Synergist

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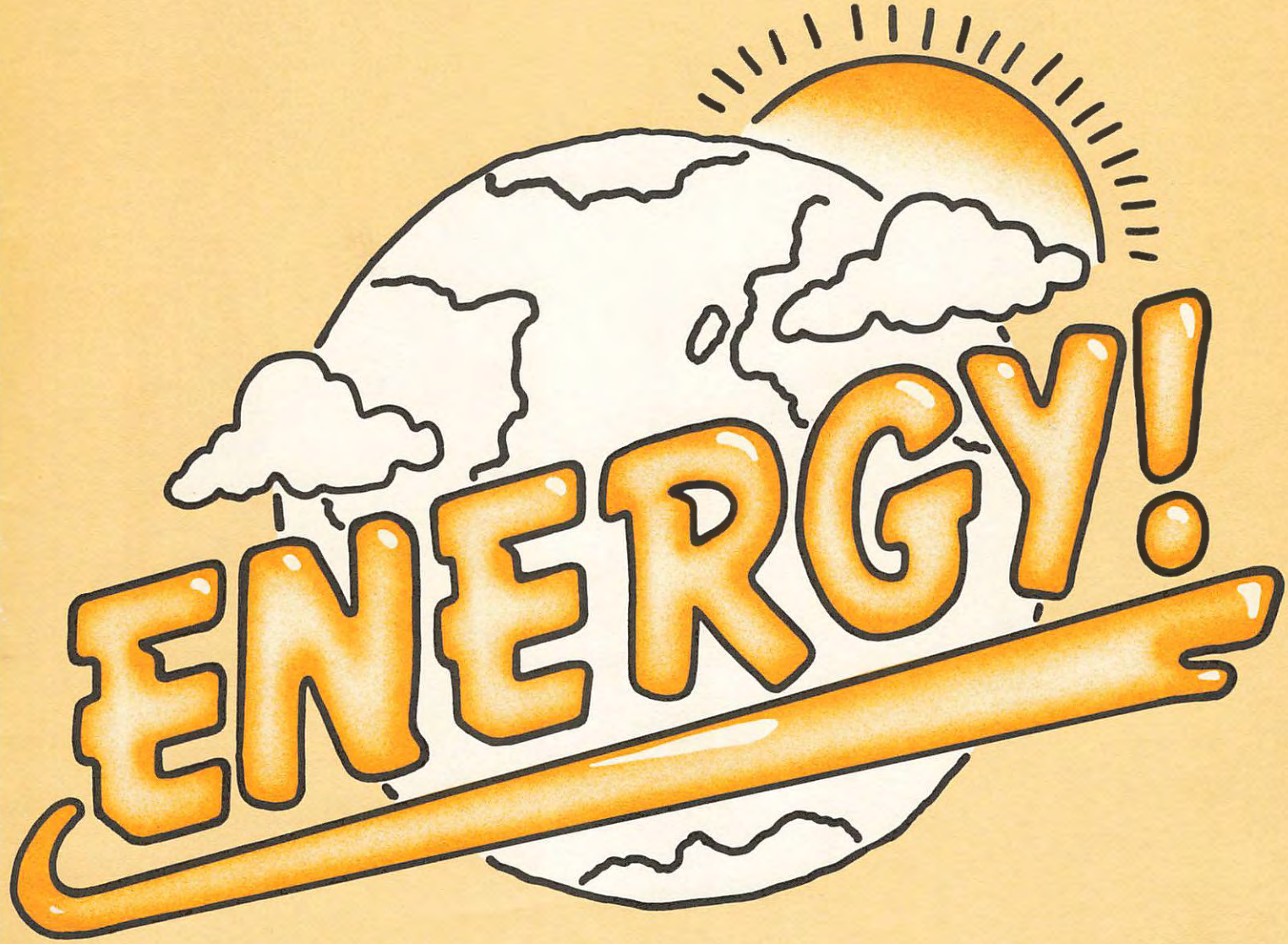

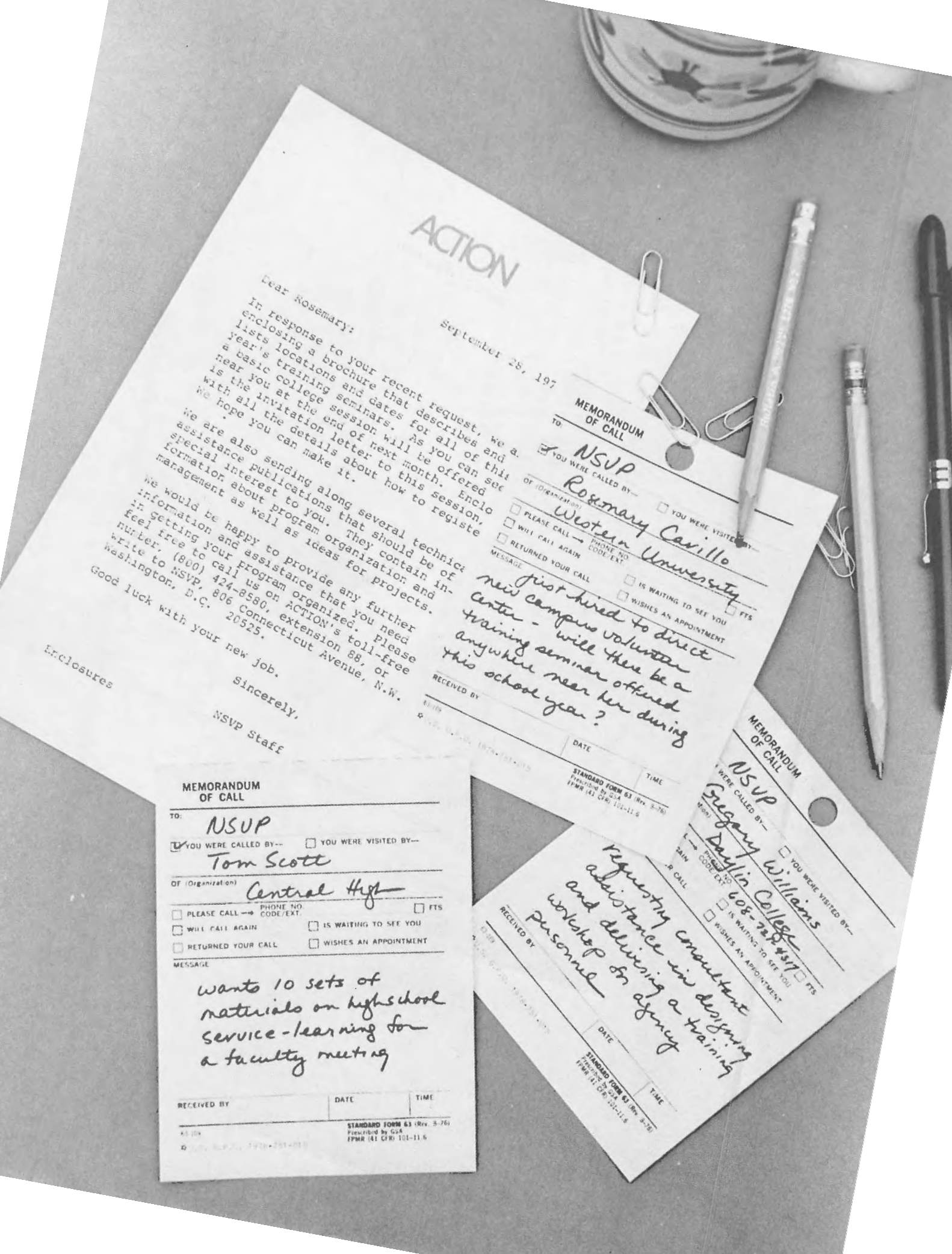
ACTION
Dear Rosemary:
September 28, 197
In response to your recent request, we a
enclosing a brochure that describes and
lists locations and dates for all of thi
training seminars. As you can see
college session will be offered
a basic
near you at the end of next month. Enclo
the invitation letter to this session,
is
with all the details about how to registe
We hope you can make it.
We are also sending along several technica
assistance publications that should be of
special interest to you. They contain in-
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management as well as ideas for projects.
We would be happy to provide any further
information and assistance that you need
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feel free to call us on ACTION's toll-free
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Sincerely,
NSVP Staff
Enclosures
MEMORANDUM OF CALL
TO: NSVP
YOU WERE CALLED BY--
YOU WERE VISITED BY--
Rosemary Carillo
OF (Organization) Western University
PLEASE CALL
PHONE NO. CODE/EXT.
FTS
WILL CALL AGAIN
IS WAITING TO SEE YOU
RETURNED YOUR CALL
WISHES AN APPOINTMENT
MESSAGE
just hired to direct
new campus volunteer
center - will there be a
training seminar offered
anywhere near her during
this school year?
RECEIVED BY
DATE
TIME
STANDARD FORM 63 (Rev. 3-76)
Prescribed by GSA
FPMR (41 CFR) 101-11.6
MEMORANDUM OF CALL
TO: NSVP
YOU WERE CALLED BY--
YOU WERE VISITED BY--
Gregory Williams
OF (Organization) Daylin College
608-782-6517
PHONE NO. CODE/EXT.
FTS
WILL CALL AGAIN
IS WAITING TO SEE YOU
RETURNED YOUR CALL
WISHES AN APPOINTMENT
MESSAGE
requesting consultant
assistance via designing
and delivering a training
workshop for agency
personnel
RECEIVED BY
DATE
TIME
STANDARD FORM 63 (Rev. 3-76)
Prescribed by GSA
FPMR (41 CFR) 101-11.6
MEMORANDUM OF CALL
TO: NSVP
YOU WERE CALLED BY--
YOU WERE VISITED BY--
Tom Scott
OF (Organization) Central High
PLEASE CALL
PHONE NO. CODE/EXT.
FTS
WILL CALL AGAIN
IS WAITING TO SEE YOU
RETURNED YOUR CALL
WISHES AN APPOINTMENT
MESSAGE
wants 10 sets of
materials on high school
service-learning for
a faculty meeting
RECEIVED BY
DATE
TIME
STANDARD FORM 63 (Rev. 3-76)
Prescribed by GSA
FPMR (41 CFR) 101-11.6

Synergist

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Engineering Answers to Social Needs

By Roger N. Perry, Jr.

Worcester Polytechnic Institute's future engineers seek solutions to social problems while developing their professional skills.

The young man watched intently as the boy's unsteady fingers slowly typed on the special keyboard. When the boy finished the page, both broke into broad smiles. This simple accomplishment was a major achievement for them.

The boy was a cerebral palsy victim who never before had been able to communicate clearly on paper. Now he had done it. The man who had designed the keyboard wasn't a typewriter expert or an experienced mechanic. Lou Collette is a mechanical engineering major at Worcester (Massachusetts) Polytechnic Institute (WPI), and he was completing one of four requirements for his degree under an innovative academic program known as the WPI Plan.

Adopted in 1971, the WPI Plan includes a provision that every WPI student must complete a major project in which he or she examines the relationship between science and society and, if possible, applies technology to the solution of a social problem. Called the Interactive Qualifying Project (IQP), this mandatory project requires the equivalent of at least seven weeks (one term) of full-time work. The planning and the preparatory courses for the IQP may take more than a year.

When Lou first discussed possible projects with Professor Harold Corey, the student mentioned an interest in working with handicapped youngsters. The faculty adviser suggested that Lou visit the nearby Mill-Swan School, a public elementary school equipped and staffed to work with seriously handicapped children. Soon the school became the sponsor for Lou's IQP project.

Lou became particularly concerned with an eight-year-old, nonverbal palsy victim. Helping him communicate became Lou's challenge. He noted that many children with manual dexterity problems use typewriters. The boy he wanted to help, however, had such severe tremors that his fingers hit the wrong keys as often as the correct ones. For him, the keys on the conventional keyboard were just too close together. Still, the typewriter seemed the best communication tool for this child.

After several weeks of research, Lou determined the amount of space between keys the handicapped typist needed to achieve reasonable accuracy. Then he began designing his special keyboard.

In his working model, the keyboard is made of wood. The typewriter keys are about a quarter of an inch below the board's surface. The space around each key is carved in a sloping, V-shaped notch which guides the faltering finger to the key. Touching the key closes a switch, sending electric current through a cable to the typewriter.

Since the keys of almost all electric typewriters operate mechanically rather than electrically, Lou devised a mechanism to activate the key on the typewriter corresponding with the key on the special keyboard. These mechanisms are fastened inside a cover which fits over the conventional keyboard of a standard electric typewriter.

Except for a means of attaching the housing, the typewriter itself has no modification. When the housing is removed, the typewriter is ready for use by others.

"The first run was something less than successful," reported Lou. "The spacing was fine, but because the child's hand often shook while moving to and from the keys, the result was a lot of letters struck repeatedly. For example, 'her' would come out 'herrr,' or 'hhheeerrrr.' This was a relatively simple problem to solve. I just added an electrical delay to the system. This delay is adjustable so it can be shortened if desired."

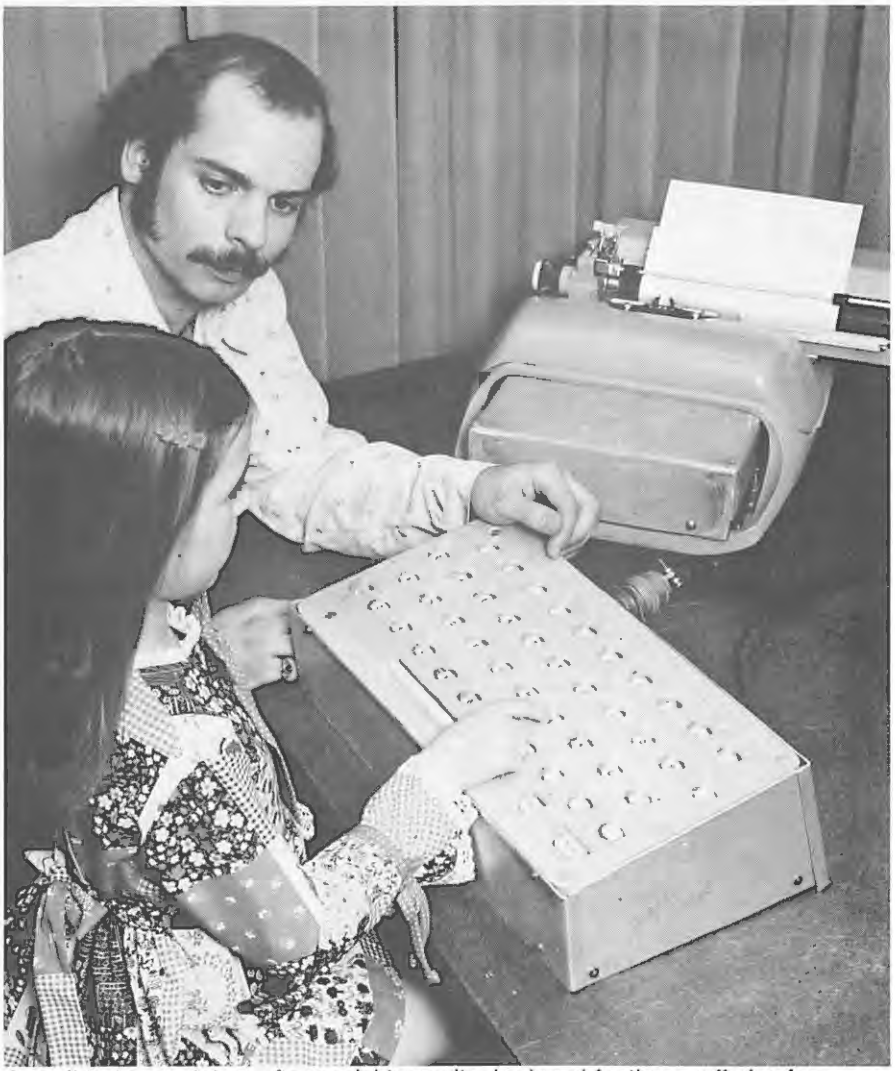
The staff of Mill-Swan School has been immensely pleased with Collette's typewriter keyboard. Said occupational therapist Jeanne Allen, "The youngster for whom Lou built this device is a very bright child. This special typewriter keyboard has minimized his frustrations and helped him improve his typing skills for school work and for general communication. This could be a real breakthrough in helping the boy realize his own potential."

Although Lou built the typewriter as a prototype model, it is in regular use. WPI is helping him apply for a patent. (If students choose to have WPI handle the patenting procedures and fees, half of the proceeds from the patent go to the school.)

Dean of Undergraduate Studies William R. Grogan regards the design of the typewriter keyboard as a particularly successful project. "One obvious measure of success is that the end result of his work is now in daily use, helping solve a real problem for people. From an educational standpoint, however, the project was equally successful. Lou has demonstrated to himself that he can analyze a complex problem and devise a workable and economic solution. Devising a way of helping people do something better by applying scientific principles is what engineering is all about."

Dean Grogan was one of the prime movers among WPI faculty

Roger N. Perry, Jr., has been director of public relations at the Worcester (Massachusetts) Polytechnic Institute since 1964. He is a WPI graduate, with a degree in mechanical engineering.



A pupil tests a prototype of a special typewriter keyboard for those suffering from palsy while the designer, Lou Collette, watches. The notch for each key guides the unsteady finger to the right place.

who 10 years ago took a hard, searching look at the traditional engineering program. Though WPI faced no crisis and the faculty felt no administrative pressure, many staff members shared a growing concern that the impersonal lock-step system hindered engineering and science students' full development as thoughtful individuals aud as young working professionals.

The search for a better way to help students educate themselves grew into an intensive two-year effort involving the entire campus community. By 1970 the faculty was ready to endorse a statement of goals which read, in part:

> By means of coordinated programs tailored to the needs of the individual students, it is the fundamental purpose of WPI to impart to students an understanding of a sector of science and technology and a mature understanding of themselves and the needs of the people around them. WPI students, from the beginning of their undergraduate education, should demonstrate that they can learn on their own, that they can translate their learning into worthwhile action, and that they are thoroughly aware of the interrelationships among basic knowledge, technological advances, and human need. A WPI education should develop in students a strong degree of self-confidence, an awareness of the community beyond themselves, and an intellectual restlessness that spurs them to continued learning.

Implementation of the WPI Plan began in 1971, with the traditional course requirements being phased out as succeeding classes entered. Today all students are educated under the Plan. The WPI academic program is fully accredited.

Under the WPI Plan students have no specific course requirements, but must complete the following four degree requirements:

- A Major Qualifying Project dealing with a real problem in the student's professional field and requiring the equivalent of at least seven weeks of full-time work;
- An Interactive Qualifying Project addressing a topic relating technology to society and requiring the equivalent of at least seven weeks of full-time work;
- A Competency Examination lasting two or three days and requiring a student to outline the solution to an entry-level professional problem and to defend the solution orally;
- A Humanities Sufficiency (specific minor) requiring the students to study five thematically related courses in one field (*e.g.*, literature, art, drama, philosophy) and to write a term paper demonstrating an understanding of the area studied.

Those who formulated the WPI Plan considered the IQP requirement critical to the success of the program, and independent observers have referred to the IQP as the unique feature of the entire innovative program.

Because the IQP often cuts across the boundaries of traditional academic disciplines, WPI has created a Department of Interdisciplinary Affairs (DIA).

The role of the DIA is to foster interdisciplinary efforts among faculty and to devise programs to support high quality IQP work. Advising students in these projects means that faculty often find themselves responsible for projects outside their own areas of expertise. While this can prove disconcerting to some, most faculty find this a refreshiug experience. Students and faculty alike then find themselves in a learning situation. Even when the faculty member is treading new ground, his or her professional experience and maturity give direction to the student's search for information.

Because IQP advising is considered critical to the success of the

WPI Plan, for two summers WPI has conducted special six-week, full-time training programs designed to prepare engineering and science faculty to work with students in areas outside the faculty members' own fields of expertise.

Financed by a grant from the Alfred P. Sloan Foundation so that those attending received full salary, these summer classes exposed members of the engineering and science faculty to the social sciences. About one-third of the time was spent in lectures on human resources, research in the social sciences, philosophy, and politics. Many of the guest speakers came from government and community agencies with which students were being placed.

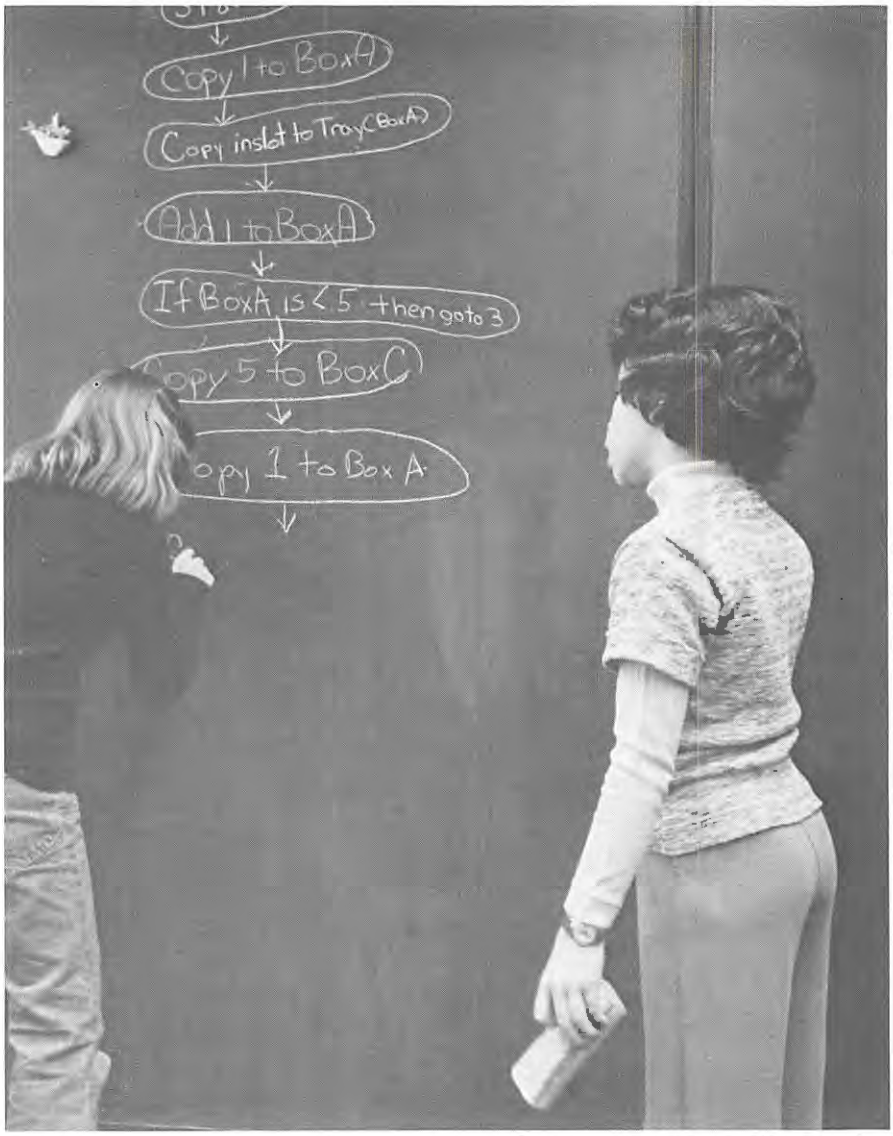
After their initial orientation to the techniques of the social sciences the professors broke up into small special interest groups to visit local agencies, study their needs, and develop project ideas for which they would be willing to act as advisers. At the same time they were establishing rapport with the people who would be working with them and the students as project sponsors.

That first summer session in 1974 resulted in a listing of about 100 possible project topics in a 160-page catalog for students. Today's listing covers 250 topics, and the list continues to grow.

The topics cover a score of categories, each coordinated by a faculty member with special interests in the field. Typical catalog headings include Ethics and Values in Technology; Hazards Analysis; Transportation Policies and Alternatives; Delivery of Social Services; Legal Systems, Law Enforcement and Criminal Justice; and Problems of Developing Nations.

As students now work on about 500 projects each year, the faculty cannot—and should not—provide all the ideas. Many come from students and from the service organizations, government agencies, and private companies which are sponsors.

Choosing a project topic is up to the student, but WPI provides formalized assistance. On Academic Planning Day in February, students

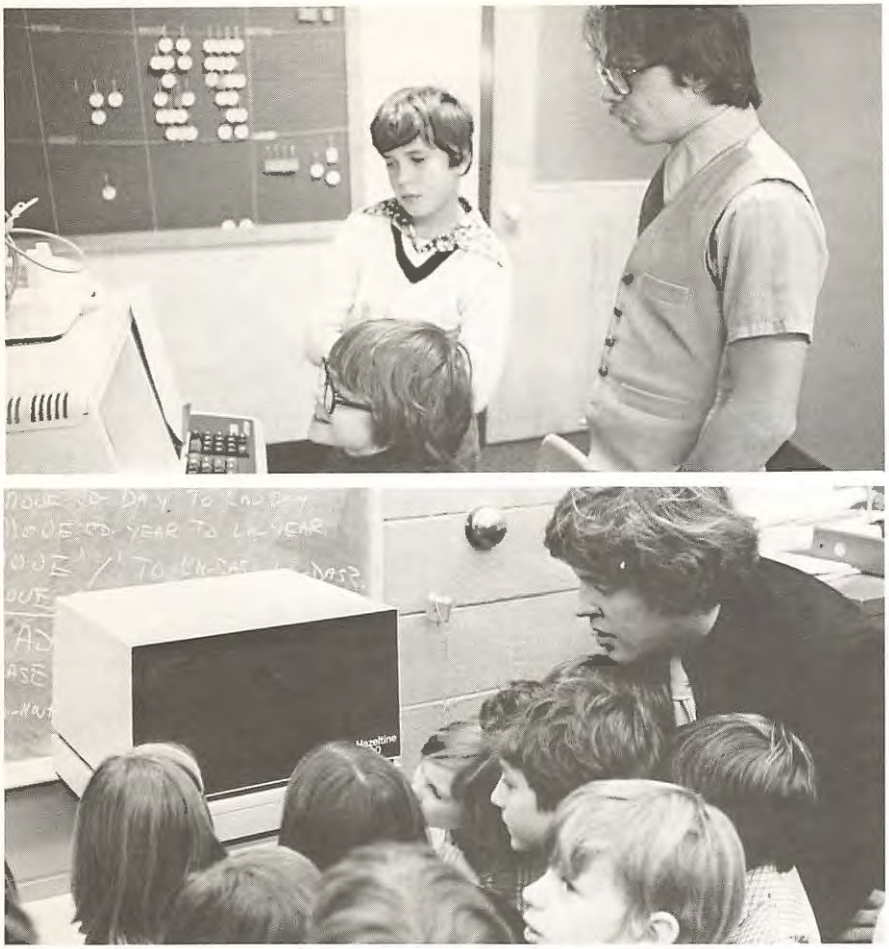


Under the guidance of a computer science major, fourth graders use the blackboard to plot out the steps they must go through to develop a computer program.

—mostly sophomores and juniors—select the terms in which they wish to work on their projects. At the same time they express their preference for project advisers. After consultation with their faculty advisers, they select the courses they wish to take in the coming year, generally in a sequence which will provide needed background for the planned project work.

On Project Information Day in mid April, the student gives his or her faculty adviser a written proposal which outlines the scope of the project and an estimated budget. This information enables both the college and the faculty advisers to allocate their time and resources for the coming year.

The community organization with which the student will work is involved in the planning process at appropriate stages. (Some projects involve only campus people and situations.) A prime responsibility of the sponsor is to suggest the specific problem to be solved. In the ideal situation, this is a back-burner problem which, although important, has a low enough priority that the sponsor cannot allocate staff resources at present. The project must involve, in the judgment of the faculty adviser, a significant opportunity for analysis, research, and application of knowledge. The sponsor names a liaison person to give the student guidance and support. Actual supervision of



Elementary pupils learn to work with terminals connected to WPI's computer center.

the project work remains the responsibility of the faculty adviser.

Students rarely "solve" a technical problem. Their role generally is to develop alternatives and make recommendations for the sponsor to accept or reject.

Normally the sponsor assumes the out-of-pocket expenses of the project, including travel costs when the project is out of town. Sponsors usually pay for any materials needed. Students may not be paid for their work on a project for which they are receiving academic credit.

Thorough planning before the project begins insures that all parties understand their responsibilities in making it a learning experience for the student. Reactions from sponsors have been so favorable that a great many have guided several projects. WPI now has within commuting range of Worcester five off-campus project centers where a variety of projects are supported on a continuing basis.

Among the cooperating sponsors and examples of long-term projects are: Norton Company, odor abatement in manufacturing certain abrasives; St. Vincent Hospital, monitoring respiration of ambulatory patients; University of Massachusetts Medical Center, developing a microcomputer physiological monitor for surgery.

WPI also operates a resident project center in Washington, D.C. Sponsors are federal agencies and national associations, including the Department of Energy, the Patent and Trademark Office, and the Association of American Railroads.

One of the bountiful sources of projects is Worcester's municipal government. WPI students have worked with the Police and Fire departments, the Board of Health, the public schools, Public Works, City Hospital, and the Parks Department.

In one project, a team of students at City Hospital determined that a disproportionate number of the staff's injuries involved discarded disposable hypodermic needles. Furthermore, experienced nurses were the most frequent victims. The team traced the problem to a commercially available device which breaks the needles but did not always work properly, causing the broken needle to remain a hazard. Students are developing a better breaking device.

Working with elementary school science programs has been a popular project. Chemistry professor Ladislav Berka explains that a WPI student serves as a resource person to the classroom teacher, helping to make science interesting and exciting to elementary students while concurrently developing techniques and equipment that the classroom teacher can use later. Two WPI students have taught the basics of computer programming to fourth graders, giving the youngsters an appreciation for how the computer works. With the help of the WPI students, some of the youngsters have devised simple computer programs.

Has Worcester Polytechnic Institute's new approach to engineering education really made a difference?

Those who hire WPI's graduates think so. After interviewing students, recruiter Christopher G. Foster of the Naval Underwater

WPI President George W. Hazzard sums up the meaning of the WPI Plan in the following words. "We are living in a technological society. The first requirement of an educated person in this type of society is some understanding of science and technology. At the same time, the present nature of our society, its institutions, and its goals for the future, need also to be understood. Finally, actions based on both societal and technological knowledge must be guided by a set of values which respect humans and the environment in which they live and work. . . . At WPI our goal is to educate technological humanists."

Systems Center in New London, Connecticut, wrote to WPI, "I was very impressed with the quality of the students this year. My last visit was three years ago when the Plan was in its infancy—what a difference now! The exposure to real world problems is putting your students far ahead of those from other colleges in coping with real life situations. They are much more conversant, self-assured, and accustomed to solving problems for which the answers are yet unknown."

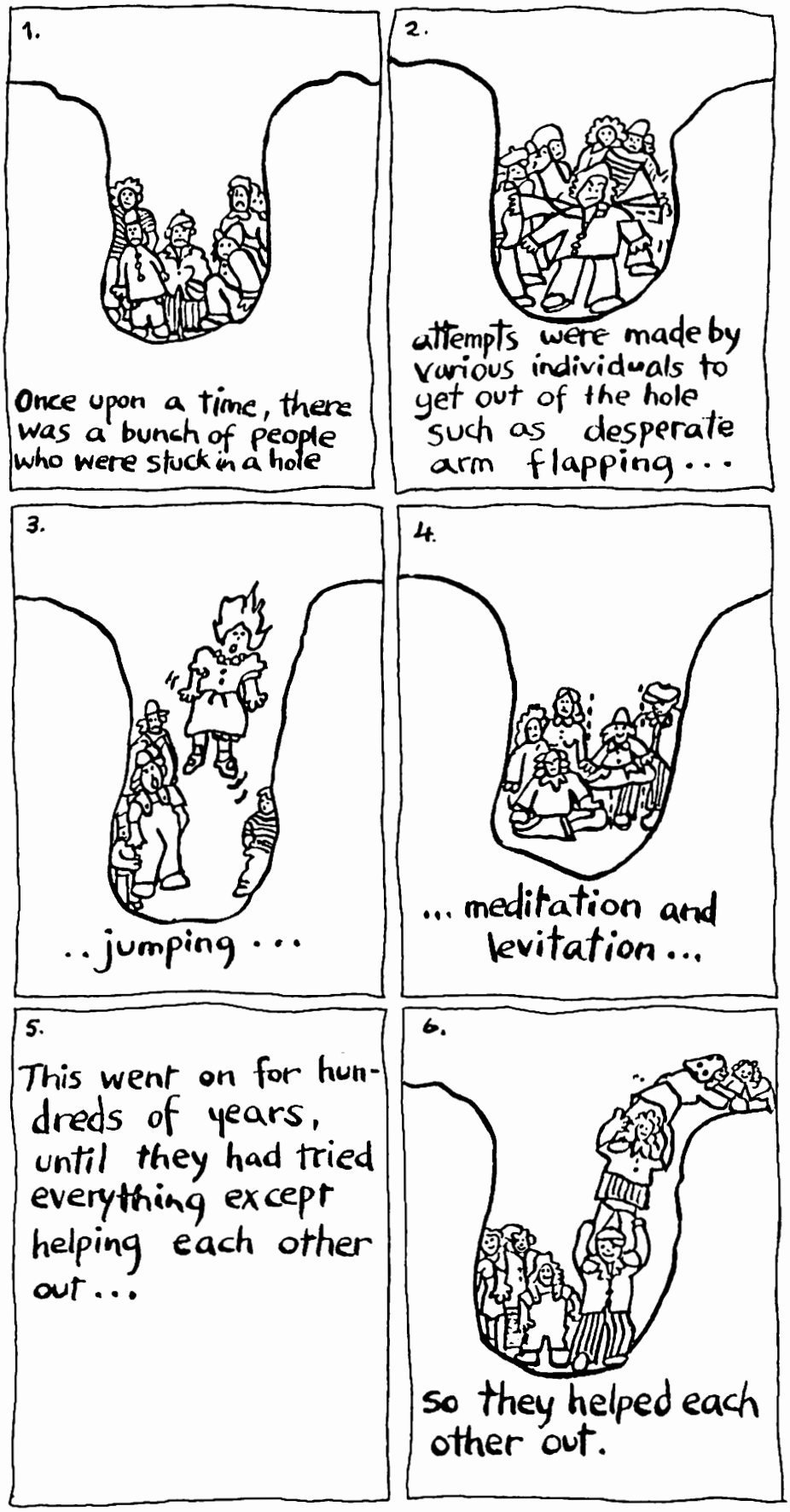
The faculty also is convinced that the Plan makes a difference, and WPI is gathering evidence to quantify some of the differences. Dean Grogan explains, "We've had an independent study group at work for the past six years evaluating the effects of these changes on the students themselves. We're now beginning to see the first data on the Plan's effects on young alumni.

"In terms of professional preparation, WPI's graduates appear to score slightly higher than the graduates of traditional engineering programs on the State Engineer-in-Training Examination. Their acceptance by the leading graduate schools and by industry is excellent. Of those seeking employment in the Class of 1977, 84 percent of those who worked through the WPI placement system were employed within two months of their graduation. Early indications are that as graduates they are moving ahead faster in the business world.

"However, I'd prefer to measure the success of the Plan by its effect on the people involved in it. We're seeing a new and stimulating attitude in students. They really are enjoying the learning process as they take more responsibility for determining what they want to learn and how. The old adversary relationship between students and faculty is gone on this campus. In its place is a high level of mutual respect.

"Watching these changes take place," says Grogan, "has been the greatest experience I've had in 30 years of college teaching. Certainly the Interactive Qualifying Project has to be one of the most important reasons for this transformation." □

Contributed by Mog and Colin Ball.



Advocacy Engineering

By Frank R. Swenson

British professors have formed a consortiuun to support projects in which engineering students turn their skills into social action tools.

What could be more important to a meals-on-wheels program than improving the mechanism for keeping food hot? Allowing time for the server to chat a moment with the housebound person who receives the meal.

Such simple but important lessons are being learned by British engineering students who are carrying out projects with both a social and technical content.

In the Socio-Technical Projects (SOTEP) Programme of the General Education in Engineering (GEE) Project in the United Kingdom (see box), 448 students have had the opportunity to complete a project requirement in their degree program of study by working alone or in teams to explore the social implications of the technology they will design and manage in their professional careers.

To date 80 faculty members have registered 150 SOTEP projects. These last for different lengths of time (six to 52 weeks), involve different numbers of students (one to 12), and are offered at different years (second to fourth) in the degree program of the 24 participating institutions. The project mark is often part of the evaluation for the student's degree, and in some cases the experiences on a project have influenced the starting direction of a student's career.

One of the originators and the first coordinator of GEE, Dr. David M. Brancher of the University of Aston in Birmingham, describes the SOTEP Projects as "finding ways in which the skills developed in an engineering education can be widely used in the social context." He points out that the intention for these projects is "to make engineering education more value conscious and more of an experience that converts engineering from a value-free technology to a value-conscious profession."

Another of the major contributors to the SOTEP Programme, Dr. Sinclair Goodlad of the Imperial College of Science and Technology in London, refers to the community service component as advocacy engineering. He defines an advocacy engineer as a person who seeks to serve the needs of those who would not normally regard themselves as clients of engineers—people who are mentally or physically handicapped, old, poor, unemployed, or in some other way disadvantaged. Advocacy engineers can discover and articulate the needs for devices and systems (and related administrative procedures) of those who are not adequately represented by political pressure groups or commercial interests.

Dr. Goodlad says, "It is quite possible, and highly desirable, for young engineers to learn at first hand the needs of such people so that their professional practice will be informed by humane considerations."

Some of the SOTEP students, with obvious staff encouragement, have reached outward with a sensitivity for the social setting, or a desire to serve the disadvantaged, or a questioning of both the intended and unintended effects of certain uses of the technology they expect to master.

A project which showed this sensitivity resulted in a scheme in London to help the chronically unemployed. Six students, in conjunction with the local Social Services Department, investigated the feasibility of setting up a work scheme based upon electrical engineering manufacturing. The outcome was a workshop employing 20 people, and soon it will provide jobs for 35.

In another advocacy engineering project in London, during his summer vacation a student worked part time in the borough catering department of one of the city's poorest sections. While working he made detailed observations of all aspects of the meals-on-wheels service for housebound old people. When the term began, he briefed the other members of his socio-technical project team, who examined better ways to provide both meals and regular visits to the old people. In addition, the students suggested improvements of the technical design of the hotboxes which are used in the delivery of the meals.

In a project outside of London, two students evaluated the unintended and sometimes unexpected effects of technology by examining the environmental effects that a proposed new coalfield would have. The students not only evaluated the likely aesthetic impact of the proposed mines but also visited an existing coalfield for comparative purposes. Their conclusions are being introduced as part of the evidence at local planning permission meetings.

Are the results of these projects highly polished reports with expert opinions and well documented conclusions? No, they do not have these desirable features of a thorough, well funded study by a respected professional staff. The students' reports are straightforward, uncomplicated (perhaps naive), and open eyed in their criticisms—explicit and implicit, valid and invalid—of the social uses and social

Dr. Frank R. Swenson has been coordinator of the Socio-Technical Projects Programme of the General Education in Engineering Project in the United Kingdom for two years. He has taught engineering at the University of Stirling, Stirling, Scotland; the University of Missouri, Columbia; and the University of Iowa, Iowa City. He has just joined the faculty of the Department of Mechanical Engineering at Worcester (Massachusetts) Polytechnic Institute.

costs of the technologies which they are beginning to understand and master.

In some projects the values of this type of community service are direct and immediate. In others the values to the community are indirect and delayed; the benefits to the community probably will have to be measured in summation over the careers of sensitive and understanding decision-taking on the social applications of technology. For now, we know that the students' change of attitudes and their new openness to other people's viewpoints appear to be common features of all the advocacy engineering projects.

The first-time experience of looking at the social settings and social impacts of a technology is the planting of a seed, not a reaping of the harvest; it is a beginning. □

Socio-Technical Projects

The General Education in Engineering (GEE) Project began in 1973 when engineering faculty members in nine universities and two polytechnics formed a consortium. Their aims were to make engineering education more effective in terms of personal development, more responsive to the needs of society, and more complete in its approach to the professional role.

From the beginning GEE was committed to a problem-centered approach. One of the problem clusters it adopted was Urban Crisis 2000, which was concerned with the challenge of urban futures and their connections with engineering in all its forms. Whereas the other themes in GEE were handled by the development of problem-based learning packs, GEE approached the urban theme within the framework of student projects, for which provision is made in virtually all engineering degree programs in the United Kingdom. The projects in these degree programs traditionally are concerned with elementary research or design assignments, but GEE encouraged socio-technical projects and devised a system for supporting individual teachers and departments in making this change of emphasis.

By 1977 the urban theme had served its purpose: The idea of socio-technical projects had taken root and the supporting project was renamed Socio-Technical Projects Programme (SOTEP). It is funded by the Nuffield Foundation.

SOTEP is designed as a scheme of educational materials and incentive supports for undergraduate engineering projects which are "more than technical," which involve social, psychological, economic, or political aspects of social settings and social impacts. Staff members, acting as project supervisors, manage the scheme. The projects originate from students' personal interests, suggestions by staff members, and 60 project outlines containing broad suggestions and indicating resources for urban project areas.

At the start of a project the staff supervisor sends a completed application form to the project administrative center. When a project is registered, a small grant of £10 (approximately $19) is made through the project supervisor. Applications become the project registrations and are distributed as an annual collection to all project supervisors.

SOTEP also provides resource packets containing starter readings with limited circulation (*e.g.* company internal reports and overseas articles). In addition, upon submission of a short proposal, projects may receive supplementary grants of up to £50 (approximately $94) to reimburse students for expenses—such as for travel to field sites—not covered by department funds.

Upon completion of the project, a typed, hardbound copy of the students' final report is sent to the Electrical Engineering Department at Imperial College of Science and Technology, London, which is the holder of the GEE project report collection. The students' reports then are available for loan throughout the United Kingdom. (Currently SOTEP materials are not available outside the United Kingdom.)

Project supervisors may attend one-day SOTEP workshops on specific themes at different polytechnics and universities. Longer, annual residential workshops prepare new supervisors in the use of SOTEP materials and supports and give all supervisors an opportunity to discuss their interests with faculty members from other SOTEP projects, community or university people who have possibilities for SOTEP projects, and the students involved in individual projects. (Information about future workshops can be obtained from the new SOTEP coordinator: Sandy Livingstone, Department of Complementary Engineering, Lanchester Polytechnic, Coventry, CV1 5PB, England.)

The measures of success of the SOTEP Programme come from the degree to which individually and collectively the projects meet the educational objectives set for the GEE Project by Dr. David M. Brancher, its first coordinator:

- To perceive, grasp, and describe a complex and multidimensional situation, issue or problem;
- To imagine a range of developments, outcomes, or solutions;
- To set and apply appropriate criteria;
- To recognize, make, and defend value judgments;
- To see the effects of background and self-image in professional behavior;
- To work and communicate effectively with others.

Additional information about the GEE Project can be obtained by writing Dr. Brancher at the Department of Complementary Studies, University of Aston in Birmingham, Gosta Green, Birmingham B4 7ET, England.

The Fifth Day

By Jean Dorgan

A New Jersey high school places a fifth of its 1,200 students in nearby communities every school day.

Every school day 27 buses roll into the parking lot of a rural comprehensive high school located mid point between Princeton and New Brunswick, New Jersey. Most students immediately enter the building, go to lockers, and report to their first period classes, but a sizeable number remain outside to board five other buses. Teachers check off names as these students climb into buses with signs in their windows for Princeton, Trenton, Hightstown, New Brunswick A, and New Brunswick B. Promptly at 8 a.m., the buses leave for their respective destinations.

Why? Students at South Brunswick High School attend classes within the building four days a week; on their fifth day, the majority of them—freshmen through seniors—choose to participate in Community Involvement-Personal Educational Development (CIPED). Approximately a fifth of the students work and learn in the surrounding communities each school day. Half of them are in community service placements.

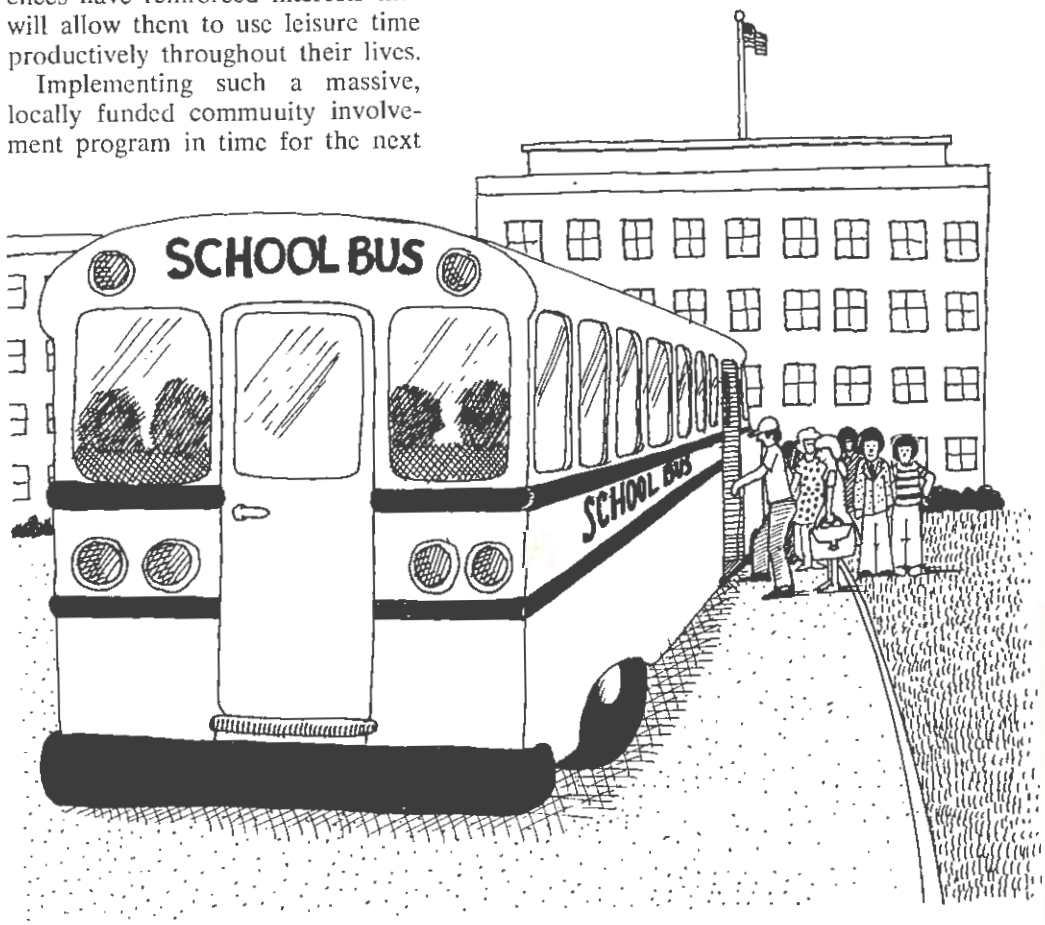
What was the impetus for such an extensive program?

Seven years ago the district faced an overcrowded high school with 1,200 students crammed into a building built for 1,000. This is not a wealthy district, and taxpayers defeated a bond issue to increase space, throwing the high school into split sessions. For one year students and staff suffered through all the problems that this solution to overcrowding produced, but South Brunswick Township—under the leadership of Superintendent James Kimple—was not ready to lose its reputation for quality education liberally laced with innovative overtones. In the spring of that school year the decision was made to proceed at once to include the community as part of the educational experience of all high school students. Such a step not only would provide unlimited educational resources but also would remove a fifth of the student body from the school building each day—eliminating the overcrowded conditions.

The original goals were easily stated. The fifth day would provide the opportunity for students to provide service to the community and to explore careers. As the program has developed throughout its six-year history, students have added another dimension: Their experiences have reinforced interests that will allow them to use leisure time productively throughout their lives.

Implementing such a massive, locally funded commuuity involvement program in time for the next school year (September 1973) was a monumental task. The staff to perform it was recruited primarily from school programs that already were using the community as a resource. An elementary teacher who had developed student tutoring experiences joined the CIPED staff to expand this interest area. Two high school teachers who had established governmental and environmental placements came on board. To monitor and expand interest areas in independent projects, a middle school English teacher signed on, and a high school home economics teacher assumed responsibility for health fields. A high school staff member knowledgeable in placing students in jobs rounded out the staff. The job of coordinating the many diverse personalities and fields fell to a learning disabilities specialist on one of the district's special services teams. (Six years later only the independent projects staff member remains, but the original team left an indelible stamp on the CIPED program.)

Once staff had been recruited, a method had to be devised to free



Dr. Jean Dorgan is chairperson of the Community Involvement-Personal Education Development (CIPED) program at South Brunswick High School, Monmouth Junction, New Jersey. Before joining CIPED as a field coordinator in 1974, she was a social studies teacher and staff administrator in a middle school.

a fifth of the students from their academic classes each day of the week. Administrators and computer programmers spent many a sleepless night on this.

Here's what evolved. Most courses at South Brunswick High School meet three times a week with the entire class in attendance; on each of the other two days half the class is out of the building participating in the CIPED program. Students have the same number of minutes in a class each week as they did before CIPED because the high school now has longer periods; it operates on a seven-period rather than an eight-period day.

The hair-pulling stage comes when establishing a schedule for each student that provides a clear fifth day, a day when each student will not miss any classes. Because of this, South Brunswick High School has five master schedules, one for each day of the week. A student's individual schedule must include courses offered on four days. The student's fifth (CIPED) day is determined only after the academic course schedule has been established.

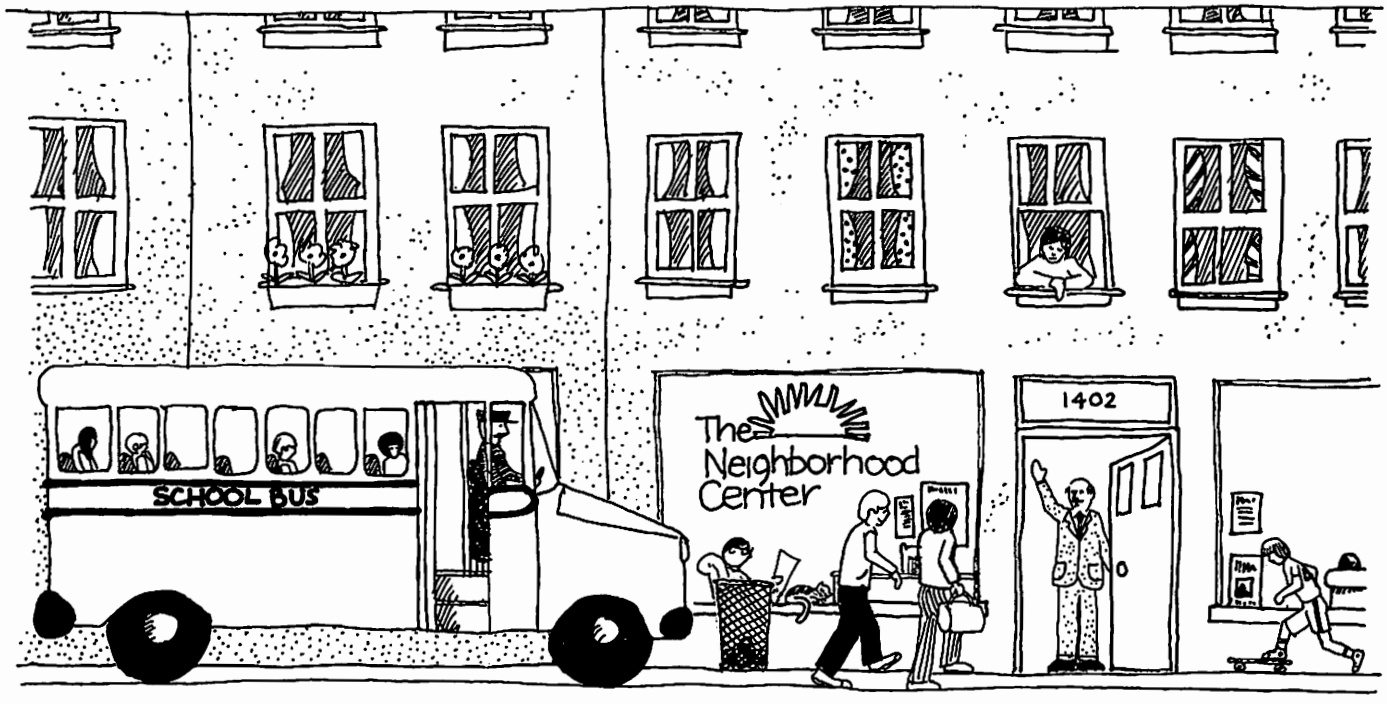
The major task for staff during that first summer was to recruit community sponsors to provide learning experiences for 1,200 students. Students had been given the opportunity to request three choices of what they wanted to do on their fifth day. Finding a community sponsor to match each request required the use of many methods not taught in undergraduate and graduate education courses. To get the job done, CIPED staff adopted the tactics of persuasion used by insurance agents, lobbyists, public relations experts, and advertising specialists.

The school's location proved to be an important asset in finding sponsors. South Brunswick Township is located midway between two large, prestigious educational institutions, Princeton University and Rutgers, The State University. Major corporations have built many research oriented facilities which tap and augment the expertise of these universities. The state capital, Trenton, and the county seat, New Brunswick, are within range of school bus transportation, as are many people-oriented service institutions meeting urban, suburban, and rural needs. These resources provided the necessary ingredients to nurture the fledgling community involvement program.

Since the first summer CIPED has matured into a strong action-learning program. In six years many of the administrative procedures have been modified to make them more efficient and/or to allow for more input from students, parents, faculty, and sponsors. CIPED is an integral part of the school and cannot act in isolation; in turn, administrative decisions on other parts of the program must take into account that on each day approximately a fifth of the student body is out of the building. Assemblies, tests, class meetings, sports, physicals, and a myriad of other activities are planned with this in mind.

How does the school manage? Each spring students choose their courses for the next academic year. Usually their assigned fifth day is not known until June, but this lack of information does not hamper the CIPED staff in registering students. Though methods are modified each year, the most efficient way to inform students about the new community sponsors is to hold an assembly for each returning class in the high school and the eighth grade students at the middle school. The students see a selection of slides, and each CIPED staff member tells about the various sponsors that she (presently the entire CIPED staff is female) has recruited or is working with and answers questions. Students receive the CIPED "Make a Choice" booklet, a compilation of all the interest areas presently available.

The assemblies end with the statement that the CIPED staff is quite willing to find new, unusual educa-



tional experiences, so the ideas in the booklet do not set limits. Some of the most interesting CIPED placements have been developed because of students' requests. For example, a boy who wanted to work with the deaf prompted placements in a nursery for deaf children. The boy studied sign language so that he could communicate with the children.

The next step is to actually register each student. CIPED uses an enrollment card that permits a student to list three placement choices. Ideally this registration should be completed on an individualized basis, but time constraints do not allow this to happen. To be sure to reach all students and yet have manageable groups, CIPED "piggy backs" on the Physical Education spring mini-course sign-up time.

Once students' choices are known and the computer has determined the fifth day for each, the recruiting and placing process begins. At the present time CIPED maintains more than 400 active sponsors, but each year students make many new types of requests so that new sponsors must be recruited. This work is done during two to three weeks in August. New contacts are made by referrals from another CIPED sponsor, friends of CIPED staff, students, and parents — and by thumbing through the yellow pages.

Prospective sponsors express various concerns. "Does the school carry insurance?" (The district has a special accident policy for the CIPED program.) "One day a week on site is not enough time." "What experiences conflict with child labor laws?"

Matching student to agency becomes a juggling act. Many sponsors make conditions—only juniors and seniors, only on Wednesdays and Fridays, only students with specific skills. By enlisting many sponsors and sponsors who do not state limitations, all students are placed by the beginning of school. CIPED notifies students of their placement by mail.

Once school is in operation an orientation is held with each day's pool of CIPED students. Each student receives a CIPED identification card that includes the name of the sponsor, the sponsor's phone number, any special directions to the location from the bus stop, and the CIPED phone number in case the student misses the CIPED bus.

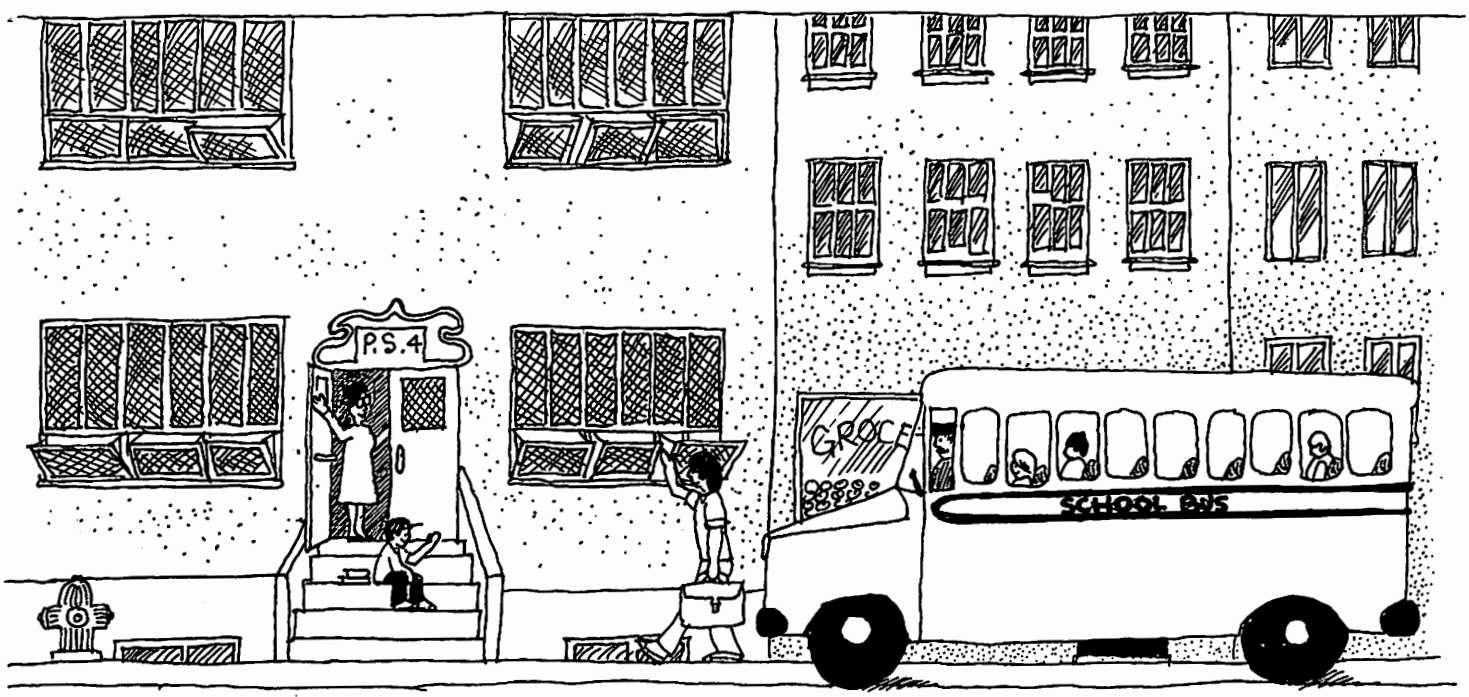
The school district provides transportation. During the placing process in August, the staff develops transportation routes and stops in various geographic areas. Attention has to be paid to such details as: the sponsors' opening hours, turnaround room in parking lots for buses, amount of time to get to placement, number of students going to a particular area.

CIPED buses leave South Brunswick High School promptly at 8 a.m. and return by 2:30 p.m. so that their occupants can board their regular buses to go home or be available for after-school sports and other activities. If a student does miss the CIPED bus, a van is dispatched to retrieve the student.

Obviously, flexible, understanding bus drivers are important to the CIPED program. Their routes change each day because not every sponsor has students each day, and when a student is absent, that particular stop is eliminated. The CIPED program provides transportation in a 30-mile radius from rural areas to downtown Trenton.

CIPED has always maintained a tight attendance policy. Each morning CIPED staff meet the buses with a list of stops for that day. As students board the buses, they sign their names under the listing of their sponsor. Just before departure, the drivers receive the original copies so they can plan their routes and give each student a pick-up time. The CIPED office uses the carbon copy to check attendance.

Some students have permission to drive to their locations. The CIPED secretary takes attendance by calling each of these students' sponsors. Students are cautioned in their initial orientation that one



absence from CIPED is the same as missing a week of English classes. They are encouraged to call their sponsor if they are going to be absent. Most do, but the CIPED sponsors' biggest complaint is that their CIPED students do not call when they are sick. Cuts are handled the same as cuts from academic classes: counseling students, phone call home, referral to administration.

Once the school year is underway CIPED staff members are either in the office counseling students or out in the field visiting sponsors. Counseling sessions deal with many situations; the student may be unhappy with the placement, the sponsor may think the student is irresponsible, the student may want a more challenging assignment, or the CIPED staff member may have recently recruited a new sponsor that may be a better match to the student's interest. For many of these reasons and more students may transfer from one site to another after a counseling session in the CIPED office.

Field visits allow the CIPED staff to observe the students on site. Face-to-face discussions allow a more valid exchange of information about the educational opportunities at particular sites. Such close contact also lets CIPED staff suggest the possibilities for enriching some activities and eliminating problems.

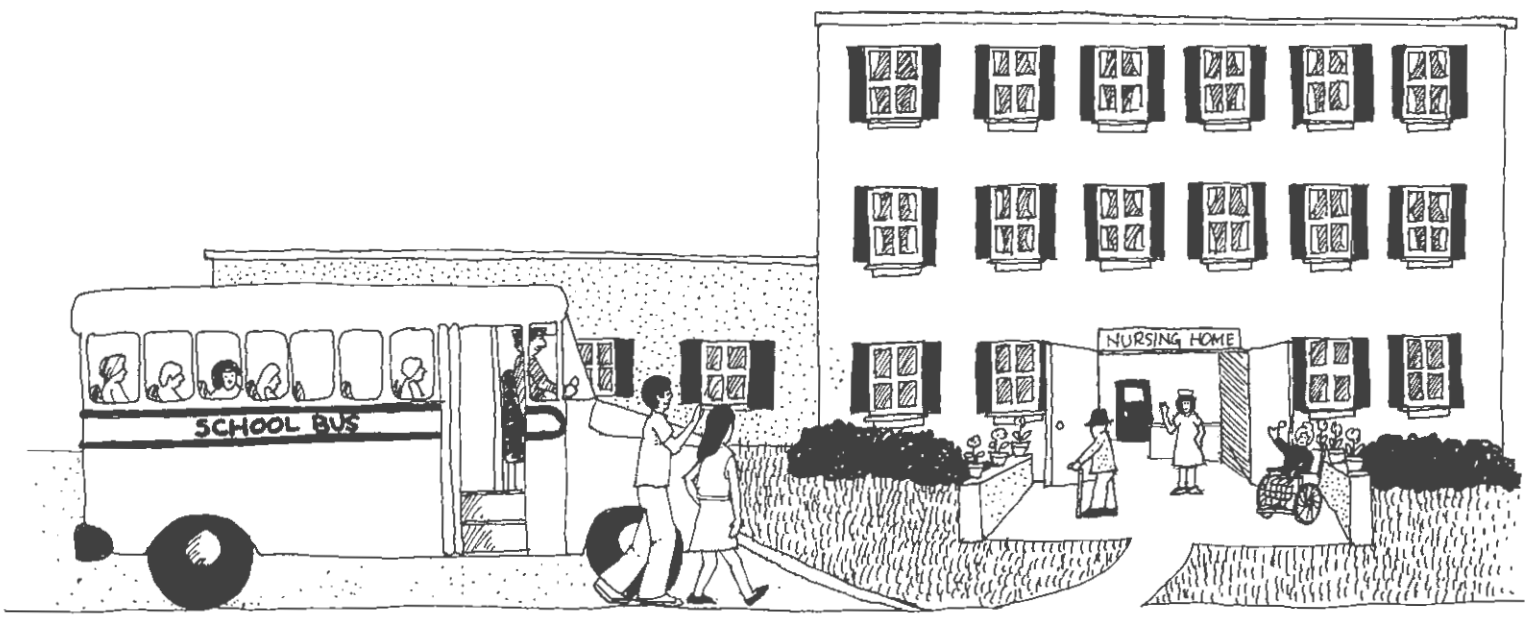
Reflection on an experience is an important part of learning. At the end of each marking period debriefing sessions are held with the CIPED students. In small groups, students explain what they do for CIPED, whether they would recommend the experience to others, what attributes make a good sponsor, what CIPED goal or goals they are pursuing at that particular site, how they have solved some particular problem.

Students receive grades: 0 (Outstanding), S (Satisfactory), U (Unsatisfactory), or I (Incomplete). The grades affect honor roll status and rank in class. Grades are determined from written evaluations sent to the CIPED office by sponsors, on-site observations by CIPED staff, and students' attendance. All students must fill out an evaluation form on their CIPED experience. If this requirement is not completed, the student will receive an Incomplete until it has been done. The CIPED student's personal evaluation of the experience is too important to neglect.

CIPED students do not receive pay for their experiences, but they do receive credit, the same as for any other high school course. Credit is awarded, however, only when the student attends, and only excused absences may be made up. Make-ups may range from a written interview of the sponsor to a report on a particular career to spending extra time at the site.

Many placements incorporate elements of all three of CIPED's emphases: community service, career exploration, and profitable use of leisure time. Nearly half of the students in the program spend their fifth day in a wide range of community service projects. Among the sponsors and types of services performed are:

- Urban day care centers—setting up classrooms for art work and free play, assisting in the physical education program, and canvassing to help raise funds;
- A residential treatment center for 750 retarded adults—helping staff members teach residents basic language and math skills, assisting with physical therapy, and giving instrumental music lessons;
- A sheltered workshop for 150 mentally retarded and physically handicapped individuals—counseling, teaching simple job skills, and supervising trainees in the workshop and warehouse;
- Inner-city schools — tutoring Spanish-speaking first and second graders;
- Several large nursing homes—assisting nurses, physical therapists,



and activities personnel.

Service agencies give positive feedback about the tasks performed by CIPED students. For example, a supervisor praised a freshman working with autistic children for having the ability "to handle tantrums or other violent behavior without calling on me or my assistant, to make on-the-spot decisions when called for (*i.e.*, when a child refuses to engage in a specific task), to vary task materials and presentation according to a child's needs."

End-of-the-year parent feedback has supported the CIPED program, particularly for students who have been indifferent to or even disruptive in school. One parent wrote, "CIPED has been very effective in many ways for both of my children. The fifth day is the only day one of them doesn't cut."

The CIPED staff deals with two major problems: adequate supervision and difficulty of evaluation. Both stem from the fact that each student participates in individualized learning experiences many miles from the school. Communication among students, sponsors, and the school is a must, but it is limited by the number of CIPED staff members. They act primarily as catalysts. A desirable solution to this would be the involvement of faculty members whose courses are related to the placements. In the early years of the program teachers resisted participation in CIPED, seeing the community placements as irrelevant to or even an infringement on their subject areas. Gradually, however, the students' community experiences have been accepted as valid components of the school's academic program.

Adequate assessment tools have not yet been devised (here or elsewhere) to measure the affective learning that takes place in a program involving decision making, development of self-worth, getting along with others, and creativity. Debriefing sessions and evaluation questionnaires completed by students and sponsors provide useful but incomplete feedback on the learning and service benefits to individuals and on CIPED as a whole.

In an assessment of the entire program, certain results stand out. Obviously the community benefits substantially from the many volunteer hours worked by CIPED students. Students, in turn, learn many valuable skills that will aid them throughout their lives, and the commitment to helping others may prevail beyond their years at the high school.

The CIPED program has established many links between the outside community and the high school besides the individual contacts made by students and the CIPED staff. CIPED sponsors have participated in career days and blood drives, provided materials and speakers for classes, presented awards, set up field trips, and offered jobs.

Most sponsors believe that their involvement in the CIPED program aids in bridging the generation gap. Students make personal contacts with adults beyond the limits of their parents' friends, school teachers, and local community leaders. Sponsors appear to enjoy having a part in the educational program of the younger generation.

Perhaps the most important measure of success is that—even though the original impetus of overcrowding soon disappeared — CIPED has become institutionalized at South Brunswick High School. Over the years alternative in-school courses offered as options for the fifth day have been modified or eliminated because students preferred to go into the community.

CIPED continues to evolve, with plans for more in-depth experiences through full-time internships for seniors and for greater faculty involvement through special training and closer coordination of fifth day and classroom learning. □

The Medium for Your Message

A slide show, film, filmograph, or video tape may be just the promotion tool your program needs—or a disaster.

Word comes down from on high: Your budget will be cut next year. One of your client agencies is undergoing a reorganization, leaving your student volunteers with the feeling that they are in the way. No one cares or notices. You feel unloved, undernourished, and deflated. The article that was to appear in the newspaper was pushed aside. The reporter is now giving you the runaround.

You've always known that volunteer projects cannot exist in a void. Community and institutional support is essential. Student and administrative enthusiasm must be sustained.

An audio-visual presentation about your program can be useful in supplementing your on-going efforts to produce a positive public image for your program.

To be effective, however, a media project must be meticulously planned, creatively conceived, and deftly executed. If done properly, it can make you, and your program, a star. A film or slide show or video tape can dramatically portray the importance of your project and generate interest from all parts of the community. If not done properly, the logistical pains of planning, budget, and production can be awesome, producing unabated anxieties. To find out how to avoid crises, read on.

The objective. Who are your potential viewers? The community? The students? Funding sources? What desired change in attitude will result from the target audiences' viewing of the presentation? How will a film, video tape, filmograph, or slide show be helpful to your program? More students to sign up for the program? More faculty involvement? New client agencies? Support funds? Wider community acceptance? All of the above?

Can you be all things to all people? Presentations often try, usually with disappointing results. The analysis of your message and intended audience will make the next step easier.

The narrower the objective, the better chance you will have in producing something effective. Ask yourself, "What will the audience do—or think—after seeing the presentation?" Clearly, it is important to impart the positive effect of your efforts on either the students participating in the program or the students' clients, or both.

The theme. Once the audience and your objective have been established, it is time to develop a theme. Will you present your program from the point of view of the clients? Of the students? Will the production tell a story about a single project? Will it summarize the entire program? The theme should feature the most valuable elements of your program. To aid in planning, it is useful to develop ideas and image/commentary sequences on a series of index cards. These will become a visual outline called a story board. As many ideas and image situations as possible should be recorded on the cards. Arrangement at this point is unimportant. Include anything that supports your theme and relates to your overall objective.

Selecting a medium. Your presentation can be as elaborate as an hour-long 16mm sound film or as simple as a 10-minute slide show accompanied by a spoken commentary. Time, budget, available expertise, and personal proclivities should dictate the medium for your message. A slide show is the easiest and least expensive to produce.

Slide presentation. It is best to use all new photographs for a slide presentation. To create a sense of unity, select photographs that have continuity of light, color, and "feel." Consider your resources for producing an effective slide show:

- Availability of talented and willing volunteers with 35mm camera equipment;
- Availability of recording equipment, and a capable individual to perform the voice recording for the commentary;
- Recorded music for the opening and closing of the program;
- Models for simulated scenes, if needed;
- Willingness of all concerned to be photographed and/or recorded;
- Availability of a Carousel-type projector (or two), cassette recorder, and accessories.

Your ability to plan, create, and schedule the substance of the presentation will be critical. The involvement of capable people who have experience in these areas can make a considerable difference in the quality of the completed slide show.

The most attractive arguments for producing a slide presentation are the relatively low cost and the simplicity of the mechanics.

The most basic type of production is a short (10-minute) slide show with a written commentary. Remember that the audience will expect to be entertained. Consider the script as a speech prepared to enhance a closely related sequence of images. Words and pictures must flow together. Using a story board will enable you to organize and edit the presentation to maintain this flow.

The narrative should be conversational. Avoid jargon. Be anecdotal. Find humor. Be cheerful. Rehearse!

A smoother, more convenient and effective method of presentation combines the images with a synchronized recorded narrative. Proceed as before until you have a polished script and the appropriate series of coordinated images (figure on four slides per minute as an average).

Locate a speech student or part-time radio announcer to record the script. There should be a slight (two-second) pause at each slide change. The script should be rehearsed and recorded at least twice.

Resources

The following booklets that may be helpful to your effort are available from Eastman Kodak, Consumer Markets Division, Rochester, New York 14650.

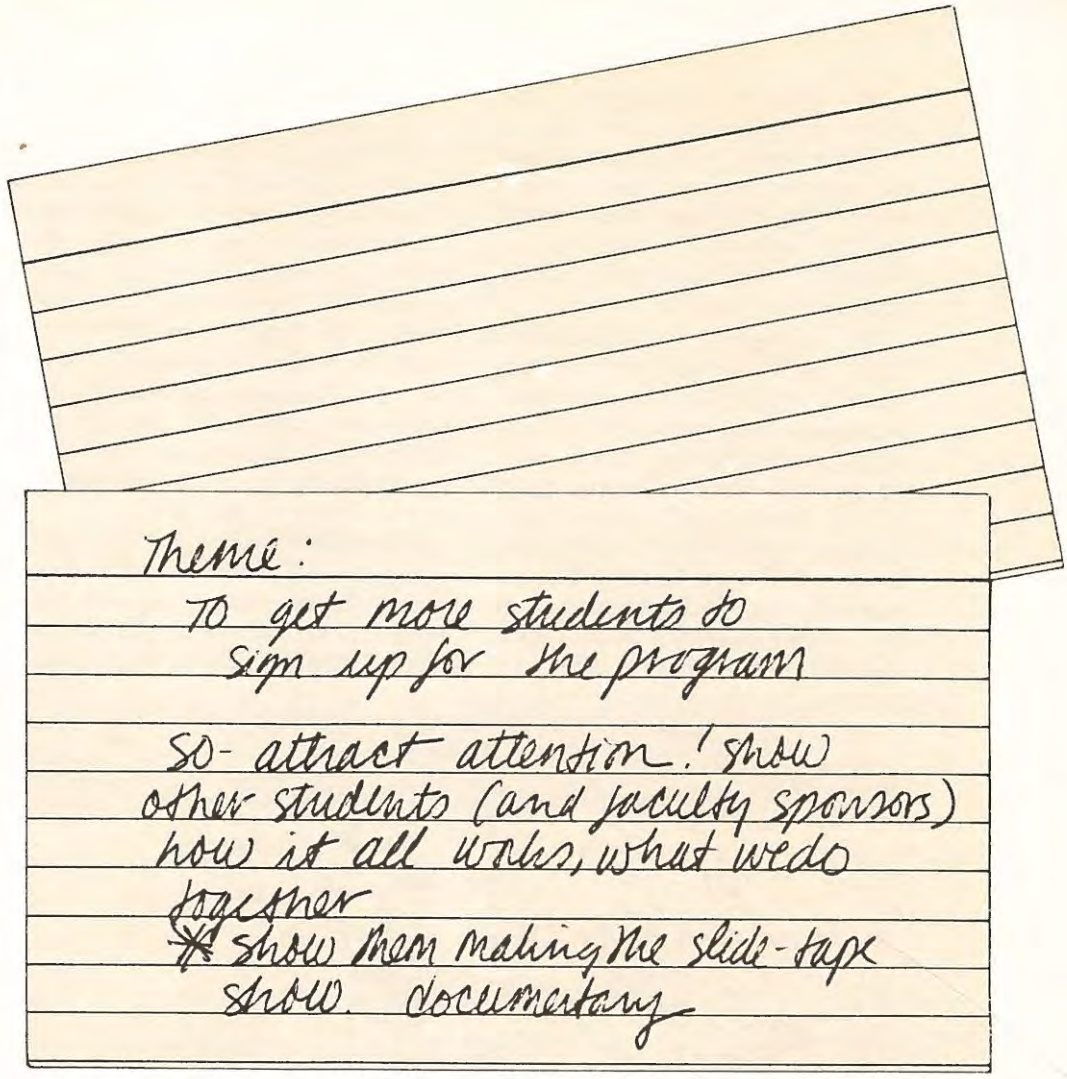
- "Photo Reports Make It Happen" (AT-5). $.25. Very basic. Also available as a slide show, Title Code 0038.
- "Planning and Producing Slide Programs" (S-30). $3.25. Excellent 68-page planning guide.
- "How to Make Good Sound Movies" (AD-2). $2.95. All about Super-8 sound.
- "Materials for Visual Presentations—Planning and Preparation" (S-13). Free.
- "Audiovisual Planning Equipment" (S-11). Free.

In the Fall 1974 issue of *Synergist,* Steven Drake from Clarke College, Dubuque, Iowa, provided an extensive guide for project promotion in "PR Techniques for Student Volunteer Programs" (pp. 29-38). The article provides an introduction for the establishment of an on-going media relations effort for volunteer programs. It includes a step-by-step description of a model communications program, including the preparation of news releases and public service announcements for radio and television, suggestions on the organization of a "news event," and ideas for speaking engagements, open houses, and other publicity techniques to project your message to the widest possible audience. Reprints of the article are available from NSVP.

Be demanding. It will make a difference.

For a slide/tape presentation, you will need a projector that has a sound synchronization jack (such as the Ektamatic line by Kodak), a sound synchronizer that connects the projector to a tape recorder, and a high quality reel-to-reel or cassette recorder. Small portable recorders do not have the quality of sound or the carrying power needed for a group presentation.

A presentation using two projectors and an interfacing dissolve control unit will make for a smoother, more professional show than a presentation using a single projected image. The dissolve unit creates an even transition of blending images, eliminating the "black-out" between slides projected from a single unit. Projectors, sound synchronizers (which coordinate the picture with the recorded commentary), and dissolve control units can usually be rented from camera or audio-visual supply stores. Heavy-duty Carousel or Ektamatic projectors sell for $250 to $400; a sound-synch adapter, $25 to $50; and a dissolve control unit, $175 to $300. Discounts of 25-35% off list price are standard for institutional purchases. Before purchasing or renting equipment, check to see what is available from your school's media center or public relations office.



Slide presentations offer compelling advantages for those without media experience who want to do their own thing without outside professional involvement. Equipment is easily accessible; cost is low; the presentation requires a minimum amount of time and expertise to produce and is easy to update. Usually the only necessary expenses are film and film processing.

On the other hand, slide shows do have definite drawbacks. Because they lack the live action and continuity of a film presentation, slide shows must be well done if they are to hold their audience. Also, equipment—such as a tape recorder, two projectors, and a dissolve unit—can be cumbersome and prone to malfunction. Still, practice makes perfect.

Filmograph. The next step up in complexity and expense for a presentation is a filmograph, which is basically a slide/sound presentation transferred to Super-8 or 16mm film. Although the source materials are the same as for a slide show (*i.e.,* still photographs), a filmograph provides the opportunity for pans, dissolves, split screen, and other cinematic techniques.

The effect of a filmograph presentation is that of a film, without lip-synch (only background music and commentary are used) or live action. The method does allow for the individual images to be "scanned," using zoom and tracking techniques to simulate motion.

The production of a filmograph begins as in a slide presentation. When a rough selection of photographs has been made and a draft script completed, you should seek the services of a film animator, or at least someone with a movie camera and an animation stand. The images are then rephotographed onto movie film. Each image can run any number of frames so that each shot will be projected on the screen for the desired length of time.

Although carefully produced "homemade" filmographs can achieve a polished look, it is advised that you seek the guidance of a professional before proceeding. A simple 10-minute filmograph costs about $100 in materials and processing for Super-8 and $200 to $400 for 16mm. Obviously, equipment rental (movie camera, animation stand, and lights, as well as projection equipment) can be costly, depending on the sophistication and ambition of the effort.

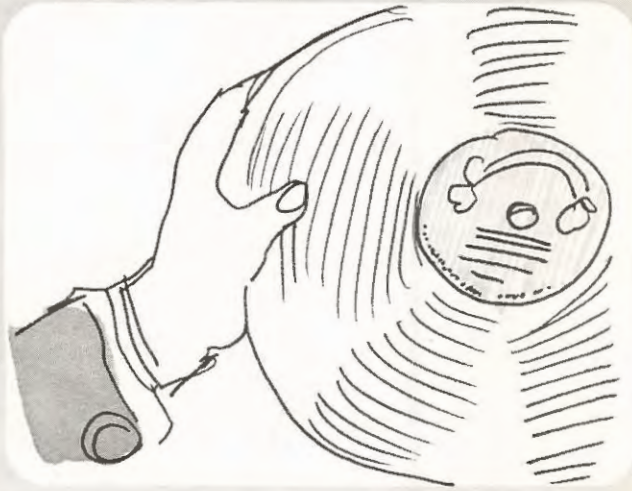
Filmograph techniques can turn a routine slide show into a polished, dramatic presentation suitable for large group exhibition and television. Without expert guidance, adequate budget, and meticulous planning, however, a filmograph project can be a nightmare. If you are going to get into a media project as deeply as a filmograph requires, you may want to consider video or a full-fledged live-action film as options.

Video tape. It is difficult to generalize about video-tape production. Aside from your own conceptual and planning abilities, the success of a video program is substantially dependent on the kind of equipment and expertise of operation available for your project. At its simplest—a portable ½ inch black and white camera and recorder—video tape is as easy to use as a tape recorder. Don't be deceived by the simplicity.

1

1. Opening slide: students in a meeting
Sound: overlapping voices, rising and falling
Narrator: describes the actions, outcome of the discussion

2



2. Slide: hand on a record album
Sound: music coming up louder gradually
Narrator: describes the choosing of music

STORYBOARD: HOW TO DO A SLIDE SH

Getting good results is harder than it looks.

Without delving too deeply into video techniques, it may be helpful to recite a few of the advantages and disadvantages of using it.

Video works best under static conditions, where light and position remain relatively unchanged. If a studio facility is available, it is easy to assemble a cast of participants and stage a discussion for taping. If you wish to tape on location, you'll need knowledgeable assistance in editing.

Color video is even more difficult to produce because of the need for high-power lighting and the expense and complexity of equipment.

A principal consideration should be the availability of non-commercial facilities, for commercial laboratories' charges are prohibitive. Another important question is how and where the video tape is to be presented. Unless it is to be broadcast, a video tape can be shown on a television set to only a small audience. This may be satisfactory if the target audience can be reached via on-campus closed circuit systems. Video tape can be converted to film, but the transfer is expensive.

Within its limitations, video can be effective.

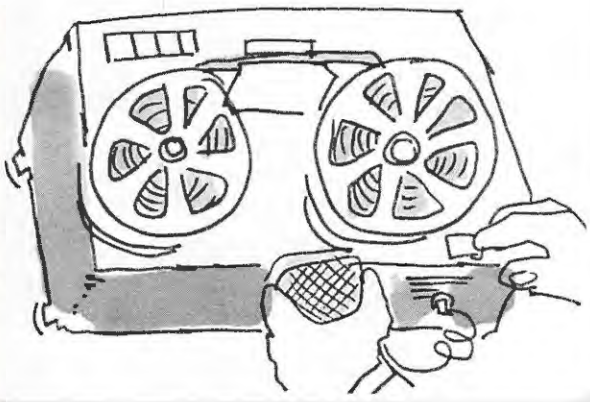
Film. Slide shows, filmograph, and video tapes are relatively easy projects requiring a few weeks of planning and production. Making a live-action film is something else entirely. Even if an experienced professional is involved, the results can be disappointing.

If your objective in making a film is to promote your program to an indifferent public, it is essential that the presentation be polished, concise, and intrinsically interesting. If you proceed, consider these options:

- Super-8 live action, adding sound (commentary and music) later;
- Super-8 with lip-synch;
- 16mm with optical sound track.

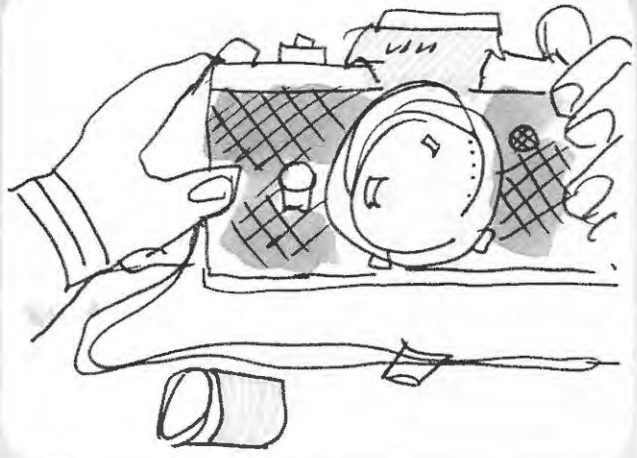
Discuss these format options with a professional. Student-made efforts with expert guidance can work. It is important to avoid half-baked ef-

3



3. Slide: overhead view of tape recorder with hands operating it
Sound: tape moving forward, backward, rewinding
Narrator: describes how tape is edited, spliced.

4



4. Slide: hands on a 35mm camera
Sound: sounds of cameras working i.e. shutters clicking, advancing film
Narrator: describes the necessity of finding good photographers

1-(WITH MUSIC AND NARRATOR)

forts at home moviemaking unless the moviemaking itself is of dominant interest in the volunteer project.

Consider the resources available for producing an effective finished product. Film and audio-visual students at university and college campuses are always scouting projects. Your job is to stimulate the filmmaker, to provide articulate and well-considered planning and ideas, and to identify the funds required for the project. On even the sparest budgets, a 10- to 15-minute film will cost no less than $500 for film and processing services. A professionally contracted film of under 20 minutes could cost as much as $20,000.

Notwithstanding these difficulties, a live-action film is the most effective means of communicating and of stimulating interest in your program. If done well, it can provide extensive new outlets for promotion. By involving students, teachers, and others who have talents and interests in the process of film-making, you have a substantial opportunity to portray your project on film.

Dissemination. Many public television stations are receptive to quality locally oriented programming. Films, filmographs, and video tape will get air time if they are worthy. Slide shows, however good, usually do not make it onto television, but they are the most suitable presentations to students, community organizations, and client groups. By keeping the presentation to under 20 minutes, you can usually find willing audiences in all parts of your community.

Consider the average audience size when selecting a projector, screen, and tape recorder. And try to avoid noisy rooms with unshaded windows.

Introduce the presentation by relating the substance of your objectives, rather than the techniques in achieving them. Mostly, let the show speak for itself. □

5

5. Slide: overhead view of carousel projector with hands operating it
Sound: projector motor, mechanism moving around
Narrator: describes how the slides should be edited, sequenced.

6

6. Slide: applauding hands
Sound: clapping, cheering noises
Narrator: describes the response to the project presentation.

VITA in Taxing Situations

Volunteers help low-income citizens fill out federal income tax forms in shopping malls, prisons, pueblos, and community centers.

Each year thousands of college students take special courses on preparing federal income tax forms in order to help low-income citizens save money and avoid headaches. Though the students—and other volunteers—are part of the Internal Revenue Service's national Volunteer Income Tax Assistance (VITA) program, college programs vary considerably in terms of credit granting, service sites, and client groups.

In some colleges, professors integrate the VITA training materials into accounting or business courses, arrange for campus or community service sites, and supervise student volunteers. In others, the college administration provides a classroom for the VITA training and leaves everything else to IRS instructors and the students. Some courses, particularly in less populated areas, are open to everyone, including high school student volunteers. In these instances student and community volunteers often share duties at one off-campus site.

When students are the only volunteers, an on-campus tax center is standard. Additional service sites range from senior citizens' centers to shopping malls to Indian pueblos to prisons—wherever the need is greatest.

Clients have in common incomes below $10,000, but they may include elderly taxpayers having trouble reading the instructions, widows coping with inheritance taxes, students filing returns for the first time, Hispanic Americans seeking advice in Spanish, workers wishing to itemize deductions, and taxpayers despairing after one glance at the forms.

A major requirement for all VITA programs is that they help low-income, elderly, non-English-speaking, or disadvantaged taxpayers. Another stipulation is that volunteers must have completed the VITA training before they become assistors, the term for volunteer preparers. Because assistors do not receive reimbursement for the help rendered, they are not in any way legally liable for the contents of the return. Each assistor writes VITA in the space for the preparer's signature. This allows IRS computer service centers to count and evaluate the returns prepared by assistors.

Through the VITA coordinators assigned to the IRS regional offices (no more than one per state except in California, Illinois, New York, Ohio, Pennsylvania, and Texas), IRS provides free training materials and, if requested, free instruction for the equivalent of a three-day course. The training stresses preparation of Form 1040A and simple Form 1040 tax returns, but many programs supplement this with sessions on tax problems common to the clients whom volunteers will be serving. IRS also assists volunteers in publicizing sites and provides technical assistance on tax questions, usually by phone but occasionally at the service sites.

Because each regional office retains some independence in setting up programs to fit local needs, colleges in different parts of the country—and even within a state—may have quite different programs. The diversity of VITA programs is illustrated by those at the following five institutions: Boise (Idaho) State University; Albuquerque (New Mexico) Technical-Vocational Institute; Mary College, Bismarck, North Dakota; Jackson (Mississippi) State University; and Allegheny College, Meadville, Pennsylvania.

Boise State University. VITA participants at Boise State University (BSU) take a long training course, a three-hour night class each week for 13 weeks. This is partly because they must solve some unusual tax problems for one group of clients—inmates of the State Penitentiary.

IRS personnel teach the course, for which BSU grants two hours of credit under a Special Topics umbrella. Most of the students are accounting majors. During the first three years of the program students received one hour of credit for the coursework and another hour for the time spent in preparing returns, but during this academic year students will have to complete their volunteer commitment (three to four hours a week) to receive any credit. Through this policy BSU and IRS hope to reduce the number who enroll and who drop out.

Faculty members work with IRS personnel in establishing guidelines for the program, and a student coordinator does the on-site supervision. This system has worked quite well, perhaps because the student coordinator has been a part-time and then full-time IRS employee.

Volunteers do most of the tax return preparation in the BSU Student Center, which is easily accessible to a number of senior citizens. Here, working from 10 a.m. to 6 p.m. each Wednesday and every other Saturday for almost three months, students handle some 750 returns and queries. They assist with state as well as federal returns.

Volunteers visit the State Penitentiary from 6:30 to 9 p.m. once a fortnight. There they have a different personal and professional experience. To prepare for it, they receive special instructions from faculty and IRS advisers on dealing with their clients and their tax questions.

Common problems among the prisoners include:

- Obtaining W-2 forms from former employers;
- Locating the spouse for a signature on a joint tax form;
- Determining filing status;
- Obtaining tax records necessary for preparing the returns.

The site itself also presents special problems. To begin with, prison

Form **1040** Department of the Treasury—Inter
U.S. Individual Inc

For the year January 1–December 31, 1976

Please print or type

Name (If joint return, give first

Present home address (N

City, town or post

Status

1 ☐ S

2 ☐

3

VITA volunteers from Boise State University assist inmates of the State Penitentiary in filling out their federal and state income tax returns. In 1978 the students worked with approximately 300 prisoners.

officials require a list of all assistors before their arrival. Assistors sign in and, at the main prison, have their briefcases and purses searched. Guards lock the volunteers and the inmates in a room. Guards remain with them at all times at the main prison but only if requested to do so at the prison farm. Students have never had a problem with a prisoner that made it necessary to call a guard.

In 1978 the BSU assistors completed more than 150 tax returns and answered more than 125 tax questions at the State Penitentiary. As a result of their work, students concluded that the number of visits and of volunteers should be increased, that possibly visits should be made for a month after the filing deadline, and that the technical referral system should be improved so that they could handle special tax problems more easily.

Under the BSU program students not only learn to deal with accounting problems in tax preparation but also to attract clients by publicizing their program in the local media, to manage their sites and operations, and to deal with a diverse population.

Albuquerque Technical-Vocational Institute. In early 1974 a counselor at the Albuquerque Technical-Vocational Institute (T-VI) tried to console a student by commenting that his financial situation would improve when he received his income tax refund. He hadn't filed. He hadn't even realized that his employers withheld taxes from his salary for part-time work. Worried about this student and others like him, the counselor called IRS for help. Soon she was the coordinator of the Institute's new VITA program.

Twenty-four students signed up for the first 24-hour non-credit training course taught at T-VI by IRS and state bureau of revenue personnel. After the training, volunteers helped students fill out federal and state tax returns at tables set up in the Institute's library.

The next year so many students applied for VITA that the coordinator had to limit participation to accounting majors. The program improved considerably that year because of these students' interest and aptitude, so the restriction remains. Even so, almost half of the 50 to 60 who sign up each year fail to keep

VITA Training Materials

Several publications are provided free of charge during training and are useful on-the-job aids. They include the following.

VITA Course Book (Publication 678 in English and Publication 832 in Spanish). This is a workbook with practice problems and quick reference algorithms to be used when assisting taxpayers. Lessons geared to the tax needs of older taxpayers are included in a separate section.

VITA Road Maps for Forms 1040A and 1040, 1978 Edition (Publication 679 in English and Publication 806 in Spanish). This document shows how to complete Forms 1040 and 1040A step by step.

In addition, the *Instructor Guide* (Training 3004-01) is available for those who wish to teach a VITA class. VITA Blowups of Forms 1040 and 1040A and certain schedules are also available.

Publication 17, *Your Federal Income Tax,* an IRS tax guide for individuals, is provided as a reference to be used with the *VITA Course Book.* Publication 579S, *Guia para preparar la declaracion del impuesto federal sobre ingreso personal,* is used as a Spanish language reference.

To receive information about obtaining the materials and about VITA, contact the VITA Coordinator at your regional IRS office.

Working in Jackson Mall, one of the busiest spots in town, student volunteers from Jackson State University attract low-income taxpayers needing their services and show townspeople that students contribute to the community.

their commitment of a minimum of two hours of service for approximately 10 weeks. The major reasons for dropping out are a lack of confidence in handling the work, a heavy course load, and conflicts with part-time jobs. Those who stay with VITA often contribute many extra hours.

By the third year T-VI had become a community tax center serving elderly, Spanish-speaking, and other low-income citizens. Students tried to keep the center open from 8 a.m. to 8 p.m., but conflicts with their class schedules made this difficult. This year the coordinator encouraged community volunteers who took a VITA course at T-VI to work with the students. Only five of 35 did, but they worked hard and well with T-VI volunteers, many of whom are adults returning to school.

Half of the students work in community centers close to their own homes rather than at T-VI. Some work in Indian pueblos. Volunteers also go to disabled taxpayers' homes. Though T-VI has made no special effort to recruit bilingual volunteers, many of the students speak both English and Spanish and are on call when the need for a Spanish-speaking assistor arises. Most of the relevant IRS material is available in Spanish (see box on VITA training materials).

Volunteers choose the time they wish to work and are unsupervised. If they need assistance on a tax question, they call an IRS or T-VI staff member who has volunteered to act as a consultant. The volunteers turn in the forms to the coordinator for checking and mailing. She writes memos to the group listing common errors or giving useful information as the need arises.

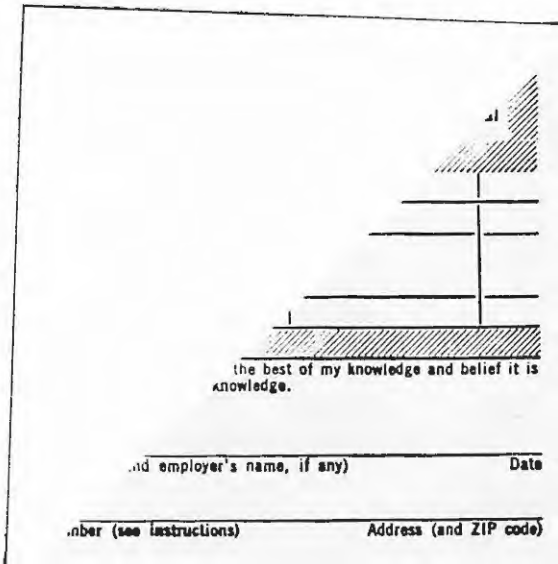
The students at the T-VI center provide assistance to 150-200 people a week during the tax season. In 1978, during their first week the volunteers helped clients apply for $18,000 in federal and $7,000 in state income tax refunds. Plans for 1979 include adding a VITA training course for 35 more volunteers and turning over to them responsibility for checking and mailing.

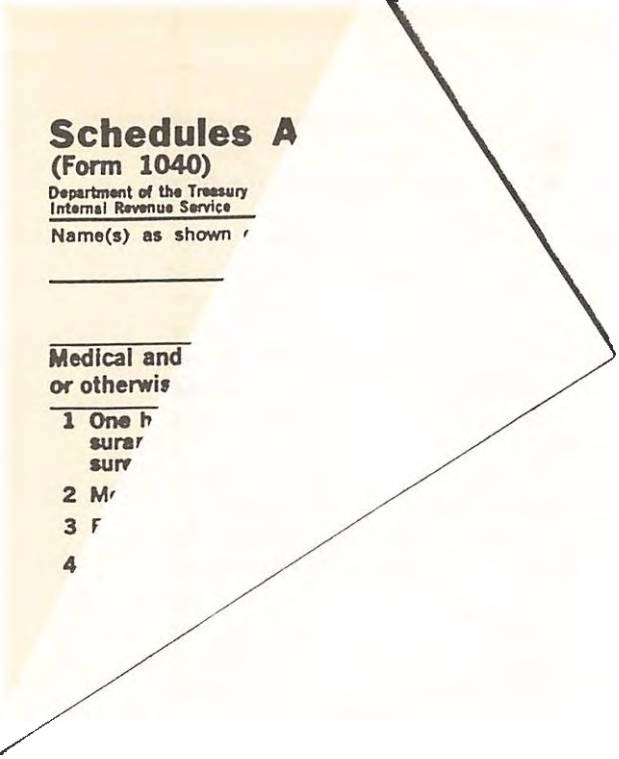
Mary College. The Accounting Club of Mary College began assisting with tax returns as a community service even before becoming a VITA program. Each year the members vote on whether to continue the project, but the positive outcome of the vote never has been in doubt.

Students receive much of the VITA training in a credited tax class. At one time volunteers also received an hour of credit for their community service, but the school no longer grants credit for volunteer work related to students' major subject areas.

Virtually all accounting majors (usually about 35) in the 800-student church-affiliated college participate. The seniors interview clients and prepare the returns while juniors copy returns and provide clerical backup. The faculty adviser checks the returns to insure accuracy and to determine the types of mistakes he needs to discuss with students in their weekly meetings. The system requires that clients come back a second time in order to pick up their completed forms, but none have complained. Perhaps this is because the students work in the conveniently located senior citizens' building in the downtown area. Their hours are from 5 to 9 p.m. Tuesday and Friday, from mid February to mid April. Each team, a junior and senior, works at least two hours a week.

Most of the 120 plus returns the students handle are routine, but in 1978 the assistors found themselves doing lengthy research in order to file a correct return for a woman recently widowed and unable to provide figures vital to calculating her taxes. She was so satisfied with the students' efforts in completing the return that she sent in two friends with similar problems.





The adviser believes that solving problems for such clients is excellent professional preparation for students who previously have dealt only with academic exercises.

Jackson State University. One of the oldest VITA programs in the country is at Jackson State University. Here students, usually accounting majors, may participate on a credit or non-credit basis. Those who do not desire credit take only the 24-hour VITA training offered by IRS on Saturdays in October and November at the University. To earn three hours of credit, students enroll in Survey of Tax Law, attend the VITA training, and work at one of the two sites at least three hours a week for almost three months.

In this program students work particularly closely with IRS staff members, especially those who are part-time faculty at Jackson State. IRS personnel review the students' work (some 400 returns a week) for accuracy and often are on hand to assist with difficult problems, particularly at the Jackson Mall site.

Though located near a low-income neighborhood, Jackson Mall has some of the city's nicest stores and attracts shoppers from every economic level. Meeting such a broad spectrum of the general public adds scope to the students' experience and improves the citizens' image of both the students and the University. Making a positive impression is particularly important in this southern city because most of the assistors are black students. At the same time, VITA contributes to volunteers' self-image and confidence.

Student interest in the program has grown dramatically in the last three years. One reason for this is that many former VITA volunteers have gone into business preparing returns for taxpayers earning more than $10,000.

Allegheny College. Allegheny Community Exchange (ACE), the student volunteer group at Allegheny College, is the primary impetus for VITA in Meadville, Pennsylvania. IRS provides training (12 hours offered at night over two weeks in February) and materials, the College gives meeting space, and the volunteers take care of scheduling, transportation, and coordination. Faculty members are available for consultation.

Many of the students who take part in VITA are political science, economics, and math majors who have not volunteered for other activities. They sign the standard ACE commitment form, which obligates them to give two hours a week for approximately six weeks to the VITA program. Up to 50 volunteers may take part in the program, working at four sites and making house calls for those unable to come to the sites.

Two of the sites are malls, one serving mostly Meadville residents and the other drawing many shoppers from the rural communities in the area. The other two sites are a senior citizens' center in a residential area and a human services organization. Usually the volunteers work on Tuesday and Thursday nights and Saturday afternoons.

The students and the community have responded well to VITA, with many repeaters both among the volunteers and the users of their services.

As these five programs show, VITA may be adapted to large and small colleges in urban and rural communities all over the country. The common denominators for the programs are that they serve low-income and disadvantaged citizens, give students personal satisfaction and valuable professional training, and win college and community approbation.

Recently IRS has recognized the usefulness of student volunteers by making a special effort to assist colleges in establishing new programs. Those who wish to set up or expand VITA programs in time to prepare 1978 returns should contact their regional IRS VITA Coordinator as soon as possible. □

For Secondary Schools: Understanding Taxes

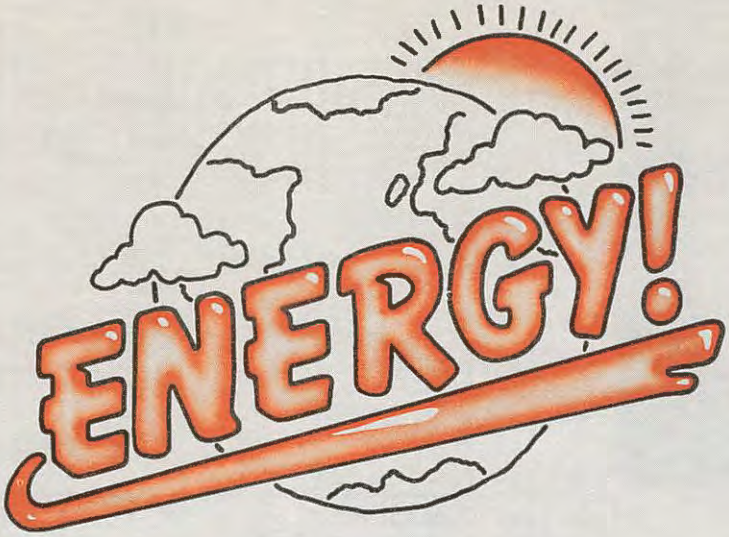
Senior high school coordinators interested in establishing a student volunteer program may obtain IRS program materials and teaching aids prepared for a program called Understanding Taxes.

The principal or department head should request the materials from the IRS District Understanding Taxes Coordinator on Form 1742 by November 1. Delivery will be made in January. The program materials consist of:

- *Understanding Taxes — General Edition* (Publication 21), a text covering a history of U.S. taxation, a summary of the Federal budget, and lessons on preparing tax forms;
- *Understanding Taxes Farm Supplement* (Publication 22);
- *The Teacher's Guide* (Publication 19), which includes sample lesson plans, solutions to problems in the other two publications, and blowups of the tax forms;
- *Your Federal Income Tax* (Publication 17), a comprehensive reference on tax return preparation.

The Coordinator also has available two video tapes or 16mm movies: *Money Talks,* a 26-minute history of taxation, and *Tax Rock,* a 14-minute explanation of the IRS.

For further information, contact your IRS District Understanding Taxes Coordinator.



Energy Conservation

With the grace and enthusiasm of a bear rousing from its winter sleep, the nation is waking from its dream of endless abundance to the cold reality of the energy crisis.

Since lines formed at the gas pumps several years ago, Americans have been vaguely aware of trouble ahead. Government and private groups formed to conduct studies and compile bibliographies on the need to conserve, to research alternative sources of energy, and to organize new agencies or departments.

Now, signs in Washington (source of policies and funds) and around the country (source of ideas and doers) indicate the time for action has come—almost.

Recent polls show that the general public is not yet ready to accept the energy crisis as anything but a rumor spread by alarmists. So a few schools had to close last winter because of lack of fuel. So a few old people froze to death because they couldn't pay their fuel bills. So gasoline has gone up 20 cents a gallon. The lines at the gas pumps are gone—everything must be all right.

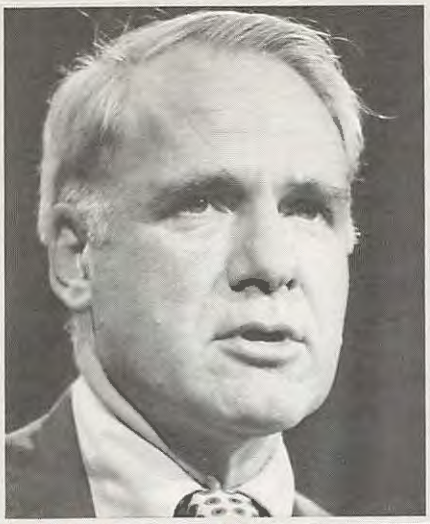
In the following pages are articles about student volunteers who know that energy conservation is essential and are working to arouse their communities before the dream turns into a nightmare.

Significantly, most of the student volunteer energy conservation projects discovered in *Synergist's* nationwide search are new. Many are serving as pilot programs for their district, state, or even the nation. These projects are tapping new sources of youthful enthusiasm, financial support, and community concern to attack such major problems as public awareness, design and use of economically feasible appropriate technology, weatherization of homes, excessive use of automobiles, and utility rate structures and policies. In the articles in this section:

- Energy Secretary James Schlesinger, the Guest Speaker, calls for student volunteers to lead the way toward conserving our resources and using them to establish a more satisfying style of life;
- College and high school students in the Michigan Energy Extension Service's pilot program offer some ideas on reducing student driving and making the community aware of the need to conserve energy;
- Clark University students operate a free information service called the Energy Phone for the residents of Massachusetts;
- Gifted seventh and eighth graders in Fort Myers, Florida, have designed and are building a solar classroom that will serve as a community model;
- Members of the Public Interest Research Group in Buffalo are conducting a campaign to keep utility rates down and to avoid shut-offs for elderly and other low-income citizens;
- Students for Mass Transit in Jacksonville, Florida, make sure city officials know what is happening with public transportation, and that the public knows what city officials are doing about it;
- Students from the University of Virginia have turned a part-time clean-up program into a full-scale housing rehabilitation program that may serve as a guide for those setting up weatherization programs;
- Junior and senior high school students in Pennsylvania's Energy, Economics, and Environment (E3) program are auditing home energy use, conducting community awareness programs, and installing a solar collector;
- Sources of funding, information, and advice are listed in Resources.

Those assuming an active role in energy conservation remain a small minority, but that minority is likely to increase greatly in the next few years. One simple reason for the growth will be newly available money—coming mostly from federal coffers but distributed largely through state and local governments and nonprofit organizations. Innovative—or merely workable—ideas for energy conservation projects are in demand now as never before.

The alarm is about to go off.



Guest Speaker

James R. Schlesinger on Trends in Energy

Just after World War II a group of Japanese jurists came to this country to study the American legal system. When they were about to return to Japan, a reporter asked them, "What impressed you the most about the United States?" One of the judges replied, "The size of the garbage cans."

That era in our national life—an era symbolized by the overflowing garbage can—may be ending. Faced with the harsh realities of less abundant and more expensive energy, we may be forced to abandon our opulent, careless, wasteful habits. But the news is not all bad. The necessity to conserve our resources and use them more efficiently could lead us to a cleaner, simpler, more satisfying style of life.

As often is the case in trends, young people are leading the way. This issue of *Synergist* features several service-learning projects related to our national effort to balance our energy accounts. I applaud these initiatives, and I'd like to encourage student volunteers to undertake more of them. No activity could be more vital to our country's future.

James R. Schlesinger is the first Secretary of the Department of Energy, which was activated October 1, 1977.

The Department of Energy has several programs directed to students and teachers. These include traineeships for graduate students, summer workshops for teachers, curriculum materials packages for all levels, and technical guidance for such youth activities as science fairs. (See Resources for listings of DOE programs, publications, and films.)

Of the 10 states operating pilot programs of the Energy Extension Service (see article on the facing page), three have launched projects that involve students and teachers.

In Michigan 50,000 students are participating in projects that range from dramatic sketches on energy themes to student-conducted energy audits of homes and transportation.

More than 30,000 4-H Club members in New Mexico are applying new and old energy conservation practices on farms and ranches. Their clubs have helped about 1,000 elderly and handicapped rural residents weatherize their homes. Now these students are learning how to apply wind and solar energy in farm situations.

In windy Wyoming, 25 high schools have set up monitoring stations to measure solar radiation and wind velocity. Students in energy conservation courses operate the equipment, collecting valuable data for future planning.

All across the country there is a growing awareness that the nation's energy problems will be with us for a long time to come. Student volunteers are translating that awareness into action.

Almost 80 years ago Thorstein Veblen, in *The Theory of the Leisure Class,* first used the phrase "conspicuous consumption" to describe the life style of the wealthy. In the intervening years, conspicuous consumption has permeated our society.

That profligate way of life may be coming to an end. All about us we can see evidence that Americans are changing their life style. If we can move from a society that emphasizes consumption to one that stresses use, we will have traveled far toward an energy-efficient society.

The real breakthrough in solar heating will be made when it becomes fashionable to have a solar array on your roof. We shall have lighter, more fuel-efficient cars when gas guzzlers are regarded as passé. We shall have energy-conserving buildings when people realize that it is ridiculous and dehumanizing not to be able to open a window and let in the spring breeze.

The younger generation of any period is always in the vanguard of change. In our time, young people can do the nation a service by accelerating the trend toward a new American life style, one that is cleaner, simpler, healthier, more aesthetically pleasing. Our designs may be more Shaker than Victorian. Our buildings and machines may be more to the human scale. Our tastes may be educated to reject the overblown, the grandiose, the useless.

We will be consuming less, but enjoying it more. □

Catching the Conscience

By Karen M. Longe

Students use theatre of the absurd to promote energy conservation awareness in the Michigan Energy Extension Service's pilot program.

The time: An energy-depleted era.
The place: A beauty parlor.
The characters: A woman having a cut and set, a long-toothed barber, and three hair driers.
The action: The barber bites off the hair; two driers spin the customer while the third blows on her wet hair.

College students created the above scene to present to high school audiences. After performing several comedy sketches portraying a world in which energy sources have been exhausted, each of the actors meets with small groups of secondary students to help them plan energy conservation campaigns.

This participation drama project is part of a pilot program in Michigan, one of the 10 states receiving federal grants from the U.S. Department of Energy to develop an Energy Extension Service. The other 40 states and the territories have received grants to enable them to monitor the pilot programs and by October will have received guidelines for proposing their own Energy Extension Service programs. Those interested in making proposals for student volunteer projects should contact their state energy offices immediately.

Of the pilot programs, Michigan's Youth Energy Project makes the most extensive use of students' talents. Carrying out the Project has been a collective effort of the Cooperative Extension Service of Michigan State University (MSU) in East Lansing, and the Michigan Energy Extension Service (EES), part of the Michigan Energy Administration, Department of Commerce.

MSU works closely with selected secondary school systems and with 4-H Club members and leaders, a group to which the Cooperative Extension Service has provided information and technical assistance for many years. The pilot programs began operation last spring in five regions of the state. As various programs and techniques are tested and perfected, they will be expanded statewide. (Those needing the information immediately should contact their state energy offices or the author: Karen Longe, Youth Project Coordinator, Energy Extension Service, 209 Hollister Building, Lansing, Michigan 48913.)

The objectives of Michigan's EES youth programs are:

- To develop an energy conservation ethic in 50,000 high school students and
- To reduce by five percent the energy consumption of 50 percent of those teen-agers' families.

The goals were selected, in part, because: high school students are high energy users; they are capable of encouraging and instituting conservation practices in their homes; and they soon will be establishing their own households and will need to know how to make wise decisions on energy use.

To determine effective ways to encourage energy conservation, regional coordinators based in county

Human hair driers spin and blow on the customer in a spoof on the energy crisis.

Karen M. Longe is Youth Project Coordinator of the Michigan Energy Extension Service. A former elementary school teacher, she is secretary of the Michigan Environmental Education Association.

extension offices work with regional advisory committees (and a statewide committee) made up of students, educators, community leaders, power company officials, business executives, and any other interested citizens. Initially the goal of each committee is to identify people who are interested in finding ways of dealing with the problem of promoting wise energy usage as it relates to local areas.

In addition to serving on the advisory committees, student volunteers bear the primary responsibility in two types of projects: No Drive Drives and Teen Awareness Teams.

A group of seven undergraduate and graduate students in MSU's Department of Theatre developed the idea of No Drive Drives because they had read figures on teen-agers' high use of energy in driving—and because they knew how crowded student parking lots are.

Using modern drama techniques in which actors are also parts of the set and rely more on sound and movement than dialogue, the students produced several scenes showing what the future would be like if energy sources are exhausted. The scenarios feature the aforementioned beauty shop, dentistry without electric drills, lawn mowing by sheep, a once-a-month showering team, and—to introduce the No Drive Drive—car pooling on a human bus.

Last spring the students presented their conscience-catching plays to social studies classes in 10 high schools. After the presentation the actors conduct workshops to prepare students to hold one-week No Drive Drives at their schools. Among the ideas on how volunteers may involve the rest of the student body and the faculty are:

- Brief skits or pantomimes based on such sayings as "Driving is fun with one but great with eight";
- A ride board with information on using public transportation (*e.g.* bus routes and schedules) and on car pooling (rides offered or requested);
- Publicizing the campaign through posters, buttons, and public address system announcements.

The day the MSU students present their plays, the regional coordinator counts the number of cars in the school's parking lot(s). Student volunteers have as their campaign goal reducing the number of cars parked there. As an incentive, EES awards a $500 prize to the school which reduces the number of cars by the biggest percentage at the end of the week. The prize must be spent on something to benefit the entire school.

MSU has tentative plans for weekend workshops for anyone around the country interested in initiating similar programs. As envisioned in preliminary planning, the workshops would be free, and participants would have their transportation financed through the planning grants received by their home states. For additional information, contact Dr. John Baldwin, Department of Theatre, Michigan State University, East Lansing, Michigan 48824 and your state energy office.

A human bus represents car pooling.

The other major approach used in the Youth Energy Project is an adaptation of cross-age tutoring called Teen Awareness Teams. A team is composed of from three to five student volunteers and an adult facilitator. At weekend workshops these teams receive training related to group problem solving, energy information, presentation skills, and the energy situation in Michigan.

As a culmination of the training, teams prepare a presentation for the rest of the conferees. The types of presentations vary according to the talents and resources of the teams, ranging from speeches to audio-visual shows, pantomime to puppetry. The teams adapt the presentations for students at all levels, school boards, and local community groups.

During the summer, volunteers—many of them 4-Hers—took their messages to students and the general public in such places as camps, shopping malls, and fairs.

This school year action teams may be added to the program. These teams would receive the same training as members of Teen Awareness Teams but also would learn to do such energy-saving tasks as window caulking and weather stripping.

Students are participating in the Youth Energy Project in other ways: by learning about energy conservation in such diverse curriculum areas as science, math, home economics, shop, drivers' education, and environmental education (EES holds special workshops for teachers); by conducting home audits to find out how their families can save energy and money; and by conducting transportation audits and taking steps to curb gasoline consumption.

Because the program is new and may serve as a model in Michigan and other states, evaluation is extremely important. The Michigan EES evaluator is using known tools and techniques and developing new ones, including an energy conservation ethic questionnaire distributed in randomly selected secondary schools last spring. MSU students also are helping with the assessment. One graduate student has developed an evaluation plan for a Teen Awareness Team Project as the topic for her thesis. (Additional information on evaluation is now or soon will be available from Dr. William F. Stevens, Evaluation Specialist, Energy Extension Service, 209 Hollister Building, Lansing, Michigan 48913.)

Even in the early stages of the pilot program, the Michigan Energy Extension Service has learned much that should be shared. One teen-ager spoke for many in noting what he had gained: "I learned that teens *can* do something about the energy problem if we really want to." □

Energy Phone

Clark University students answer energy conservation questions on a toll-free telephone line.

To find out how to choose an insulation contractor, install a solar collector on the roof, produce electricity with a windmill, lower a car's gas consumption, or do anything else to save energy, residents of Massachusetts call the Energy Phone.

Thirty students from Clark University, Worcester, answer as many as 4,500 calls a month on the toll-free telephone service operated by Clark under contract to the Massachusetts Energy Policy Office (EPO).

Funded through a $60,000 grant, the Energy Phone is the first statewide service of its kind in the country. Students—each working (for a minimum wage) nine hours a week—keep the service operating 12 hours a day, every day, all year around.

When starting the project a year ago, Clark University accepted only students who had taken or were taking courses related to energy issues and technology. EPO set up for them a basic two-week training course focusing on such major energy conservation concerns as home auditing, insulation, weatherization, and alternative (appropriate) technology, particularly solar devices.

The students were not really ready, but the phone was ringing. Sometimes callers asked questions to which no one had a ready answer. Faculty members and EPO staff provided assistance with difficult questions, but obviously students had to increase their knowledge, gather information, and devise a retrieval system before cold weather spurred residents to keep the lines busy.

The students formed committees to do research and build files on important topics, such as winterizing homes and solar heating. Most of this effort was supervised by Clark's Science, Technology, and Society faculty as part of its independent study program; students received one semester hour of credit.

In one of the major projects, five students developed an easy-reference energy manual with a fact-sheet format for use on their energy hotline.

This year—having developed resources and learned what students need to know to answer the majority of queries—Clark requires students to complete a one-semester course in home energy conservation before they say hello on the Energy Phone.

While working on the Energy Phone, students meet regularly with the coordinator, Dr. Dennis Ducsik, and the Faculty Advisory Committee to discuss difficult technical questions and the special projects on which individual students or groups are working. The University schedules seminars occasionally to bring students up to date on energy issues or technical advances.

The Energy Phone has proved useful to many more people than those who have called in. The students' logs and monthly reports on questions they have answered have helped EPO pinpoint consumers' needs and, consequently, to shape state programs to meet those needs. In one case, for example, the Building Code Commission is using the students' data from telephone queries to conduct a survey of fraudulent practices in insulating homes. The survey may lead to new legislation protecting consumers.

The Energy Phone has been a big success with the students who run it, too. No one has dropped out. Some of the Energy Phone veterans found full-time summer jobs as consultants to insulation contractors and other energy-oriented firms.

Will the Energy Phone be a model for projects in other states? Perhaps, but Dr. Ducsik cautions that students must have substantial technical training and access to information to operate such a project properly. They also must have sufficient funding to pay for such necessities as telephones, work space, and office supplies.

Student volunteer groups which do not have adequate resources for such a comprehensive Energy Phone may find it feasible to undertake more modest projects. High school as well as college groups may perform a valuable service by answering local calls on one important topic, such as weatherization, for a few hours a week. Schools, utility companies, service clubs, and state energy offices have provided support for such projects in various parts of the country.

As the Clark University students discovered last year, many people want information on energy and don't know where to find it. At Clark, the bells are ringing. □

Solar Pioneers

By Bill Hammond

Having designed a model low-cost solar building, gifted middle school students are turning to the community barn-raising concept to build it.

In Fort Myers, Florida, 98 gifted or academically talented seventh and eighth grade students from eight Lee County Schools have designed and—with some assistance—are building a solar classroom that will serve as a model for low-cost energy-efficient homes. They are showing that designing buildings to maximize the use of natural climate, the sun, and low-consumption technology has become an economical, practical solution rather than an exotic option.

The idea for the project grew from the group's urgent need for a classroom in which to meet for the Major Work Area program at the Environmental Education/Nature Center complex. Groups of 20 come to the Center for a full day of classes once every other week. With their teachers, Barbara Hamilton and Ruth Ann Hortman, the students decided that, like their pioneering great-grandparents, they must solve their classroom space problem themselves. At the same time, they would be presenting feasible alternatives to those most affected by the continuing rise in the cost of energy.

Since school budgets are very limited, the solution had to be a low-cost building that could demonstrate to the community energy- and money-saving building techniques and design while providing 1,200 square feet of usable space.

To complicate matters, the design had to take into consideration the fact that the building would be constructed by the students, their parents or other community volunteers, and—with their time and capabilities exhausted—possibly high school trade and environmental seminar classes. Funds being limited, construction (not completed at press time) has had to depend heavily on community donations (often in the form of materials, labor, and advice) and grants from private companies and governmental sources.

Turning the need for a low-energy design into a reality has been an exciting and productive educational experience for all involved.

First the students spent two months researching the problem in books and magazines and interviewing community resource people. Soon the students became involved in hands-on, do-it-yourself experimental projects, such as building and using solar cookers and distilling water with the sun. They studied the practical applications of wind power, composting toilets, water spray evaporative cooling systems, and wood-burning heat systems. They took field trips to a new solar-heated bank and to a home where the owner had developed his own solar furnace, home evaporative heating and irrigations systems, and many other practical inventions.

Once the students became knowledgeable in the fundamentals of solar and low-energy design processes, they were ready to begin the actual design of their classroom building.

Local architects agreed to help. Each school day for one week an architect or team of architects from a different local firm presented, explained, and discussed with students alternative design concepts. Each day was different in terms of the architects' and students' approach to design and the interaction of the professionals and the amateurs. The sessions were a tremendous career education experience for the students—and for architects and teachers.

At the close of each day with the architects, the homework assignment for each of the five classes of Major Work Area students was "to build a working scale model of an energy conserving and self-sufficient building with approximately 1,200 square feet of working space in which you would like to go to school." Students received the option of working alone or in pairs on their models.

Two weeks later models of varying shapes, sizes, and design appeared. After individuals or teams presented and explained the functioning concept of their models, the classes began to list and compile the design ideas which they liked from the models shown. This compilation provided the basis for the design of a model which incorporates many of the most desirable of the characteristics of the first-phase scale models.

Passive energy systems utilizing the sun for heating are very practical in the south Florida area as temperatures rarely get below freezing. Cooling is the primary problem. Since the rainy season corresponds to the hottest months, an evaporative cooling system using recycled rainwater, wind-driven ventilators, carefully placed landscape plants (one large oak tree can pro-

A More Modest Proposal: Solar Greenhouses

Numerous student groups across the country are designing and constructing—or helping others to construct—solar greenhouses.

Those wishing to initiate such a project may request building plans and a materials list for the construction of a low-cost model greenhouse from:

East Tennessee Community Development Center
1522 Highland Avenue
Knoxville, Tennessee 37916.

A workshop packet also is available from:

New Mexico Solar Energy Association
P.O. Box 2004
Santa Fe, New Mexico 07501.

Bill Hammond is coordinator of Science and Environmental Education, Lee County Schools, Fort Myers, Florida.

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vide the cooling of 10,000 BTU's) and good cross ventilation using prevailing breezes combine to provide a passive cooling system.

When the design was agreed upon, students, architects, parents and interested community members met all day one Saturday to determine the site and orientation of the building. Those attending formed four student-adult teams and searched the grounds of the 105-acre Environmental Education/Nature Center to find the best possible site. In choosing it they used aerial photographs showing the terrain and a list of criteria that included impact on vegetation, future expansion needs and plans, security, practicality of access and communication, openness for wind and solar energy sources, and available natural vegetation for cooling.

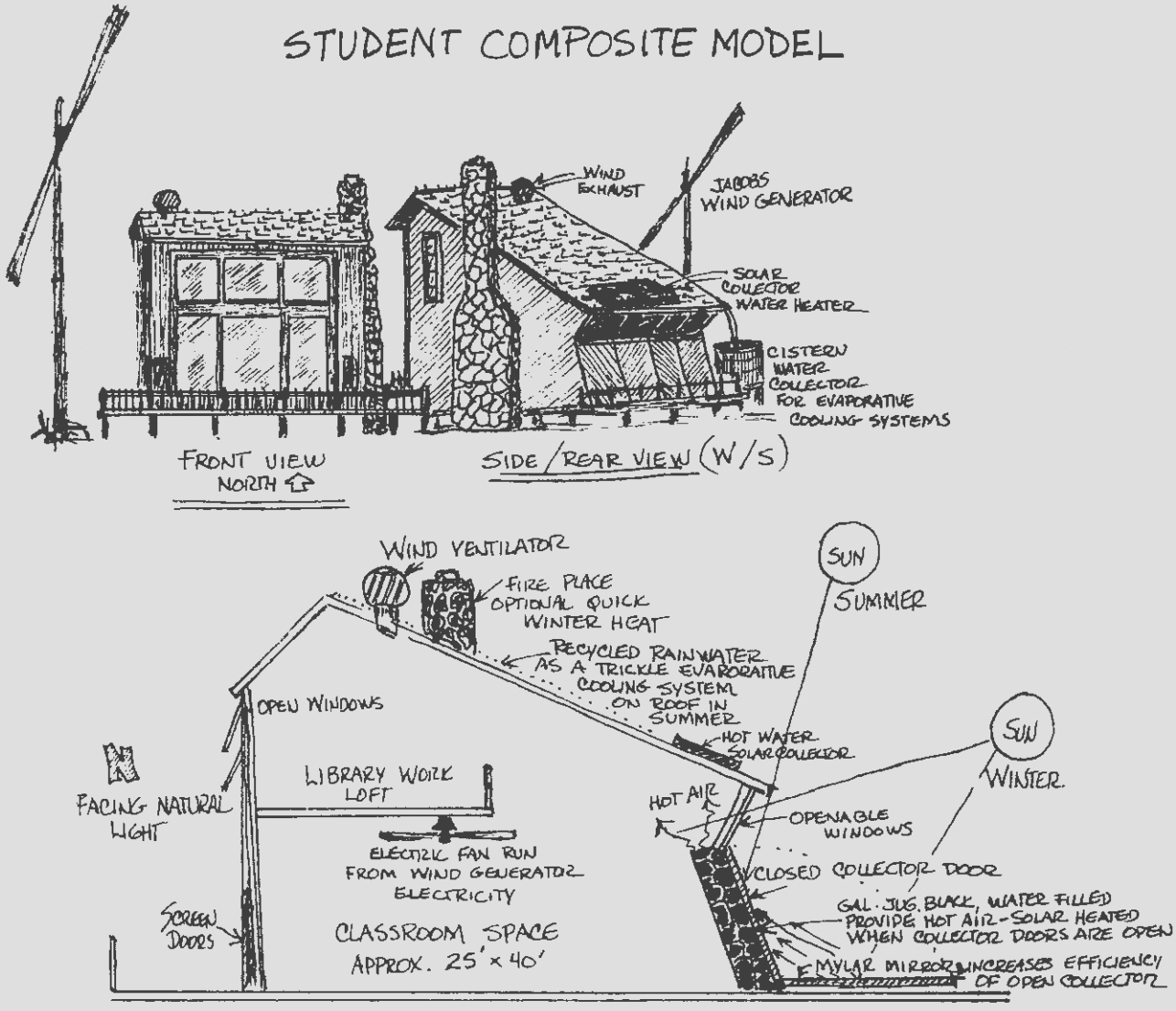
Students and staff then busied themselves seeking out funding. Major support is coming from Florida Power and Light Company, which will require students to carefully monitor such technical and financial results as exterior and interior temperatures and the operating and construction costs. Local businesses have been generous in donating needed supplies and materials.

The building of the facility now becomes much like an old-time barn-raising activity, with members of the community offering to pitch in and make the low-energy classroom building a reality before classes are under way this fall.

The project won't end there. If the application for a Florida Department of Education Environmental Education Mini-Grant for $5,000 is approved, students will develop a multi-media slide/tape show and a series of community how-to-do-it booklets based on their experiences with native plant landscaping for energy conservation, energy conservation design techniques, organic gardening, and waste collection systems. A student speaker's bureau on these topics is being established, and students are preparing to go out and speak to civic and community groups and organizations.

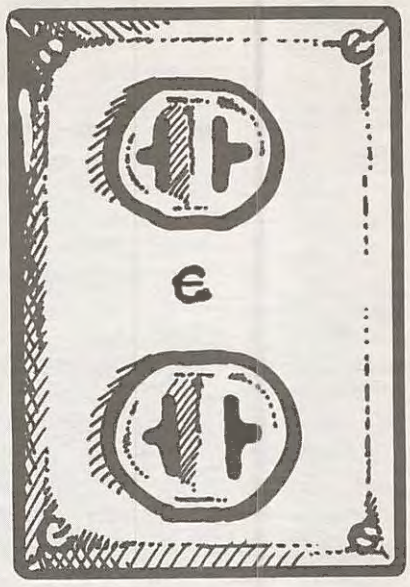
The former eighth grade participants will have moved on this year, but the former seventh graders will provide continuity as a new group twice the size of the pioneers enters the program.

These middle school students—potential leaders—are using mental and physical skills and a synergetic community approach to create a valuable, practical community model. Designing and building a solar classroom has been exciting for all—young and old, skilled and unskilled, community members and teachers. By sharing skills and labor, they have built a community model with a conservation ethic, have saved today to assure many tomorrows. □



The Boycott in Buffalo

College students in Buffalo are leading the nation's first gas bill boycott and conducting research for use in reforming state utility laws.



For the people of Buffalo the winter of 1977 brought 20-foot snowbanks, untold physical and economic hardship, and record utility bills.

For the city natural gas utility, the National Fuel Gas Company, the winter of 1977 meant record-shattering profits.

When the utility asked for another major rate increase, the Buffalo chapter of the New York Public Interest Research Group (NYPIRG) decided it was time for direct action by consumers. That action led to the nation's first gas bill boycott, one which the City of Buffalo strongly endorsed.

NYPIRG—part of a national network of student-directed advocacy organizations—has been battling the utility on a number of fronts since 1976.

As background to its campaign to seek reduced rates, NYPIRG sought the right to inspect the utility company's financial records. In August of 1977 the New York Public Service Commission in a landmark decision granted NYPIRG access to the records. As a result, the advocacy group was able to delay an earlier rate hike for four months—an action that in itself saved Buffalo consumers approximately $3 million.

At the same time student volunteers from the State University of New York and State University College took the campaign to the people, going door to door collecting signatures on a petition requesting a $1.5 million rebate to consumers from the company's "excessive" profits.

When the rebate petitions did not produce results, NYPIRG asked citizens to boycott National Fuel Gas by putting their fuel bill payments in an escrow account administered by NYPIRG rather than sending them to the company.

Volunteers distributed flyers telling boycott participants what to do with their bills and held bill collection days once a week at the entrance to the company's offices. The students organized campus boycott campaigns, publicized the boycott by mail and telephone, and transported people to public hearings.

More than 700 consumers, including 100 students, joined the boycott.

The biggest boost to the campaign came this past February when the Common Council voted 12-2 for the City of Buffalo to join the boycott. A factor in the overwhelming vote was the campaigning by a council member who is a NYPIRG organizer.

When boycotters began to be threatened with cut-off notices for unpaid bills, the boycott participants met and decided to continue in a modified fashion. State law in New York specifies that shut-offs can be ordered only if customers are more than $50 in arrears. The boycotters decided to keep an amount of $17.76 unpaid in their bill as a symbolic means of continuing the campaign.

Meanwhile in Albany, the state capital, student interns from two Buffalo colleges are conducting research for NYPIRG's 1978 legislative program. The program includes legislation to provide Lifeline rates (a fixed price for the first several hundred kilowatt hours of electricity used per month, a pricing system designed to aid low-use and low-income consumers), to assure due process protections prior to shut-offs, and to establish the Residential Utility Consumers Corporation, which would work for lower rates and better service.

Working under a one-semester internship program for which they receive 12 to 16 credits, the students do research, write memos, and confer with the bill's sponsors. Past successes to which students have contributed include the NYPIRG-sponsored home insulation legislation enacted into law in 1977.

It is too soon to know whether the student volunteers working with Buffalo's NYPIRG chapter on utility advocacy projects will achieve all their goals, but they are being heard at the state capital, and at National Fuel Gas Company. □

For additional information on NYPIRG's utility advocacy program, contact Kenneth E. Sherman, Regional Coordinator, NYPIRG, Inc., 295 Main Street, Room 1075, Buffalo, New York 14203 (716-847-1536).

Model Utility Regulations

The following material on model utility regulations is adapted from a recent issue of "VISTA Currents," an ACTION publication.

In recent years the rising cost of utilities has imposed financial and physical hardships on those with fixed incomes. Many unemployed mothers and senior citizens have had to decide whether to pay fuel bills or to buy food.

Community groups with student components have organized to advocate measures which may alleviate—or at least ameliorate—these hardships. Primary concerns have included rate reform (rate increases and methods of charging residential consumers) and customer service policies (*e.g.* conditions for shut-offs and the right to appeal termination notices).

To make changes, advocates generally must bring their cases before a state utilities (public service) commission and possibly the state legislature or even the courts. Most victories are hard won.

Before beginning an action, student volunteers and the community groups with which they are working need to check the utility company policies and state regulations.

The Massachusetts regulations governing electric, gas, and water companies are a good example of a comprehensive and fair customer service policy. Adopted by the state Department of Public Utilities after several years of advocacy work by the Massachusetts Law Reform Institute (2 Park Square, Boston, Massachusetts 02116), these rules are among the most progressive in the country. The major provisions follow.

- All deposits for residential customers are prohibited.
- No utility bill is due in less than 45 days. If the period between billings was more than 45 days, the bill does not become due until that period again elapses.
- Any portion of the bill disputed by the customer is not due while a complaint, investigation or appeal is pending.
- At least every other bill must be from an actual reading of the meter, not an estimate.
- Utility services may not be terminated before the current bill is due. Notice must be given at least 72 hours prior to termination of gas or electricity and 36 hours prior to termination of water.
- Shut-offs can only be carried out during regular business hours Monday through Thursday so that customers have an opportunity to get service restored without delay.
- All bills and termination notices must carry an explanation of the customer's right to appeal. All notices must be in languages other than English where appropriate.

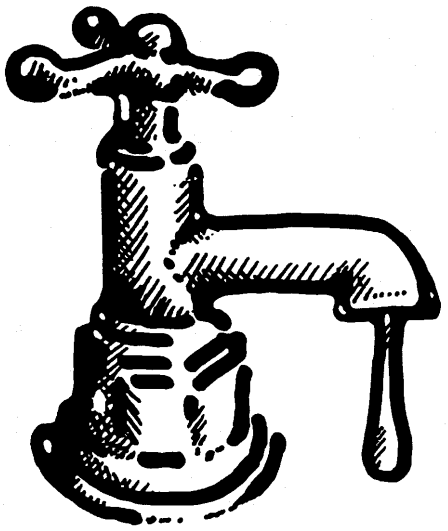
The appeals process begins with a complaint to the utility. The company must supply the customer with a written notice of its determination regarding the complaint. An appeal can then be made to the Department of Public Utilities, which will investigate, allowing both sides an opportunity to be heard, and make a ruling. If dissatisfied, the customer can request a formal hearing.

No utility may terminate or refuse to restore service to a household where someone is seriously ill. The customer must provide a Department of Health or doctor's certification of the illness.

No utility may terminate service to a household where all residents are 65 years of age or over without written permission of the Department of Public Utilities.

- In cases where service is to be terminated due to a landlord's failure to pay, tenants will be given the opportunity to maintain service by paying their portion of the next billing period's projected bill. This payment may then be deducted from their rent.
- The Department of Public Utilities can require a utility to enter into a deferred payment plan with a customer who owes back bills.

Successful consumer advocacy groups suggest building the case by collecting examples of the impact of arbitrary policies, and by documenting cases where shut-offs created hardships, where deposits are applied discriminatorily and where customers have had difficulty resolving disputes with utilities. With



this information in hand, the next step is to ask the commission to initiate proceedings on customer service issues, including public hearings where customers can present their problems and suggest solutions.

Successful community groups also recommend contacting all the other local organizations that might be interested in the issue—older citizen groups, low-income organizations, labor unions, consumer groups. A few consumers going to the commission alone may resolve their own problems, but a large group is more likely to influence the development of an overall customer service policy.

Several states already have regulations protecting utility customers. Fourteen states, for example, have some sort of prior hearing rule which prohibits utilities from terminating service while a complaint is pending. (They are Connecticut, Illinois, Indiana, Maine, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, Rhode Island, Washington, and Wisconsin.)

In Michigan, where a customer bill of rights similar to the Massachusetts rules was adopted in 1974, a study by the Public Service Commission shows that the policies are working well. The cost of administering the new rules is much lower than anticipated, the fear that customers would misuse the provisions turned out to be unfounded, and the rules have had no appreciable effect on the utilities' ability to collect their debts. The Michigan experience is a convincing argument to counter utilities' objections to stricter regulations. □

Moving the Masses

Students for Mass Transit keep Jacksonville informed on the city's public transportation needs and what officials are doing to meet those needs.

"Time to begin," said a balding man to the half dozen officials talking quietly at the conference table. "We're all here."

A city councilman glanced at the dozen citizens who had come for the hearing on public transportation and said, "Let's wait a few minutes. The experts' bus is probably running late again. If we had that people mover——"

The chairman pounded his gavel and growled, "Meeting will come to order."

The councilman started to protest, but he relaxed as three teenagers—their arms full of books and papers—hurried into the room. He smiled at the chairman. "Fire when ready. The reinforcements have arrived."

This kind of scene is likely to take place when city officials meet to discuss any issue affecting mass transit in Jacksonville, Florida.

Since 1974 Students for Mass Transit (SMT), 40 volunteers from Jacksonville's high schools, have been waging a unique long-term campaign to educate their fellow students and the public on:

- The advantages (including energy conservation, reduced air pollution, reduced traffic congestion, and economy) of improved and expanded mass transit;
- Public officials' policies and actions regarding mass transit;
- Amounts and sources of funds for the city's transit system.

Among the weapons in the volunteers' arsenal are a quarterly newsletter, fact sheets, a slide show, and reports on what public officials have said and done. Wielding the weapons is a time-consuming after-school activity for which volunteers have not received academic credit (they may receive half a unit under science or social studies this year). Nevertheless, students from up to 15 Duval County (Jacksonville) high schools compete to enlist in SMT.

As school opens each year, science teachers distribute applications which ask students what courses they are taking and why they want to join SMT. The adviser, William R. Fryar, Supervisor of Science and Environmental Studies for the Duval County Schools, uses the applications to select 40 students (no more than five from a school). Because the volunteers spend the first half of the school year learning about mass transit in general and local mass transit in particular, almost all new volunteers are juniors who will provide continuity and leadership in their senior year.

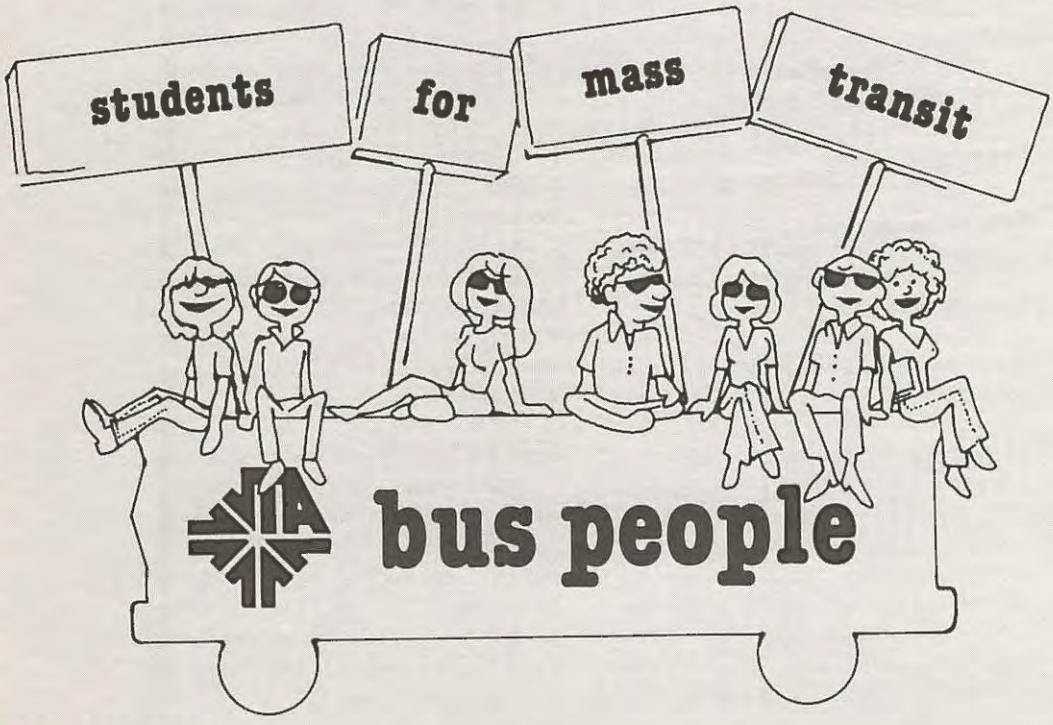
Approximately 15 to 20 usually fail to complete a full year, for the program is a demanding one. The students want it that way. Volunteers can continue to participate only if they meet the following requirements:

- Attendance at biweekly seminars (no consecutive absences permitted);
- Active participation as a task force member and in all special events;
- Minimum score of 90 percent (set by students) in the tests given on material covered in seminars;
- Using the mass transit system and maintaining a log on conditions (adherence to schedule, comfort, drivers' behavior) observed while doing so.

Students attend two-hour seminars every other Wednesday afternoon at the school board's administration building. Most get there, of course, by public bus, using special tickets purchased by SMT with funds from one of several grants.

The first five seminars feature presentations by local transit, planning, pollution control, energy office, and elected officials. Students also study the national picture, mostly through commercially produced audio-visual materials. (Those interested in receiving a list of instructional materials should write to Dr. William R. Fryar, Students for Mass Transit, c/o Science and Environmental Studies Department, Duval County School Board, 1325 San Marco Boulevard, Jacksonville, Florida 32207.)

With basic training completed, the volunteers join at least one and usually two or three task forces. From then on the seminars include time for planning and reporting on the progress of various activities undertaken by the task forces: the Newsletter, Councilmen Visit and



Letters to Congress, Public Information/Promotion, and Special Events.

The Newsletter task force produces the quarterly "Mass Transittopics" for distribution to the community and all Duval County science and social studies teachers. Articles include interviews with city council members and other local policymakers, reports on progress toward the goal of Jacksonville obtaining a federal grant to install a downtown mass transit system called a people-mover, stories on local and federal legislation affecting mass transit. The interviews with local officials are being collected for publication in a booklet to be called "How They Stand."

The Councilmen Visit and Letters to Congress task force concentrates on meeting with selected council members and reporting on their opinions—and the actions they take. This group of volunteers also arranges for city officials to take part in SMT seminars and organizes letter-writing campaigns to influence legislators on mass transit issues.

Preparing and distributing special materials for the general public are the major responsibilities of the Public Information/Promotion task force. A major project has been issuing fact sheets with easily read data on such subjects as pollution, health problems, the cost of owning and maintaining an automobile, and the city's energy consumption.

Many of the materials are distributed to the public by the Special Events task force. At any large gathering this group sets up its portable booth, a wooden structure eight foot tall and brightly painted with scenes of mass transportation. Here the volunteers answer questions and pass out the fact sheets, newsletters, and such other items as SMT buttons saying "Mass transit moves me" or "I get around." Members of this task force also prepare exhibits for such occasions as National Transportation Week. SMT volunteers also give many classroom presentations.

All of these projects take money, and SMT's success is indicated by the relative ease with which it acquires funding. The first year the only sponsors were the Kiwanis Club and the Florida Lung Association, which still give SMT $350 and $250 respectively a year. Fryar recommends that those wishing to initiate mass transit projects approach similar local sources; lung associations throughout the country are concerned with improving air quality and may be receptive.

The Duval County Schools make some contributions, particularly in terms of space and equipment. The major funds (about $3,000) come from a Florida Department of Education's Office of Environmental Education mini-grant.

The single largest annual budget item (roughly $1,500) is printing and reproduction. Another major item has been instructional materials, with SMT having spent about $1,250, primarily on audio-visual presentations that may be used for several years. Other costs include fees for artists who designed publications, a telephone answering service with a recorded energy message, postage, SMT T-shirts and buttons, bus tickets, and partial payment for the adviser's after-hours work.

Fryar considers the funding generous and does not believe that others should hesitate to start similar programs because of limited resources.

An impressive list of cooperating agencies is another indication of the progress SMT has made. SMT has consulted with and/or provided assistance to the Jacksonville Transportation Authority (whose work students monitor constantly), the Energy Office of the Jacksonville Electric Authority, the Florida Department of Transportation, the Urban Mass Transportation Administration, and the American Public Transit Association. Staff members of national as well as local groups have come to observe SMT and to advise on steps volunteers should take.

So far as Fryar knows, SMT is the only project of its type in the country. He and the SMT student volunteers look forward to losing this distinction soon, for they believe that others should carry on the campaign in communities throughout the United States. □

Organizing Home Repair Projects

Once a student volunteer clean-up project, the Charlottesville Housing Improvement Program provides a model for rehabilitation programs.

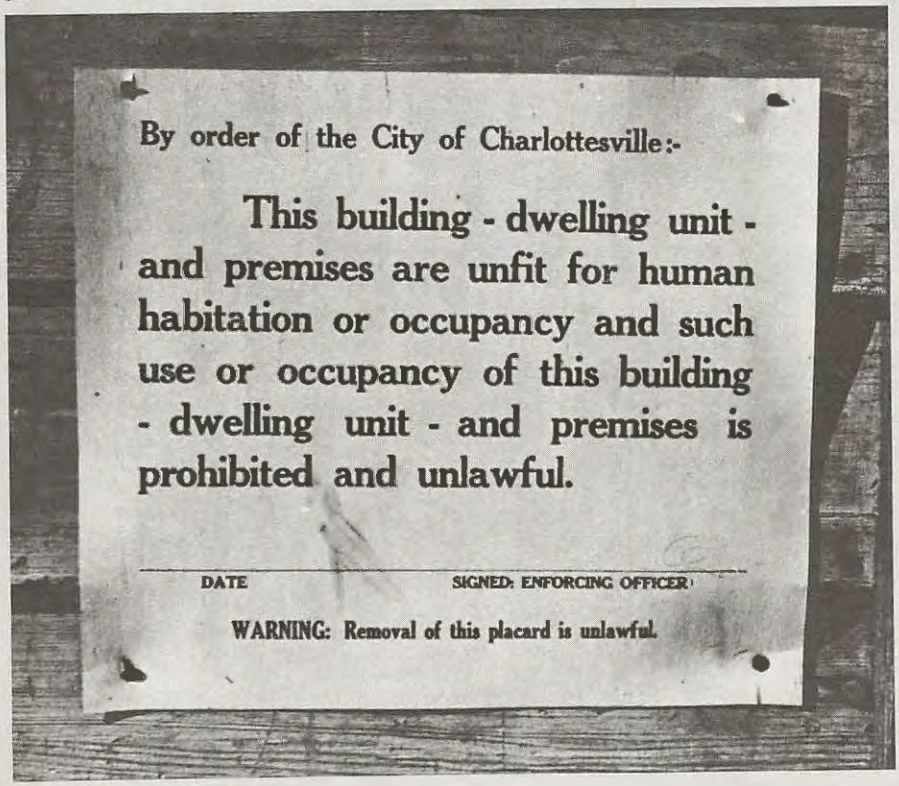
"It's just about the perfect community volunteer activity," says Rick Noble, head of Madison House, the student volunteer organization of the University of Virginia in Charlottesville. He's referring to students pitching in to rehabilitate housing for families who can't afford repairs. Often these involve weatherizing houses in order to save heating and cooling costs.

Most of the student volunteers work with the Charlottesville Housing Improvement Project (CHIP), a separately incorporated offshoot of a Madison House program which originated in 1969. Recently, under a grant from the Department of Housing and Urban Development, CHIP has produced a manual to show other volunteer organizations, or those relying heavily on volunteers, how to set up a similar program.

The basic CHIP program is simple:

- Find people whose homes are in need of fundamental repairs but who can't afford to make them at prevailing commercial prices;
- Plan the work that needs to be done and find a way to finance materials and the licensed subcontracted work (electrical and plumbing) that local regulations require and that owners cannot pay for;
- Organize volunteers under a skilled supervisor to carry out the work, with whatever help the family can supply. (CHIP uses crews of five or six volunteers and expects most jobs to take between six and eight weeks.)

Properly designed and run, a housing rehabilitation project is a valuable service-learning tool. Student volunteers develop skills that could be useful both in careers in construction and in maintaining their own homes. The families increase the energy efficiency of their homes, and neighborhood deterioration may be reversed.



CHIP's forerunner started when University of Virginia students decided to help clean up the damage done by Hurricane Camille. The project moved from that emergency need to making repairs on housing that was deteriorating because of the owners' inability to repair it. Because of the success of this project, CHIP was established in 1974 as a nonprofit corporation with one full-time employee and a budget of $5,000. In its first year CHIP rehabilitated seven houses. In 1977 CHIP had 25 full-time employees and a budget of more than $185,000. It renovated some 40 houses.

CHIP still draws heavily on student volunteers. Each year approximately 100 Madison House workers contribute three hours each a week during the fall and spring to CHIP and its rural counterpart, the Albemarle Housing Improvement Program (AHIP).

John Taylor, who has run the program since its inception, emphasizes that any rehabilitation organization should start small with projects it can complete well, possibly with such simple weatherization projects as fixing storm windows. The organization then builds experience and credibility simultaneously, and has a much better chance of both doing a good job and holding on to its volunteers.

CHIP has found that requiring certain commitments (specified in a formal contract) of clients is essential to a good working relationship. When clients are contributing, they feel they are being helped by friends, and the volunteers feel their time has been used well and their work appreciated.

One commitment is financial. Though CHIP can arrange government grants or loans for materials and subcontracted work, the client must pay at least 20 percent of this cost. The client also agrees to help physically with the rehabilitation insofar as possible, even if the work is limited to painting the inside trim after the volunteers are gone.

Even in the early stages of a program, when all work is done by volunteers, construction work takes money for materials. (Those undertaking weatherization programs for the poor may be eligible for funding under the Community Services Administration's Emergency Energy Conservation Services. See box on this page.)

CHIP keeps cost to a minimum by using salvageable material from the building wherever possible, but the cost of the remaining materials—and of such subcontractors as licensed plumbers and electricians—must still be met. Under the Community Development Act, federal subsidies are available to local governments to use in encouraging housing rehabilitation. Charlottesville's city government has obtained a block grant which it distributes at its own discretion. Presently the city uses this money to pay up to $6,000 in materials and subcontracting costs; the remainder usually is financed by conventional home improvement loans, which CHIP helps clients to obtain.

The city also has made available a subsidy that the program earns at a rate of $10 per crew per hour on jobs that meet certain requirements. This money can be used to pay the administrative overhead associated with the volunteers' work.

In rural areas, some projects may be eligible for repair grants or loans from the Farmers Home Administration.

CHIP has found various sources of support within the community, but a record of tangible achievement often must be established before local financial assistance becomes available. Volunteer projects should not overlook the possibility of such in-kind contributions as office space, tools, materials, and office supplies, for these relieve some of the need to raise cash from outside sources.

CHIP also has tapped a different kind of grant money: federal government programs, primarily the locally administered Comprehensive Employment Training Act (CETA), that will pay salaries for unemployed or unskilled workers who receive on-the-job training. By tying into these sources, CHIP has been able to expand operations considerably. Many of CHIP's crews are now paid workers, and CHIP is a full-scale job-training program.

Under CHIP's organizational plan, much of the work of obtaining funding falls to the executive director, who also is responsible for overall management and for recruiting volunteers. The other two key positions are rehabilitation counselor and field supervisor. In small programs committed student volunteers may fill these positions, but as a program grows, full-time employees are needed.

The rehabilitation counselor's job is a demanding one, and filling it may well be the stumbling block for many would-be programs. The job description in CHIP's handbook shows why.

The Rehab Counselor works with building inspectors, welfare and social workers, community action groups, churches, etc., to identify families which may be eligible for assistance. Once the family is identified, the Rehab Counselor contacts the family to determine whether the house contains critical deficiencies or hazardous conditions, and, if so, whether the family qualifies for HRP (Housing Rehabilitation Program) assistance.

The Rehab Counselor, who should be experienced in construction, is also responsible for planning the project. He should be able to work up a plan for

Emergency Energy Conservation Services

The Community Services Act of 1974 authorizes "Emergency Energy Conservation Services to enable low-income individuals and families, including the elderly and the near poor, to participate in energy conservation programs designed to lessen the impact of the high cost of energy on such individuals and families and to reduce individual and family energy consumption."

A major component of the program supports weatherization activities which will increase the thermal efficiency of homes. Public or private nonprofit organizations and agencies that meet Community Services Administration (CSA) eligibility criteria may receive grants from CSA Regional Offices for operating projects including weatherization activities. At least 90 percent of the allocated funds must be expended on materials.

CSA Instruction 6143-1a gives the following as eligible weatherization activities: "Making home repairs and energy saving improvements to minimize heat loss and improve thermal efficiency. Components include repairs to stop heat loss through infiltration; installation of a balanced combination of energy saving home improvements, including insulation and storm windows and doors; and where needed, the adjustment and repair of heating systems."

CSA has issued *A Community Planning Guide to Weatherization* (CSA Pamphlet 6143-6) which gives the details of agency procedures governing the conduct of weatherization programs. Useful information on specific techniques and standards of workmanship is available in *In the Bank . . . Or Up the Chimney,* published by the Department of Housing and Urban Development, Washington, D.C. 20410.

Other Emergency Energy Conservation Services activities for which grants are available from CSA are:

- Crisis intervention to prevent hardship or danger to health due to utility shut-off or lack of fuel;
- Consumer information, education, and legal assistance;
- Transportation projects designed to offset the increased costs to the poor;
- Alternate energy sources, such as solar and wind power and methane digesters;
- Program support in the form of training and technical assistance, research and demonstration, and evaluation.

Additional information may be obtained from CSA Regional Offices or CSA, Washington, D.C. 20506.

In the Charlottesville Housing Improvement Program, crews of student volunteers from the University of Virginia work under skilled supervisors.

the physical rehabilitation of the house and supply an accurate estimate of materials and cost.

Once the financing is arranged and the job planning complete, the actual housing rehabilitation is turned over to the construction supervisors. The Rehab Counselor stays involved, however, to counsel the family and see that it is doing its fair share...

CHIP maintains that if rehabilitation of housing is to last, then it must be tied to rehabilitation of people. So the rehabilitation counselor must be ready and able to deal with the range of emotions and attitudes in clients who have not prospered in this society.

The other key person on the job —and the one with whom student volunteers will work most closely— is the field supervisor. Construction work can use a lot of unskilled labor, but only if that labor is guided by someone skilled and experienced. Poor planning and supervision can waste volunteers' time, and ultimately lead to the loss of their services.

The field supervisor's planning includes arranging reliable transportation to and from the job, sufficient materials and tools to complete the work, and work assignments that make full use of volunteers' time and skills.

Because the field supervisor must know students' capabilities and must supply continuity to the job, the same supervisor should see a job through from beginning to end. As much as possible, a given group of volunteers should work with the same supervisor from one job to the next.

Obviously, the supervisor's planning depends on knowing how many workers with what skills he will have on a given day, so volunteers must make firm commitments, if possible for a regular schedule of work sessions so that the same crew can be kept together from one work day to the next. Such continuity makes the supervisor's scheduling job easier and speeds up the work.

If the field supervisor demonstrates and supervises properly, the students will learn many useful skills, waste no time standing around, feel needed, and come back to work another day.

Work usually is carried out by crews of five or six workers. In larger operations, there may be an

advantage in some degree of specialization; for instance, one crew might do all roofing work.

In deciding what repairs should be undertaken, CHIP gives top priority to the roof and the bearing structure of the house. The CHIP manual recommends a basic goal of increasing the useful life of the house while removing clear deficiencies, hazards, and building-code violations. It warns against the impulse to "fix up" housing just enough to meet housing codes or to make only cosmetic repairs. Student volunteer programs should take care to concentrate their limited resources where they will do the most good.

In some cases rehabilitation is not practical. CHIP advises that a structure not be considered for rehabilitation if "more than 25 percent of the structural members comprising the floor, the bearing walls, and the roof are *suspected* to require replacement." A housing inspector can offer assistance on this question.

It is not easy to start or carry on a program like CHIP. In assessing the reasons for its success, those who have worked with it over the years return repeatedly to the need for sound, dedicated leadership and committed student volunteers. Thanks to both, hundreds of families in Charlottesville now live in warmer and safer homes.

CHIP's manual, Housing Rehabilitation: A Community Solution to a Community Problem, *may be obtained by writing to the Charlottesville Housing Improvement Program, 170 Rugby Road, Charlottesville, Virginia 22903.* □

Three in E3

In three Energy, Economics, and the Environment projects, junior and senior high school students measure home heat loss, educate the public on energy use, and install a solar collector.

Using devices as diverse as infrared thermometers and solar collectors, three student volunteer groups in southeastern Pennsylvania are promoting energy conservation in their communities. Part of a comprehensive federally funded program named Energy, Economics, and the Environment and referred to as Project E3, these three projects demonstrate some of the ways junior and senior high school students may work toward the solution of local energy problems. (Other schools may apply for grants to initiate similar programs through their state education departments. For additional information on Projeet E3 and sources of funding and assistance, refer to the box on the the following page.)

Thirty-five gifted juniors and seniors from Ridley Senior High School, Folsom, are surveying homes for energy-inefficient structural features and advising owners on how to make their homes more energy and cost efficient. Called Project DETECT, the program is one of a series of non-credit workshops offered through the school's learning enrichment program.

With the bulk of a $1,000 grant from E3, Project DETECT volunteers purchased a $900 infrared thermometer. Because this gun-shaped instrument reads and records the temperature of objects at which it is aimed, students can use it to locate uninsulated wall areas and heat-leaking sections of the house. The volunteers' main tool, however, is a seven-page check list which each applicant fills out and sends in before students go to the home with the thermometer.

The temperatures and information from the check list are fed into the school's computer system to calculate the cost of insulation and other energy-saving improvements and to determine how long it will take homeowners to recover their investment through the fuel saved.

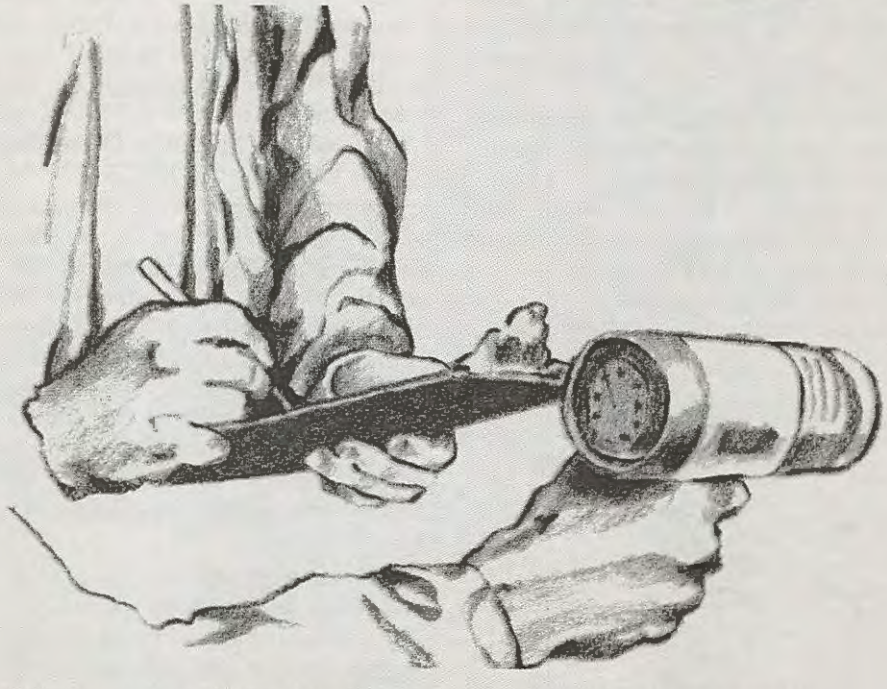
The volunteers divided into three teams: one to conduct the surveys, one to do the calculation on the computer, and one to handle publicity. The publicity team prepares folders with energy-saving tips for customers and puts out a monthly newsletter for all the schools in the district. Students also go into the community to give talks and a slide/tape presentation. The volunteers do about 80 percent of the work after school. Last winter during the peak period each student devoted an average of 10 hours a week to the project.

DETECT teams began surveying homes last January and continued through the heating season. During the first—and busiest—month they went out to more than two dozen homes in the school district. The students tried to concentrate their efforts on helping senior citizens, but anyone who requested a survey was eligible. Initially the volunteers had to knock on doors and overcome homeowners' skepticism as to the value of the students' services, but the public soon responded enthusiastically to the volunteers' work.

So did other schools. Educators from all over the Mid-Atlantic region read newspaper articles about DETECT and inquired how to start similar programs. Nick Ignatuk, the teacher who is co-leader of DETECT, points out that student volunteers do not have to have expensive instruments to operate worthwhile home energy auditing projects. The type of survey conducted by DETECT could be done without an infrared thermometer, though the inspection of homes would take longer. Calculations could be done with a pocket calculator rather than a computer.

Educating the public about the current energy crisis and possible solutions is another E3 approach to energy conservation.

The year before last 32 students in the Science Club at Upper Moreland Senior High School, Willow Grove, developed a survey to evaluate the level of energy awareness in their school district. From a sample of more than 800 respondents, the students determined specific subject areas on which both students and adults needed educating. The volunteers then spent a year developing a slide/tape presentation



Using a gun-shaped infrared thermometer, students check homes for heat loss.

to give in science and social studies classes and at meetings of local service organizations. Most of the work was done after school and during the summer.

The volunteers began by gathering pamphlets, newspaper clippings, and other information for a research center. They then divided into five groups, with each group responsible for researching, writing, and obtaining slides for a major section of the presentation: the introduction and conclusion, coal, oil, nuclear power, and minor energy sources (solar, geothermal, wind).

The presentation consists of two parts. Part I, called "Power for the People," describes the present energy dilemma and possible solutions using available technologies. Part II, "Power for the Future," explores alternative technologies—solar, wind, geothermal, nuclear energy. Since completing the initial presentation in February, the students have updated and edited the tapes and slides. As new members join the project, they help with the updating.

Through an E3 project in an inner-city neighborhood of Philadelphia, junior high students are helping to prove that solar energy in the home can be a viable alternative to gas and electric heat. Sixty seventh and eighth graders at Rhodes Middle School helped the Allegheny West Foundation, a private nonprofit group, renovate two abandoned row houses into one four-bedroom home and installed a solar thermal collector for hot water heating as part of the renovation. The thermal collector was purchased with their $1,000 E3 grant.

Students in two science classes at the school undertook the project. In their classroom preparation, the students conducted experiments with solar cookers, solar cells, and other equipment to learn more about the solar energy process. They also made braces to support the collector, and everyone was given a chance to practice hooking it up before the actual installation in May.

The students worked closely with Allegheny West, which spent $20,000 renovating the house as a community service and will sell it for much less to a low-income family. The students were involved in all aspects of planning the project and were represented on the Community Advisory Committee that met monthly to evaluate, offer assistance, and give direction to "Operation Solar Home."

This school year the students will be helping an electric company do a study with a monitoring device to see how much money has been saved by using the collector. They also are planning to take slides of the house and the solar installation so that others can learn from their work. □

Project E3

Energy, Economics, and the Environment (Project E3) encourages students to confront community energy problems through action-oriented interdisciplinary activities. Fourteen elementary and secondary schools within a five-county area in southeastern Pennsylvania currently have E3 Local Action Programs (LAP's) in their schools.

The project, which began in October 1976, has a three-year grant under the U.S. Elementary and Secondary Education Act, Title IV-C, administered by the Pennsylvania Department of Education. Approximately 10 to 15 grants of up to $1,000 each are awarded each year to hoth public and non-public schools in the area. The administrative responsibility for E3 is assigned to the Montgomery County Intermediate Unit, an intermediary body between the state and local school districts which handles multi-county education programs. Those wishing to initiate a similar program should contact their state departments of education about submitting a proposal for ESEA, Title IV-C funding.

Project E3 provides consultant services on training, evaluation, and curriculum design. It also operates the E3 Resources Center, which gives students, teachers, and community members information on energy and the environment. The main emphasis, however, is on Local Action Programs, most of which are on the junior and senior high level.

E3 is a spin-off of Knowledgeable Action to Restore our Environment, better known as Project KARE, a national environmental model program from which E3 adopted its objectives and approach and with which it shares personnel and offices. KARE was developed and refined in 75 schools in southeastern Pennsylvania during 1971-75. In 1975 the U.S. Office of Education and the Pennsylvania Department of Education selected KARE as an exemplary demonstration project. More than 200 schools throughout the country have adopted the program in the last three years.

KARE is part of the National Diffusion Network set up by the National Institute of Education and the U.S. Office of Education to fund programs that have proved successful on a developmental basis. To assist schools in establishing LAP's, KARE provides Action Training Workshops and curriculum guides on such topics as water and air pollution and electric power generation. The director hopes to get E3 into the Network and set up training sessions for energy projects. In any case, the staff is producing a 16mm film of their projects to show to other schools interested in how E3 works.

For further information on Project E3 and Project KARE contact: Matthew M. Hickey, Project KARE, Montgomery County Intermediate Unit No. 23, McGinnis Office Building, Route 73 and Butler Pike, Blue Bell, Pennsylvania 19422 (215-643-7600).

Resources

All materials and organizations are listed in Synergist *solely as an information service for volunteers. Inclusion of a listing does not imply that ACTION or the federal government endorses it or favors it over others not included.*

The National Student Volunteer Program quotes prices of items listed only as a service and is not responsible for changes which may occur without notice. NSVP does not stock the publications or films listed. Orders must be sent directly to the source.

Funding

More and more grants are becoming available for energy-related programs in which student volunteers may be involved through their schools or through community agencies. Even though most of the funds come from the federal government, local and state governments and nonprofit organizations often determine the types of projects which will receive funds and draw up the specific guidelines for administering them. Because energy conservation is still a new idea, few government or private agencies have clearly defined the perimeters of the programs they will support. Ideas for innovative programs are being sought, and many grants are being given for pilot programs which will serve as models.

The best single source of information on funding possibilities for energy conservation projects is likely to be your state energy office, whatever it may be called.

Some of the major federal and private funding sources are discussed below.

Federal

Department of Energy, 1000 Independence Avenue, S.W., Washington, D.C. 20461.

Energy Extension Service. Currently a pilot program being tested in 10 states (see article on page 25) and being observed by the other states and territories, the Energy Extension Service may prove to be a major source of funds for innovative student volunteer programs.

Funding for a 50-state program has been approved and the states are now formulating proposals. Each state may determine, to a large extent, the direction and form of its programs. Student volunteer organizations or community groups which wish to initiate energy conservation programs should contact their state energy office for specific information immediately.

Educational Programs Division (202-376-9211). Grants for innovative energy education projects are available to nonprofit and profit-making organizations and educational institutions. These grants average about $5,000 each. Priority is given to proposals which have as their goal the significant improvement of public energy education on a national level.

Community Services Administration, 1200 19th Street, N.W., Washington, D.C. 20506.

Emergency Energy Conservation Program. Grants are available to local community groups for programs benefiting low-income individuals and families in the following areas: crisis intervention; consumer information, education, and legal assistance; transportation; alternate energy sources; program support (training, technical assistance, etc.); and weatherization (see box on page 35).

Department of Housing and Urban Development, 451 7th Street, S.W., Washington, D.C. 20410.

Community Development Block Grant Program. Local governments may obtain grants for energy-related community improvement projects. Contact your HUD area office for details.

Solar Heating and Cooling of Buildings Demonstration Program (toll free 800-523-2929). Colleges and universities are eligible for grants related to solar installation and construction of residential buildings.

"In one second, the sun emits more energy than man has used in all the time since civilization began."

—National Geographic News Service

Private

National Center for Appropriate Technology (NCAT), P.O. Box 3838, Butte, Montana 59702 (406-723-6533).

NCAT, a nonprofit corporation funded by the Community Services Administration, provides technical and financial support in carrying out weatherization and small-scale energy technology programs (insulation, solar window heaters, etc.) appropriate to the needs of low-income communities. Most grants awarded are under $10,000, but some larger grants are given. Proposal forms are available upon request from the Butte office. See also NCAT listing under General Information and Assistance.

One of the regional publications financed by a grant from the National Center for Appropriate Technology, *Acorn* features "news about energy alternatives, appropriate technology and people in the Midwest."

To obtain single copies ($.75) or an annual subscription (10 issues for $6; special rates for groups of more than 50), write to *Acorn,* Governors State University, Park Forest South, Illinois 60466.

Orleton Trust Fund, Jean S. Weaver, 177 Borel Place, Suite 306, San Mateo, California 94402 (415-345-2818).

Orleton offers grants as high as $200,000 or as low as $20 for proposals involving alternative energy systems and recycling technologies.

Exxon U.S.A. Foundation, Harold A. Reddicliffe, 800 Bell Avenue, Houston, Texas 77002. (713-656-3008).

This foundation supports selected local community and national service activities, including environmental and energy projects. Grants range from $20 to $400,000.

For information on grants from the numerous small, private foundations in each state, refer to *The Foundation Directory* (1977, 6th ed., $35) published by The Foun-

dation Center, 1001 Connecticut Avenue, N.W., Washington, D.C. 20036. The *Directory* is available in most university and public libraries.

General Information and Assistance

Listed in this section are multifaceted energy or energy-related organizations which provide information and assistance.

Federal

U.S. Department of Energy, Technical Information Center, P.O. Box 62, Oak Ridge, Tennessee 37830.

The Department of Energy was activated on October 1, 1977, to consolidate functions of the Federal Energy Administration, Federal Power Commission, Energy Research and Development Administration, and certain programs in other federal departments. The pamphlets, books, charts, etc. published by these agencies will continue to be issued through the Technical Information Center rather than Department of Energy headquarters in Washington, D.C.

The following is a partial listing of free publications available in single copies or bulk quantities. For a more complete listing, refer to *Selected Department of Energy Publications,* an annotated list of general interest and educational publications.

- *Energy Conservation in the Home: An Energy Education/Conservation Curriculum Guide for Home Economics Teachers* (1977, 335 pp.). Resource book designed to help students conserve energy in their homes and lives.
- *Energy in Focus: Basic Data* (1977, 16 pp.). Statistics on U.S. energy production, imports, consumption, and prices that reflect energy situations over the past quarter century.
- *Fact Sheets on Alternative Energy Sources* (1977, 4-8 pp.). Cover such topics as Alternative Energy Sources: A Bibliography; Alternative Energy Sources: Environmental Impacts; Alternative Energy Sources: A Glossary of Terms; Electricity from the Sun II (Solar Thermal Energy Conversion); Energy Conservation: Homes and Buildings; Energy Conservation: Transportation; Solar Heating and Cooling; Wind Power.
- *How to Save Money by Insulating Your Home* (1977, 24 pp.). Clearly illustrated instructions for insulating home walls, windows, doors, and attics.
- *How to Understand Your Utility Bill* (1977, 12 pp.). Popular guide to reading electric and gas meters and checking utility bills so that householders may know how much energy they use and how effectively they conserve it.
- *Organizing School Energy Contests* (1975, 10 pp.). Procedures for conducting school and community energy projects from the planning stage to issuing publicity and presenting awards for winning entries.
- *Sixty-Five Ways to Save Natural Gas* (1977, 16 pp.). Offers money saving methods to save natural gas in homes.
- *Solar Energy for Heating and Cooling* (1977, 10 pp.). Describes solar heating and cooling systems and tells how solar energy can be used as an alternative energy source.
- *Tips for Energy Savers* (1977, 44 pp.). Offers practical and simple ways to save energy in the kitchen, workshops, garden, and car; includes energy-saving considerations when buying appliances and other household merchandise. (A Spanish-language edition is also available.)
- *Tips for the Motorist: Don't Be Fuelish* (1975, 10 pp.). Lists 30 ways to make gasoline go further, ranging from tips on improving driving skills to car maintenance checkpoints.

Below are listed energy films which are available on loan, generally for 10-day periods, with postage paid one way.

- *Don't Cut Us Off* (1976, 16 min.). Documents the activities of four communities to solve a common problem—the high cost of energy as it affects the poor and elderly across the country.
- *Here Comes the Sun* (1974, 15 min.). Features solar energy systems for warming the air and water for a swimming pool, dishwashers, and storage tanks.
- *Look to the Sun* (1977, 12 min.). Looks at ways to design, finance, and build solar housing projects and make them work economically and efficiently.
- *Sun Power for Farms* (1977, 12 min.). Explores the potential of solar heating for agricultural production through a number of research projects: solar ponds of saltwater for storing heat, a greenhouse heating system, and rooftop solar collectors for warming poultry houses and milking parlors.

Private

The National Center for Appropriate Technology (NCAT), P.O. Box 3838, Butte, Montana 59702 (406-723-6533).

NCAT is a nonprofit corporation funded by the U.S. Community Services Administration to provide technical and financial support (see listing under Funding Sources) and information in carrying out weatherization and small-scale energy technology programs (insulation, solar window heaters, etc.) appropriate to the needs of low-income communities. Although the center in Butte serves as the vehicle for disseminating technical information and resources, the actual program operation is, to a large extent, localized and regionalized through field representatives, regional advisory panels, regional newsletters, workshops, and decentralized information systems.

Citizens' Energy Project (CEP), 1413 K Street, N.W., 8th floor, Washington, D.C. 20005 (202-393-6700).

CEP is a nonprofit research organization which provides information and organizing assistance to community groups and individuals working on energy issues. Among CEP's current activities are producing more than two dozen books and reports and operating the Mid-Atlantic Appropriate Technology Network. The Network serves as an information clearing house and grass-roots organization to encourage the implementation of community-based, low-cost technologies, including solar, wind, and wood energy systems.

CEP's publications include the following.

• *Citizens' Energy Directory* (1978, 100+ pp., $7). A guide to 500 of the most active people and organizations working on alternative energy systems, including leading citizen groups, manufacturers, researchers, government agencies, individuals, and to energy newsletters and magazines.
• *Federal Energy Funding* (1978, 14 pp., $1). Summary of sources of federal funding available to those wishing to develop local energy projects.
• *Local/State Energy Efforts* (1977, 12 pp., $.75). Discussion of the most innovative state and local programs to solve community energy needs with locally available energy sources (wood, solar, wind, solid waste).
• *People & Energy* ($10 per year). A monthly energy newsletter focusing on citizen action and resource information for local groups.
• *Solar Resources* (1976, 8 pp., $.50). Listing of citizen groups, federal agencies, and publications concerned with solar development.
• *Solar Plans List* (1976, 6 pp., $.40). Listing and description of more than 20 do-it-yourself plans for anyone interested in building a solar device.

Rain, 2270 N.W. Irving, Portland, Oregon 97210 (503-227-5110).

Rain is a nonprofit organization concerned with appropriate technology, local self-reliance, and related issues. It publishes the following.
• *Alternative Technology Sourcelists* (1976, $.50 each). Individual lists on Wind Energy, Direct Solar Heating/Cooling, Energy Conserving Landscaping, Weatherizing: Home Insulation, Solid Waste Utilization, and Appropriate Technology; lists have been incorporated into *Rainbook.*
• *Rain: Journal of Appropriate Technology* (10 issues per year, $10). Contains extensive up-to-date listings of new energy-related publications as well as informative articles on such topics as wind energy conversion and the activities of the California Office of Appropriate Technology.
• *Rainbook: Resources for Appropriate Technology.* (1977, 256 pp., $7.95). Compilation of the best of *Rain* from 1974 through Spring 1977, with resource material on energy, economics, communications, community building, and other areas.

Center for Community Economic Development, 639 Massachusetts Avenue, Suite 316, Cambridge, Massachusetts 02139 (617-547-9695).

The Center is a nonprofit research and advocacy organization in support of individual community development organizations, cooperatives, and low-income urban or rural development councils. Local groups interested in energy projects may consult with the Center for technical assistance, particularly on how to make effective use of Community Development Corporations.

Recycling

Federal

A major source of information and technical assistance for those initiating or operating recycling projects is the Technical Information Staff, Solid Waste Retrieval System, Office of Solid Waste Management, U.S. Environmental Protection Agency, Box 2365, Rockville, Maryland 20852 (202-755-9157).

Recycling

Tips for organizing a recycling program:

—Collect a solid work staff
—Give program a name and slogan
—Find a site large enough to store up to three tons of scrap, easily accessible, protected from vandals, and have an overseer for the site
—Determine collection locations
—Have containers at collection sites
—Set dates and hours for collection
—The cost of trucking materials to scrap dealers should be covered by scrap value
—Encourage people to prepare materials before contributing
—Set up guidelines for potential contributors
—Pick up for the aged and infirm
—For recycling glass, obtain information from glass manufacturers

(From *99 Ways to a Simpler Lifestyle,* by the Citizens' Energy Project)

Private

Recycling Handbook: A Guide to Running a Recycling Project (1977, 29 pp.), Recycling Information Office, Oregon Department of Environmental Quality, 1234 S.W. Morrison Street, Portland, Oregon 97205 (503-229-5555).

This publication provides useful information on operating a recycling project.

Residential Paper Recovery (1976, 20 pp.), The National Center for Resource Recovery, 1211 Connecticut Avenue, N.W., Washington, D.C. 20036 (202-223-6154).

Originally produced for the U.S. Environmental Protection Agency, this is a good guide for neighborhood organizations interested in starting a newspaper recycling project.

Solar

Federal

The National Solar Heating and Cooling Information Center, P.O. Box 1607, Rockville, Maryland 20850 (toll free 800-523-2929).

The Center offers numerous free pamphlets, including *Solar Energy and Your Home, Solar Hot Water and Your Home, Reading List for Solar Energy,* and lists of builders, architects, distributors, solar buildings, etc. The toll free number makes it a particularly convenient source of information.

See also Department of Energy publications under General Information and Assistance.

Private

A Citizen's Handbook on Solar Energy (1977, 90 pp., $3.50), Public Interest Research Group, 1346 Connecticut Avenue, N.W., Suite 415, Washington, D.C. 20036 (202-833-3934).

The *Handbook* is one of the best resources for local solar projects. It is a layperson's introduction to

"The world can provide for every man's need, but not for every man's greed."
—Mahatma Gandhi

solar energy, covering such subjects as solar technology, citizen action related to consumer questions, and experts and publications.

The Davis Energy Conservation Report: Practical Use of the Sun (1977, 128 pp., $10 prepaid), Living Systems, Route 1, Box 170, Winters, California 95694.

The *Report* describes solar work conducted for the small city of Davis, California. It describes in detail the work done on passive heating and cooling, two model low-cost passive solar houses, and other energy conservation efforts.

The Solar Energy Association of America, P.O. Box 4264, Torrance, California 90510 (213-326-3283).

The Association acts as a referral service, working with individuals, institutions, government, etc. to bring together those who have information with those who seek it.

See also Citizens' Energy Project publications under General Information and Assistance.

Transportation

Federal

U.S. Department of Transportation, Washington, D.C. 20590

Technology Sharing Program, Office of Intergovernmental Affairs, I-25, Room 10407 (202-426-4208). This program has available information and technical assistance on such specific conservation activities involving transportation as traffic flow studies and carpooling programs. This office publishes *Energy Primer: Selected Transportation Topics,* available free of charge. The *Energy Primer* provides broad overviews of the current and projected transportation energy situation in this country, energy statistics, supply and utilization forecasts, and evaluations of conservation alternatives. Also available at no cost are summary packages of materials on Energy, Transportation, and Noise; the Mini-Bus; Rural Transportation; and Transportation for the Handicapped and Elderly.

A Handbook for Pedestrian Action (1977, 149 pp., $3.50), Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Order no. HH 1.65:1 S/N 023-000-00373-2.

The *Handbook* deals with the reasons for pedestrian zoning and the ways it can be implemented. It emphasizes methods for obtaining pedestrian zoning that are financially and politically feasible. This information is especially useful in organizing a pedestrian street and in providing arguments for public hearings, community promotion, and lobbying for new laws.

Banning the Car Downtown—Selected American Cities (1977, 149 pp., $3.50), Superintendent of Documents U.S. Government Printing Office, Washington D.C. 20402. Order no. HH 1.65:3 S/N 023-000-00375-9.

This booklet presents an in-depth analysis of 16 North American pedestrianization experiments, including the process each city underwent in the creation of its mall. Some of the examples represent successful projects; others describe failures.

Utilities

Private

Environmental Action Foundation (EAF), 724 Dupont Circle Building, Washington, D.C. 20036 (202-659-9682).

EAF is one of the most active national utility advocacy organizations, emphasizing research and public education. This organization has an extensive knowledge of local community groups involved in utility advocacy projects and will provide their names upon request. Below are listed some of EAF's major publications.

- *How to Challenge Your Local Electric Utility: A Citizen's Guide to the Power Industry* (1976, 112 pp., $3.50). A comprehensive guide to establishing a local utility advocacy project.
- *PowerLine* ($15 per year). A monthly newsletter on electric utility issues.
- *Utility Action Guide* (1975, 12 pp.). A booklet of resource materials on the electric power industry. Contains a bibliography on Lifeline rates, fuel adjustment clauses, rate increases, utility finances, and other related material.

Arkansas Community Organization for Reform Now (ACORN), 523 West 15th Street, Little Rock, Arkansas 72202 (501-376-7151).

A league of low-income community organizations, ACORN is actively involved in utility rate reform, particularly Lifeline rates. ACORN can provide information and advice for use in organizing local utility projects.

Wind Power

Private

Wind Energy Society of America, 1700 East Walnut, Pasadena, California 91106.

This is a new technical society and a good central source of information on wind energy technology. The Society publishes a free monthly newsletter.

Windworks, Route 3, Box 329, Mukwonago, Wisconsin 53149.

An engineering research and consultant group, Windworks publishes *Wind Energy Bibliography* (1974, 100 pp., $3) and *Wind Energy Chart* (1976, $3.25).

American Wind Energy Association, 54468 CR 31, Bristol, Indiana 46507.

A nonprofit organization working to stimulate public awareness of the application of wind as an energy source, the Association provides information on wind products and services and facilitates communication between the industry and the public. It publishes the monthly *Wind Technology Journal* ($40 per year; $15 to members).

Ideas and Activities for Teaching Energy Conservation: Grades 7-12 (1977, 225 pp.), Tennessee Energy Authority, 250 Capitol Hill Building, Nashville, Tennessee 37219.

An energy education/conservation curriculum guide, this publication includes 49 teaching activities to be incorporated into science, social studies, and/or language arts subject areas. Many of these activities involve out-of-classroom experiences.

TeenAge Health Consultants

By Catherine V. Jordan and Sandra L. Valle

A new program in Minnesota prepares high school students to inform peers about health-related problems.

"I felt important as a TeenAge Health Consultant. Teachers and counselors respected me and what I said."

"I was very withdrawn in school before I got into TAHC. I feel like it helped me to open up and relax with kids my own age."

"TAHC helped me to see that people are people no matter what they look like or what lifestyles they choose."

"TAHC was really important to me personally. I felt more in control of my life."

These are comments made by high school student volunteers taking part in the TeenAge Health Consultants (TAHC) Program in Minneapolis/St. Paul.

A service-oriented health education program, TAHC is designed to provide information to teen-agers and train them to function as health educators and referral makers for their peer group, with whom they tend to talk most freely about themselves and their concerns. The locker room or grapevine system of communication is highly efficient among teen-agers, but often spreads myths, fears, and/or misinformation. TAHC attempts to infiltrate the peer communication network with up-to-date facts and resources by training small groups of teen-agers to pass the word to their friends and acquaintances.

The program—which may be operated by a school, an agency, or both—consists of two components: training and service. The training curriculum, adjusted to fit interests and time available, may include a wide range of topics but usually focuses on drug use/abuse, human sexuality, mental health, food awareness, and community health resources.

After the training, students prepare presentations which they give to groups of their peers or younger students in formal classroom or club situations. They also adapt these to informal one-to-one communication with friends. By translating the information into action, the young people become more involved in and useful to their community, increase control over their own health care, feel more confident about themselves and their relationships with others, and assist other young people in achieving these same objectives.

TAHC has functioned in Minneapolis and St. Paul since 1973 under the auspices of Peer Education Health Resources (PEHR), a nonprofit organization. During these five years TAHC has been implemented in six metropolitan communities, both inner city and suburban, with varying levels of success. The ease with which the program was accepted depended, to a large extent, on the response from the community and school administration.

Since the Minneapolis and St. Paul school districts differ in their curriculum planning and policy making, each school principal had to be approached for personal approval. We started with schools that would allow us to recruit volunteers from their student body. As TAHC started as an after-school program, initially none of the volunteers received academic credit.

Once the groups were formed, we chose a comfortable setting to hold the 18 weekly after-school training sessions, often utilizing living rooms, drop-in centers, or free clinic waiting rooms. Eighteen weeks of training proved to be too long for most programs, but the small group became a central part of the TAHC process. Schools and clinics present young people with the facts but seldom give them the opportunity to discuss their attitudes or clarify their own values about these facts with their peer

Catherine V. Jordan and Sandra L. Valle are co-project coordinators for the Center for Youth Development and Research at the University of Minnesota, Minneapolis. They are also, respectively, president and executive director of Peer Education Health Resources, a nonprofit organization.

group or adults. The TAHC groups attempted to provide an atmosphere where students could examine factual health information on a feeling as well as cognitive level.

To provide a comprehensive view of adolescent health concerns and of how to deal with them, training involved basic communication skills, problem-solving and decision-making techniques, male and female anatomy, birth control methods, venereal disease, human sexuality, drug use/abuse, nutrition, mental health issues, and skills in disseminating information to peers. Staff members of community health agencies assisted with the training, and many students visited adolescent health care facilities in their neighborhoods.

The most interesting TAHC discussions often were sparked by role plays that described typical teen-age dilemmas. The young people would act out situations involving personal decisions in sexuality, drugs, parent/child relationships, etc. The small group then would discuss the implications of the decision and share their own views on the subject. These open discussions did not happen at the initial meetings, but once trust, respect, and confidentiality were established in the group, personal disclosure was easier. When volunteers began to put their new knowledge and skills to work, TAHC met weekly to provide emotional support, group planning time, and any necessary additional training.

Over the past three years, the TeenAge Health Consultants have:

- Established an information and referral center at a Minneapolis senior high school (TAHC members were available for four to five hours in a designated area daily for those in need of information and/or referral. On one occasion, a TAHC volunteer provided drug crisis intervention successfully to a student during the absence of the school medic. Posters and word of mouth publicized the availability of TAHC services.);
- Supplemented curricular activities of existing health classes in several junior and senior high schools in Minneapolis/St. Paul (The presentations varied in length from one hour to daily two-hour classes for nine weeks. Topics generally reflected all areas of adolescent concern, although most requests were in the areas of drugs and sexuality.);
- Produced video tapes on the pelvic examination, sexual myths, and sexual assault;
- Planned and implemented a full day workshop on sexuality for other teens, parents, and teachers;
- Participated in the activities of Public Service Drug Help, an organization which provided drug crisis intervention to youths who attended rock concerts in the Minneapolis/St. Paul area;
- Presented informative talks about TAHC to a variety of health professionals;
- Developed a health curriculum for churches, youth groups, YWCA, Girl Scouts, group homes, and clinics.

Whether TAHC is integrated into the curriculum or is sponsored by a community agency, school support is vital. Getting support usually means selling the program to the principal, recruiting student volunteers, initiating contact with other faculty, gaining parents' support, and using TAHC participants in the classroom as peer educators.

Parents' support is essential. At the beginning of the program, we send parents a letter requesting permission for each student's TAHC involvement. After the TAHC group

stabilizes, usually by mid training, we invite the parents to spend a typical TAHC session with us. Parents can assist in getting other parents' support and offer such traditional assistance as transportation, living room space, cookies and lemonade.

The key to a TAHC program's success is a dynamic, sensitive trainer. The trainer must inspire trust, honesty, enthusiasm, and caring among the student volunteers, who look to the trainer for positive role modeling behavior. Pursuant to this end, the trainer must demonstrate a willingness to participate in the group process by sharing personal experiences and insights when appropriate. A little knowledge of small group facilitation, adolescent health, communications, and values clarification is desirable. In the PEHR model, the trainer recruits the volunteers, facilitates and delivers much of the training content, and supervises the volunteers' work.

In the past, young people participating in TAHC have represented the full gamut, from those with lots of problems at home and school to so-called good kids. We believe our open-door policy has contributed to TAHC's broad base of support in the Twin Cities area.

A Tri-County TAHC Program

In eight high schools in a sparsely populated section of northern Minnesota self-selected high school student volunteers have become or are preparing to be TeenAge Health Consultants. Their principal function is to help fellow students unable to cope with health-related problems, but many of the volunteers also are educating the community on those problems.

The students who choose to take the basic TAHC training (about 30 hours) given at night by the tri-county TAHC coordinator, Patricia Cortez, commit themselves to trying to achieve at least one of three goals:

- Allowing space for personal growth, their own and others;
- Helping peers by listening to them without being judgmental, by supporting them in facing up to their problems, and by referring them to professional assistance;
- Making community groups aware of the physical and mental health problems common among teenagers.

Most of the volunteers' work is done in informal one-to-one and small group settings—a discussion around the lunch table in the cafeteria, a chat on the front steps before school, a bull session during a party. The volunteers—sophomores, juniors, and seniors—do not advertise their TAHC expertise, but word gets around that they keep confidences and that they are in the know—or know who is—about a lot of health-related issues bothering students.

In some cases the TAHC students, who usually receive academic credit for the training and the counseling services, merely impart information, such as the chemical composition and dangers of angel dust, the availability of birth control devices, where to get an examination for venereal diseases.

In many instances the students use counseling techniques to aid students in dealing with their problems, particularly with bad family situations, chemical (drug or alcohol) dependency, decisions of whether to be or not to be sexually active.

The TAHC volunteers do not attempt to give answers but to bring those troubled to the realization that they must take responsibility for their own decisions and actions. When volunteers see that the problem is too serious for them to deal with, they "hand walk" the student to the professional who can provide assistance. Knowing local health professionals and being able to make a personal recommendation of a doctor or counselor is part of the preparation of a TAHC volunteer.

If a referral is not called for or the student resists it, the TAHC volunteers consult with Cortez, who is based in Grand Rapids as the Northland Mental Health Center's drug and alcohol information coordinator, or with one of the two local support people who have gone through training with the volunteers.

Cortez selects support people after discussions with students to find which adults the teen-agers feel will be supportive without attempting to take over the group. Teachers, parents, nurses, or anyone else with an interest in or knowledge of counseling techniques may be chosen. In this program the support people receive a nominal fee of $350 a year for the time they give to TAHC.

Often the volunteers continue training in weekly meetings in order to prepare themselves to deal with certain problems students bring to them. Some TAHC volunteers enroll in college-level summer workshops attended mostly by teachers and health professionals.

The students also help give workshops, usually working with Cortez or other health professionals. The volunteers use the skills they have learned to turn passive audiences into active small groups. Volunteers have done this at formal workshops and at lunch meetings of such community organizations as the Kiwanis and Rotary clubs.

Five schools in Koochiching, Itasca, and Aitkin counties have TAHC well under way. Three other schools begin training this fall. The funding comes from the state, with $20,000 covering primarily the cost of the trainer (half time), her travel, the support people, and instructional materials.

Cortez is enthusiastic about the results, particularly the service volunteers are performing in referring troubled teen-agers to professional help before situations become serious. Programs in the small schools (300 students) have been especially effective. □

As any teen may participate, TAHC has no formal screening process. Because the full program (18 weeks of training and 18 weeks of service) demands a long-term commitment of at least two hours a week, many teen-agers screen themselves out. A group of 20 probably will end up at desired group size of 10 to 12 committed volunteers.

PEHR has recently initiated a modified TAHC as a course offering in two Twin Cities schools, St. Paul Open School and Minneapolis Southwest High.

The St. Paul Open School is a research demonstration unit of the St. Paul Public Schools. Students plan their own schedules, and independent study and experiential learning are encouraged. The TAHC mini-course will meet for two hours twice a week for three months. The 10 students involved have chosen sexuality as their main focus. This course will test how well three months of training can prepare health consultants.

The faculty at the Open School will give the TAHC volunteers opportunities to work with their classes. Students also will assist with discussions on sexuality and birth control in a suburban high school health class, an inner-city junior high social studies class, and an adolescent mental health unit in a suburban hospital. This TAHC group also will present a TAHC program information workshop to a statewide State Health Department conference for school administrators, educators, and nurses.

At Southwest High School a similarly designed TAHC program will be part of the school's service-learning program in which students work on a community project. TAHC will be an option for those interested in health care delivery.

Last winter, PEHR worked with the Merriam Park Intensive Day Treatment Program (IDT), an experimental alternative treatment program for juvenile offenders, to implement a modified version of TAHC. These teen-agers are all adjudicated delinquent youth who have been referred by the court system and who otherwise would have required residential treatment. Every Tuesday they choose one activity to participate in for two hours. TAHC is one of the options. Staff members encourage certain students to participate; others are required to attend as part of their treatment plans. Although the group varies according to the facility's population, it usually consists of eight to 12 students ranging in age from 14 to 17.

As requested by the participants, the initial sessions focused on drugs and sexuality. Additional training will reflect other concerns they have identified, such as sexual assault and prostitution. Two IDT staff members attend the weekly sessions and provide the daily interaction that the program needs. Eventually, the newly trained participants will provide health information to a new group entering the IDT program.

Obviously TAHC still is evolving. On the basis of our five years of experience with programs, we can recommend a number of modifications.

- *Preparation and Practice.* The curriculum, originally presented in 18 weeks, can be modularized into basic topic areas to shorten the time between training and using the training. If possible, preparation and service should overlap. Once participants have received communication skills and specific content material (*i.e.,* birth control, venereal disease, drug use/abuse), they can begin their volunteer activities.

Involvement with the community helps their personal integration of the material, and cuts the drop-out rate.

• *Curriculum.* The TAHC curriculum can expand and change to meet the needs of any group. After the TAHC group has experienced the prepared curriculum, the volunteers may choose to examine other topics of current interest. The trainer can solicit help from the young people in planning the additional sessions, and participants may try out their skills by running the session themselves. The most commonly requested topic is sexuality. Since it is also the most controversial, it may be wise to introduce TAHC into a school with another major topic, such as drug use/abuse.

• *Trainers.* If possible, TAHC trainers should work in male and female teams. TAHC focuses on many of the issues that men and women face in their relationships with each other. It is important for the TAHC participants to see a man and woman discussing these issues from their own points of view. Male trainers also help in the recruitment of young men, who have been a distinct minority in most TAHC programs. Trainers often find that they get more open and relaxed discussions outside a formal classroom setting.

• *Cross-Age Teaching.* TAHC volunteers (ages 14 to 18) found that they could be effective with groups of junior high students and with adults. Junior high school students tend to admire and respect older students, so when a TAHC volunteer comes to their class or club to give them straight information on some relevant topic, it is an exciting event with positive effects. Adults, parents, teachers, social workers, and youth workers are also eager to hear ideas, opinions, and concerns from young people. For younger and older persons, TAHC participants extend the impact of accurate information to the larger community and, in the process, gain respect and confidence.

• *College Programs.* The TeenAge Health Consultant Program could easily become the College Health Consultant Program, for the need continues into college. Groups could be set up in dorms for on-going support, in health clinics or counseling services, or in community agencies in cooperation with high schools or youth organizations.

On a training evaluation form, the majority of TAHC volunteers commented that the most valuable part of TAHC was helping them to feel better about themselves. They concluded that because their skills and points of view were respected and because they were given opportunities to provide a valuable service to others, they gained confidence and a sense of worth uncommon in their previous experience. Another important outcome for them was increased knowledge about their attitudes toward sexuality, drugs, and related issues.

One 17-year-old TAHC participant said, "To me, the most valuable part of TAHC wasn't the actual knowledge, although I did learn a lot which I thought was important. It was meeting people, learning how to handle myself in a variety of situations and with a variety of people. It gave me confidence in myself that I could do things I never thought I could do before." □

Information on TAHC

To expand the implementation of the TAHC Program and to facilitate its replication, Peer Education Health Resources has published a *TAHC Program Guide* documenting the step-by-step process. The manual includes the entire training curriculum, hints for securing community support, and evaluation recommendations. It may be purchased for $5 from:

The Enablers, Inc.
104 West Franklin Avenue
Minneapolis, Minnesota
55403.

PEHR is developing a clearing house to provide information about the activities of the growing number of TAHC groups around the country to participating organizations.

PEHR also has developed a training workshop for persons interested in implementing TAHC or a similar peer education program. The workshop, available on a contract-for-service basis, combines the opportunity to participate in the TAHC educational processes with skill development in adapting TAHC to the specific needs of a community, securing community support and involvement, and the logistics of implementing a peer education program.

For further information regarding the TeenAge Health Consultant Program contact:

Peer Education Health
Resources
1600 Portland Avenue
St. Paul, Minnesota 55104
(612) 646-3395.

Service Calls

Students Help to End Isolation of Rural Handicapped Children

Waverly, Iowa—A mentally or physically handicapped child living on a farm may have limited contact with people other than the immediate family and few experiences outside the home. Members of the Social Work Club at Wartburg College, Waverly, Iowa, are locating such isolated handicapped children, gaining their families' confidence and cooperation, introducing the children to new people and situations, and assisting them in social mainstreaming.

Exceptional Children, Inc., a private agency in Waterloo, is helping Club members by giving them the names of children in need of attention and by reimbursing the volunteers for their transportation and telephone expenses.

Once a child has been identified, students must find out where the farm home is and arrange transportation (usually by private car) to get there. The volunteers make au appointment to visit the family and explain what they are trying to do. If the parents are skeptical of the volunteers' motives or qualifications, or if the child is too shy or fearful to respond to the strangers, several visits may be necessary before the child can be taken from the home for even a brief outing.

Students strive to set up one-to-one relationships with each child, enabling them to give informal counseling or simply to be friends. The volunteers discuss the problems they have in dealing with the families or working with the children at regular meetings of the Social Work Club. They also consult with faculty members, primarily the Club's adviser, Michael Funk, Chairman of the Social Work Department.

Taking the children to public places and giving them opportunities to mix with other children is an important part of the program. The volunteers try to plan one event a week for about 20 children who live within 30 miles of the college. The most common activities are bowling and holiday parties.

This student-run project is now in its fourth year.

Student Volunteers Receive Tuition Grants From Adelphi College

Garden City, New York—Adelphi College on Long Island uses a special incentive to attract older student volunteers. As part of its Adult Baccalaureate Life Experience Program (ABLE), Adelphi is offering grants of $120 a semester to students who volunteer for community service. Given on a first come-first served basis, the grants are applied against a student's tuition. Out of 1,500 students enrolled in ABLE, between 30 and 40 have grants.

The ABLE program encourages those over 21 who are coming back to college after an extended absence, or who have not been to college at all, to volunteer at least two hours a week. Several agencies are particularly eager to have these volunteers because of their maturity and job skills. The agencies and the volunteers work together to draw up assignments based on the sponsor's needs and the volunteer's skills. Such assignments include taking calls for the Islip, New York, crisis hotline, developing a music therapy program for the mentally handicapped at the Suffolk Developmental Center, and working up course syllabi for the Five-Town Music and Art Foundation.

Deaf Students Serve Santa Fe Commnity In New Service Program

Santa Fe — The New Mexico School for the Deaf has initiated its first community service program.

The program began in the fall of 1977 with seven students, but interest in the program grew and 28 students, all of junior high age, became involved in various projects during the school year.

Because of lack of transportation, the volunteers had to limit their projects to work, such as tutoring fellow students, that can be done on campus. Even so, the students have found ways to serve the community. Using the school's shop facilities, some of the students made step stools for the elderly to use in boarding vans. Several students cut out quilt pieces for an elderly woman volunteer who makes baby quilts for a local clinic. Having taken the initial steps in performing community service, the volunteers plan to expand their program this year.

The Way to a Volunteer's Heart . . .

The student volunteer bureau at Drake University in Des Moines, Iowa, recently tried a new approach to recruiting volunteers. Two weeks prior to volunteer sign-up day, the students wrote clever phrases about the bureau on small pieces of paper. In cooperation with a local company, they then taped their message to the candy bars in the campus vending machines. They also rented popcorn machines and handed out information with the popcorn.

As a result, about 15 percent more students than usual inquired about volunteer work.

Index to Major Articles 1971–78

After eight years and 21 issues, an index of *Synergist* seems in order. To help you locate back articles which may be of special interest to you and so you may know which articles are available as reprints, we have indexed all major articles from our first issue, Fall 1971, through Fall 1978. Among the items omitted are "On Campus" (now known as "Service Calls") and "Resources."

The index is divided into three sections. The first section, Project Areas, lists the articles which focus on a type of volunteer project (*e.g.*, counseling, recreation). The articles under the second section, Program Administration and Management, are mostly "how to" articles concerned with the various aspects of running a volunteer program. The third section, Other, includes international programs, philosophy of service-learning, and research in the field. An article may appear under more than one section or subject heading. For example, "Advocates for Change: University of Maryland's Public Interest Group Protects Consumers" is listed under two subject headings—Advocacy/Community Organizing and Consumer Education/Protection. In general, an article will not appear more than once unless it has more than one major emphasis.

To expand upon its contents, we have noted with a letter or roman numeral whether an article is concerned exclusively with secondary **(S)** or post-secondary **(P)** students or if the target population involved is youth **(I)**, elderly **(II)**, handicapped **(III)**, or incarcerated **(IV)**.

The numbers in the second column are for your use in looking up an article. F, S, and W indicate the Fall, Spring, or Winter issue, followed by the year and, in parenthesis, the volume, issue, and page numbers. The entries are listed chronologically under each subject heading.

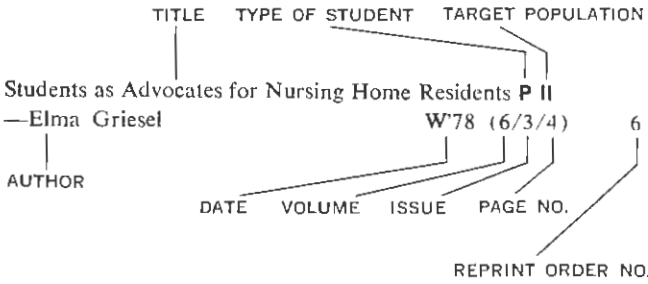
A number in the right hand column means that a reprint of that article is available. That number should be used when ordering a reprint. We would appreciate your checking to make sure you don't already have access to an article in your library of back issues as reprints are limited.

Following the index is a list of the National Student Volunteer Program (NSVP) publications which are available.

The address to use in ordering reprints is:

ACTION/NSVP
806 Connecticut Avenue, N.W., Room 1106
Washington, D.C. 20525.

Sample Entry:



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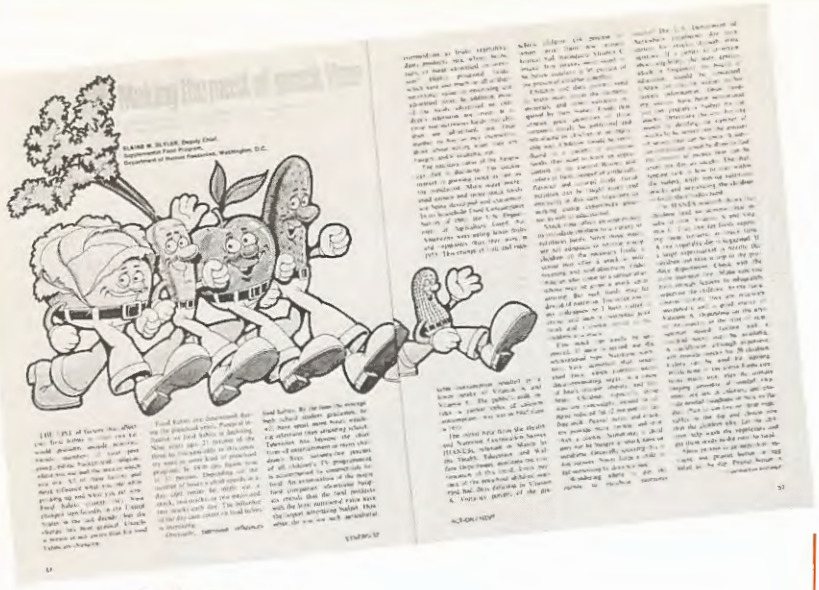

I. Project Areas

KEY: Secondary—S, Post-secondary—P
Target Populations: Youth—I, Elderly—II, Handicapped—III, Incarcerated—IV

KEY: Secondary—S, Post-secondary—P
Target Populations: Youth—I, Elderly—II, Handicapped—III, Incarcerated—IV

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KEY: Secondary—S, Post-secondary—P
Target Populations: Youth—I, Elderly—II, Handicapped—III, Incarcerated—IV

The National Student Volunteer Program (NSVP) is part of ACTION, the federal agency for volunteer service. NSVP is a supportive program providing information and technical assistance; it does not grant operating funds and has no authority over local program activities.

NSVP's primary purpose is to endorse, support, and promote the concept of service-learning programs. Such programs enhance learning while enabling students to participate in responsible and productive community service efforts designed to eliminate poverty and poverty-related human, social, and environmental problems.

To accomplish its purpose, NSVP strives (1) to provide secondary and post-secondary educators with the skills and knowledge necessary to begin new or improve existing student service-learning programs and (2) to assist the officials of public and private educational and voluntary action organizations in developing their policies for and roles with student service-learning programs.

NSVP serves student volunteer programs by developing and distributing technical assistance materials, including *Synergist*, its journal; by sponsoring training sessions for teachers and administrators managing student volunteer programs, and by providing on-site consultation to programs or to groups sponsoring conferences or workshops.

Those who wish additional information may call toll free (800) 424-8580, extension 88 or 89, or write to: *ACTION/ NSVP, 806 Connecticut Avenue, N.W., Room 1106, Washington, D.C. 20525.*

NSVP Publications

Copies of the following National Student Volunteer Program technical assistance materials are available upon request. Write to ACTION/ NSVP, 806 Connecticut Avenue, N.W., Room 1106, Washington, D.C. 20525, or call toll-free 800-424-8580 (ask for NSVP on extension 88 or 89). In the Washington, D.C., area, call 254-8370.

It's Your Move (1976, 51 pp.). A basic guide written to assist community groups and agencies that are working with student volunteer programs.

Planning by Objectives (1974, 70 pp.). A planning manual designed to help people who work with student volunteers learn a system for effectively planning and implementing service-learning programs.

Training Student Volunteers (1973, 103 pp.). A training manual developed to help student volunteer coordinators and others plan and conduct training activities for students involved in community service programs.

Evaluating Service-Learning Programs (1978, 65 pp.). A guide for program coordinators to use in designing and implementing evaluations which will provide information on program activities and effectiveness.

High School Student Volunteers (1972, 60 pp.). A basic manual written to help secondary school officials conceive and implement service-learning programs.

High School Courses with Volunteer Components (1974, 167 pp.). Twelve case studies prepared to help high school faculty design courses in which community service activities complement classroom work.

Guidelines for Synergist Contributors

Synergist welcomes contributions from faculty, administrators, students, agency staff members, or anyone else involved in student volunteer and service-learning programs. Contributions include articles, information for regular features, and suggestions of topics and authors.

As a technical assistance journal published by the National Student Volunteer Program (NSVP) primarily for coordinators of secondary and post-secondary student volunteer and service-learning programs, *Synergist* seeks articles which:

- Share new ideas in service-learning programming for application by other programs;
- Recognize the efforts of student volunteers in solving local poverty and poverty-related problems;
- Provide specific technical advice in designing, managing, and evaluating local student volunteer programs.

Those who wish to submit articles should write one-page letters in which they summarize the topic they wish to cover, explain how readers could use the material, state their qualifications for writing the article, and tell what photos or other illustrative materials are available. Writers also should give their phone numbers and the best times to call them.

If the proposed article fits *Synergist's* current needs, the editor may request additional information and a detailed outline. An article is assigned only after NSVP has approved the content and approach indicated in the outline.

Articles may range in length from 900 to 4,000 words, depending on the content of the article. As most of the readers are educators with many professional publications competing for their attention, articles not only must offer new information and ideas but also capture their interest quickly and present points concisely and clearly. Charts, tables, or other illustrative materials should appeal to the eye as well as the intellect. Candid black and white photos (preferably 8x10 glossies) must be properly exposed and well printed.

In submitting an article, writers should use standard manuscript format: 25 double-spaced lines of approximately 50 characters typed on one side of white 8x11 paper. Place the author's last name in the upper left-hand corner of each page; the page number, in the upper right-hand corner. On a separate sheet should be a one-paragraph professional biography of the author.

As the content of each issue generally is planned at least eight months in advance of publication, writers should submit ideas for articles as early as possible.

Readers also are invited to submit short items for use in two regular features: Service Calls and Voluntary Responses.

Service Calls contains brief descriptions of unusual service projects, tips on how to carry out some phase of a volunteer program, anecdotes showing the humorous side of volunteer life, cartoons or posters, and outstanding candid black and white photos of volunteers at work.

Voluntary Responses consists of letters seeking or offering information, calling attention to problems, or commenting on matters of common interest to those working with service-learning programs.

NSVP encourages readers to assist in planning *Synergist's* content by suggesting topics and authors. Subscribers may send these and other ideas or information on the franked card provided in each issue.

Published three times a year (Fall, Winter, Spring), *Synergist* is distributed to almost 45,000 readers in the United States and 57 other countries. □

Send contributions to:
Synergist
ACTION/National Student Volunteer Program
806 Connecticut Avenue, N.W.
Room 1106
Washington, D.C. 20525

Special Note

Synergist requests readers' assistance in planning and preparing articles on the following topics:

- Summer service-learning programs;
- Adult literacy projects;
- Food and nutrition projects;
- Service projects related to science courses;
- Evaluations which study the impact of a particular project on the community and/or the student volunteers.

Please reply on the franked card (headed "What are your students doing for your community?") provided in this issue or in a one-page letter.

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