

**NEED
DRIVE** + A SYSTEM =
**GENERAL
EDUCATION
DEVELOPMENT**

*a successful high school
equivalency program at
Allegheny Ludlum*

A melter in the electric furnace department of a steel company tried to enroll in a three-credit metallurgy course at a university. He couldn't. He was not a high school graduate.

A 35-year-old hydraulic repairman had a good knowledge of his job, was skilled in getting results, got along well with people, and seemed management oriented. He would perhaps be a good candidate for first-line supervision. He did not have a high school diploma.

The Brackenridge Works of Allegheny Ludlum Steel Corporation found not several but hundreds of people in the work force who needed and wanted a high school diploma — people who, caught in the wake of the educational requirements of industry, needed a high school diploma even to be given the opportunity for advanced study.

A random sample of the educational levels of production and maintenance employees at the Brackenridge Works made apparent a specific training need in the area of basic education.

be likely deterrants to employee participation. The inability of existing G.E.D. programs to accommodate shift workers seemed to negate participation by the very group where the need was greatest. Another factor that seemed important was the lack of an individualized system that could relate to various needs within one program. It seemed unsound to utilize a shotgun technique without personal and specific instruction. A program was needed which could be tailored to the individual's needs, could accommodate shift workers, could be conducted in the Works, and would lead to diploma equivalent certification.

Concurrent with the feasibility investigations being conducted by the Brackenridge Works Training Department, Boyce Campus of Allegheny County Community College was developing a unique approach to the problem of adult basic education. The needs of the Brackenridge Works were applied to the Boyce program and it was determined that the new program could work as an in-plant training activity.

OBSTACLES TO STUDY

Local high schools had been offering General Education Development programs for some time; however, the facts indicated that only a very small percentage of industrial workers had ever enrolled. In considering the problem, it was surmised that this relative lack of success within the school district could be the result of several factors. The high school atmosphere of regimentation and the inflexibility of scheduling seemed to

"SECOND CHANCE"

The intent of the training department to implement such a program, and to support it under the Company's tuition aid policy, was made known to all employees. This was accomplished by means of the in-plant newspaper, bulletin boards, and an article in the community newspaper. The program was called "Second Chance." Within one week of the publicity releases, the training department had enrolled 45 employees in the pro-

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Approximate Number of Employees	Average Age	Average Years of Education
1,030	52	8—
322	50	9
322	47	10
225	50	11
1,062	44	12
129	40	12+
Total employment — 3,200		

gram. Further applications were deferred until results of the pilot group of 45 could be determined. The group was divided into two sections. The second section would meet one week behind the first section and participants could attend either section depending on their shift working requirements. The schedule was arranged so that an employee attended on his own time, fitting his attendance around his work schedule. The nature of the program required that each participant attend one three-hour classroom session per week for 15 weeks in addition to eight to ten hours of home study per week.

The Boyce Campus of Allegheny County Community College provided the system, the course materials¹ and the administration for the program, while Allegheny Ludlum furnished the in-plant facilities, the participants and the support. Since Allegheny Ludlum's use of these materials, they have undergone considerable refinement and revision, particularly in the addition of new, practical mathematics, and science courses.

PRE-COURSE TESTING

At the first meeting of each section, the Stanford Achievement Test was administered. The test measured the language skills, paragraph comprehension and arithmetic concepts of each participant. The scores were converted to grade level for each participant. Subsequently, it was determined that seven students were already performing at the 12th grade level. Based on collected data, it was decided that these seven people had a better than 90% chance of qualifying for a secondary school diploma without attending the program. The enrollment fee was refunded and arrangements were made for these seven to take the G.E.D. Test.

All seven qualified for high school equivalent certification.

Data from the Stanford Achievement Test was collected and sorted for the remaining 38 participants, and a devel-

opment program based on each individual's needs was constructed. During the following meetings the instructors (one math instructor, one English instructor) guided the study of each individual

based on his existing grade achievement level and on his needs to attain 12th grade level. The following shows grade achievement level at the beginning of the in-plant program:

(a) Grade Left School	(b) Paragraph Meaning Grade Score	(c) Language Grade Score	(d) Arithmetic Grade Score
8th	4.8	4.7	7.2
8th	4.4	3.2	6.0
8th	7.0	9.6	8.6
8th	4.2	5.3	6.2
8th	11.8	10.0	10.8
8th	6.2	7.0	4.5
9th	10.5	6.6	8.2
9th	7.8	5.2	5.6
9th	7.2	6.3	7.6
9th	6.4	7.5	7.8
9th	7.2	6.6	6.4
9th	11.8	8.5	6.6
9th	5.2	4.7	4.5
9th	8.2	7.2	6.4
9th	8.0	6.1	6.0
9th	7.6	5.9	5.6
9th	10.2	6.9	8.4
9th	7.8	7.2	6.8
9th	8.4	5.9	5.4
9th	6.8	6.9	6.2
9th	5.2	5.2	5.6
9th	6.0	5.2	6.8
10th	6.0	5.2	6.8
10th	8.2	10.8	10.4
10th	7.4	7.5	11.2
10th	10.5	8.5	8.0
10th	10.8	8.4	10.8
10th	8.6	10.0	8.9
10th	8.0	6.4	6.0
10th	7.4	6.2	6.8
10th	10.6	7.8	8.0
10th	7.4	10.2	8.6
10th	5.6	8.4	7.6
11th	6.4	6.3	9.2
11th	6.4	5.2	3.9
11th	7.4	5.2	6.4
11th	10.2	10.9	9.2
11th	9.5	10.8	9.2

Column (a) indicates the last grade attended during the students' regular school years. Columns (b), (c), and (d) indicate actual functional grade level for paragraph meaning comprehension, language, and arithmetic skills according to Stanford pre-test. (i.e., 4.8 means the eighth month of grade four, etc.)

PROGRAM OPERATION

The instructors concentrated their efforts on increasing reading effectiveness, vocabulary, grammar, basic mathematics, and an understanding of numerical concepts. Frequent tests were administered for two primary reasons. First, to condition the participants to the idea of taking tests which, it was hoped, would minimize the possibility of "freeze-up" later and, second, to provide instructors with immediate feedback regarding specific weak areas in the participants or the program.

In some cases, individuals progressed well beyond the skills necessary for the course. Such employees were encouraged to explore algebra, advanced mathematics, composition and other advanced skills.

Feedback from the participants as the course progressed reflected the self-satisfaction they received as their skills increased. One evening a week was set

aside when the instructors were available for consultation and to give specialized assistance in troublesome areas.

During the final week of the program, it was predicted that six of the participants would be marginal performers on the G.E.D. test.

COURSE RESULTS

At the conclusion of the program local qualified administrators of the G.E.D. test were contacted and the test was given. The following results were evidenced - of the 38 students who completed the program 29 qualified for 12th-grade certification and 8 failed to qualify. Those that did not qualify are taking an additional 30 or more hours of study in preparation for a second attempt.

The G.E.D. test is a five-part test. To qualify for high school equivalent certification, a cumulative score of 225 points is necessary. Further, the score on any one section must not fall below 35 points regardless of total overall score.

Of those that qualified, the highest total score was 333, the lowest total score was 226, and the class average was 249.8.

A copy of the high school equivalent

certificate was placed in the personnel file of each employee who qualified.

At the completion of this initial program, another recruiting effort was initiated at the Works level. This second effort netted an additional 15 participants and the cycle began again.

It is felt that this particular system, coupled with the specific localized need contributed to the success of the program. The opportunity to place an individual in a learning environment with his peer group, under conditions which are comfortable to him, might also be a factor of some merit.

Those employees who successfully completed the program qualified under Allegheny Ludlum's tuition aid policy for reimbursement for tuition and textbook expenses.

The program, as evaluated by the Brackenridge Works training department and Boyce Campus of Allegheny County Community College, was felt to be very successful in providing adult basic education to people who have previously shunned standard academic approaches to this problem.

¹ The new materials are available as one of the Career Advancement Programs of General Learning Corporation, New York.

SUPERVISORY DEVELOPMENT INSTITUTE IN VIRGINIA IN APRIL

If you are responsible for the continuing development of first-line supervisors in your organization, you won't want to miss ASTD's Supervisory Development Institute. Airlie House, a luxurious conference center in Warrenton, Virginia, 45 miles from Washington, D.C., will be the site of the institute April 12-17.

The intensive five-day session will be presented by Bradford B. Boyd and Philip R. Brereton of the Management Institute of the University of Wisconsin, Madison.

Films, buzz groups, role playing, case studies and skill demonstrations are among the techniques that will be used in covering the topics of the institute.

Included in the subject matter are: Determining Supervisory Training Needs, The Management Job of the Supervisor, The Supervisor Looks at the Individual Employee, The Supervisor and Effective Discipline and The Supervisor as an Initiator of Change.

All ASTD members should have received more detailed information about the Supervisory Development Institute by this time. Early registration is encouraged, as enrollment is limited to 35 persons.

Additional information and registrations are available from the Program Department, ASTD, P.O. Box 5307, Madison, Wisconsin 53705.