# END OF THE LINE
## An Evaluation

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## INTRODUCTION

If you are looking for a social simulation game designed to explore the experience of giving "help" to and attempting to get help as an elderly person, you must consider *The End of the Line* in your selection. It is a well-designed simulation game offering participants opportunities to directly experience the dilemmas of building helping relationships in complex social systems.

*The End of the Line* is about social service agencies and the elderly. Its stated intent is "to give participants a feel for what it's like to grow old and what it's like to help people who are growing old." The game is not designed for the elderly themselves but for those working with the elderly. Its goal is to sensitize service providers to the aging process and to explore more effective strategies for providing services to the elderly.

The game was designed by Frederick L. Goodman, Professor of Education at the University of Michigan, in collaboration with the university's Institute of Gerontology and Extension Gaming Service. An earlier simulation of Goodman's, *The Helping Hand Strikes Again,* assigns a task to a small group of players who then require help. The remaining players are assigned responsibility for helping the first group, and the dynamics of helping are reflected in transactions between two groups.

In 1971, the Institute of Geronotology received a grant to provide a series of workshops on the issues and techniques of providing protective services for the elderly. Drawing on the *Helping Hand* game, Goodman collaborated with the institute to design *The End of the Line* to simulate various processes of aging as they affect social service agency attempts to aid the aging citizen. The exercise was subsequently field tested and fine tuned by the Extension Gaming Service. This done, the often thankless task of documenting the work was accomplished.

The simulation's instruction manual is now available ($5.50) from Publications, Institute of Gerontology, University of Michigan, 520 E. Liberty, Ann Arbor, Michigan 48109. A complete kit with instructions is available ($75.00) from the

Institute of Higher Education Research and Services, Box 6293, University, Alabama 35486.

The overall purpose of *The End of the Line* is to give players an opportunity to "emphathize" with the role of an aging person and/or service provider personnel and with the personal and organizational dilemmas involved in such processes. The game provides participants with opportunities to experience and possibly alter their attitudes toward senior citizens and the complexities of providing assistance to them. *The End of the Line* provides a powerful, emotionally charged experience that leads to rich postgame discussions.

## YOUR FIRST CONTACT WITH THE END OF THE LINE: THE MAJOR ELEMENTS

Imagine, if you will, showing up for your SOC 101 class one day, having missed the prior class and not knowing what is to take place. As you enter the room you immediately sense that something different is about to happen. The classroom has been rearranged and new objects are present (see Figure 1).
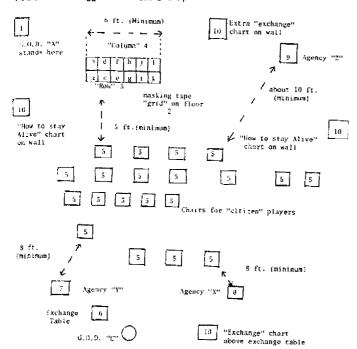
A number of chairs are scattered in the center of the room. Each one has materials on it. On closer inspection, you find the materials are a wooden tray with white cord(s) attached, paper clips, a scoresheet of some sort with a six-by-six matrix on it, and a pencil attached to it with a string. Tables labeled AGENCY X, AGENCY Y, and AGENCY Z surround the chairs. Fellow classmates are taking their seats. At the front of the room, the instructor finishes placing masking tape on the floor in the shape of a two-by-six matrix. Beside the instructor on the blackboard is a large six-by-six matrix (see Figure 2) with numbers in it. "What have I gotten myself into?" you ask, just as your eye catches the poster on the side wall that reads:

TO STAY ALIVE:

1. 1 RE-LINE (MARKED IN FOLDER)

2. 1 MONEY CLIP (RESTING IN PROPERTY TRAY ON CHAIR)

3. 1 WHITE ROPE (CONNECTING PROPERTY TRAY TO CITIZEN)

## FIGURE 1 Suggested Room Set Up



NOTE: Three-quarters of the "Citizens" (numbered 5) must be able to reach 1, 2, 3, and 4 with their white cords. At least one-half of the "Citizens" should be able to reach the exchange table 6 with their white cords.

## FIGURE 2 Blackboard Matrix

|   | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 0 | 0,+1 | +3, 0 | -3,-4 | +2,+3 | -3,+3 | -4,-3 |
| 1 | +1, 0 | +2,+2 | -1, 0 | +1,+3 | -3,-3 | 0,+1 |
| 2 | 0,+3 | -2,-2 | 0,+1 | +2,-2 | -1,-1 | -1,+2 |
| 3 | +3,+3 | +1, 0 | +3,-2 | -1,-1 | +3,+3 | -1,+2 |
| 4 | 0, 0 | -1,-1 | +3,+2 | +3, 0 | +2,-2 | -1,+2 |
| 5 | 0,+2 | +2,+4 | -2,-3 | +3,+1 | -4,-4 | +2,-1 |

"Oh my god!" you whisper to yourself. As you prepare to dash through the exit, the instructor speaks: "I am the Game Overall Director. That's G.O.D. And this is *The End of the Line.*" Curiously unwilling to move at this point, you listen as the Game Introduction begins.

## Game Introduction: All About Staying Alive

The instructor explains what a gaming-simulation is and the purpose of this particular exercise. You begin to get excited about becoming involved in this simulation and perhaps learning more about the elderly and how to help them. You are told that the people in the chairs are "citizens" of the community. Their objective is "to stay alive." The wall chart lists the requirements for staying alive. The wooden trays are "property trays." One money clip must remain in the tray at all times. Citizens may not move their chairs and must hold their

own personal matrix forms. The form indicates the number of personal relationships a citizen possesses. Citizens are allowed to get up and move around as far as the white and blue cords attached to their wrists allow. One white rope is necessary to stay alive.

### The Game of Life

To obtain more resources, players may choose to go with a partner to the Matrix Game (The Game of Life) at the front of the room. There they show G.O.D. from zero to five fingers at the appointed time. One partner "calls" the row, the other calls the column. Depending on the values in the cells of the large matrix, each partner gains or loses re-lines, which are half-inch orange slashes penned by G.O.D. in designated boxes on the personal matrix form.

### The Grim Reaper Enters

The Grim Reaper (another G.O.D.) circulates around the community requiring citizens to pick a card. The cards may cause the player to give up one or more re-lines, one or more clips, or one or more white ropes. Through this process, simulated "aging and disability" occurs. Another card may cause the Grim Reaper to make slits in the personal matrix form. Enough slits or cuts and the string attached to the pencil is severed. This is important because the pencil can no longer be used by the citizen to keep track of changes in the large matrix at the front of the room. Without the pencil, the citizen begins to lose his/her ability to "remember" the reality of the matrix game, and "senility" sets in.

### The Helping Agencies

The players at the Agency tables have different tasks. They are attempting to help the elderly citizens in any way they

## FIGURE 3 The Game Artifacts: Their Meaning and Use[*]

**WHITE CORDS**
represents maximum physical mobility

**PROPERTY TRAYS**
represents minimum property resources of each player

**PAPER CLIPS**
represents fluid financial resources (money)

**RE-LINES**
represents the abstract ability to relate or to form relationships

**BLUE CORDS**
represent purchasable mobility

**PENCIL**
represents the ability to remember

**ORIGINAL MATRIX SHEET**
the original "state of the world" is depicted in the form of the Matrix

**BOARDS**
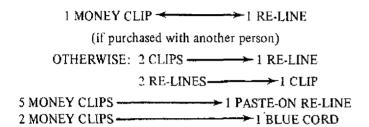represents the ability to remember data; and a place to record re-lines

[*] Adapted from Frederick L. Goodman, The End of the Line. Resources in Aging, No. 4 (Ann Arbor, Mich.: Institute of Gerontology, University of Michigan and Wayne State University, 1975).

can. Direct service agencies X and Y receive funding (paper clips) from Agency Z based on Agency Z's set of criteria. Agency helpers cannot move further from their tables than their blue cords allow. The blue cords are temporary and are collected at the end of each round.

## The Exchange Table

Blue cords, clips, re-lines, and paste-on re-lines are available from the exchange table operated by yet another G.O.D. A sign hangs on the wall above the exchange table:

### EXCHANGE

1 MONEY CLIP ◄──────► 1 RE-LINE

(if purchased with another person)

OTHERWISE: 2 CLIPS ──────► 1 RE-LINE

2 RE-LINES ──────► 1 CLIP

5 MONEY CLIPS ──────► 1 PASTE-ON RE-LINE

2 MONEY CLIPS ──────► 1 BLUE CORD

## The Game Begins

The instructor demonstrates with two volunteers how to play the matrix game and then answers questions from participants.

The first round begins. Many things are happening at once:

- Agency X uses its blue cords to visit Agency Z and ask for more money clips.

- Several pairs of citizens immediately rush to the matrix game and begin calling the "row" and "column" to gain the maximum relines.

- Other citizens, unable to reach the matrix game (due to lack of sufficient cords), begin yelling for assistance from Agency X ("more blue cords!"). Still others just sit, oblivious to it all and possibly confused

- Agency Y begins asking citizens to identify their needs but is unable to understand clearly the citizens' responses. They stop listening and begin designing a form labeled "Request for Assistance."

- Two citizens who had persevered enough to prompt Agency X to lend them some blue cords finally make it to the matrix only to learn that their selected matrix cell has already been called by someone else.

- The Grim Reaper makes his (or her) rounds and asks a citizen to pick a card. The card is drawn, turned over, and two re-lines are lost as indicated by the card.

- In an effort to teach the exchange table to buy a paste-on re-line for a friend, a citizen accidentally goes too far and pulls her property tray off the chair. The Grim Reaper immediately confiscates the money clip that was in the tray and makes the citizen replace it before continuing.

After twenty minutes, G.O.D. announces the end of Round One. Blue cords (loaners) are collected by G.O.D. and returned to the Exchange Table. Then G.O.D. funds Agency Z for the

upcoming round and displays a new chart indicating *changes* in the old matrix. G.O.D. emphasizes that these represent changes in the original chart and are *not* the new payoffs. Some citizens are too far back in the room to see the specific changes. Others are unable to record the changes, having lost their pencils to the Grim Reaper They will either count on friends to help them or take a chance themselves. Now Round Two begins. This time:

- A citizen is accused of stealing money clips from citizens' property trays while they were at the Matrix Game.

- "Bad" numbers are occasionally called at the Matrix Game, causing one or both partners to lose re-lines.

- In an attempt to reach a citizen who needs help, a member of Agency X accidentally causes two citizens' cords to go taut and to pull property trays off chairs onto the floor.

- Agency Z announces the "Great Community" Assistance Program. It will begin as soon as Agencies X and Y submit proposals describing the problem, their approach, the anticipated results, and a detailed budget.

- Several citizens band together in an attempt to share resources.

- Agency Y announces it has the updated matrix for anyone who needs it. Unfortunately, the agency makes mistakes in the last column, causing several citizens to return from the Matrix Game with fewer relines than they had when they went to the Game A "credibility gap" develops and spreads between Agency Y and the community.

- Several citizens, who had abundant resources from the beginning, continue to be satisfied with good conversation and observing what is going on around them. One citizen is then approached by the Grim Reaper who, by chance, takes the next-to-the-last white cord. Panic, frustration, then resignation set in as the citizen forms a new view of what is important.

- Unnoticed, one rather quiet citizen is approached by the Grim Reaper and loses all remaining white cords.

Round Two ends and each agency makes brief announcements to the community. Community members voice a number of complaints. Agency Z members announce their "Second Leap Forward" program and begin handing out money clips without any specified process, attempting to "get the clips into the hands of those who need it most." Those citizens who have done well at the Matrix Game are not interested in the agency proclamations except when agencies suggest they should share their wealth with less fortunate community members. Yelling and name-calling ensues. No one has yet noticed the "dead" citizen.

Round Three begins and the situation deteriorates still further

- One citizen commits "suicide" because "there was no worthwhile reason to go on living."
- The Grim Reaper takes the lives of several other citizens.
- Only a few select "elderly" still have an up-to-date record of the matrix.

## Directing the Game

When the game starts, we usually talk about what simulation games do and explain the purpose of the exercise. We distinguish between natural (from G.O.D.) and man-made laws (which the players can establish themselves) We then proceed to explain G.O.D.'s laws and emphasize the requirements of staying alive in the community.

Most players feel initially overloaded or overwhelmed by the complexity of the artifacts, so we try to get players into a round as soon as possible. Too much detail simply increases player anxiety. The game introduction should not last longer than *15 minutes,* including a physical demonstration (walk-through) of the Matrix Game with one participant at the front of the room.

We feel it is important that the G.O.D. have some experience in directing or facilitating simulation exercises and an adequate understanding of group dynamics. Because of its complexity, *The End of the Line* is not an exercise for new-comers to simulation gaming. We suggest an informal walk-through with friends to acquaint G.O.D. with the logistics and mechanics of running the exercise.

The Game Director and the Grim Reaper (Assistant G.O.D.) must work as a team The Game Director works with the Game of Life and must manage matrix payoffs efficiently. To some extent the Grim Reaper sets the tone and pace of the game by the speed at which he or she moves through the community. We usually have a volunteer manage the Exchange Table.

Both G.O.D.s will be the targets and the receptacles of player activities designed to seduce them into compromising their roles. For example, players are likely to bargain with or flee from the Grim Reaper. To insure the smooth running of the exercise, it is important that Game Directors stay in role and complete their tasks each round, not getting enmeshed in the anxiety and excitement around them.

The G.O.D. must exercise judgment in halting the exercise. With an optimal size group (30) one to one and a half hours of playing time is usually sufficient. A minimum of four game rounds is usually required for a successful simulation. One clue for when to terminate the exercise is simply the number "dead" in the community. You may, for example, place the dead in a special hospital area, assign them (as we do) to agencies, or give them consultant roles for the rest of the game.

## Debriefing

The exercise requires at least 45 minutes for debriefing following the exercise. The debriefing period allows participants an opportunity to review their experiences and to withdraw or "get out of the game."

One method of debriefing is to ask prepared questions of the citizens and agencies that link the game's objectives with real-life experience. Our preference is to, first, enable members to share their experience in an open-ended way. Later, or in subsequent class sessions, we begin to relate theories or concepts to the experience. A first question in the debriefing

might be, "Well, what did you experience in this exercise?" This offers people an opening to express feelings. Normally, we do not comment but simply let others share their experiences without criticism or probing questions.

As the debriefing sessions continue, we may begin asking more pointed questions, having citizens and agencies assess their roles and the strategies used in the game and examine how they relate to models of the real world. Examples of debriefing questions suggested by Goodman include:

- What was your reaction on losing your ropes to the Grim Reaper?
- Was it possible to win at the Matrix Game without a pencil?
- How helpful were the agencies?
- Did the agencies know what the citizens needed better than the citizens themselves?
- What does it mean to help or be helped?

Excellent debriefings result from presentations of *The End of the Line.* The complexity of the exercise, coupled with the richness of the materials, provides a common experiential reference point for group discussions. Program strategies, agency versus community perceptions of help, and citizen relations in the community are also interesting topics for discussion following the exercise.

## Game Adaptations

The underlying model in this game assumes that a community begins with an aggregate or collection of individuals who have the opportunity to collaborate with others to assist in their individual survival. How the players define their goals and strategies to stay alive will determine whether a cohesive community, small "neighborhoods," or isolated pairs emerge In addition, the actions of the direct helping agencies, X and Y, will assist in facilitating the nature of community self-reliance or dependence on agency resources. Thus the community's shape and texture are not predefined but are determined by the interactional processes that take place. Whether agency help is really helpful to the community in reaching its goals is always a major question this model poses.

Nonetheless, *The End of the Line* is almost morbid, and dramatically portrays the struggle to stay alive and create meaning in an almost hopeless situation. While the simulation is true to its stated objective, it elicits powerful overt and covert individual, group, and intergroup processes that replicate critical issues of dependency and interdependency, fantasy and reality, and collaboration and competition in providing and receiving human services.

As a result, one of the simulation's strengths is its ability to provide opportunities for learning at different levels of social experience. When used in graduate public administration classes, for example, the goal of the exercise is often to study the impact of intergovernmental relations on service delivery. Agency X and Y become direct service agencies. In one version both agencies are funded by Agency Z (the federal government) and must comply with Z's requirements for a needs assessment, program plan, service delivery, and evaluation

The round ends. Agencies make their new announcements. The community works with the agencies to design a plan for improving the community The agencies reorganize, and Agency Z announces a cut-back in available funds. The instructor breaks in at this point and ends the game. Everyone breathes a sigh of relief and excitement is in everyone's eyes.

## Debriefing . . . "It Is Over"

The instructor initiates a free exchange of views for about an hour on what just transpired. Players are eager to describe their experiences in the simulation and begin relating their experiences to areawide agencies on aging. Current legislation relating specifically to the needs of the elderly is raised and discussed in terms of its probable physical, social, economic, and psychological effect on the elderly in America. Comparative attitudes toward the elderly in other societies are discussed.

People still have things to say as the class ends. Conversations continue in small groups outside the classroom. People have gained insights. Next week's scheduled class discussion of social service delivery to the aged will be alive with thoughts resulting from the experience of *The End of the Line.*

## SO YOU WANT TO RUN *THE END OF THE LINE:* VIEW FROM THE G.O.D.

After committing yourself (at least mentally) to presenting *The End of the Line,* it would be normal if the proverbial shiver ran down the G.O.D.'s spine. Presenting a simulation is risky. "It may not go well " "I may forget part of the rules." "I'm not *in charge* during the game." "What if the faculty hears that I'm playing games in my class?"

## The Game Kit and Manual

Fortunately, it usually turns out fine, and the G.O.D. has a distinct advantage in increasing that probability with an excellent game director's manual and game kit. The kit contains *everything* needed to present the game: an operator's manual, wooden trays, wall charts, tape, cords, markers, scissors, clips, name badges, agency signs, and a supply of forms for multiple plays of the game. If they are lost, all the materials can be replaced without too much trouble. The only consumable materials are the personal matrix forms, and they can be easily reproduced. (One 8.5-by-11 sheet per citizen is needed for each presentation of the exercise.)

The operator's manual is a delight. Unlike some simulations, disseminated by word of mouth with minimal materials and an "afterthought" manual, *The End of the Line* comes with a comprehensive instruction manual that includes:

- an introduction to simulating gaming
- an overview of the game
- a description of models used to develop *The End of the Line*
- a complete description of the room setup, participant starting positions, game resources, and staffing tasks
- complete directions for introducing, running, and debriefing the game
- game variations and suggestions

- a complete description of all materials used during the simulation
- a selected gaming bibliography
- a selected bibliography in aging.

The game and the game materials are rich in symbolism. They add to the potential impact of the experience and are fully described in the operator's manual. The manual is well organized and well thought out—a blessing when one is presenting a simulation replete with highly complex artifacts and rules. Numerous photographs and charts assist in transferring the game designer's intent to the potential user.

## Setting Up the Game

Although the manual suggests that a run of the game can be set up in half an hour, COMEX (Center for Multidisciplinary Educational Exercises, University of Southern California) has found that it takes considerably more time. One must first untangle cords from the previous game. Arranging the gaming room and making adjustments for the facility, the number of players, the specific objectives, and the context within which the game will be played can easily consume an hour.

## Number of Players

In our opinion, the game is clearly designed for adults with serious interests in the study of social services, the elderly, or in helping relationships generally. Players need not possess any special knowledge before playing *The End of the Line.*

The optimal number of participants for running the exercise is 30: 20 become community members, while the remaining 10 are divided among the three agencies. In our experience, the minimal number is 20 players, with 17 in the community and 3 in the agencies. The designer's recommendations appear in chart 3. We have run the exercise with as many as 40 participants, and it has worked well. The difficulty with such a large group is that the logistics of game directing become very difficult. Some players lose their identity in a larger group, so that more than normal numbers withdraw and drop out.

We find that a critical mass (16 persons) is necessary in the community to allow players in these roles a reasonable chance of developing links with other players, the agencies, and the Grim Reaper. Depending on one's objectives in running the exercise, the number of agencies played (one, two, or three) will vary. We typically place 2 or 3 persons in each agency to help insure active discussion of strategies and plans.

FIGURE 4  Number of Players

| ROLE | MINIMUM | IDEAL | MAXIMUM |
|---|---|---|---|
| Citizen | 10 | 20 | 40 |
| Agency Z | 2 2 | 4 | 6 |
| Agency X | 2 | 3 | 6 |
| Agency Y | 2 | 3 | 6 |
| TOTALS | 16 | 30 | 58 |

SOURCE: Goodman (1975).

schedule. Here the game demonstrates the skewing effect of agency politics on service delivery patterns to consumers. Players in the agency are forced to justify their use of resources, make decisions about resource priorities (who needs services the most), and develop effective service delivery strategies within political and bureaucratic constraints. When COMEX presented this version to a special Department of Health, Education and Welfare invitational conference on human services, the postgame discussion lasted two and a half hours, longer than the exercise itself. Participants also ranked the game highest among all components of the three-day conference.

Another application of the exercise is to the study of direct interface between a human services agency and the community. In this version, Agencies X and Y receive a certain number of resources from G.O.D. and have autonomy to use them at their discretion. One agency often emerges as a traditional bureaucratic organization with community members completing forms, justifying statements of need, and being served on the basis of categories established by the agency. The other agency, viewing its function as promoting self-reliance in the community, often only provided information and referral services for citizens.

A third application of The End of the Line is to the study of psychosocial processes of aging by emphasizing the dynamics of the community and personal struggles to survive while losing resources and facing the possibility of death. The game becomes a powerful experience for participants in what it is like to grow old and be in need of help.

It is important, then, for G.O.D. to clearly state the goal or task of the exercise at the outset to provide participants with a reference point for understanding their experiences. Due to the game's emotional impact, G.O.D. must specify, first, how the simulation integrates the particular class or training program goals and, second, that participation in the game is optional.

## OVERALL ASSESSMENT

The game's major strength *and* limitation is its complexity. The rules are elaborate and difficult for players to remember, and the game itself is not easy to introduce. Yet complex life is a reality for those who are aging, particularly those with disabilities. The game's artifacts are brilliantly conceived metaphors (a pencil as one's memory, the Matrix Game as work, ropes as limits on physical and social mobility) and make intuitively obvious dynamics explicitly visible. All these elements add to the game's complexity and rich potential for in-depth learning.

Most simple simulations fail to provide substantive topics for debriefing, while others *more* complex than *The End of the Line* also fail due to their clutter, numerous rules, and artifacts requiring even lengthier preparation and instructions.

All too often, game designers spend their energies in culling reality, in deciding which roles, interactions, and issues are not important to simulate. What results too often overlooks the effect of critical forces at work in the individual, in the group, or in intergroup dynamics during the game. *The End of the Line* differs in this regard. It offers a well-thought-out laboratory to study how complex community processes influence the lives of community members.

We believe that both adult and high school students would benefit from experiencing this gaming-simulation. Challenges of survival are different for those of us in different life stages, and this simulation provides a vivid experience of one life phase in our adult development. Our experiences indicate that high school students cope with the challenges in the game similarly to adults, and their reactions and insights seem to be just as dramatic.

Participants report their shock in realizing what it is like to have limited mobility, to be so dependent on others—or even an agency—for survival, and to feel somewhat helpless in the face of probable decline. In addition, most participants express a new regard for the position of the elderly in society, and more empathy for the problems of day-to-day living. It is for these reasons that we find *The End of the Line* a valuable learning experience.

## References

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