THERE ARE A LOT OF DIFFERENT CHARACTERISTICS THAT MAKE UP AN ACTIVITY LIKE BINGO. FOR EXAMPLE, THERE'S THE VOLUNTEERS, THE OTHER RESIDENTS, THE TIME OF DAY YOU PLAY BINGO AND WHAT GOES ON DURING THE GAME. SOME OF THESE CHARACTERISTICS MAY OR MAY NOT BE SO IMPORTANT.

I HAVE A LIST OF CHARACTERISTICS OF THE BINGO GAME AND I'D LIKE TO ASK YOU HOW IMPORTANT EACH OF THESE ARE TO YOUR ENJOYMENT OF THE BINGO GAME. I'LL READ EACH OF THESE CHARACTERISTICS, ONE AT A TIME, AND I'D LIKE FOR YOU TO TELL BE WHETHER THE CHARACTERISTIC IS "NOT IMPORTANT," "SOMEWHAT IMPORTANT" OR "VERY IMPORTANT" TO YOUR ENJOYMENT OF THE BINGO GAME. (Give them card with 3-point likert scale) YOU CAN REFER TO THIS CARD IN RATING HOW IMPORTANT EACH CHARACTERISTIC IS.

3 = very important

(1) HOW IMPORTANT IS IT TO YOU THAT THERE ARE ENOUGH VOLUNTEERS TO TALK WITH DURING THE BINGO GAME? _____13

(2) HOW IMPORTANT IS IT TO YOU THAT A VOLUNTEER COMES BY YOUR ROOM TO INVITE YOU TO COME TO THE BINGO GAME? _____4

(3) HOW IMPORTANT IS IT TO YOU THAT THE BINGO CARDS AND CHIPS ARE ALREADY SET UP FOR YOU WHEN YOU GET TO THE BINGO ROOM? _____5

(4) HOW IMPORTANT IS IT TO YOU THAT THE VOLUNTEERS WHO RUN THE BINGO GAME ARE ENTHUSIASTIC? _____1

(5) HOW IMPORTANT IS IT TO YOU THE THERE ISN'T TOO MUCH NOISE GOING ON WHEN YOU'RE AT THE BINGO GAME? _____15

(6) HOW IMPORTANT IS IT TO YOU THAT THE NURSING STAFF AND AIDES PARTICIPATED IN TH BINGO GAME? _____8

(7) HOW IMPORTANT IS IT TO YOU THAT YOU ARE FAMILIAR WITH THE VOLUNTEERS RUNNING THE BINGO GAME? _____17

(8) HOW IMPORTANT IS IT TO YOU THAT THE VOLUNTEERS RUNNING THE BINGO GAME ARE WELL GROOMED? _____19

(9) HOW IMPORTANT IS IT TO YOU THAT THERE AREN'T TOO MANY PEOPLE WALKING THROUGH THE ROOM WHILE YOU'RE AT THE BINGO GAME? _____18

(10) HOW IMPORTANT IS IT TO YOU THAT THE VOLUNTEERS ARE ABLE TO TAKE CARE OF ANY PROBLEMS IF THEY ARISE? _____6

(11) HOW IMPORTANT IS IT TO YOU THAT THE BINGO GAME DOES NOT END TOO QUICKLY? _____16a

(12) HOW IMPORTANT IS IT TO YOU THAT THE BINGO GAME DOES NOT LAST TOO LONG? (takes too much time) _____16b

(13) IS IT IMPORTANT TO YOU THAT THE ACTIVITY ROOM ISN'T CROWDED WITH TOO MUCH FURNITURE? _____20

(14) HOW IMPORTANT IS IT TO YOU THAT THE BINGO GAME IS LOCATED CLOSE TO YOUR ROOM? _____14

(15) HOW IMPORTANT IS IT TO YOU THAT THERE ARE GOOD PRIZES FOR THE BINGO GAME? _____5a

NOW I'D LIKE TO ASK YOU SOME QUESTIONS ABOUT THE SAME CHARACTERISTICS. THIS TIME I'D LIKE YOU TO TELL ME HOW OFTEN THEY OCCUR. I HAVE ANOTHER CARD YOU CAN REFER TO IN RATING HOW OFTEN A CHARACTERISTIC OCCURS. **(3 = always)**

(16) HOW OFTEN DO THE VOLUNTEERS TALK TO YOU DURING THE BINGO
13 GAME? _____

(17) HOW OFTEN DO THE VOLUNTEERS DROP BY YOUR ROOM TO INVITE
4 YOU TO COME TO THE BINGO GAME? _____

(18) HOW OFTEN DO THE BINGO VOLUNTEERS HAVE THE BINGO GAME SET
5 UP BEFORE YOU GET THERE? _____

(19) HOW OFTEN DO THE BINGO VOLUNTEERS SHOW THAT THEY ARE
1 ENTHUSIASTIC? _____

(20) HOW OFTEN IS IT TOO NOISY IN THE BINGO ROOM? (-wt)_____
15

(21) HOW OFTEN DO THE NURSES AND AIDES PARTICIPATE IN THE BINGO
8 GAME? _____

(22) HOW OFTEN DO THE BINGO VOLUNTEERS GET TO KNOW THE NEW
17 RESIDENTS WHO COME TO THE BINGO GAME? _____

(23) HOW OFTEN DOES THE BINGO VOLUNTEERS KEEP THEMSELVES WELL
19 GROOMED? _____

********** **no card needed for the remaining items** **********

(24) DO THE VOLUNTEERS PREVENT OTHER PEOPLE FROM WALKING THROUGH
18 THE ROOM WHILE YOU'RE PLAYING BINGO? __yes __maybe __no

(25) DO THE BINGO VOLUNTEERS TAKE CARE OF PROBLEMS WHEN THEY
6 ARISE? __yes __maybe __no

(26) DOES THE BINGO GAME LAST FOR TOO SHORT A TIME? (end too
16a quickly) __yes __maybe __no

(27) DOES THE BINGO GAME LAST FOR TOO LONG A TIME?
16B __yes __maybe __no

(28) IS THE BINGO ROOM EVER CROWDED WITH TOO MUCH FURNITURE?
20 __yes __maybe __no

(29) IS THE BINGO GAME LOCATED CLOSE ENOUGH TO YOUR ROOM?
14 __yes __maybe __no

(30) DO THE VOLUNTEERS GIVE OUT GOOD PRIZES TO THE BINGO
5a WINNERS? __yes __maybe __no

(31) DO YOU ATTEND ANY ACTIVITIES OTHER THAN BINGO? _____yes
_____no

list: _____

(32) DO YOU HAVE A FAVORITE ACTIVITY? _____yes
_____no

list: _____

(33) MAY I ASK YOUR AGE? _____

record gender _____M _____F

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The thesis is, therefore, accepted in partial fulfillment of the requirements for the degree of Master of Arts.

Emil J. Posavac — 26 November 1991