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AUTHOR White, Buffy; And Others
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ABSTRACT

This manual consists of three parts: (1) an introduction to Goal Attainment Scaling (GAS) as an evaluation tool in rehabilitation, (2) a workbook, and (3) a report of a pilot study of GAS. Chapter 1 discusses GAS as an evaluation procedure and defines it as a way of arranging and expressing time-based treatment or service goals so that results can be seen and measured. The workbook contained in chapter 2 describes the nine-step GAS process: overall objectives, identification of problem areas, choosing indicators, methodology, choosing "expected" level, filling in high and low levels, filling in intermediate levels, checking the scale, and client's current status. Following a discussion of scoring and a sample case, three case exercises and some multiple choice questions are provided. (Answers are appended.) Chapter 3, Technical Appendix, includes information gathered from the Research Utilization Laboratory's pilot study of GAS at two sites--Community Work and Development Center, Hibbing, Minnesota, and Madison Opportunity Center, Madison, Wisconsin. Data from client satisfaction survey, a questionnaire on the usefulness of GAS in individual cases, and a questionnaire on its general usefulness shows that GAS was enthusiastically accepted. (YLB)

R U L #5

GOAL ATTAINMENT SCALING MANUAL

Research Utilization Laboratory

Jewish Vocational Service
1 South Franklin Street
Chicago, Illinois 60606
(312) 346-6700

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PREFACE: WHO WE ARE

The Research Utilization Laboratory (RUL) of the Chicago Jewish Vocational Service (CJVS) is funded in part by the Office of Rehabilitation Services to take research and other information out of the libraries, the archives and people's experience and put it to use among practitioners.

The RUL was first funded in 1968 for five years. During that grant period three RUL Studies were completed and a fourth was begun. The studies involved selection of a topic, a review of the relevant literature, choosing ideas or techniques to combine into a proposal for action, a test of the proposal in the field, and the preparation of a manual for reproducing the combination of ideas in rehabilitation facilities. The RUL is currently reassessing this procedure, in hopes of finding less painstaking and time-consuming ways of achieving our purposes. The first such experiment is now in production: a manual for Job Development and Placement based on ideas from five state Vocational Rehabilitation agencies.

This manual is the completion of RUL #5, which is the initial project for the second grant. In 1974, CJVS received a three-year grant to continue the RUL's work. This includes the production of new studies, the dissemination of both completed studies and new ones, and the evaluation of these activities.

In addition to producing and disseminating RUL Study results, the RUL publishes a newsletter called Lab Notes. Also, the staff is available to help agencies by supplying information, advice or on-site problem-solving.

FOREWORD

This manual has two major functions: to introduce Goal Attainment Scaling (G.A.S.) as an evaluation tool in rehabilitation and to train rehabilitation personnel to construct scales and use them.

The final section, which describes the Research Utilization Laboratory's pilot study of G.A.S., is a part of both of these functions. The results of that study show two things - that G.A.S. really can be a helpful and useable tool for measurement of client progress, and that there are certain things to watch for, take advantage of, and be aware of when you use G.A.S. in a rehabilitation facility.

The manual can be used by a trainer for group instruction, or by an individual. If you are training a group, it is suggested that you add examples that reflect the needs of the group to supplement the materials in the manual. You could either develop cases before the training, complete with suggested scales, or have the trainees work on their own cases, or both.

If you are using the manual on your own, test yourself by scaling your own clients or clients that you know about.

Whether you are training a group or yourself, it may help you to read some of the materials from the Program Evaluation Project or some of the journal articles and reports from other sources. These are listed in the introduction and at the end of the manual.

CHAPTER I.

INTRODUCTION

Anyone who is working in the field of "human services" is aware of the increasing pressure from both funding sources and consumers for accountability and for evaluation of the effectiveness of programs. A question that surfaces again and again in this area is, "How can success be measured?" Numbers of patients or clients is at best an inadequate measure of effectiveness. To use an example from vocational rehabilitation, the number of "26 closures" (meaning employed) is not a fair assessment of any counselor's work. Clients can be placed in inappropriate jobs and end up worse off than they were before receiving services. A client can be unplaceable because of the job market or the severity of his disability, but may be far better off in terms of his ability to deal with his problems. These differences in quality of service are not reflected in closure statistics.

The same kind of problem arises between the facility and the state VR. Of course, since the state VR pays the facility for services, the state VR expects results. However, the facility cannot always deliver the equivalent of a "26 closure" for much the same reasons that the state VR cannot. Circumstances change and information is misinterpreted. The facility and the state VR may see goals differently, or interpret results differently. The VR counselor and the facility counselor may not agree on what the client's problems are in the first place, and so no on will accept responsibility for failure.

Naturally, when disagreements and misunderstandings take place, the quality of the services delivered by both the state agency and the facility suffer. Ultimately, it is the client who loses. If the two agencies could agree on goals for each client, a lot of these misunderstandings could be eliminated in the process. And if the goals are set by the combined efforts of the agencies, and a client achieves those goals, surely that is a fair measure of success.

Why Goal Attainment Scaling?

The Research Utilization Laboratory looked through the literature for evaluation procedures that would prevent the kinds of misunderstandings described here. The staff looked at Management by Objectives programs, but found that they did not really include a structure for looking at client progress. The staff also found some computerized systems for mapping progress and calculating cost-benefit data, but these seemed far too complicated and technical for easy adaptation, and too inflexible for this purpose. Another possibility was some kind of weigating system - a scale of case difficulty. These systems, however, were not well enough developed to introduce at this time.

The RUL chose Goal Attainment Scaling (G.A.S.) for this project for several reasons:

1. It can be used to measure a client's progress, a counselor's skill development, an agency's efficiency, or any number of things.

2. Scales are completely individualized, to reflect realistic possibilities for each client or operation you want to measure, rather than predetermined requirements.

3. G.A.S. does not determine the methodology you use to reach the goals that are chosen.

4. G.A.S. can generate numerical progress scores if desired, but it also can be used more informally.

5. G.A.S. can be used as a communication tool with clients, between agencies, with clients' families, or within an agency.

6. G.A.S. does not have to be used with every client. It can be used with a random sample, with clients selected because they might benefit from its structure, with clients referred from a particular source, or those chosen by some other criteria.

7. G.A.S. has been thoroughly tested in the Mental Health field, and there have been extensive studies made of it by its originators.

8. G.A.S. is compatible with Management by Objectives, can be computerized if desirable, and fits into other systems easily.

Goal Attainment Scaling made its first appearance in the literature in an article in the Community Mental Health Journal (Kiresuk and Sherman, 1968). The article describes the original experiment with the instrument, how it was used, and the formula the originators used to calculate goal attainment scores. Since that time, the Program Evaluation Project has been disseminating G.A.S. throughout the Mental Health field. The technique has also been used in various forms in Minneapolis, and especially in the Hennepin County Mental Health Center. It is being used there in the Crisis Intervention Center, Inpatient and Outpatient facilities and the Day Care Program.

Other places that have used G.A.S. include the Department of Psychiatry of the University of Minnesota Medical School (Cline, Rouzer and Bransford, 1973) where it was used both as a therapeutic and teaching tool and as a program evaluation measure, and Craig Rehabilitation Hospital in Greeley, Colorado (Goodyear and Bitter, 1974) where it served as a measure of client change and service effectiveness. Also, a particularly careful assessment of the effectiveness of Goal Attainment Scaling as a therapeutic tool in Mental Health Rehabilitation was done by Houts and Scott (1973) in Hershey, Pennsylvania, at Pennsylvania State University Medical School. In their program, the patients are fully involved in goal setting.

Materials on reliability studies, scoring techniques, original development and present use of G.A.S. are available from the Program Evaluation Project in Minneapolis. A list of some of their materials is found at the end of this manual.

How Does G.A.S. Work?

The idea of setting goals in treatment is not a new one. However, the goals set are often so long range that they are not attainable or measurable.

Also, some counselors set goals for themselves or their clients, but since these goals never appear in the case records, their results cannot be measured. It is assumed that the ultimate goal of rehabilitation is employment or, at least, improved functioning. But there are usually other goals that must be met before these can be.

Goal Attainment Scaling is a tool that is used to measure progress quantitatively. It is a way of arranging and expressing treatment or service goals so that the results can be clearly seen and therefore measured. Almost any goal can be fitted into the format of a Goal Attainment Scale, and the results can be given a numerical value. Scales can be devised by the counselor, the counselor and client working together, the client alone, an intake worker, a floor supervisor, or any group or individual that seems appropriate.

A major component of Goal Attainment Scaling is expectation. A middle value is assigned on the scale to the outcome realistically expected to occur. This is the target outcome. Higher values are given to better outcomes and the best outcome that could be expected. Lower values are assigned to outcomes worse than expected. All outcomes are described in terms of concrete, observable (or reportable) events, such as job interviews attended in a given time, concentration on a task for a certain amount of time, or increase in work speed, so that there is no doubt what the score is.

Goals are time-based to provide a deadline for accomplishment. At the end of the specified period of time, the scale is scored and the goals may be changed to meet a new set of circumstances or a new service strategy. The scale can also be used as an evaluation of overall service given, by establishing goals at the opening of a case and scoring them at closure.

Figure 1 (attached) is an example of a Goal Attainment Scale. Each vertical column (A, B, C, D) represents an area of concern, which is assigned a title such as "depression," "dealing with peers," "realistic vocational plans," "education," etc. In order to complete the scale, the goal planners would first decide what areas of concern will be covered in the scale for a particular client. This would entail establishing a short-term or long-term goal for the client, then identifying the barriers to this goal. There is no limit to the number of areas that could be covered, and they should be chosen to reflect the client's most central or most immediate problems.

The next step is to decide on indicators of progress in each area, based on the particular client's behavior and predicted responses to situations. For example, if the client shows depression by attempting or threatening suicide, the frequency of such attempts or threats could become an indicator for that area. It is important to remember that often the behavior is a symptom, and not the problem itself. The question the goal-setter should ask is, "If this problem were solved or improved, how would I know?"

GOAL ATTAINMENT SCALE

	A	B	C	D
PREDICTED ATTAINMENT	SCALE 1 Suicidal Depression	SCALE 2 Concentration	SCALE 3 Social Relations	SCALE 4 Vocational Plans
MOST UNFAVORABLE OUTCOME THOUGHT LIKELY	Attempted suicide once in last month, Threatened 3 times per week or more.	Can do assigned task an average of 15 min. or less at a time.	Speaks to no one at workshop except counselor and supervisor.	No ideas at all for future work. Hasn't thought about it.
LESS THAN EXPECTED SUCCESS	No attempts in last month, threatened an average of twice per week.	Can do task an average of 16 - 30 minutes.	Says "hello" to fellow workers, no real conversations.	Has plans, but they are not realistic (wants to be lawyer, college professor, doctor, etc.)
EXPECTED LEVEL OF SUCCESS	Threatened suicide 5 - 7 times in last month, no attempts.	Can do task an average of 31 - 45 minutes.	Holds conversations with one other worker.	Has identified what he can't do and doesn't want to do, but still no positive and realistic plans.
MORE THAN EXPECTED SUCCESS	Threatened suicide 2 - 4 times in last month, no attempts.	Can do task an average of 46 - 60 minutes.	Holds conversations with two other workers (individually or both at once).	2 - 3 possible plans developed, but no choice made.
MOST FAVORABLE OUTCOME THOUGHT LIKELY	Threatened once in last month, or less, no attempts.	Can do task average of 61 minutes or more.	Holds conversations with three or more other workers.	Chooses a realistic vocational objective.

Taken from the model developed by Kiresuk and Sherman (1968) and used by the Program Evaluation Project.

Then the expected outcomes can be filled in. Whenever possible, criteria should be specific. For example, "regularly threatens suicide" could be interpreted several ways. Instead, the criterion should read something like "threatens suicide 2-3 times per week." This particular criterion could be in any of the five boxes in the column, depending on the actual expectations the goal planners have for the particular client. If the client attempts suicide often, threats without attempts would indicate improvement. If the client is currently threatening suicide only once a month, this behavior could be "less than expected success."

The two most difficult aspects of Goal Attainment Scaling as we see it are 1) making the goals specific, measurable, and truly indicative of the individual client's progress in the problem area and 2) making the goals realistic for each client. If the goals are too easily met or too difficult, the score will be misleading. If the goals are irrelevant to the client's overall progress, the score will also be irrelevant. Once these problems are overcome, Goal Attainment Scaling can provide a framework for service that is far more specific than the usual "plan." It also gives the counselor a basis for discussion of the client's progress with the client, with colleagues, and with the client's family.

The Goal Attainment Scale can also be used to look at the overall performance of a program, treatment method, or facility. Obviously any facility or program or counselor will have failures or partial successes. Goal Attainment Scaling, however, can show if there is a majority of failures, and program improvements can be sought accordingly.

Goal Attainment Scaling does not solve problems. The score does not tell you the solution to a problem. It only shows that there is a problem. Additional steps must be taken to discover the cause of that problem, and what to do about it. Aside from identifying problems, Goal Attainment Scaling also serves to focus treatment by forcing the facility, the state VR and other interested agencies or individuals to identify what a client's problems are and what specifically will help the client to function better. Goal Attainment Scaling can also be used with the client's participation, with the same effects for the client.

As long as the scale is made up in truly observable terms, scoring of the scales can be done by counselors involved with the case, other counselors, or an outside interviewer, depending on how objective a rating you need.

The RUL Pilot Study

To test our hypothesis that Goal Attainment Scaling would be applicable to rehabilitation and suitable for RUL distribution, the Lab introduced G.A.S. in two facilities and two state Vocational Rehabilitation agencies in our region. The facilities were chosen for the study by the state agencies in Wisconsin and Minnesota, to work with the Lab and the local VR offices. The two facilities were the Community Work and Development Center in Hibbing, Minnesota (CWDC), and the Madison Opportunity Center in Madison, Wisconsin (MOC).

At each site, scales were made by the state VR personnel for some clients, by facility staff for some non-VR sponsored clients or clients referred by

a different VR office, and by both groups working jointly for VR clients referred by the appropriate office to the facility. Scales were made for a 4-week period, reviewed in 4 weeks, and rescaled if necessary. This was repeated at least once for each client scaled. A total of 62 clients were scaled, 29 in Wisconsin and 33 in Minnesota. In Wisconsin, five clients were scaled jointly, and in Minnesota nine were scaled jointly.

The counselors who worked with the RUL on the pilot study completed a questionnaire on G.A.S. for each client they scaled for the study. The Lab also gathered data on the time spent on the project, demographic information on clients involved, and overall reactions to the tool.

The responses from the pilot study participants were very favorable. The questionnaire results, the demographic data, and more detailed information on the pilot study are in the Technical Appendix, which is the final section of this manual.

Since the completion of the pilot study, the Lab has trained 106 persons from state VRs and facilities in Wisconsin and Minnesota in the use of G.A.S. The technique was received with the same enthusiasm as the pilot project in some areas, but not in others.* Most of the criticisms of the tool that came out of the training sessions involved particular situations and specialized caseloads where the counselors felt G.A.S. was a duplication of record-keeping or was not suited to a particular set of circumstances. We feel these are not so much criticisms of the tool as judgments on its usefuleness in a specific instance. We do not feel that G.A.S. is a panacea or that it is universally helpful. At the same time, we have seen no evidence that G.A.S. is generally inapplicable to any particular kind of group or setting. It is flexible enough to have potential uses that no one has thought of yet, and we encourage you to experiment with it and exchange ideas about it with other users.

The creators of G.A.S. also have some criticisms of their tool, which are more related to the program evaluation aspects of it.

1. When scales are vague, overlapping or otherwise difficult to score, accurate measurements are not achieved. The Program Evaluation Project is developing "quality control" techniques to go with G.A.S.

2. The fact that the goals chosen for scaling are relative to the particular situation or client involved makes it difficult to compare results across client populations and settings. Each program may have a unique value system and frame of reference on which the goals are based. When making comparisons, these differences must be taken into account.

*For more information on these training sessions, see Lab Notes, the RUL newsletter, for June, 1976.

One final observation that both the Lab and the Program Evaluation Project have made is that, like any evaluation tool, G.A.S. could be used inappropriately by a punitive administrator or counselor. The user should keep in mind that the client's or the counselor's failure to achieve a stated goal generally is not an indication of ineptitude or recalcitrance, nor does it reflect negatively on G.A.S. as a tool. The purpose of G.A.S. is not to solve problems or to provide final judgments; its purpose is rather to identify problems so that a solution can be found.

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CHAPTER II.

THE WORKBOOK

Goal tainment Scaling is a process. For purposes of instruction, we have brok lt into nine steps, which are discussed below. We recommend that you f low the steps until you feel comfortable with scaling. By the time you h e completed scales and scored them for 10-15 clients, you should be in a sition to scale without thinking about the steps. Your client can be in ıded in the scaling process at any of these steps.

EP 1: Overall Objectives

ıt is your overall objective for your client, and what sub-objectives ıs he/she have to achieve before this is feasible?

you are a vocational rehabilitation counselor, the overall goal is bably employment. However, a preliminary goal might be education, ility, communication, independence from family, development of ial skills, etc.

P 2: Identification of Problem Areas

t problem areas should be addressed, and which ones should be scaled st?

s step involves narrowing the problems you are going to address with client down to a manageable size. Examples might be as specific enrolling in school, losing weight, improved grooming or making ends. The problem areas can also be more general. For example, could choose something such as shyness, aggressive behavior, de- ssion or motivation, as long as you can pinpoint a measurable icator, as described in the next step.

P 3: Choosing Indicators

: indicators will show the client's improvement or lack of it in ıe areas?

; step is a very important one in G.A.S. We are looking for observ- e and measurable signs of a client's progress. In some cases, the ɔlem area is a behavior, such as fighting in the workshop or pro- tion levels. In other cases, the problem area is less precise. example, depression or dependence on parents are not measurable such, but you might know your client is depressed because he eats ulsively, talks compulsively, or threatens suicide. Dependence be measured by a lack of activities away from the family, lack friends, an excessive number of phone calls from parents, or similar ns. What we are looking for are criteria to measure progress, that be agreed upon by whoever is making the scales, and perceived rately by whoever is scoring the scales.

The client's movement on the scale could be determined by the client's report, the workshop staff's observation, the client's family's report, the counselor's observation, or the observation of an interviewer who is scoring the scale. It should be specified on the scale exactly where the information will come from, if there is any doubt.

STEP 4: Methodology

What methodology or methodologies will you use to tackle these problem areas?

Prediction of a client's expected level of success should be based on three factors: what you know about the client, including problems, assets, and history; the indicators you have chosen (STEP 3) and what you plan to do to help the client change.

We do not want to discuss methodologies in any detail in this manual, because we feel that G.A.S. is adaptable to any methodology. Which approach you choose has nothing to do with how G.A.S. will operate. However, you should be aware that methodology does play a major role in establishing an expected level of success, and in determining the other levels as well. What is important is that you understand your methods well enough to predict their effect.

Also, it may aid both intra-agency and inter-agency communication, and prevent duplication of effort, if you state your methodology on the scales. The G.A.S. form designed by participants in the RUL pilot study, which is included as a work sheet, has space for a methodology entry on it for this reason.

We feel that you are the best judge of what methodology should be used with your clients. As you compare your scales with the samples we give, remember that the methodology may well influence the levels of expectation.

STEP 5: Choosing "expected" level

In the time frame for the scale, what do you realistically expect this client will be able to achieve in each problem area in terms of the indicators you have chosen? What does your client think he or she can accomplish?

The key words in this step are "realistically" and "expect." If your expectations or the client's are unrealistically high, the result will be low scores, frustration for you, and a failure experience for the client. On the other hand, if your expectations are too low, you may be wasting your time and the client's by not covering as much ground as you could.

This part of G.A.S. is really a matter of professional judgment. You may expect a little too much in one area and not enough in another -- that balances out in the G.A.S. score, and also in treatment. But if your expectations for a client are way off the mark, G.A.S. will show this and you can adjust accordingly when you make the next scale.

Of course, you cannot control the entire environment for a client. Sometimes outside events can influence the outcome of treatment drastically. The scale does not, and cannot, take such factors into account. But in the ordinary course of rehabilitation, staff should be able to predict outcomes with considerable accuracy, after some practice.

STEP 6: Filling in high and low levels

What are the "Most Favorable" and "Most Unfavorable" outcomes predicted for this client?

Again, the focus is on realistic outcomes. You are not trying to predict what will happen if something occurs outside the workshop environment, whether good or bad. What you do want to consider are some of the fears of this client, what the client's past pattern of behavior has been (if known), the client's possible reaction to new experiences, both positive and negative, and the like. The "Most Favorable" outcome should reflect what the client might accomplish if all factors work well in that particular problem area. The "Most Unfavorable" outcome should reflect the possible results in one problem area if the client is pushed too hard in another area, what could happen if he/she doesn't get along with his/her counselor, or becomes overly fearful, or if his/her parents become overly protective.

STEP 7: Filling in intermediate levels

What intermediate levels of success are predicted for this client?

When filling in the "Less than Expected Success" and "More than Expected Success" levels on the scale, there are two things you have to watch for. These are, to make the five levels a continuum with no gaps, and to avoid levels that overlap. Both of these are to make the scale readily scorable.

STEP 8: Checking the scale

Have you completed a scale that is scorable and is all the necessary information included?

Once the scale is completed, check it over and look for the following errors:

a) Overlapping levels.
b) Gaps between levels.
c) More than one indicator in a problem area.
   This makes it difficult or impossible to score if the two criteria do not move together. If you have done this, make a second scale with one of the indicators, or choose between them. For example, a client who sleeps on the job doesn't usually produce very well. To measure progress in this area, you could use the indicator of time asleep or of per cent production. You could use both - but not in the same column.

d) Unclear or missing instructions regarding the source of information where such directions are needed.

e) Non-measurable criteria.

An example of this would be "more depressed" or "communication improved by half." More depressed than what? Improved by half of what? How do you know this change has taken place? And, more importantly, how will anyone else know?

f) Finally, unrealistic expectations.

STEP 9: Client's Current Status

Where on the scales is the client now?

The final step in the G.A.S. process is to identify and record the client's current level in each problem area. This can be marked on the scale or listed in the record elsewhere, so that when the scale is scored the client's progress can be seen.

It is possible that a client may start at the expected level of success or better. Sometimes it is expected that a client will regress or remain stable in a particular problem area. This is one of the advantages of G.A.S. as an evaluation tool -- it takes into account the fact that sometimes clients don't make much progress, and sometimes they must go backwards before they can go forward. In most situations, however, you would choose to scale problem areas in which you expect progress, not regression.

Scoring

There are many ways to score Goal Attainment Scales. We chose the following system because we felt it was the easiest to work with. If you want to look at other methods, materials are available from the Program Evaluation Project.

In the system we chose, scores range from +2 to -2 for each scale.

These numbers are relatively meaningless unless you have some kind of system for evaluation that they fit into, and some kind of purpose behind that system. The figures need not be for external consumption - but if you are under pressure to produce an accountability system by consumers, legislators or some other group, you need to produce some kind of evidence for client progress.

When deciding how you want to set up your scoring system, there are at least three factors to consider:

1. Who will score the scales?
   a) The counselor
   b) An intra-agency team
   c) An inter-agency team
   d) Someone not involved with the client
   e) Other

2. What will the scores be used for?
   a) Evaluation of the overall program
   b) Comparison of methodologies
   c) Records on individual clients
   d) Records on individual counselors
   e) Other

3. How quickly do you need or want the feedback?
   a) Immediately
   b) Every quarter
   c) Annually
   d) Whenever the legislature debates on your appropriation
   e) Other

It is possible to have two parallel systems operating - one for your own information, to assist the internal functioning of your agency, and one for external evaluation. In the first system, counselors would score their own clients, thus getting immediate feedback on both client progress and their own skill. Numerical scores are not so important for this kind of a system, though some counselors may find them helpful.

The second system could involve a random sample or some other sampling of the clients. An individual not directly involved with a client would score the scale and the overall score would be recorded. A sample of scores would then be available to indicate how the entire program was operating, or to compare the effectiveness of the various parts of the agency.

These are sketchy descriptions of how G.A.S. can be used to help evaluate a program on two levels. There are many other possibilities which you can work out in an agency, a group of agencies, a community, or a state, depending on what is needed and on what works in the particular setting.

A Sample Case: Leroy G.

The following case has been scaled for you. Read the description of the client and then look at the scale to see what problems can be chosen and what kinds of things can be used to indicate progress. The scale shown here reflects the staff structure and resources of a particular rehabilitation facility - other settings might use different scales for this client.

Leroy G. is a 23-year old man with an I.Q. of 55. After a few weeks exposure to a work adjustment center, his counselor has made several observations about him, and a social worker has visited his home once. Here are their comments:

Leroy comes from a large, active and noisy family - he has a mother, a stepfather, two half-brothers, two half-sisters, and a sister. His sister has a year-old baby, just learning to walk. Leroy constantly picks fights with other family members, and occasionally hits someone or gets hit. Hardly a day passes without at least a verbal battle with Leroy at the center.

According to Mrs. G., Leroy used to help around the house and seemed to enjoy it. However, shortly after her last child was born 4 years ago, he "started to mess up everything I asked him to do." She asked him to help less and less, and now he does literally nothing but fight and watch TV.

His mother calls him "that no-count Leroy." Her husband, who is Leroy's step-father, alternates between anger at Leroy's hostility and pity for his being "not all there." The other children are of normal intelligence, but they all squabble.

In the workshop, Leroy made friends with three other clients immediately. The only problem with that is, he cannot stop talking to them if he is working near them. When he talks, he gestures with his hands and naturally cannot work. His voice carries well and disturbs the whole shop. He gets along well with superiors, and learns tasks slowly but thoroughly.

His appearance, however, is very sloppy and sometimes he is dirty. His mother has too many younger children in the house to be able to take care of him. She says she'll be happy to help him take care of his appearance if he will bring her his torn clothes and missing buttons, but she can't wash him and comb his hair for him. "He's 23 years old!" she says. "He's no baby any more!"

LEROY L.

8 WEEKS

GOAL ATTAINMENT SCALE

Problem Area

Information Source Identified

PREDICTED ATTAINMENT	SCALE 1 Personal Appearance	SCALE 2 Family Adjustment Client's Report	SCALE 3 Family Adj. Social Worker's Report	SCALE 4 Distractability in workshop.
MOST UNFAVORABLE OUTCOME THOUGHT LIKELY	Comes to workshop w/all the following: shoes scuffed, hair uncombed, not washed, clothes torn, buttons missing.	Fights w/at least one family member every day. Verbal or physical abuse.	Parents refuse to give client any responsibility for household jobs.	Unable to work next to friends for more than 5 min. w/o talking.
LESS THAN EXPECTED SUCCESS	Comes to workshop w/4 of the above.	One day of peace in last week. (Relative to Leroy).	One parent (father or mother) agrees to assign a job.	Works w/friends more than 5 min., less than 15 min., w/out talking.
EXPECTED LEVEL OF SUCCESS	Comes w/3 of the above.	2 days of peace in last week.	Both parents agree, assign one job (i.e., washing or drying dishes, cleaning ashtrays, making bed.)	Works next to friends 15-20 minutes w/out talking.
MORE THAN EXPECTED SUCCESS	Comes w/2 of the above.	3 days of peace in last week.	Parents agree, assign 2 jobs.	More than 20 min., less than 30 min.
MOST FAVORABLE OUTCOME THOUGHT LIKELY	Comes w/one or none of the above.	4 days of peace in last week.	Parents agree, assign 3-4 jobs.	Works w/friends more than 30 min. w/out talking.

Indicator

en from the model developed by Kiresuk and Sherman (1968) and used by the Program Evaluation Project.

Case Exercise #1: Mrs. L.

The following case was one of those in the RUL pilot study. Take the information given here about this client and construct three scales. Step 1, determining overall objectives, has already been done for you. The scales are to be scored in 3 months. Please complete Steps 2-8 for Mrs. L. as if she were in your caseload.

Mrs. L. is 40 years old, a high school graduate, and currently married with no children. She has been hospitalized several times, but she states that her parents hospitalize her when she becomes aggressive and tries to make her own decisions. She was referred to the workshop on her release from the state hospital 14 months ago. She has been diagnosed as a schizophrenic of the chronic undifferentiated type or as psychotic with post vaccinial encephalitis. She has never learned to make decisions on her own.

Mrs. L. states that her grades in high school were "gifts" that she did not earn. It seems as if everything she has was a gift from her parents who are ready to do everything for her. She has no work history and feels little competence or self-worth.

Her parents pay all or most of her and her husband's bills. Whenever she has a problem, she calls them. However, she also has a great deal of anger stored up against them, which emerges in outbursts and several days of continuing anger whenever her mother visits her. Her husband is an indecisive man who permits her family to dominate.

At the workshop, Mrs. L. goes to the staff with every trifling problem she encounters. She complains constantly about her co-workers, sometimes blows up at them verbally, and seems unable to resolve even the smallest disputes by herself. Her counselor refers to her as "the shadow" because Mrs. L. is always hovering around or following her. Mrs. L. also loses track of what she is talking about. She will begin on a topic, lose the thread, and talk randomly.

Mrs. L. has medication prescribed by her doctor, but she only takes it sporadically. Prompting from workshop staff seems to help.

The overall objectives in this case are to help Mrs. L. become independent from her parents, teach her to make her own decisions and to manage her household, and to help her develop good work habits and a better self-concept.

When you have made your scales for Mrs. L., turn to page 43 to check your scales against the actual scales that were made for this client in the pilot study. There are seven scales given; your three may not match any of them exactly, but you should have some overlap in terms of areas chosen, indicators, etc. A brief description of the outcome of the case is included.

GOAL ATTAINMENT SCALE

NAME: _____ DATE: _____

COUNSELOR: _____ ANTICIPATED REVIEW DATE: _____

ACTUAL REVIEW DATE: _____

AVERAGE SCORE	SCALE	SCALE	SCALE
MOST UNFAVORABLE OUTCOME -2			
LESS THAN EXPECTED -1			
EXPECTED LEVEL OF SUCCESS 0			
MORE THAN EXPECTED +1			
MOST FAVORABLE OUTCOME +2			
CURRENT LEVEL			
METHOD/ TREATMENT			
WHO IS RESPONSIBLE?			

MULTIPLE CHOICE QUESTIONS

Some of the following multiple choice questions have more than one right answer. The point of them is not to trap you into making a mistake, but to 1) show you some of the possibilities and limitations of G.A.S., 2) indicate how flexible G.A.S. is, and 3) give you an opportunity to test your own understanding of the techniques of scaling before you try more scales on your own.

When you have answered the questions to the best of your ability, turn to the answers for a discussion of the questions.

1. If a client scores -2 on all scales, you should:
   a) Stop using G.A.S. because it doesn't help this client.
   b) Choose another treatment methodology.
   c) Reassess the expected levels of success.
   d) Terminate the client.
   e) Fire the counselor.

2. If you have inadequate information about a client when you attempt to make the first scale, you should:
   a) Put off scaling the client until you know more.
   b) Make a scale based on guesswork and rescale when you have more information.
   c) Make a scale of <u>your</u> efforts to get more information about the client, rather than of the client's progress.
   d) Do not use G.A.S. with this client.

3. Which of the following statements does <u>not</u> belong in a scale:
   a) 2-4 of the above.
   b) Once a week.
   c) Sees parents five times in last month without arguing.
   d) Improved, but not optimal.
   e) Produces 25% of industrial standard.

4. Which of the situations listed below are appropriate for G.A.S.?
   a) New client enters facility.
   b) Facility wants to improve administrative efficiency.
   c) State VR refers client, but insists on 8-week time limit for service.
   d) Counselor wants to improve professional skills.
   e) All of the above.

5. One of the key ideas behind G.A.S. is:
   a) Accurate predictions of individual client progress.
   b) Measuring each client's progress against the same pre-established standard.
   c) Encouraging the use of behavioral methodologies in rehabilitation.
   d) Tricking counselors into betraying where their skills are weakest.
   e) None of the above.

6. What is wrong with this scale?

PREDICTION	SCALE 2: INDEPENDENCE
MOST UNFAVORABLE OUTCOME EXPECTED	Refuses to discuss (with counselor) living apart from mother.
LESS THAN EXPECTED SUCCESS	Will discuss moving but does not want to do it.
EXPECTED LEVEL OF SUCCESS	Wants to move (she says) but no plans are made.
MORE THAN EXPECTED SUCCESS	Plans are made, move not completed.
MOST FAVORABLE OUTCOME EXPECTED	Has moved out of mother's apartment.

a) Too many indicators.
b) Not concrete enough.
c) Levels overlap.
d) Gaps between levels.
e) Nothing.

7. What is wrong with this scale?

PREDICTION	SCALE 3: WEIGHT
MOST UNFAVORABLE OUTCOME	Weighs 120 or less at follow-up.
LESS THAN EXPECTED SUCCESS	Weighs 120-130
EXPECTED LEVEL OF SUCCESS	Weighs 125-135
MORE THAN EXPECTED SUCCESS	Weighs 136-150
MOST FAVORABLE OUTCOME	Weighs 145-155

a) Problem area too specific.
b) Gaps between levels.
c) Levels overlap.
d) Focus too narrow.
e) Nothing.

8. Goal Attainment Scales should be made:
   a) Only once, when the client enters the program.
   b) When the time limit for a scale or scales is up and the scales are scored.
   c) At every staffing.
   d) Every six weeks.

9. Which of the following statements about G.A.S. scores is <u>not</u> true?
   a) G.A.S. scores can be entered in a computerized system.
   b) G.A.S. scores can be compared with each other.
   c) G.A.S. scores must be calculated with a computer.
   d) In some applications, G.A.S. can be used without ever calculating numerical scores.
   e) There is more than one way to calculate G.A.S. scores.

10. G.A.S. should be used:
   a) Primarily with mental health clients in a work adjustment program.
   b) Only with retarded clients, in any setting.

c) Only with clients who have multiple handicaps and are served by multiple agencies.
d) Only with clients who can communicate well.
e) With any client where there is an identifiable goal.

Case Exercise #2: Miss R.

The next case is also an example from the pilot study. This client, unlike Mrs. L., did very well at the workshop. Originally, the staff did four scales for her. However, after the first four weeks, four more scales were added. Here is the description of the case.

> Miss R. is 23 years old and has an I.Q. of approximately 35. She attended TMH classes for four years. In addition to severe retardation, Miss R. acts out by being physically or verbally assaultive and otherwise acting inappropriately, both in the workshop and in the community. Her behavior is extremely unpredictable.
>
> In the workshop, she displays the following unpleasant behaviors:
>
> - She does not bathe or change her clothes often enough to be pleasing.
> - She has verbal outbursts on the work floor (temper tantrums) at least once a day.
> - She avoids work by saying she is ill.
> - She will not accept counseling or psychiatric treatment.
> - She will not attend a community Activities of Daily Living Training Program, offered week nights and Saturdays, to which she has been referred.
>
> When the first scale is done, Miss R. is living in an apartment in the community, but there are weekly complaints about inappropriate behavior from her neighbors. She slaps strangers on the back or hugs them, talks abusively to people she hardly knows, and gets angry when they react to these behaviors. If this continues or increases, she will have to be institutionalized.
>
> The overall goals for this client are to improve her work skills and social skills to the point where she can live in the community and work on a long-term basis in a sheltered setting.

Once again, the overall objectives have been given. Complete the other steps, making three scales. When you are finished, check your scales with the scales on page 49 . The answers from the pilot study are given in two groups: those scaled originally, and those done after the first four week period.

GOAL ATTAINMENT SCALE

NAME: _____ DATE: _____

COUNSELOR: _____ ANTICIPATED REVIEW DATE: _____

ACTUAL REVIEW DATE: _____

AVERAGE SCORE	SCALE	SCALE	SCALE
MOST UNFAVORABLE OUTCOME -2			
LESS THAN EXPECTED -1			
EXPECTED LEVEL OF SUCCESS 0			
MORE THAN EXPECTED +1			
MOST FAVORABLE OUTCOME +2			
CURRENT LEVEL			
METHOD/ TREATMENT			
WHO IS RESPONSIBLE?			

Case Exercise #3: Agency X

The next example is a case of an agency in trouble, rather than a client in a rehabilitation program. Don't let this throw you; the procedure is much the same, with differences mainly in the kind of problem areas, the kind of indicators, and the type of goals you would choose. Even if you are not an administrator, doing this exercise should give you an idea of the potential uses of G.A.S. in managing your caseload or other administration-type tasks.

For this situation, the deadline for the scales is six months, as implied in the text below. Construct three scales, and compare them with the four scales given in the answer section.

N.B. The resemblance of Agency X to any existing Agency is purely coincidental.

> Agency X is a rehabilitation workshop located in a rural community. Its program is in difficulties because of some efficiency problems, and its funding agency has warned the director that the program must show improvements in the next 6 months before it will be refunded.
>
> At the moment, the staff is having difficulty keeping its clients busy and providing varied work for them. Part of this problem, according to the director, is that local businesses are not aware of the workshop's capabilities. One contract is going continuously; a local company uses the facility to construct foam rubber hair curlers and package them. The problem is keeping the workers and the staff supplied with other options.
>
> Another problem is transportation for clients to the facility. There is little public transportation available, and the community served by Agency X is in a 100-mile radius of the facility. In the last 6 months, Agency X has had to refuse service to 25 clients because neither the facility nor the client could provide transportation. A community group of volunteers has been approached to set up a shuttle system, and a plan is being formed to alleviate this problem, but no one has a vehicle larger than a station wagon.
>
> The transportation problem is especially bad for the agency because the available client slots are not filled. Out of 800 slots per year in a 16-week program, only 683 were filled in the last year. One reason for this problem was the fact that clients are staying past the 16-week limit, often staying in the program as long as 30 weeks. Other clients quit because they grow tired of putting curlers together. The clients who need variety and have enough gumption to leave do so, and the facility is becoming less of a workshop/work adjustment program and more of a sheltered workshop.

This would be all right, except that there is already a sheltered workshop in the community with staff trained to handle this type of client. The staff of Agency X is trained to handle work adjustment.

The director sees this problem as two-fold. First, there are plenty of people in the community who could benefit from work adjustment, but they simply don't know, or their families don't know, that this service is available. The other problem is poor referrals. Work adjustment clients are sent to the sheltered workshop, and clients who really should be in sheltered employment are enrolled in work adjustment and stay for 30 weeks. The two agencies do not communicate well enough to get the clients into the proper programs, and the local churches, welfare agencies, etc. are not well informed about the difference between the two programs.

GOAL ATTAINMENT SCALE

NAME: _____ DATE: _____

COUNSELOR: _____ ANTICIPATED REVIEW DATE: _____

ACTUAL REVIEW DATE: _____

AVERAGE SCORE	SCALE	SCALE	SCALE
MOST UNFAVORABLE OUTCOME -2			
LESS THAN EXPECTED -1			
EXPECTED LEVEL OF SUCCESS 0			
MORE THAN EXPECTED +1			
MOST FAVORABLE OUTCOME +2			
CURRENT LEVEL			
METHOD/ TREATMENT			
WHO IS RESPONSIBLE?			

CHAPTER III.

TECHNICAL APPENDIX

This appendix includes information gathered from the RUL's pilot study of Goal Attainment Scaling at two sites, one at the Community Work and Development Center (CWDC) in Hibbing, Minnesota, and one at the Madison Opportunity Center (MOC) in Madison, Wisconsin. The RUL did not attempt a validity or reliability study of G.A.S., as we felt these questions had already been addressed quite thoroughly by the originators of the technique. Our purposes were rather to find out how G.A.S. would work as an accountability tool in rehabilitation settings, and to see if it would enhance service delivery at the sites.

The Sites

Hibbing is a mining town in Northern Minnesota. CWDC has its main office in Hibbing and branches in two nearby towns, Virginia and Grand Rapids; the total population of the three towns is about 40,000. The towns are about thirty miles apart, and many of the clients served by CWDC live outside the towns. Hibbing is currently experiencing a "boom" because mining activity has increased significantly in recent years, and there is a considerable influx of money and mining personnel. CWDC is a little less than ten years old. It has a work adjustment program which also provides specialized services to the community. One example is an auto renovation program which is needed in the area because of the ore dust that is everywhere. CWDC served 354 clients in Fiscal 1975. The staff members of the Hibbing office and one counselor in the Grand Rapids office were intermittently involved in the G.A.S. project.

Madison has a resident population of about 170,000 and a major university. The Madison Opportunity Center has an education program which includes basic skills, community living, home economics, and speech therapy; a sheltered workshop, a work adjustment program; and a janitor training program which includes a home and business cleaning service. The agency was founded in 1959, and served 487 persons in 1975. The Lab worked primarily with one work adjustment program at MOC, where all the clients are funded by the state VR agency.

THE EVALUATION

To evaluate the usefulness of G.A.S., the Lab staff prepared three questionnaires. They were a client satisfaction survey, a questionnaire on the usefulness of G.A.S. in each individual case, and a questionnaire on the general usefulness of G.A.S. In some cases the clients participated in scaling, in some they did not. The questionnaires were designed to test nine specific hypotheses about G.A.S. They were:

A. G.A.S. can be used to measure a wide range of sub-objectives.

B. G.A.S. as it was used in the pilot study creates a system common to the state VR and the facility, which in turn improves communication between the agencies.

C. G.A.S. can be used to compare achievement across a wide range of objectives.

D. G.A.S. can be used at any point in the rehabilitation process.

E. The use of G.A.S. improves the staff's understanding of their clients and how they change.

F. Feedback from G.A.S. improves services by increasing effectiveness and efficiency.

G. G.A.S. improves joint planning of services for clients shared by the state VR and the facility.

H. G.A.S. is a valid measure of client progress.

I. Staff of state VRs and facilities will accept and can utilize G.A.S.

Some of these hypotheses were represented by one question, some by two or three questions. All of them were covered in the major questionnaire, the one completed by the counselors about each client.

The RUL staff did not consider the topics covered in each of the 9 hypotheses to be of equal importance. Hypotheses "B" and "G" deal with the study's objective to improve VR-facility relations. Hypotheses "A", "C", "D" and "H" are directly concerned with RUL's effort to provide a valid accountability system. Hypotheses "E" and "F" suggest that the use of the G.A.S. procedure will not only provide an accountability measure, but will improve counselors' understanding of clients and service effectiveness. Hypothesis "I" was included to give RUL some estimate from actual users of possible reactions from potential users. Hypotheses "A" through "D", "G" and "H" are central to the two major objectives of the study. Hypotheses "E", "F", and "I" deal with desirable extensions of the values which the procedure might serve.

Individual Case Questionnaire

This questionnaire had a total of 17 statements, and the counselors were asked to respond by circling one of five answers: Strongly Agree, Agree, Undecided, Disagree, or Strongly Disagree. Four of the items were stated negatively, and for these the responses were tabulated as their opposites. For example, Strongly Agree was counted as a strongly negative response, Strongly Disagree was counted as a very positive response, and so forth.

We have completed, useable individual case questionnaires as follows:

	Clients	Questionnaires
Jointly Served Clients	14	28
DVR only	16	16
Facility only	22	22
	52	66

A total of five DVR counselors, two in Minnesota and three in Wisconsin, completed questionnaires for the study. Four facility counselors completed questionnaires for the study, two from each state. One facility counselor filled out a single questionnaire for all clients scaled, so the results were not used in the final tabulations. There were 10 clients for whom scales were made but questionnaires were not completed. At each site, other staff members were involved with G.A.S. but did not complete questionnaires.

As a whole, the responses to this questionnaire were definitely positive. For the total study, 79.3 per cent of the responses given were either Strongly Agree or Agree. In Wisconsin, this figure was 73.1 per cent, and in Minnesota it was 87.7 per cent. Based on these figures, we can safely say that G.A.S. was very favorably received in both states.

The group that was the least positive about G.A.S. was MOC, with 64.3 per cent positive responses. CWDC was the most enthusiastic, with 92.4 per cent positive responses. We don't know why there was such a big difference. However, the MOC staff had been introduced previously to a different form of G.A.S. which did not work out well for them. This may have had some influence on the responses, but it is just as likely that G.A.S. simply did not work as well for them as it did for the other groups.

Even at MOC, however, the positive responses to the questionnaire on individual clients was well over half of the total responses. Also, it should be noted that the MOC staff designed their own G.A.S. form, which they found more useful than the original form because it provided more information. Their version includes space for three scales instead of four, and spaces for identifying methodology and assigning responsibility in the treatment process. This form was adopted by the other three groups by the end of the study, and is also used as the work-sheet in the workbook section of this manual.

The questionnaire items were directly related to the hypotheses listed above, which the RUL was testing in the pilot study.

Although overall the responses to the questionnaire were positive, some areas showed more either undecided or negative responses in the answers than others. Based on the proportions of positive responses and the agreement between the agencies for jointly scaled clients, the hypotheses that we are most confident about asserting are:

A. G.A.S. can be used to measure a wide range of sub-objectives.

B. G.A.S. as it was used in the pilot study creates a system common to the state VR and the facility, which in turn improves communication between the agencies.

C. G.A.S. can be used to compare achievement across a wide range of objectives.

E. The use of G.A.S. improves the staff's understanding of their clients and how they change.

H. G.A.S. is a valid measure of client progress.

I. Staff of state VRs and facilities will accept and can utilize G.A.S.

One qualification should be made here: The group in Wisconsin was apparently unsure about numerical scoring of the scales, so their answers to questions involving scores tended to be undecided or negative. Also, for Hypothesis "B", some of the cases did not involve more than one agency. For those cases, the responses for related questions have been excluded from the final tabulations. For joint clients, the responses to this hypothesis were overwhelmingly positive. As you will see from the data below, "E" and "H" have fewer positive responses than the other four hypotheses in this group. However, we feel the response was positive enough to include them.

The remaining three hypotheses had more positive responses than negative ones, but the results were not as definite as they were for these six. They have not been disproved by this study, but if you are using G.A.S. we would caution you not to count on these items as results. However, they may show up better with a different group or in a different setting.

The following tables show the questionnaire tabulations grouped by hypothesis. After each hypothesis are the questionnaire items the RUL used to test the hypothesis. The "Postive" category includes responses of Strongly Agree and Agree, except that where questions are worded negatively, the opposite response is counted as positive. The "Not Positive" category includes "Undecided" responses as well as negative ones. The responses are broken down by state, by Jointly Served vs. Individually Served Clients, and by State Agency vs. Facility. Where the clients were scaled jointly by the DVR and the facility, the per cent of agreement between facility and state agency responses is included.

Hypothesis A

G.A.S. can be used to measure a wide range of sub-objectives.

#3 The scales for this client covered several different important problems.

#17 G.A.S. increased the likelihood that all the important problems were carefully considered.

Jointly Served Clients		Positive	Not Positive	% Positive	% Agree
Wisconsin	VR	10	0	100.0	100.0
	MOC	10	0	100.0	-
Minnesota	VR	16	2	88.9	88.9
	CWDC	18	0	100.0	-
		54	2		

Hypothesis A (cont'd.)

Individually Served		Positive	Not Positive	% Positive	% Agree
Wisconsin	VR	15	1	93.8	-
	MOC	21	7	75.0	-
Minnesota	VR	16	0	100.0	-
	CWDC	16	0	100.0	-
		68	8		
Overall					
Joint		54	2	96.4	92.8
Individual		68	8	89.5	-
		122	10		
State Agency		57	3	95.0	-
Facility		65	7	90.3	-
		122	10	92.4	-

Hypothesis B

C.A.S. as it was used in the pilot study creates system common to the state VR and the facility, which in turn improves communication between the agencies.

#1 Communication about this client between the state agency and the workshop was improved because of the G.A.S. activity.

#5 Concentrating on getting agreement between the agencies on definitions of the client's problems interfered with providing good service.

Jointly Served Clients		Positive	Not Positive	% Positive	% Agree
Wisconsin	VR	10	0	100.0	90.0
	MOC	9	1	90.0	-
Minnesota	VR	16	2	88.9	88.9
	CWDC	18	0	100.0	-
		53	3		
Individually Served*					
Wisconsin	VR	7	1	87.5	-
	MOC	17	11	60.7	-
Minnesota	VR	15	1	93.8	-
	CWDC	15	1	93.8	-
		54	14		
Overall					
Joint		53	3	94.6	89.3
Individual		54	14	79.4	-
		107	17		

*Some respondents did not answer these questions on individually served clients.

Hypothesis B (cont'd.)

	Positive	Not Positive	% Positive	% Agree
State Agency	48	4	92.3	-
Facility	59	13	81.9	-
	107	17	86.3	-

Hypothesis C

G.A.S. can be used to compare achievement across a wide range of objectives.

#2 Changes in this client's behavior were accurately measured for each of the several problems scaled.

#6 The scores for this client gave an accurate picture of the relative importance of the problems chosen for scaling.

		Positive	Not Positive	% Positive	% Agree
Jointly Served Clients					
Wisconsin	VR	10	0	100.0	80.0
	MOC	8	2	80.0	-
Minnesota	VR	15	3	83.3	72.2
	CWDC	16	2	88.9	-
		49	7		
Individually Served					
Wisconsin	VR	16	0	100.0	-
	MOC	23	5	82.1	-
Minnesota	VR	14	2	87.5	-
	CWDC	14	2	87.5	-
		67	9		
Overall					
Joint		49	7	87.5	75.0
Individual		67	9	88.2	-
		116	16		
State Agency		55	5	91.7	-
Facility		61	11	84.7	-
		116	16	87.9	-

Hypothesis D

G.A.S. can be used at any point in the rehabilitation process.

#16 It grew harder to make scales for this client as he or she progressed through the rehabilitation program.

Hypothesis D (cont'd.)

		Positive	Not Positive	% Positive	% Agree
Jointly Served Clients					
Wisconsin	VR	2	3	40.0	40.0
	MOC	2	3	40.0	-
Minnesota	VR	7	2	77.8	66.7
	CWDC	6	3	66.7	-
		17	11		
Individually Served					
Wisconsin	VR	4	4	50.0	-
	MOC	7	7	50.0	-
Minnesota	VR	7	1	87.5	-
	CWDC	7	1	87.5	-
		25	13		
Overall					
Joint		17	11	60.7	57.1
Individual		25	13	65.8	-
		42	24		
State Agency		20	10	66.7	-
Facility		22	14	61.1	-
		42	24	63.6	-

Hypothesis E

The use of G.A.S. improves the staff's understanding of their clients and how they change.

#7 The staff group's understanding of this client's problems was increased by the Goal Attainment Scaling process and discussion.

#14 The use of Goal Attainment Scaling helped me zero in on the essential factors in this client's rehabilitation.

		Positive	Not Positive	% Positive	% Agree
Jointly Served Clients					
Wisconsin	VR	7	3	70.0	50.0
	MOC	6	4	60.0	-
Minnesota	VR	15	3	83.3	83.3
	CWDC	18	0	100.0	-
		46	10		
Individually Served					
Wisconsin	VR	13	1	92.9	-
	MOC	16	12	57.1	-
Minnesota	VR	16	0	100.0	-
	CWDC	16	0	100.0	-
		61	13		

Hypothesis E (cont'..)

	Positive	Not Positive	% Positive	% Agree
Overall				
Joint	46	10	82.1	71.4
Individual	61	13	82.4	-
	107	23		
State Agency	51	7	87.9	-
Facility	56	16	73.7	-
	107	23	82.3	-

Hypothesis F

Feedback from G.A.S. improves services by increasing effectiveness and efficiency.

#11 As a staff member, I was better able to serve this client because of the Goal Attainment Scaling activity.

#15 The group's activity to devise appropriate service procedures for this client was improved by the Goal Attainment process.

		Positive	Not Positive	% Positive	% Agree
Jointly Served Clients					
Wisconsin	VR	6	4	60.0	30.0
	MOC	5	5	50.0	-
Minnesota	VR	13	5	72.2	72.2
	CWDC	18	0	100.0	-
		42	14		
Individually Served*					
Wisconsin	VR	11	3	78.6	-
	MOC	12	16	42.9	-
Minnesota	VR	16	0	100.0	-
	CWDC	16	0	100.0	-
		55	19		
Overall					
Joint		42		75.0	57.1
Individual		55	[illegible]	74.3	-
		97	33		
State Agency		46	12	79.3	-
Facility		51	21	70.8	-
		97	33	74.6	-

*Some respondents did not answer these questions for individually served clients.

Hypothesis G

G.A.S. improves joint planning of services for clients shared by the state VR and the facility.

#4 Because of the G.A.S. procedures, both agencies were better able to plan joint services for or with this client than is usually possible.

Jointly Served Clients		Positive	Not Positive	% Positive	% Agree
Wisconsin	VR	4	1	80.0	40.0
	MOC	3	2	66.7	-
Minnesota	VR	7	2	77.8	77.8
	CWDC	8	1	88.9	-
		22	6		
Individually Served*					
Wisconsin	VR	6	0	100.0	-
	MOC	3	11	21.4	-
Minnesota	VR	7	1	87.5	-
	CWDC	7	1	87.5	-
		23	13		
Overall					
Joint		22	6	78.6	64.3
Individual		21	14	60.0	-
		43	20		
State Agency		21	6	77.8	-
Facility		22	14	61.1	-
		43	20	68.3	-

*Some respondents did not answer this question for individually served clients.

Hypothesis H

G.A.S. is a valid measure of client progress.

#8 The goals chosen for this client were realistic and salie: .

#10 The follow-up scores agreed upon for this client were accurate.

Jointly Served Clients		Positive	Not Positive	% Positive	% Agree
Wisconsin	VR	8	2	80.0	70.0
	MOC	9	1	90.0	-
Minnesota	VR	15	3	83.3	83.3
	CWDC	16	2	88.9	-
		48	8		

Hypothesis H (cont'd.)

Individually Served		Positive	Not Positive	% Positive	% Agree
Wisconsin	VR	9	7	56.3	-
	MOC	18	10	64.3	-
Minnesota	VR	15	1	93.8	-
	CWDC	15	1	93.8	-
		57	19		
Overall					
Joint		48	8	85.7	78.6
Individual		57	19	75.0	-
		105	27		
State Agency		47	13	78.3	-
Facility		58	14	80.6	-
		105	27	79.5	-

Hypothesis I

Staff of state VRs and facilities will accept and can utilize G.A.S.

#9 I felt uncomfortable while participating in preparing Goal Attainment Scales for this client.

#12 I felt sure of myself when suggesting follow-up scores for this client's scales.

#13 The tasks of preparing and scoring Goal Attainment Scales for this client were more of a hi~drance than a help.

Jointly Served Clients		Positive	Not Positive	% Positive	% Agree
Wisconsin	VR	11	4	73.3	73.3
	MOC	15	0	100.0	-
Minnesota	VR	22	5	81.5	70.4
	CWDC	24	3	88.9	-
		72	12		
Individually Served					
Wisconsin	VR	18	6	75.0	-
	MOC	36	6	85.7	-
Minnesota	VR	21	3	87.5	-
	CWDC	21	3	87.5	-
		96	18		
Overall					
Joint		72	12	85.7	71.4
Individual		96	18	84.2	-
		168	30		

Hypothesis I (cont'd.)

	Positive	Not Positive	% Positive	% Agree
State Agency	72	18	80.0	-
Facility	96	12	88.9	-
	168	30	84.8	-

Client Satisfaction Questionnaire

The client setisfaction survey did not produce any usable data for this study for two reasons. First, several of the counselors did not give the questionnaire to some of their clients for reasons ranging from the client's negative reaction to the fact that the client could not read. Secondly, we were unable to get any comparable data on clients who were not involved in G.A.S.

Overall Reactions

The questionnaire on the counselors' overall reactions to G.A.S. was completed in Wisconsin but not in Minnesota. There were five open-ended questions on the survey, one of which simply asked for comments. The other four dealt with whether G.A.S. gave a better picture of service delivery, what problems arose with G.A.S. and how they were handled, how facility-DVR relations changed, and if the scores were meaningful.

We had only five responses to this questionnaire, two from MOC and three from Wisconsin DVR. The responses tie in with the individual client questionnaires in that the same areas elicited somewhat negative responses from the MOC counselors. We can identify with some confidence where G.A.S. did not meet our expectations at MOC, although the reasons are still unknown. Those two areas are scoring and improvement of communications with the state agency. On the latter point, one counselor said there was no change in the relationship, and the other said that the communication improved in the first half of the study, then returned to its former level. It is interesting to note that on both scoring and interagency communication, the DVR counselors disagreed with the MOC counselors' evaluation.

Chi-Square Analysis

A chi-square analysis of the individual client questionnaires by hypothesis in terms of Jointly Served vs. Individually Served Clients, Minnesota vs. Wisconsin, and State Agency vs. Private Facility was made, and appears below:

CHI-SQUARES BY HYPOTHESIS AND CONDITION:
INDIVIDUAL CLIENT QUESTIONNAIRES

Hypothesis	Joint vs. Individual	Wisconsin vs. Minnesota	State Agency vs. Facility
A	1.34	3.05	0.48
B	4.80*	6.40*	1.94
C	0.02	0.01	0.90
D	0.02	6.20*	0.04
E	0.04	15.41**	1.63
F	0.01	22.52**	0.81
G	2.67	7.33**	2.86
H	1.66	7.66**	0.01
I	0.01	0.14	2.37

2-tailed test; df = 1 p = .10 at 2.71
.05 at 3.84*
.02 at 5.41
.01 at 6.64**

The most significant differences showed up between the two states for Hypotheses E(x^2 = 15.41), which deals with staff understanding of client change and F(x^2 = 22.52), which concerns increasing effectiveness and efficiency of service delivery. Hypotheses G(x^2 = 7.33) and H(x^2 = 7.66) are at the next, and much lower, level of significance. They deal with joint planning of services and measurement of client progress respectively. Of these four hypotheses, "F" and "G" were not confirmed by the pilot study, and "G" and "H" were asserted, but with some reservations.

Hypotheses "C" and "I", which deal with G.A.S. as a comparison tool and with the acceptability of G.A.S. respectively, were the only two hypotheses that did not show a significant difference between the responses of the two states in this test.

The fact that this analysis showed differences mainly between the two states is not surprising, considering both the different proportions of positive responses to the questionnaire in the two states and our experience with further dissemination through the two state VRs (see note on page 6). As we stated above, we are not sure why the tool had a different reception in the two states, and we feel that the pilot study did not yield enough data to answer this question.

Client Demographics

During the pilot study, the RUL collected some demographic information on the clients involved. We present a summary of it here for your information. We know that G.A.S. is effective, within the limits discussed above, with these populations. This does NOT mean that it won't be effective with different kinds of clients. We did not find any significant differences in the counselors' responses to G.A.S. that correlated with the client characteristics described here.

We have demographic data on 24 clients in Minnesota and 27 clients in Wisconsin who were part of the study.

In Wisconsin, two-thirds of the clients were male and one-third were female. Just under three-fourths (74.0 per cent) of them were 30 years old or younger, the youngest was 17 and the oldest was 61.

In Minnesota, the clients were also predominantly male, but the proportion was 58.3 per cent. Also, 58.3 per cent were 30 years old or younger, with most of the younger group between 22 and 30 (50.0 per cent of the total).

The primary disabilities in the two groups were:

PRIMARY DISABILITY

Wisconsin		Minnesota	
Alcoholic	7.4%	Alcoholic	4.1%
Mentally Retarded	14.8%	Mentally Retarded	29.1%
Schizophrenic	33.3%	Schizophrenic	33.3%
Personality/Emotional Disorders	25.9%	Personality/Emotional Disorders	25.0%
Partially Blind	3.7%	Epileptic	4.1%
Deaf	11.1%	Stroke-Aphasia	4.1%

In Wisconsin, 19 or 70.4 per cent were considered by their counselors to have a secondary disability.

In Minnesota, 14 or 58.3 per cent were considered by their counselors to have a secondary disability.

The two groups have been put in roughly the same categories for comparison purposes.

SECONDARY DISABILITY

Wisconsin		Minnesota	
Mental Retardation	26.3%	Mental Retardation	42.9%
Physical Problems (including C.P., Amputation, Hypertension, Diabetes)	36.8%	Physical Problems (including Seizures, Hemiplegia, Vision, Diabetes)	42.9%
Behavioral or Personality Problems	26.3%	Behavioral or Personality Problems	14.3%
Educational Deficits	10.5%	Educational Deficits	0.0%

In terms of education, in Wisconsin just over half (51.9 per cent) had completed high school or more, 22.2 per cent had attended special education classes, and 25.9 per cent attended regular classes but did not complete high school. One client had a Master's degree and one had so little schooling it could not be measured in terms of grades completed.

In Minnesota, 37.5 per cent of the clients had a high school diploma, including a G.E.D. or more, 20.8 per cent had attended special education classes, and 37.5 per cent had attended regular school, but not past eleventh grade.

You will note that the states had the same proportions of schizophrenics (33.3 per cent) and of personality or emotional disorders (25.0 per cent). However, Minnesota had a larger proportion of Mentally Retarded clients (29.9 per cent versus 14.8 per cent). The Wisconsin group had more clients with high school diplomas or better educated as a whole, but the range of education was greater than the Minnesota group.

CONCLUSION

As a result of the G.A.S. study, the staff at CWDC decided to use G.A.S. with all their clients, both those referred by DVR and those referred from other sources, at all three offices. This level of acceptance rarely occurs so quickly in research utilization, and the RUL staff could hardly be more pleased with the success of this project at CWDC. The technique was also enthusiastically received by the administrative levels of the state agencies and by MOC.

In both states, the overall acceptance of G.A.S. at the time of the pilot study, the genuine enthusiasm with which it was received, and the momentum to implement its use were far beyond the RUL's expectations. The most surprising thing about this acceptance was the apparent absence of any feeling on the part of the counselors of being threatened by this evaluation technique during the pilot study.

Based on these data from the pilot study and on the research that has already been done on Goal Attainment Scaling elsewhere, the RUL feels that this tool can be used successfully by rehabilitation practitioners. We would expect particularly good results in the areas of the six hypotheses of the pilot study that received the most favorable responses from study participants. However, we know the group was small and that other experiments may yield different results.

We do not feel that the pilot study has eliminated any possibilities for use of G.A.S. We have not so far identified any disability groups, facility types, or situations where we would not recommend consideration of G.A.S. as a possible tool. This does not mean it will always be helpful, or that it should be used everywhere or for every client. Each facility, agency, or practitioner that looks at G.A.S. should consider and experiment with different ways of using it to decide how it would be most helpful for that particular setting.

A N S W E R S

FOR

EXERCISES IN

CHAPTER II

Discussion, Case Exercise 1: Mrs. L

For the purposes of this exercise, your scales should be more exact and rigorous than the ones given here. These scales were made up in a facility where the relationship between DVR and the workshop is good, misunderstandings are few, and the scoring procedure is informal. In a different setting and atmosphere, some of the gaps between levels should be closed. For example, in Scale 2, Toleration of Co-workers, there is a gap between "complains twice a week" and "complains twice a month." You will fill this gap by changing them to read "complains once or twice a week" and "complains 2-3 times per month" or something similar.

After four weeks, this client scored as follows on these scales: Scale 1, Contact with parents, -2. Scale 2, Toleration of Co-workers, -1. Scale 3, Handling problems in workshop, -2. Scale 4, Paying own expenses, -2. Scale 5, Medication, +2. Scale 6, Coordination of thoughts and speech, -2. Scale 7, Handling calls and visits from mother, -1. The overall score (an average of all the scores) was -1.6. The scales were also reviewed after three months, and the total score at that time was -0.6. Remember that the optimal score is 0.

As you can see, the scales made for this client were somewhat optimistic. If yours had lower expectations, you were closer to the actual results. Of course, there are many factors that go into a case. In this one, an unknown was how the family would react to the workshop program. They seemed enthusiastic, wanted Mrs. L. to participate, visited the workshop, and seemed eager to cooperate. However, when it came to implementing the staff's suggestions about how to make Mrs. L. more independent, such as refusing to pay her bills, letting her make decisions, and the like, they simply did not act. This was one of the factors that held Mrs. L. back from achieving the goals set up in the scales.

ANSWERS FOR CASE EXERCISE 1: MRS. L.

GOAL ATTAINMENT SCALE

PREDICTED ATTAINMENT	SCALE 1 Contact with parents	SCALE 2 Toleration of co-workers	SCALE 3 Handling problems in workshop	SCALE 4 Paying own expenses
MOST UNFAVORABLE OUTCOME THOUGHT LIKELY	Calls parents with every problem. (2 or more times a week).	Blows up (verbal outburst) once a day.	Calls for or seeks help with every problem.	Parents pay 1/2 to 1/3 of bills.
LESS THAN EXPECTED SUCCESS	Calls parents once a week about problems.	Complains daily about co-workers, blows up 4 times a week or less.	Seeks help once a day.	Parents pay for 1/3-1/4 of bills.
EXPECTED LEVEL OF SUCCESS	Calls parents twice a month about problems.	Few blow-ups. Complains twice a week about co-workers.	Solves minor problems as they arise. Talks w/counselor twice a week about problems.	Client seeks advice about bills, but pays almost all.
MORE THAN EXPECTED SUCCESS	Calls parents once a month about problems.	Complains twice a month about co-workers.	Seeks help on personal problems once every two weeks.	Client seeks advice about bills only when necessary.
MOST FAVORABLE OUTCOME THOUGHT LIKELY	Calls parents for social contact only.	Doesn't complain about co-workers.	Solves own problems. Seeks help only when necessary.	Client and husband take responsibility for and pay all bills.

Taken from the model developed by Kiresuk and Sherman (1968) and used by the Program Evaluation Project.

MRS. L. (cont'd.)

GOAL ATTAINMENT SCALE

PREDICTED ATTAINMENT	SCALE 5 Medication	SCALE 6 Coordination of thoughts & speech	SCALE 7 Handling calls and visits from Mother	SCALE
MOST UNFAVORABLE OUTCOME THOUGHT LIKELY	Stops taking medication.	Talks randomly.	Gets upset and maintains anger for 4 days or longer. (talks about it, etc.)	
LESS THAN EXPECTED SUCCESS	Takes medication sporadically (when she "feels bad").	Sticks to subject 25% of the time, needs prompting.	Maintains anger for 2-3 days.	
EXPECTED LEVEL OF SUCCESS	Takes medication regularly with encouragement from staff.	Sticks to subject 50% of time with prodding.	Maintains anger for one day.	
MORE THAN EXPECTED SUCCESS	Takes medication regularly with occasional reminders.	Sticks to subject 50% of time without prodding.	Gets upset, tells mother off, then forgets about it.	
MOST FAVORABLE OUTCOME THOUGHT LIKELY	Takes medication regularly on her own.	Sticks to subject more than 50%, no prodding.	Tells mother how she feels without letting anger cloud her judgment.	

en from the model developed by Kiresuk and Sherman (1968) and used by the Program Evaluation Project.

Answers to Multiple-Choice Questions:

1. a) Wrong. G.A.S. is not primarily a method for working with clients, although it can be used as a tool in treatment, as a structure for client goals. It is primarily a way of measuring client progress, and recording treatment goals. If you drop G.A.S. because your client is not doing well, how will you measure success on the next try?

   b) This is one possible answer. It may be that this client did not respond to your methodology, and a new approach may have better results.

   c) This is another possible answer. Perhaps your method is sound, but you expected the client to respond more quickly than he or she is able to. The best answer may be a combination of b and c, as the two can influence each other.

   d) Usually wrong. Unless you have a contract with the client that -2 scores will lead to termination, or you have some other compelling reason to end treatment (your client physically attacked the chairman of the Fund-Raising Committee, for example), the G.A.S. score should not be a basis for termination.

   e) Wrong. Making client scores the basis for staff employment leads to paranoia, fudging scores, making expected levels too easy, and an otherwise unpleasant and unproductive atmosphere.

2. a)b)c) These are all possibilities, but we advocate c. That way you can show you are working on the case and making progress, even if the client is apparently standing still. If you simply wait (a), you can be accused of malingering. If you guess, and are way off the mark, you may find it embarrassing later.

   d) This is also possible, if you are scaling only some clients, only at intake. Sometimes convenience is a way of choosing a sample. However, G.A.S. can be used creatively in most circumstances.

3. The answer here is d. This is not specific enough to go in a scale. The questions that need to be asked are, "Improved over what?" and "What is 'optimal'?" The other responses could all be used as long as other levels indicated what specifically was being measured. For example, for e, "Produces 25% of industrial standard," the scale should show if this means the standard for a particular job or jobs in the workshop, or for all jobs the client tries, or whatever.

4. The answer is e, "all of the above." G.A.S. could be used to measure progress in administration or personal development as well as with clients. There are many other applications as well.

5. a) Correct.

b) Wrong. In G.A.S., the goals are chosen for each client, and they are not measured against each other or a pre-established standard UNLESS that seems to be a useful measure for a particular problem area, or a particular client (on pre-selected common problems/disabilities, perhaps?).

c) Wrong. G.A.S. does not determine, and need not influence, the methodology you choose for treatment. It can be used with behavior modification. However, the indicators are just that, and need not be addressed directly.

d) Wrong. G.A.S. should not be used as a threat. If it is, the scales will become irrelevant to real client needs and/or the expectations will be lowered to produce better scores. Most staff know how to protect their own interests, and if their survival is at stake, client services are bound to suffer.

6. The correct response here is e, "Nothing." This is a perfectly good scale.

7. For this scale, the answer is c, "Levels overlap." Scoring this one would cause problems if, at follow-up, the client weighed any of the following: 120, 125, 126, 127, 128, 129, 130, 145, 146, 147, 148, 149, or 150. Other than that, it is a perfectly legitimate problem area and scale.

8. These answers are all possible, as long as it is understood what the system will be when the scale is made.

If you scale only once, you are scaling long-range goals, and the results can be used for overall program evaluation. This is how the original experiments with G.A.S. were done at the Hennepin County Mental Health Center. In that case, the scales were made by a committee and scored by interviewers hired for that purpose. The therapists were not told what the scales were. In this experiment, G.A.S. was used to compare treatment methods.

In the RUL pilot study, scales were initially made for a 4-week period. At that time, the scales were reviewed and re-done if necessary for a second time period of one or two months. This is an example of option c.

The last two answers, "at every staffing" and "every six weeks," are also possible ways of structuring a G.A.S. program.

9. All of these statements about G.A.S. scoring are true except c. "G.A.S. scores must be calculated with a computer." There are several ways to calculate G.A.S. scores, and a computer would be helpful with some of them. However, none of them require a

computer. If you want to use the formula developed by Kiresuk and Sherman at the beginning of their experiments, the Program Evaluation Project has developed a series of tables to get the appropriate scores.

There are at least two other ways to figure out scores: the system the RUL uses of average scores, with outside values of +2 and -2, and a middle value of 0; and a system for calculating change in status, on a scale of 0 to 10.

10. The correct answer is e, "with any client where there is an identifiable goal." This is not to say that any client can participate in the scaling process, though some practitioners might assert that. But the success of G.A.S. as a method of measuring client progress has not, so far, been ineffective with any particular disability group.

However, it is important to consider your setting and the structure of your particular program before deciding what kind of G.A.S. system would be most helpful. Whether or not to include clients in goal setting, how often to construct scales, whether or not you will use numerical scores and how you will score the scales are all part of the initial planning for introducing G.A.S. in an agency.

FIRST SCALING
4 WEEKS

ANSWERS, CASE EXERCISE 2: MISS R.

GOAL ATTAINMENT SCALE

PREDICTED ATTAINMENT	SCALE 1 Erratic Behavior	SCALE 2 Hygiene	SCALE 3 Community Relations	SCALE 4 Psychiatric Treatment
MOST UNFAVORABLE OUTCOME THOUGHT LIKELY	Physically assaultive. Outbursts 2 to 3 times a day.	Bathes once a week or or less. Doesn't change sweaters.	Institutionalized	Rejects all counseling.
LESS THAN EXPECTED SUCCESS	3 - 5 outbursts a week.	Bathes 3 times per week when asked, but doesn't change sweaters.	One complaint from community per week.	
EXPECTED LEVEL OF SUCCESS	1 - 2 outbursts a week.	Bathes three times a week and changes sweaters when asked.	One complaint from community every two weeks.	Has some counseling w/mental health personnel every 3 weeks.
MORE THAN EXPECTED SUCCESS	3 - 4 outbursts a month.		One complaint a month.	
MOST FAVORABLE OUTCOME THOUGHT LIKELY	1 - 2 outbursts a month.	Bathes 4 or 5 times a week and changes sweaters when reminded.	One complaint every 6 weeks.	Gets into 1-to-1 counseling with mental health worker once a week.

en from the model developed by Kiresuk and Sherman (1968) and used by the Program Evaluation Project.

SECOND SCALING
4 WEEKS

ANSWERS, CASE EXERCISE 2: MISS R.
GOAL ATTAINMENT SCALE

PREDICTED ATTAINMENT	SCALE 1 Erratic Behavior - 2	SCALE 2 Evening and Saturday program	SCALE 3 Work Avoidance	
MOST UNFAVORABLE OUTCOME THOUGHT LIKELY	Verbal outbursts 2-3 times daily (or more).	No regular involvement.	Spends 45 minutes on nurse's cot, is sent home.	
LESS THAN EXPECTED SUCCESS	One a day.	Two hours a week.		
EXPECTED LEVEL OF SUCCESS	Three-four a week.	4 hours a week.	Spends 15 minutes once a day on cot.	
MORE THAN EXPECTED SUCCESS	Two a week.	8 hours a week.		
MOST FAVORABLE OUTCOME THOUGHT LIKELY	One a week (or less).	16 hours a week.	Spends 15 minutes once a week on cot.	

Taken from the model developed by Kiresuk and Sherman (1968) and used by the Program Evaluation Project.

6 MONTHS

ANSWERS, CASE EXERCISE 3: AGENCY X

GOAL ATTAINMENT SCALE

Capacity = 800 slots/yr.

PREDICTED ATTAINMENT	SCALE 1 Contracts/6 mo. per 100	SCALE 2 Client time in prog.	SCALE 3 Capacity Operation	SCALE 4 Transportation
MOST UNFAVORABLE OUTCOME THOUGHT LIKELY	Only 1 contract in house for 10 working days or more, 2 contracts rest of time.	Average of 30 weeks or more.	325 or less slots in 6 mo. period.	25 or more clients rejected for no transportation.
LESS THAN EXPECTED SUCCESS	Only 1 contract in house for 1-9 working days, 2 contracts rest of time.	Average of 26-29 weeks.	326-350	20-24
EXPECTED LEVEL OF SUCCESS	2 contracts in house entire 6 mo. period.	Average of 23-25 weeks.	351-375	15-19
MORE THAN EXPECTED SUCCESS	3 contracts in house 1-10 working days, 2 rest of time.	Average of 19-22 weeks.	376-399	10-14
MOST FAVORABLE OUTCOME THOUGHT LIKELY	3 contracts in house more than 10 working days, 2 the rest of the time.	Average of 16-18 weeks.	400 slots in 6 mo. period.	less than 10.

ken from the model developed by Kiresuk and Sherman (1968) and used by the Program Evaluation Project

A SELECTED LIST OF MATERIALS FROM THE PROGRAM EVALUATION PROJECT

The following is a list of materials that we have found particularly helpful. Other materials are also available from the Program Evaluation Project, and a full listing is available from them. Their address is:

Program Evaluation Resource Center
501 Park Avenue South
Minneapolis, Minnesota 55415

Some of these materials are free, and some are not. In this list, the free publications are marked with an (F). Cost information is available from the address above.

Bibliography on Goal Attainment Scaling.
A listing of reports or articles on G.A.S. which is revised periodically.

Commentaries on Goal Attainment Scaling.
Short, non-technical answers to commonly asked questions about G.A.S., each printed on a separate sheet. Comes with a folder. Individual sheets (F).

Original Kiresuk and Sherman article on Goal Attainment Scaling.
Reprint of an article from the Community Mental Health Journal (F).

Final Report of the Program Evaluation Project, 1969-1973.
Chapter 1, Basic G.A.S. Procedures
Chapter 2, Activities of the Follow-up Unit
Chapter 3, Introduction to Reliability and the G.A.S. Methodology
Chapter 4, Reliability of G.A.S. Scores--Components of Variance
Chapter 5, Construct Validity
Chapter 9, Evaluation of the Adult Outpatient Program
The entire report gives the technical aspects of G.A.S. as it was tested by the Program Evaluation Project.

Guidelines for Goal Attainment Scaling.
A collection of short articles on variations in G.A.S. systems, how to deal with changing goals and errors in scaling.