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ABSTRACT

The document comprises the final evaluation report and the fourth quarterly progress report of Operation Breakthrough, an experimental demonstration project to upgrade Spanish-speaking workers in entry-level factory jobs. Ten classes at six sites with a total of 133 students were held; 53 attended at least 50 of the total 150 hours. Classes were conducted either prior to or after working hours, although part of the class time overlapped with company time; the companies' support of the program thus involved both teacher and worker compensation. Low attendance rate was a consistent problem, but attendance figures rose the second year, due to the companies' involvement in planning, financing, and monitoring the classes. Three sets of classes operated according to the intentions of the proposal and were found to have few operational problems while three other of the organizations' operations lacked what had been identified as essential elements. Classroom aides (company personnel) were used during the first year, but rarely during the second. They were viewed as important by teachers and administrators, allowing class flexibility and providing a resource for job-related English instruction. Conversational English was deemed important to the students. The document reports the results of interviews, monitoring visits, and test instruments. A program guide is being developed. (Author/AJ)

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OPERATION BREAKTHROUGH  
1973 - 1974  
FINAL EVALUATION REPORT

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## ACKNOWLEDGMENTS

EDCON Associates wishes to thank the Operation Breakthrough staff and Mr. James Comerford for their cooperation during the preparation of this report. In addition, the teachers and students who participated were the subject of site visits, interviews and the like. We thank you, one and all, for your indulgence and cooperation. To those site personnel who gave of themselves in this effort, we are most grateful.

We have attempted, herein, to report the results of these interviews, monitoring visits, and test instruments. While we recognize that judgment plays a role in any evaluation, errors in reporting or calculation are clearly the responsibility of the authors and not the Operation Breakthrough staff.

## PREFACE

The evaluation of Operation Breakthrough's first year yielded a series of suggestions and comments that were thought to be important for future years.

Many of the concerns that were addressed then have been dealt with:

1. Aides were not always used productively - budget constraints led to the elimination of paid aide positions.
2. Criteria for involvement of companies should be established - some dimensions were identified during the first year. In the second year, these dimensions were validated and others were discovered.
3. Attention should be paid to the problem of multiple ability levels within the classes - grouping of students, the operation of more than one class, and the presence of more than one teacher were methods used successfully.
4. Audio-visual equipment might be used profitably - no use of such equipment was observed.
5. The use of consumable materials for home study could be employed more - this was observed in over twenty-five percent of the classes.
6. Staff meetings for teachers to share materials and ideas should be instituted - monthly meetings were held.
7. The Advisory Committee has served no real function - in January a new Advisory Council was formed. This group consists of company representatives from three successful classes as well as a union representative, active community leaders, and Operation Breakthrough staff. It is likely that the involvement of the Council members will result in a viable and useful advisory group.

## CLASSROOM PROGRAM

Twenty-three classroom observations and twelve interviews with teachers, company representatives, and the administrative staff were carried out in order to provide a basis for describing the program and substantiating the reports presented by the Operation Breakthrough staff. These documents (the Quarterly Reports) are unique in that they provide a frank, complete view of the program activities. Problem areas were described as openly as areas of success. The evaluation team recommends that these reports be examined by those who desire a complete program description.

Table 1 provides a summary of the classroom observations. The low attendance rate noted has been a consistent problem within the program, but the figures for 1973-1974 represent an improvement over the previous year. This is very likely a result of the involvement of the companies in the planning, financing, and monitoring of the classes. Three of the five sets of classes - International Wire, Uniweave, and General Electric - operated according to the intentions of the proposal and were found to have few operational problems. The facilities they provided were judged as good to excellent and the employees received released time to attend class. The other organizations' operations lacked what had been identified as essential elements. In one case, the teacher's salary was paid with Operation Breakthrough funds rather than employer funds; in another the class was located off-site; and the third, which had a very short life, was a textile company.

During the 1972-1973 year, classroom aides were used at all but one site. This year aides were rarely used because of budgetary restrictions. This aspect of the program was viewed to be very important by both teachers and program administrators. The use of company personnel as classroom aides not

TABLE 1

Summary of Classroom Observations

Site	Number of Monitoring Visits	Average Number of Students Present	Average Number of Students Enrolled	Rating of Facility	Other Personnel Observed	Average Length of Visit
International Wire Co.	8	8	15	Excellent	Personnel Manager Present once	54 minutes
St. Joseph's Hospital	3	4	7	Fair	None	63 minutes
Uniweave	3	5	14	Good	None	45 minutes
St. Joseph's H.S. (Kelling Nuts)	4	10	16	Fair/Good	None	58 minutes
General Electric	5	3	-	Good	Extra Teacher	62 minutes

only allows for flexibility in the class, but also provides a resource for adding job-related English to the program. This curricular area was observed only eleven percent of the time. However, conversational English was more important to the students than job-related English since in many cases the English language job requirement is minimal.

Classes were conducted either prior to or after working hours although part of the class time overlapped with company time (see Table 2). Thus the companies' support of the program involved both teacher and employee compensation. At one site it was noted that attendance at post-work classes was better than at pre-work classes. If classes are planned for the end of the working day, care must be taken to insure that conflicts do not occur because of overtime. This problem is acute in textile factories and was noted last year.

Many of the teachers expressed a genuine concern for their students. This was observed in the classrooms by the students and the evaluators. The atmosphere was found to be friendly and yet the teacher-student relationship was maintained. The students were interested and involved and the teaching was varied.

In some classes students were grouped by ability. This was most easily achieved when two teachers were present, but was also found in one-teacher classes. The familiar surroundings of on-site classes led to improved attendance and the possibility of including job-related English in the curriculum.



TABLE 2

Schedule of Classes

1. Uniweave Corporation
  - A. 7:00 - 8:15 A.M. Monday through Friday
  - B. 1:30 - 2:30 P.M. Tuesday and Thursday
  - C. 3:30 - 5:00 P.M. Monday through Thursday
2. International Wire Co.
  - A. 3:00 - 5:00 P.M. Monday, Wednesday, Friday
  - B. 3:00 - 5:00 P.M. Monday, Wednesday, Friday
3. Kelling Nut Co.
  - 6:30 - 8:30 P.M. Tuesday, Wednesday, Thursday
4. St. Joseph's Hospital
  - 1:00 - 2:15 P.M. Monday through Friday
5. General Electric Co. (began in March)
  - 2:30 - 4:30 P.M. Monday, Wednesday, Friday
6. Chromatex, Inc. (discontinued in December)

## CURRICULUM AND INSTRUCTION

Book 1 of the Prevocational English series was previously judged unsuitable as a primary text for Operation Breakthrough. However, as in the past, the text did have some limited use in the classes observed.

Many instances of the use of teacher-made materials were found. These included dialogues, stories, fill-in-the-blanks exercises, and others.

The interaction between the project, teachers and the companies led to the development of job-related material. For example at General Electric, a "Safety Rules" statement provided a focus for vocabulary such as "avoid", "obey", and "strict", and for grammar ("If you obey the safety rules, you will not get hurt."). In addition, students worked with a micrometer, learning the parts and again using this as a focus for grammar ("You call it the shaft," "it is called the shaft.").

Monitoring of classes showed that the classwork was primarily oral, an intent of the project. More often than not, typical public usage of English was emphasized. In point of fact, the use of Spanish could be characterized as "not at all" or "little" by both students and teachers.

Because the classes tended to be small, the students and teachers worked very closely. It was clear that the teachers would guide the class, but they were still supportive of the students, giving them chances to improve their speech and work. The students were also very supportive of each other, so that if one was having difficulty, he or she had several teachers - the teacher nominally in charge as well as his or her peers. The atmosphere in the classes was consequently open while being clearly directed toward the curriculum.

As a result of the 1972-1973 evaluation, it was suggested that meetings between teachers and project staff should be held. This was accomplished with

monthly, Saturday morning meetings that served as a clearinghouse for the exchange of ideas and strategies. Teachers received no compensation for attendance, yet the participation was good and the idea was uniformly well-received.

TABLE 3

## Summary of Activities Observed During Eighteen Visits

<u>Activity</u>	<u>Incidence</u>	<u>Activity</u>	<u>Incidence</u>
Teaching-Learning (Oral) conversational English	6	Teaching-Learning (Reading) materials suited to students' abilities	8
typical public usage	13	materials suited to students' ages	1
job-related	3	story	5
question-answer	5	written exercises	3
drill	1	dictionary	2
GRAMMATICAL STRUCTURE		MATERIALS	
past-present	2	pictures	3
sentence construction	1	realia	1
comparative	3	models	7
can(able), can(may)	2	dialogue	1
pronouns	1	cartoon	1
verbs	1	readings	3
Where is ...?	1	common experiences	1
What is in ...?	1	rods (literally)	5
		rods (imaginatively)	3
		workbook	3

TABLE 3 (continued)

<u>Type of English</u>	<u>Incidence</u>	<u>Use of Spanish</u>	
conversational	9	By Teacher	none 9
job-related	2		little 8
public usage	7		
		By Students	none 2
			little 12
			some 3
materials given to students for home use	5		

TABLE 4

## Summary of Observer Ratings\*

Item	Mean Rating
1. Teacher controlled the content of students' speech	3.8
2. Students determined content of their speech	2.4
3. Teacher evaluated the correctness of students' grammar	4.3
4. Students evaluated the correctness of each other's grammar	2.3
5. Students were informed about correctness of their answers	4.4
6. Students who made errors subsequently said the utterance correctly	4.0
7. They got it correct because they repeated from a model	3.8
8. They got it correct because they were helped to figure it out	3.9
9. They got it correct because they figured it out themselves	2.5

\* Ratings were made on a scale from 1 (Never) to 5 (Always).

## STANDARDIZED TEST DATA

In this section of the report, data from the tests administered are summarized. All the statistics reported are of a descriptive nature and, because of gaps, no inferential techniques have been applied. The reader is reminded that these data are only descriptive of a small group of participants and may or may not be indicative of the data one might obtain from a larger group.

### Ilyin Oral Interview - Experimental Edition

The Ilyin requires the examinee to do no reading or writing. Rather, through a series of questions, the student's ability to use English orally in response to spoken English is studied. Traditionally, one of the two alternate forms of the Interview (BILL Form, SAM Form) is administered in an interview format where the administrator transcribes each verbal response exactly as given. These responses are scored for information, word order, verb structures, and other (use of prepositions, articles, pronouns, and so on). Four points are possible for each item with a perfect score of 200.

The Ilyin instrument is very well suited to the objectives of the program. The oral component required gives the instrument excellent content validity with a testing format to which examinees can readily relate. However, the instrument itself can take a very long time to administer.

For this reason, the Operation Breakthrough staff designed a procedure whereby the Ilyin could be administered in a group setting. The student was still required to speak and therefore the content validity aspect of the instrument was maintained.

In the 1972-1973 evaluation report, it was suggested that the length of

TABLE 5

MEAN PERCENTAGE CORRECT OF ITEMS ATTEMPTED  
STANDARD DEVIATIONS (SD) AND SAMPLE  
SIZES (N) OF THE PRETEST ILYIN SCORES FOR ALL SITES

	Uni- weave A.M.	Uni- weave 1 P.M.	Uni- weave 3 P.M.	Int. Wire A	Int. Wire B	Kelling Nuts	St. Joseph's Hospital	Chromatex	G.E.	A.B.E.
Mean	51	45	51	65	45	63	51	65		
S.D.	27	30	24	11	8	16	23	18	NA	NA
N.	9	7	8	16	13	16	7	30		

TABLE 6

MEAN PERCENTAGE CORRECT OF ITEMS ATTEMPTED  
STANDARD DEVIATIONS (SD) AND SAMPLE  
SIZES (N) OF THE POSTTEST ILYIN SCORES FOR ALL SITES

	Uni- weave A.M.	Uni- weave 1 P.M.	Uni- weave 3 P.M.	Int. Wire A	Int. Wire B	Kelling Nuts	St. Joseph's Hospital	Chromatex	G.E.	A.B.E.
Mean		97	77	88	80		79			
S.D.	NA	0.0	16	12	19	NA	21	NA	NA	NA
N.		1	4	11	10		5			



time required to administer the Ilyin was also a factor in explaining the small sample sizes for both the pretest and posttest. The situation was improved somewhat this year. However, it has still been very difficult to collect both pretest and posttest data for the project classes, with the possible exception of those at International Wire.

### E.S.L. Diagnostic Test

The second instrument designed to be administered on a pretest - posttest was the 50 item multiple-choice E.S.L. Diagnostic Test. The first 37 items (Part I) deal with knowledge of English grammar, syntax, adjective positions, and so on. Several of the items deal with points of confusion between English and Spanish translation. For example, in item 8:

How old is that lady?

- (a) She is 35 years old.
- (b) She has 35 years old.
- (c) She is 35 years.
- (d) She has 35 years.

For each of the remaining 13 items (Part II), the stem is a sentence written in Spanish. The examinee is required to "choose the correct way to say it in English." The instrument is scored for number right and scores are not obtained separately for Part I and Part II.

As with the Ilyin data, no inferential techniques have been applied. For example, because so few examinees took both the pretest and posttest, it is impossible to determine growth or change over time. As it worked out, only 10 students took both administrations of the E.S.L. Diagnostic Test. This dearth of data makes any comparisons either across sites or over time ill-advised.

TABLE 7

MEAN PERCENTAGE CORRECT OF ITEMS ATTEMPTED  
STANDARD DEVIATIONS (SD) AND SAMPLE  
SIZES (N) OF THE PRETEST E.S.L. DIAGNOSTIC TEST SCORES  
FOR ALL SITES

	Uni- weave A.M.	Uni- weave 1 P.M.	Uni- weave 3 P.M.	Int. Wire A	Int. Wire B	Kelling Nuts Hospital	St.Joseph's Hospital	Chromatex	G.E.	A.B.E.
Mean	49	43	77		63	45				
S.D.	18	1	16	NA	23	17	NA	NA	NA	NA
N.	7	2	4		6	7				

TABLE 8

MEAN PERCENTAGE CORRECT OF ITEMS ATTEMPTED  
STANDARD DEVIATIONS (SD) AND SAMPLE  
SIZES (N) OF THE POSTTEST E.S.A. DIAGNOSTIC TEST SCORES  
FOR ALL SITES

	Uni- Weave A.M.	Uni- Weave 1 P.M.	Uni- Weave 3 P.M.	Int. Wire A	Int. Wire B	Kelling Nuts Hospital	St.Joseph's Hospital	Chromatex	G.E.	A.B.E.
Mean	92	64		72	46	46				
S.D.	0	0	NA	23	10	8	NA	NA	NA	NA
N.	1	1		6	6	9				

## DEMOGRAPHIC DATA

Data were available for a total of 133 program participants. Seventy-nine percent of the participants were men. This figure is somewhat higher than in the past, possibly reflecting the particular companies participating in the project or the drawing power of the classes. For those employees on whom age or education data were available, the average age was approximately 35.2 years with 7.7 years of schooling. Because of the paucity of data, as noted above, it was impossible to determine whether age or sex was related to the test scores obtained. Starting salary data were given for employees in seven experimental sites. Because salary increments were tied to contracts, the average starting salary of \$3.26 per hour remained virtually the same throughout the time of this evaluation. The average number of hours of instruction for the experimental site employees was 92.1 (excluding dropouts). However, an average of 133.4 hours was available. While there was a discrepancy between available and actual hours of instruction, it should be noted that the average number of hours of instruction in 1973-1974 was almost twice that of 1972-1973.

In addition, it was noted that the median number of hours of instruction for dropouts was only 18. This would indicate that those individuals who were going to drop out typically did so soon and then the rest of the class "got down to business."

Students dropped out of classes for various reasons such as personal problems, illness, availability of overtime, and so on. One must keep this in mind in the interpretation of the data. As noted elsewhere in this report, however, the indications are that students remaining in the program received high quality instruction from interested and competent staff, and no report was received to indicate that dissatisfaction with the classes was a reason for withdrawal.

In fact, student comments about the program were typified by comments such as:

"It has helped me in the knowledge of my job."

"I can visit more people who speak English and exchange ideas."

"It has helped me talking to my son in English."

"I need more English because I can't understand well many things yet."

TABLE 9\*

## TOTAL CLASS DATA -- EIGHT CLASSES

(Total of ten classes held: for statistical purposes two Chromatex classes were combined; General Electric course incomplete)

1. Total number of students enrolled 133 Male 110 Female 23
2. Total number of students receiving certificates 53 ; 39.8%
3. Total number of drop-outs 80 ; 60.2%
4. Total number of students receiving raises 0 ; 0%
5. Average earnings of students \$3.26 hr. ; after raises ---
6. Average raise in salary 0 ; an increase of 0%
7. Average hours of instruction to receivers of certificates 92.1
8. Average hours of instruction to drop-outs 31.1
9. Total average hours of instruction per class 133.4
10. Average student educational level 7.7 Male 7.8 Female 7.4
11. Average student age 35.2 Male 34.9 Female 33
12. Average class pre-E.S.L. Diagnostic Test score 49.6
13. Average pre-E.S.L. Diagnostic Test score for receivers of cert. 56
14. Average pre-E.S.L. Diagnostic Test score for drop-outs 44.8
15. Average class post-E.S.L. Diagnostic Test score 64 ; 36.7% increment
16. Average class pre-Ilyin Oral Test score 58.7
17. Average pre-Ilyin Oral Test score for receivers of certificates 60.2
18. Average pre-Ilyin Oral Test score for drop-outs 55
19. Average class post-Ilyin Oral Test score 85.2 ; 56.8% increment
20. Total number of students referred to G.E.D. programs 10
21. Total number of students referred to colleges 5
22. Total number of students referred to other educational programs 6
23. Total number of students referred for employment 2
24. Total number of counselor's visits to classes 130
25. Total number of individual interviews with students 203
26. Average number of interviews per student 1.75
27. Total number of absentees visited who returned to class 37
28. Total number of absentees visited who dropped out 62
29. Total number of outside students recruited to classes 13
30. Total number of Puerto Ricans in classes 26 ; 19.55%
31. Total number of South American students 99 ; 74.44%
32. Total number of other nationalities 8 ; 6.02%

\*This table was prepared by the Operation Breakthrough staff based upon an outline devised by EDCON Associates.

## ORGANIZATIONAL CASE STUDY

### Introduction

This section of the evaluation resulted from a series of interviews, observations, and discussions with people at all levels within the organization of Operation Breakthrough and with the companies involved in the program. A framework for the case study is presented, each element is discussed, an example of a similar program is presented, and conclusions are delineated. The knowledge of the program, the people, interrelationships, problem areas, and strengths is a result of a continuing involvement with Operation Breakthrough for over a year and a half.

Malcolm S. Knowles, who is widely known and respected in Adult Education, has recently revised one of his major works in the light of current information on the learning processes of adults. It was Knowles who first used the term andragogy to denote the unique aspects of adult learning as compared with pedagogy. Andragogy is based on four assumptions which make the learning of the adult different from that of the child. These assumptions are that, as a person matures,

(1) his self-concept moves from one of being a dependent personality toward one of being a self-directing human being; (2) he accumulates a growing reservoir of experience that becomes an increasing source for learning; (3) his readiness to learn becomes oriented increasingly to the developmental tasks of his social roles; and, (4) his time perspective changes from one of postponed application of knowledge to immediacy of application, and accordingly his orientation toward learning shifts from one of subject-centeredness to one of problem-centeredness.

All of these assumptions point in the direction of a person who is learning as a free choice. If an adult education program is administered with the idea that the student responds to a learning environment in which the above assump-

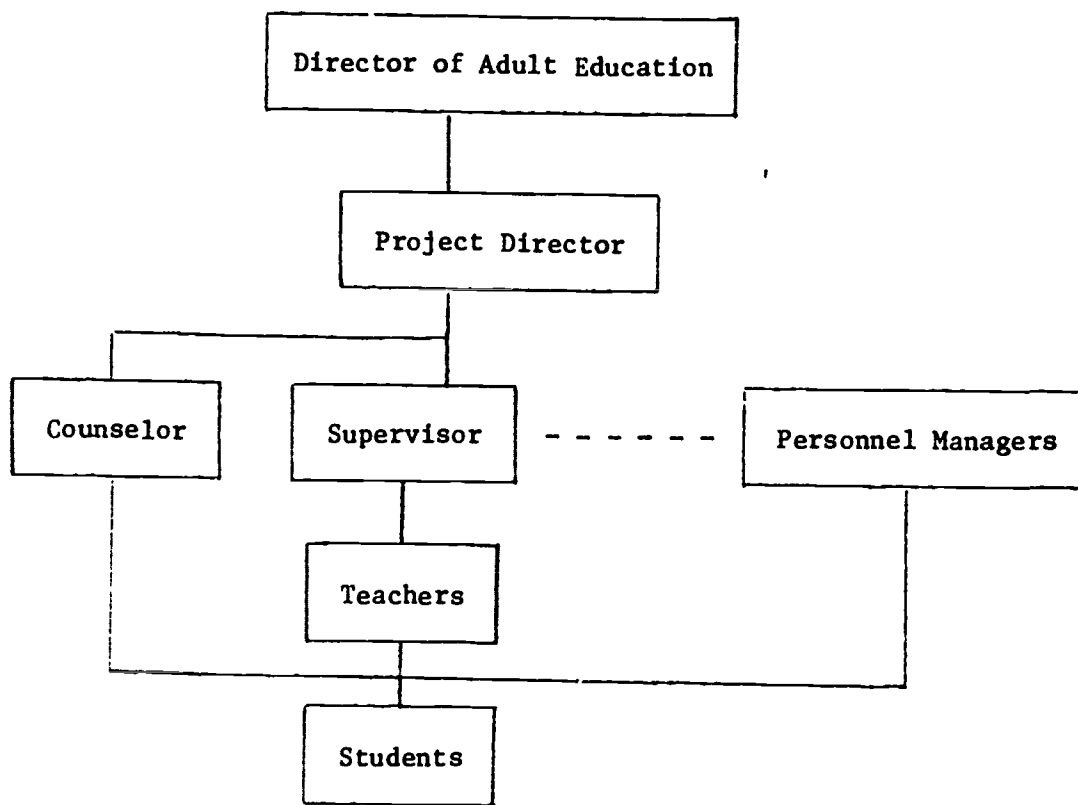
tions are considered and central to the program, then, the learning is likely to be successful. Operation Breakthrough seems to embody the principle of andragogy: that is, the student can typically apply his new knowledge which enables him to work as a more independent person in his immediate social role, his job.

Knowles states that an organization is "not simply an instrumentality for providing organized learning activities to adults; it also provides an environment that either facilitates or prohibits learning." The adult education facility must face an already existing structure in which to work. There are three possibilities by which andragogical principles may be introduced into an already existing administrative format: (1) change the format, (2) develop a semi-independent structure, or, (3) negotiate gradual modifications in policy. Change theory (e.g., Lewin's Force Field Analysis) would indicate that the most useful processes involve negotiation. This was often the procedure in the project. Those times when it was possible to develop only a semi-independent structure, problems did not seem to be handled to the best advantage of the students. For example, the class at St. Joseph's Hospital was not supported by any investment on the Hospital's part. This led to conflicting demands on the students' class time which resulted in poor attendance.

This study makes use of the basic outline set forth in The Modern Practice of Adult Education; Andragogy Versus Pedagogy by Malcolm S. Knowles (New York: Association Press, 1970). In Part II: Organizing and Administering Comprehensive Programs of Adult Education, Knowles discusses establishment of organizational climate and structure and uses a chart to discuss organizational characteristics which depict static organizations as opposed to innovative organizations. The characteristics described in Figure 2 were used to critique the operational and administrative functions of Operation Breakthrough.

Each of the dimensions is discussed in terms of the immediate administration which includes the following: Mr. Comerford, Director of Adult Education; Ms. Montague, Project Director; Mr. Burgos, Counselor; and Ms. Dowling, Supervisor; in terms of plant personnel managers; and in terms of the hierarchy in the classroom.

FIGURE 1  
ORGANIZATION CHART



Structure

The overall structure of Operation Breakthrough is a blend of flexibility and yet, there is an observance of hierarchical role permanence. The roles at the bottom of the hierarchical ladder (see Figure 1) become less narrowly defined allowing for a broader interpretation of boundaries and as Knowles says, "multiple linkages based on functional collaboration."



FIGURE 2  
CHARACTERISTICS OF STATIC AND INNOVATIVE ORGANIZATIONS

DIMENSIONS	CHARACTERISTICS	
	Static Organizations	Innovative Organizations
<u>Structure</u>	Rigid--much energy given to maintaining permanent departments, committees; reverence for tradition, constitution & by-laws. Hierarchical--adherence to chain of command. Roles defined narrowly. Property-bound.	Flexible--much use of temporary task forces; easy shifting of departmental lines, readiness to change constitution, depart from tradition. Multiple linkages based on functional collaboration. Roles defined broadly. Property-mobile.
<u>Atmosphere</u>	Task-centered, impersonal. Cold, formal, reserved. Suspicious.	People-centered, caring. Warm, informal, intimate. Trusting
<u>Management</u>	Function of management is to control personnel through coercive power.	Function of management is to release the energy of personnel; power is used supportively.
<u>Philosophy</u> and <u>Attitudes</u>	Cautious--low risk-taking. Attitude toward errors: to be avoided Emphasis on personnel selection. Self-sufficiency--closed system regarding sharing resources. Emphasis on conserving resources. Low tolerance for ambiguity.	Experimental--high risk-taking. Attitude toward errors: to be learned from. Emphasis on personnel development. Interdependency--open system regarding sharing resources. Emphasis on developing and using resources. High tolerance for ambiguity.
<u>Decision-making</u> and <u>Policy-making</u>	High participation at top, low at bottom. Clear distinction between policy-making and policy-execution. Decision-making by legal mechanisms. Decisions treated as final.	Relevant participation by all those affected Collaborative policy-making and policy-execution. Decision-making by problem-solving. Decisions treated as hypotheses to be tested.
<u>Communication</u>	Restricted flow One-way--downward. Feelings repressed or hidden.	Open flow--easy access. Multi-directional--up, down, sideways. Feelings expressed.

There seems to be a great amount of collaboration between the supervisor and the teachers. This is one of the strongest points of the program. Constant and direct contact with the teaching function is crucial to the success of excellent teaching methods. Yet, the teachers do not seem to feel controlled or bound by rigidly defined directives. They all seem to be exceptionally well qualified and able to work in conjunction with the goals of the students and the plant management.

Many of the personnel managers seem to have a certain degree of flexibility in their positions. The more involved the personnel manager became and the more knowledgeable he was of the goals of andragogy, the higher the success rate of the students (at least in terms of attendance and teachers' perceptions of achievement). If he viewed his role as that of active participation, the students in the program had a much better chance of succeeding. If the personnel manager perceived the program as secondary to his other functions, the chance of success was adversely affected. When commitments to overtime were placed above commitments to the program, for instance, it was the program that was set aside.

In the classroom, the traditional distance between teacher and student was maintained. However, the notable departure from the teacher role was the effort teachers made to keep the speaking almost entirely in the hands of the students. Most activities were teacher-directed, although some effort was made to promote student initiation.

### Atmosphere

Nowhere in the entire program could the atmosphere be described as Knowles describes static organizations: "cold, formal, reserved, suspicious." Sometimes the top of the hierarchical structure lacked the "warm, informal" quality,

but for the most part, the concern was always for the student. The most exceptional cases in this category were again the teachers and the personnel managers. The students were perceived as adults and not at all as child-students. The task of teaching-learning was definitely people-centered.

#### Management Philosophy and Attitudes

In the administrative structure of Operation Breakthrough again there was a blending of the development and use of power. The activities of the four members of the central staff seemed mostly to be open-ended and somewhat independent. Each person was able to use a good amount of personal judgment and yet, the Director of Adult Education and the Project Director did maintain a veto power. Besides dealing with the function of management in the administrative confines of Operation Breakthrough, there was also an attitude and philosophy to be dealt with on the part of the personnel managers and their companies. On all levels it could readily be determined that errors were to be learned from, rather than avoided at all costs. The most circumspect about this were the managers whose concern centered mainly on the fact that a successful program this year would insure its continuance next year.

The teachers certainly embodied the attitude of releasing the learning and creative energies of the student. All learning was conducted in such a manner that the student was the discoverer of the correct sequences. This means of reinforcing the self-concept of the student was repeated in every lesson.

There was an emphasis placed on the development and use of personal materials. One plant personnel manager made two large pegboard aids with actual tools and equipment used on the job, with large block letter cards identifying the object. Teachers used homemade materials such as small buildings and people to create life-like conversational settings and situations.

### Decision-making and Policy-making

The immediate administrative structure allowed for relevant participation by all. Many of the financial decisions were made by the top administrators, although with more input from staff than in the previous year. Those personnel managers who showed a desire to participate in the program in some way in their own companies were welcome to do so. It was the personnel managers who were responsible for the recruitment of the students and whose decision it was to offer, on behalf of the company, a closing ceremony and/or a certificate for participation in the program.

It is not until we reach the students in the hierarchy that a breakdown in collaborative decision-making, policy-making and policy execution occurs. The educational design of the program is determined by the immediate administrative structure of Operation Breakthrough as well as from input from the teachers. The financial breakdown is largely determined by the top of the hierarchy and the system of rewards is determined by the host companies. There is no negotiation on the part of the students in any of these functions. Page 7 of the Second and Third Quarterly Reports for Operation Breakthrough indicates "... we have developed a feasible, working, Advisory Council composed of involved factory management, educators, political and labor union personnel as well as our own staff." The suggestion may be made to include former students and/or present students on the Advisory Council.

The same page of the Report notes a summary of findings for the project. They include: (3) There may not be a heavy demand for this model from the service industries in this area, but the model works well with such industries.

Perhaps if laborers and unions were informed of the benefits derived from such a program, the demand for the model would come from student/workers rather than from industry.

Possibly one of the weakest areas concerning decision and policy-making could be seen at St. Joseph's Hospital. There was little or no collaborative effort on the part of the Hospital administration to make it a possibility for students to attend class. The problem of work overloads was not solved which made it necessary for some students to drop out of class. Little or no effort was made to encourage full participation and problem solving.

In classroom procedure, teachers constantly sought relevant participation. However, all homemade materials were either teacher-made or made by the personnel managers. Students were not encouraged to develop or utilize their own materials.

#### Communication

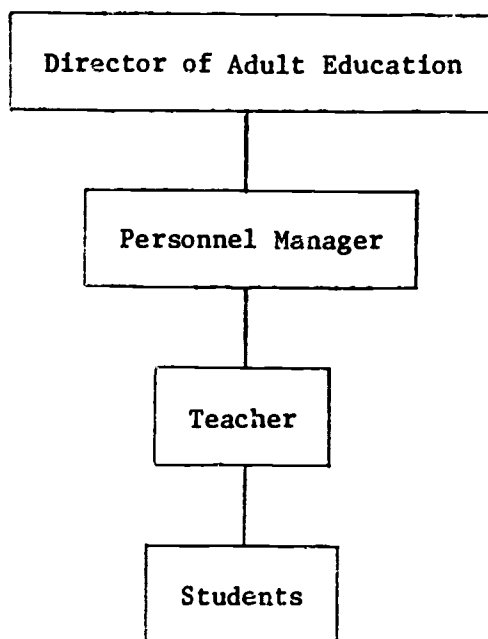
Probably the strongest area of this project is communication. In all areas of the hierarchy the communication flow is multi-directional. The constant contact among the immediate administrators and between them and the specific companies and classrooms contributes to an enriching experience for everyone. The supervisor, especially, is responsible for the open communication network. Because of the flexibility of her role, she is able to maintain contact with the office and the field to the benefit of the project as a whole.

#### A Comparison

The Campbell Soup Company of Camden, New Jersey conducted a program in one plant which was to be similar to the project run by Operation Breakthrough. The structure is pictured in Figure 3.

FIGURE 3

ORGANIZATIONAL STRUCTURE - CAMPELL SOUP COMPANY PROGRAM



The Company paid the teacher's salary but the teacher was chosen by the Director of Adult Education. Materials were homemade, there was no special training for the teacher, and no contact with the Director at any time during the teaching year. Employees at Campbell Soup work swing shift - one week they came to work two hours early to attend class and alternate weeks they went to class for two hours on company time.

Little was accomplished in this class for a variety of reasons. The personnel manager had little time to devote to the project and the teacher often came late. There was little or no contact with the class for the length of time it ran. Despite numerous setbacks, six students did complete a course which ran once a week for eight months. Money is available at Campbell Soup and the administration is eager to run a good program for its Spanish-speaking employees. The strong support offered by the immediate administration of Operation Breakthrough is lacking and seems to make a difference.

## Conclusions

Several extrapolations can be made from the preceding sketch of the organizational characteristics of Operation Breakthrough:

1. A fluid role definition is desirable in order to fully serve the interests of students found in a variety of plant situations.
2. Adult students seem to expect a traditional distance between the teacher and themselves. Teachers are effective at maintaining a professionalism without posing as superior, unfriendly, or unconcerned.
3. The more involved plant personnel managers become, the more likely is the project to succeed. Problems in work schedules, work loads and compensation can be dealt with and often overcome with the aid of an effective, involved personnel manager.
4. The development and use of personal teaching materials and the cognitive method of language teaching seem to be viable both in terms of student participation and involvement and personnel managers' contributions.
5. Consideration should be given to the concept of allowing former and present students to participate in decision-making.
6. The communication network could serve as a model for all programs.

## CONCLUSIONS

The Operation Breakthrough program has continued to operate efficiently and effectively in its second year. The curriculum approach has continued to develop toward a meaningful system of teaching English as a Second Language to Spanish-speaking factory workers.

The staff developed in the first year, and validated in the second year, a set of criteria for inclusion of companies. These factors, listed below, should be requirements for future classes.

1. Financial involvement of company
2. Management involvement in classes
3. Management involvement in planning
4. Lack of overtime conflicts
5. Lack of seasonal lay-offs
6. Student compensation (e.g., released time, promotion, bonus)
7. On-site class

The information presented by the Operation Breakthrough staff in Quarterly Reports was found, by the evaluators, to be objective, accurate, and complete. Their thoroughness and recognition of the need for evaluative information is commendable.

The administration of the two achievement instruments has had some utility in terms of diagnosis of students' strengths and weaknesses. However, these tests have not been found to be valuable tools for the evaluation of student growth. Irregular attendance and a high rate of attrition led to few students having taken both the pretest and the posttest. Thus it is difficult to determine directly the effects of instruction upon achievement. Given the population being served by Operation Breakthrough, it is unlikely that future



evaluations will be able to solve this problem.

The quality of the information collected by the program staff coupled with the achievement testing problem lead us to conclude that future evaluation of this program may not be necessary. While the evaluation may have provided a different view of the program and may have expressed some ideas not contained in Quarterly Reports it has not (because of the program's up-to-date information) had to provide feedback for use during the year. Thus, unless it is required by the funding agency, EDCON Associates reluctantly recommends that its work be discontinued. This should not be interpreted as a reflection on the program. Rather, the operation of this project and the continuous appraisal by the staff has provided valid data that need not be supplemented by an outside agency.

CE

FOURTH QUARTERLY PROGRESS REPORT

for

OPERATION BREAKTHROUGH  
A Special Experimental Demonstration  
Project to Upgrade Spanish-speaking  
Workers in Entry-level Factory Jobs

FY 1973-74

U S DEPARTMENT OF HEALTH,  
EDUCATION & WELFARE  
NATIONAL INSTITUTE OF  
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Prepared by:

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Paterson Adult Education  
Board of Education  
Paterson, New Jersey

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80 Hamilton Street  
Paterson, New Jersey 07505

June 30, 1974

CE 0045295

While Operation Breakthrough's first year of operation was largely a task of tooling up and setting in motion the special experimental demonstration project to upgrade Spanish-speaking workers in entry-level factory jobs, the second year resulted in some concrete and useful findings. These findings, or principles include the following:

1. Factory technical teachers are extremely useful in developing curriculum, in counseling, and in improving management-employee relationships.
2. A cognitive, student-centered curricular system is proving more effective than a fixed, quasi-text book set of vocationally-oriented lessons.
3. There may not be a heavy demand for this model from the service industries in this particular area, but the model works well with such industries.
4. The following factors, in the order given, strongly influence the success of a class:
  - a) Student compensation (preferably released time)
  - b) Class on site
  - c) Lack of overtime work for students, especially if they are not given released time for class
  - d) Lack of seasonal layoffs
  - e) Management paying teachers' salaries
5. Students' personal lives affect their attendance at class . . . and we have to adapt to them.

For this model, classroom and individual successes cannot be assured unless there is a deep involvement and commitment from management, as most of the above principles would indicate.

These findings are now being used to guide in the preparation for the third year of the experimental demonstration project.

During FY 1973-74, a total of 10 classes at six sites with a total of 133 students were held. Of these 133, 53 attended at least 50 of the total 150 hours. Certificates were awarded

to those students who had received 50 or more hours of instruction. A certificate is attached to this report.

Following is a list of the factories involved in this year's project: International Wire Products Company, Kelling Nuts Company, Chromatex, Inc., General Electric Company, Uniweave Corp. and St. Joseph's Hospital.

Because of a late start, only 86 hours of teaching were completed at General Electric. After a break for summer vacations, the balance of General Electric's 150 hours will be completed in the fall. Not all of the total required hours were completed in some of the Chromatex or the Uniweave classes, but no effort will be made to make up this deficit. The complications in these classes were explained in earlier reports.

Both Chromatex and Uniweave are textile plants, and as was pointed out in the proposal for FY 1974-75, classes started in certain types of industries, including textile industries, have a greater casualty potential than in other industries. This has proven to be true during both the first and second years of operation. It seems that such industries tend to expect a narrower margin of profit per item, pay smaller wages, have seasonal layoffs, depend heavily on overtime during seasons of high production, draw their employees from the least trained segment of society and do not depend heavily on employee loyalty. In spite of this generalization, a certain degree of success was experienced in two of the three classes held at Uniweave. To the end of the classes, there remained a small core of committed students who made good progress during the course. Chromatex

and Uniweave were the only two companies who did not in some way compensate their employees.

Attached to this report is a statistical compilation regarding classes and students and their gains during the past year.

The Advisory Board, which was planned during the first year, did not actually begin to function until FY 1973-74. Board membership was revised when it became apparent which persons were most deeply involved in this project. Now the membership of the board consists of the following:

Mr. James J. Comerford, director Paterson Adult Education; Mr. Al Doose, Personnel Director of International Wire Products Company; Mr. Alex Esparra, director of Sparatec, an electronic training school for Spanish-speaking people; State Assemblyman William Hicks; Mr. Samuel D. Koutas, Manager Employee and Community Relations of General Electric Co.; Mr. Joseph Ramos, representative of the Teamsters Union; Mr. Philip M. Vaughan, Jr., Plant Manager of Kelling Nuts Co.; and the Operation Breakthrough staff--Lucerne Montague, Director; Gretchen M. Dowling, Supervisor of Instruction; Wilfredo Burgos, Counselor.

These members, especially the industry representatives, have been extremely helpful in planning for the new year, and have committed their support in providing expertise and continued in-plant financial support for the coming year. Two luncheon meetings were held during 1974, the first on January 17 and the second on May 3.

Since Planned Variations did not refund this project during the second year as had been anticipated, it seemed that we would

be seriously hampered financially. And it was true, that because of budget deficiencies, we were unable to implement the entire program as it had been envisioned.

There were, however, certain benefits which came to us as a result of being under-budgeted. In forcing our staff to look to other sources to make up financial deficits, the industries upon which the project was centered were sold on greater financial involvement. As a result, all of the industries, except the hospital, with whom the project worked during the year paid the salary of their teacher. This financial outlay on the part of management seemed to cause them to involve themselves more deeply, i.e., they observed classes more often, followed up on absenteeism and made a point of trying to communicate in English to their class-member employees.

This cost-sharing by management which was more or less forced by the accident of not being completely refunded, will no doubt become an important part of the model. This will make it possible for the project to be financially feasible under adult education programs even where it is not possible for boards of education to budget adequate funds to finance such projects.

A significant happening during the fourth quarter of the second fiscal year was that our project was chosen to be featured in a film, dealing with adult education projects throughout the United States, which was being prepared for the United States Office of Education. Operation Breakthrough was featured as one of four segments of the film. This film was produced by Vision Associates, Inc. of New York City under the supervision of Teachers' College, Columbia University.

Work has continued throughout this year on the innovative curricular teaching design, and while it is still not complete, it will be completed during the third year.

There were other accomplishments during the year, which have been covered adequately by the quarterly reports.

Classes will not begin until September for the third year. In the meantime, staff members are giving their energy to planning and reorganizing during these summer months.

Questions have been raised by the funders concerning (1) the guide to be developed describing how a successful industry-based program in adult-career education can be established and maintained in other parts of the country; and (2) the assurance that factory aides, which have been identified as being one of the most successful parts of the project, will be continued into the third year and will be written in as a part of the model.

Our communication concerning these questions is attached.

Because we were not funded to the extent of our requests, we are currently seeking funds to assure not only that the aide part of the project will be continued, but that certain other aspects of the project which were cut out may be retained. We are confident that we will find the resources to conclude this special experimental demonstration project in the manner in which we desire.

It is planned that the outside evaluation be attached to this report; however, it will not be arriving from Edcon Associates until August 31. It will be immediately forwarded upon its arrival.

OPERATION BREAKTHROUGH

of the

Board of Education

Paterson, New Jersey

*This is to Certify that* \_\_\_\_\_

HAS COMPLETED \_\_\_\_\_ HOURS AND HAS MADE SATISFACTORY PROGRESS IN ENGLISH LANGUAGE COMMUNICATION SKILLS IN AN EDUCATIONAL PROGRAM SPONSORED BY THE PATERSON BOARD OF EDUCATION IN CONJUNCTION WITH THE DEPARTMENT OF HEALTH, EDUCATION AND WELFARE AND THE PATERSON AREA INDUSTRIAL COMMUNITY.

GIVEN THIS THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 197\_\_\_\_

\_\_\_\_\_  
Teacher

\_\_\_\_\_  
Project Director

\_\_\_\_\_  
Industrial Representative



Plan for the implementation of the third year of the Special Experimental Demonstration Project, "Exemplary Program for Educationally Disadvantaged Adults: Job-oriented, Employer-based Project Geared to the Needs of Underserved Spanish-speaking Adults with Basic Educational Deficiencies", especially as they relate to the two following stipulations:

- (1) A guide should be developed describing how a successful industry-based program in adult career-education can be established and maintained in other parts of the country.
- (2) Provision should be made to retain the factory aides as an integral part of the project, quite possibly by way of an increased cost-sharing, as the use of the aides has been identified as being one of the most successful endeavors of the project.

July 1974

I. In regard to the factory aides:

Operation Breakthrough staff also feels that this was one of the most significant aspects of the project for the following reasons:

1. The factory aides had a thorough knowledge of the technical information required by the teacher to make the vocational curriculum and day-to-day instruction relevant.
2. The aides, having been suggested by management, had the confidence of management and seemed to be able to facilitate communication between the employees, their supervisors and other management personnel. This resulted in a general positive attitude change on the part of both management and the employee-students.
3. They were able to teach in small groups or tutoring types of situations, where there was a wide range in the students' levels of English. This lowered the number of drop-outs that might have resulted from the teacher being unable to reach all levels at once.
4. During the coming year, the aides will serve as a general liaison between students and the classroom teacher thus helping to keep the students in the class. In other words, they will serve the trainees as counselors, catching potential drop-outs before they occur and referring them to Breakthrough's counseling staff when necessary.

Because of your requirement and because we do consider this an extremely significant aspect of our project, provision will be made to retain the factory aides. Following is our plan for implementing this aspect of the project without federal monies:

1. We will approach the factory management and ask that they increase their cost-sharing to include paying a factory aide, either at a certain rate per hour or on "release time".

2. This problem will be discussed at our advisory council meeting to gather in the suggestions of the council members, many of whom are factory managers.
3. Some rather large companies with a national network of branches are involved, such as General Electric. If we cannot get monies from the local levels, we will approach the national level for a grant.
4. Several local agencies such as the Comprehensive Area Manpower Planning Services, Planned Variations, and others, will be approached to ascertain if they can make funds available to implement this aspect of the program, if the other approaches fail.

It is the opinion of our staff members that we can assure that this part of the project will be continued.

In planning for the preparation of the guide for replication, much thought is being given to the systems which are being developed within the project. Thus, when the project is replicated, these systems will be replicable so that the initial experimentation will not have to be repeated. These systems include the management system, the curricular teaching system and the counseling system.

## II. With regard to the Manual of Replication:

Our primary objective this year is to seek for means to replicate the most significant aspects of the program in ways which do not include grant money, so that when the guide is written, it will be feasible to replicate it in circumstances where a great deal of money has not been budgeted. Even in cases where we use federal monies, we will be seeking alternative possibilities which will be presented in the replication manual.

Each detail of the organization and development aspects of the project will be included in the manual of replication including materials to illustrate the development. These illustrative materials will include letters, newspaper publicity, as well as the completed written up systems and evaluation results. The guide will include our assumptions, what worked out and what didn't, and our judgments as to the reasons for things working out or not.

III. With regard to the systems we are developing:

The management system details for each of the two preceding years have been included in our management plans. The counseling system has been outlined in detail in our First Quarterly Report of FY 1973-74. The only major proposed change in it for this coming year is the use of the factory aides as on-the-spot counselors, as mentioned above. There will be major changes in the curricular system, and these are described below.

Thus far, we have not fully developed a replicable system. We have some excellent, replicable bits and pieces. However, by September of 1974, when classes start, we will have spelled out a complete system to test out and include in the manual of replication.

Our first year (1972-73) was begun with the assumption that audio-lingual (behaviorist, stimulus-response) teaching and teacher training would be most

effective for non-academic students and for relatively untrained teachers. We found this approach to have serious drawbacks, as far as teacher-training was concerned. (See "Teacher Training Program Report"--Fourth Quarterly Progress Report, June 30, 1973) It was also found to be less effective for students than a more cognitive-code approach. It became necessary to work out a system that freed teachers and students to teach and learn according to their own styles--something creative and individualized, yet disciplined and coherent, not chaotic.

An attempt at such a curricular system was developed and implemented in the teaching year 1973-74. (See "Program Design"--First Quarterly Progress Report, Sept. 1973) Our theoretical assumptions about students and teachers were now those of the cognitive-code psychologists, no longer strictly behaviorist. This systematic approach was found to have excellent results both in terms of increased teacher competence and sensitivity to students, and in terms of students' competence and confidence in English language communication skills. However, this curricular system was too complicated to be practical. Now, the essentially important ideas in it have become much clearer to all of us, so the statement of them will be in far simpler terms, which will aid replicability.

As of this date, the teachers are working out a system for color-coding linguistic universals, which

just might be the key to implementing a curricular system (1) clear enough to be used by a teacher of any level of experience, (2) free enough to be used effectively by any group of students, and (3) intrinsically coherent enough to be a system, not a mish-mash. Its assumptions are also those of the cognitive-code psychologists.

As it is now envisioned, the final guide to replication of our curricular system will include the following aspects:

1. The selection and training of teachers.
2. The selection and testing of students.
3. Our final curricular system.
4. Lists of classroom materials, contexts, techniques, etc. that have been particularly effective.
5. Lists of pitfalls to be avoided.
6. Some sample lessons to clarify how others can use the system.
7. Description of duties the teaching staff have (respectively and together) taken upon themselves.

STATISTICAL REPORT

OPERATION BREAKTHROUGH 1973-74

TOTAL CLASS DATA -- EIGHT CLASSES

(Total of ten classes held: for statistical purposes two Chromatex classes were combined; General Electric course incomplete)

1. Total no. of students enrolled 133 Male 110 Female 23
2. Total no. of students receiving certificates 53 ; 39.8 %
3. Total no. of drop-outs 80 ; 60.2 %
4. Total no. of students receiving raises 0 ; 0 %
5. Average earnings of students \$3.26 hr. ; after raises --
6. Average raise in salary 0 ; an increase of 0 %
7. Average hours of instruction to receivers of certificates 92.1
8. Average hours of instruction to drop-outs 31.1
9. Total average hours of instruction per class 133.4
10. Average student educational level 7.7 Male 7.8 Female 7.4
11. Average student age 35.2 Male 34.9 Female 33
12. Average class pre-E.S.L. Diagnostic Test score 49.6
13. Average pre-E.S.L. Diagnostic Test score for receivers of cert. 56
14. Average pre-E.S.L. Diagnostic Test score for drop-outs 44.8
15. Average class post-E.S.L. Diagnostic Test score 64 ; 36.7 % increment
16. Average class pre-Ilyin Oral Test score 58.7
17. Average pre-Ilyin Oral Test score for receivers of certificates 60.2
18. Average pre-Ilyin Oral Test score for drop-outs 55
19. Average class post-Ilyin Oral Test score 85.2 ; 56.8 % increment
20. Total no. of students referred to G.E.D. programs 10
21. Total no. of students referred to colleges 5
22. Total no. of students referred to other educational programs 6
23. Total no. of students referred for employment 2
24. Total no. of counselor's visits to classes 130
25. Total no. of individual interviews with students 203
26. Average no. of interviews per student 1.75
27. Total no. of absentees visited who returned to class 37
28. Total no. of absentees visited who dropped out 62
29. Total no. of outside students recruited to classes 13
30. Total no. of Puerto Ricans in classes 26 ; 19.55 %
31. Total no. of South American students 99 ; 74.44 %
32. Total no. of other nationalities 8 ; 6.02 %



## CLASS STATISTICS

Class International Wire Products Co.  
 Instructor Mrs. Anna Berg  
 Contact Person Mr. Al Doose

1. No. of students enrolled 18 Male 17 Female 1
2. No. of students receiving certificates 18 ; 100 %
3. No. of drop-outs (7) ; (38.8)%
4. No. of students receiving raises 0 ; 0 %
5. Average earnings of students \$3.52 hr.; after raises ---
6. Average raise in salary 0 ; an increase of 0 %
7. Average hours of instruction to receivers of certificates 105
8. Average hours of instruction to drop-outs 76.1
9. Total hours of class instruction 154
10. Average educational level of students 8.3 Male 8.5 Female 8
11. Average student age 35.8 Male 35.8 Female 36
12. Average class pre-E.S.L. Diagnostic Test score Not Available
13. Average pre-E.S.L. Diagnostic Test score for receivers of cert. Not Avail.
14. Average pre-E.S.L. Diagnostic Test score for drop-outs Not Available
15. Average class post-E.S.L. Diagnostic Test score 72.6; -- % increment
15. Average class pre-Ilyin Oral Test score 65.2
17. Average pre-Ilyin Oral Test score for receivers of cert. 65.2
18. Average pre-Ilyin Oral Test score for drop-outs 67.6
19. Average class post-Ilyin Oral Test score 89.3; 37 % increment
20. No. of students referred to G.E.D. programs 2
21. No. of students referred to colleges 1
22. No. of students referred to other educational programs 3
23. No. of students referred for employment 0
24. No. of counselor's visits to class 10
25. No. of individual interviews with students 32
26. Average no. of interviews per student 1.8
27. No. of absentees visited who returned to class 2
28. No. of absentees visited who dropped out 4
29. No. of outside students recruited to class 0
30. No. of Puerto Ricans in class 2 ; 11.1 %
31. No. of South American students 13 ; 72.2 %
32. No. of other nationalities 3 ; 16.7%

## CLASS STATISTICS

Class International Wire Products Co.  
 Instructor Mrs. Martha Clifford  
 Contact Person Mr. Al Doose

1. No. of students enrolled 13 Male 13 Female 0
2. No. of students receiving certificates 13; 100 %
3. No. of drop-outs (5); (38.5)%
4. No. of students receiving raises 0; 0 %
5. Average earnings of students \$3.17 hr.; after raises ----
6. Average raise in salary 0; an increase of 0 %
7. Average hours of instruction to receivers of certificates 117
8. Average hours of instruction to drop-outs 82
9. Total hours of class instruction 156
10. Average educational level of students 7 Male 7 Female --
11. Average student age 43.7 Male 43.7 Female ---
12. Average class pre-E.S.L. Diagnostic Test score Not Available
13. Average pre-E.S.L. Diagnostic Test score for receivers of cert. Not Avail.
14. Average pre-E.S.L. Diagnostic Test score for drop-outs Not Available
15. Average class post-E.S.L. Diagnostic Test score 44.4; -- % increment
16. Average class pre-Ilyin Oral Test score 44.7
17. Average pre-Ilyin Oral Test score for receivers of cert. 44.7
18. Average pre-Ilyin Oral Test score for drop-outs 38.3
19. Average class post-Ilyin Oral Test score 80.8; 81 % increment
20. No. of students referred to G.E.D. programs 2
21. No. of students referred to colleges 0
22. No. of students referred to other educational programs 0
23. No. of students referred for employment 0
24. No. of counselor's visits to class 18
25. No. of individual interviews with students 25
26. Average no. of interviews per student 2
27. No. of absentees visited who returned to class 2
28. No. of absentees visited who dropped out 5
29. No. of outside students recruited to class 0
30. No. of Puerto Ricans in class 0; 0 %
31. No. of South American students 11; 85 %
32. No. of other nationalities 2; 15 %

## CLASS STATISTICS

Class Uniweave Corp. 8:00 a.m.  
 Instructor Miss Joyce Meadows  
 Contact Person Mr. Alfred Buchbinder

1. No. of students enrolled 15 Male 14 Female 1
2. No. of students receiving certificates 5 ; 33.3%
3. No. of drop-outs 10 ; 66.7%
4. No. of students receiving raises 0 ; 0%
5. Average earnings of students \$3.62 hr.; after raises ----
6. Average raise in salary 0 ; an increase of 0%
7. Average hours of instruction to receivers of certificates 95.6
8. Average hours of instruction to drop-outs 15
9. Total hours of class instruction 154
10. Average educational level of students 8.3 Male 8.8 Female Not Avail.
11. Average student age 31.9 Male 31.9 Female Not Available
12. Average class pre-E.S.L. Diagnostic Test score 51.4
13. Average pre-E.S.L. Diagnostic Test score for receivers of cert. 56.5
14. Average pre-E.S.L. Diagnostic Test score for drop-outs 43.7
15. Average class post-E.S.L. Diagnostic Test score 92 ; 79% increment
16. Average class pre-Ilyin Oral Test score 62.8
17. Average pre-Ilyin Oral Test score for receivers of cert. 79.4
18. Average pre-Ilyin Oral Test score for drop-outs 50
19. Average class post-Ilyin Oral Test score Not Avail.; ---- % increment
20. No. of students referred to G.E.D. programs 0
21. No. of students referred to colleges 0
22. No. of students referred to other educational programs 2
23. No. of students referred for employment 0
24. No. of counselor's visits to class 15
25. No. of individual interviews with students 22
26. Average no. of interviews per student 1.5
27. No. of absentees visited who returned to class 4
28. No. of absentees visited who dropped out 7
29. No. of outside students recruited to class 0
30. No. of Puerto Ricans in class 1 ; 6.7%
31. No. of South American students 14 ; 93.3%
32. No. of other nationalities 0 ; ---- %

## CLASS STATISTICS

Class Uniweave Corp. 1:30 p.m.  
 Instructor Miss Joyce Meadows  
 Contact Person Mr. Alfred Buchbinder

1. No. of students enrolled 15 Male 14 Female 1
2. No. of students receiving certificates 6; 40 %
3. No. of drop-outs 9; 60 %
4. No. of students receiving raises 0; 0 %
5. Average earnings of students \$3.47 hr; after raises ---
6. Average raise in salary 0; an increase of 0 %
7. Average hours of instruction to receivers of certificates 81.8
8. Average hours of instruction to drop-outs 8
9. Total hours of class instruction 127
10. Average educational level of students 8.2 Male 8.3 Female 8
11. Average student age 31.9 Male 32.6 Female 24
12. Average class pre-E.S.L. Diagnostic Test score 43.4
13. Average pre-E.S.L. Diagnostic Test score for receivers of cert. 43.4
14. Average pre-E.S.L. Diagnostic Test score for drop-outs Not Available
15. Average class post-E.S.L. Diagnostic Test score 64; 47.5 % increment
16. Average class pre-Ilyin Oral Test score 51.5
17. Average pre-Ilyin Oral Test score for receivers of cert. 68.2
18. Average pre-Ilyin Oral Test score for drop-outs 43.3
19. Average class post-Ilyin Oral Test score 97.2; 88.7 % increment
20. No. of students referred to G.E.D. programs 1
21. No. of students referred to colleges 1
22. No. of students referred to other educational programs 0
23. No. of students referred for employment 0
24. No. of counselor's visits to class 15
25. No. of individual interviews with students 22
26. Average no. of interviews per student 1.5
27. No. of absentees visited who returned to class 3
28. No. of absentees visited who dropped out 8
29. No. of outside students recruited to class 0
30. No. of Puerto Ricans in class 2; 13.3 %
31. No. of South American students 13; 86.7 %
32. No. of other nationalities 0; -- %

## CLASS STATISTICS

Class Uniweave Corp. 3:30 p.m.  
 Instructor Mr. Joseph Garcilazo  
 Contact Person Mr. Alfred Buchbinder

1. No. of students enrolled 12 Male 11 Female 1
2. No. of students receiving certificates 3; 25 %
3. No. of drop-outs 9; 75 %
4. No. of students receiving raises 0; 0 %
5. Average earnings of students \$3.52hr; after raises ---
6. Average raise in salary 0; an increase of 0 %
7. Average hours of instruction to receivers of certificates 62.7
8. Average hours of instruction to drop-outs 7.8
9. Total hours of class instruction 87
10. Average educational level of students 8.2 Male 8.3 Female 7
11. Average student age 32.3 Male 32.7 Female 28
12. Average class pre-E.S.L. Diagnostic Test score 53
13. Average pre-E.S.L. Diagnostic Test score for receivers of cert. 57.8
14. Average pre-E.S.L. Diagnostic Test score for drop-outs 42
15. Average class post-E.S.L. Diagnostic Test score Not Avail.; -- % increment
16. Average class pre-Ilyin Oral Test score 59.5
17. Average pre-Ilyin Oral Test score for receivers of cert. 40
18. Average pre-Ilyin Oral Test score for drop-outs 63.8
19. Average class post-Ilyin Oral Test score 77.1; 29.6 % increment
20. No. of students referred to G.E.D. programs 3
21. No. of students referred to colleges 1
22. No. of students referred to other educational programs 0
23. No. of students referred for employment 1
24. No. of counselor's visits to class 15
25. No. of individual interviews with students 22
26. Average no. of interviews per student 1.8
27. No. of absentees visited who returned to class 6
28. No. of absentees visited who dropped out 6
29. No. of outside students recruited to class 0
30. No. of Puerto Ricans in class 5; 41.7 %
31. No. of South American students 7; 58.3 %
- No. of other nationalities 0; -- %

## CLASS STATISTICS

Class Kelling Nuts Co.  
 Instructor Miss Joyce Meadows  
 Contact Person Mr. Philip M. Vaughan, Jr.

1. No. of students enrolled 16 Male 16 Female 0
2. No. of students receiving certificates 5 ; 31.3%
3. No. of drop-outs 11 ; 68.7%
4. No. of students receiving raises 0 ; 0%
5. Average earnings of students \$2.85 hr. ; after raises ---
6. Average raise in salary 0 ; an increase of 0%
7. Average hours of instruction to receivers of certificates 64.0
8. Average hours of instruction to drop-outs 24.2
9. Total hours of class instruction 150
10. Average educational level of students 5.8 Male 5.8 Female ---
11. Average student age 37 Male 37 Female ---
12. Average class pre-E.S.L. Diagnostic Test score 56
13. Average pre-E.S.L. Diagnostic Test score for receivers of cert. 66.2
14. Average pre-E.S.L. Diagnostic Test score for drop-outs 49.1
15. Average class post-E.S.L. Diagnostic Test score 46.9 ; -16.3% <sup>decrement</sup> <sub>increment</sub>
16. Average class pre-Ilyin Oral Test score 62
17. Average pre-Ilyin Oral Test score for receivers of cert. 56.7
18. Average pre-Ilyin Oral Test score for drop-outs 64.4
19. Average class post-Ilyin Oral Test score <sup>Not</sup> <sub>Avail.</sub> ; --- % <sup>increment</sup>
20. No. of students referred to G.E.D. programs 0
21. No. of students referred to colleges 0
22. No. of students referred to other educational programs 0
23. No. of students referred for employment 1
24. No. of counselor's visits to class 20
25. No. of individual interviews with students 32
26. Average no. of interviews per student 2
27. No. of absentees visited who returned to class 8
28. No. of absentees visited who dropped out 8
29. No. of outside students recruited to class 10
30. No. of Puerto Ricans in class 9 ; 56.25%
31. No. of South American students 7 ; 43.75%
32. No. of other nationalities 0 ; --- %

## CLASS STATISTICS

Class St. Joseph's Hospital  
 Instructor Mrs. Joyce Ann Custer  
 Contact Person Mrs. Valerie Pizel

1. No. of students enrolled 7 Male 5 Female 2
2. No. of students receiving certificates 3 ; 42.9%
3. No. of drop-outs 4 ; 57.1%
4. No. of students receiving raises 0 ; 0%
5. Average earnings of students \$2.68 hr; after raises ---
6. Average raise in salary 0 ; an increase of 0%
7. Average hours of instruction to receivers of certificates 118
8. Average hours of instruction to drop-outs 15
9. Total hours of class instruction 156
10. Average educational level of students 6.8 Male 7.6 Female 6
11. Average student age 40.8 Male 36.3 Female 50
12. Average class pre-E.S.L. Diagnostic Test score Not Available
13. Average pre-E.S.L. Diagnostic Test score for receivers of cert. Not Avail.
14. Average pre-E.S.L. Diagnostic Test score for drop-outs Not Available
15. Average class post-E.S.L. Diagnostic Test score Not A.; --% increment
16. Average class pre-Ilyin Oral Test score 55.3
17. Average pre-Ilyin Oral Test score for receivers of cert. 44.4
18. Average pre-Ilyin Oral Test score for drop-outs 43.8
19. Average class post-Ilyin Oral Test score 81.7; 47.7% increment
20. No. of students referred to G.E.D. programs 2
21. No. of students referred to colleges 0
22. No. of students referred to other educational programs 1
23. No. of students referred for employment 0
24. No. of counselor's visits to class 13
25. No. of individual interviews with students 18
26. Average no. of interviews per student 2.6
27. No. of absentees visited who returned to class 2
28. No. of absentees visited who dropped out 4
29. No. of outside students recruited to class 3
30. No. of Puerto Ricans in class 3 ; 42.86%
31. No. of South American students 3 ; 42.86%
32. No. of other nationalities 1 ; 14.29%

## CLASS STATISTICS

Class Chromatex, Inc. (Two Chromatex classes combined)  
 Instructor Mrs. Ellen Kielty  
 Contact Person Mr. Gordon Barton

1. No. of students enrolled 37 Male 20 Female 17
2. No. of students receiving certificates 0 ; 0 %
3. No. of drop-outs 37 ; 100 %
4. No. of students receiving raises 0 ; 0 %
5. Average earnings of students <sup>Not</sup> Available; after raises ---
6. Average raise in salary 0 ; an increase of 0 %
7. Average hours of instruction to receivers of certificates ---
8. Average hours of instruction to drop-outs 20.8
9. Total hours of class instruction 83
10. Average educational level of students 8.2 Male 8.4 Female 8
11. Average student age 28.3 Male 29.3 Female 27.2
12. Average class pre-E.S.L. Diagnostic Test score 44.2
13. Average pre-E.S.L. Diagnostic Test score for receivers of cert. ---
14. Average pre-E.S.L. Diagnostic Test score for drop-outs 44.2
15. Average class post-E.S.L. Diagnostic Test score --- ; --- % increment
16. Average class pre-Ilyin Oral Test score 68.6
17. Average pre-Ilyin Oral Test score for receivers of cert. ---
18. Average pre-Ilyin Oral Test score for drop-outs 68.6
19. Average class post-Ilyin Oral Test score --- ; --- % increment
20. No. of students referred to G.E.D. programs 0
21. No. of students referred to colleges 2
22. No. of students referred to other educational programs 0
23. No. of students referred for employment 0
24. No. of counselor's visits to class 24
25. No. of individual interviews with students 30
26. Average no. of interviews per student .8
27. No. of absentees visited who returned to class 10
28. No. of absentees visited who dropped out 20
29. No. of outside students recruited to class 0
30. No. of Puerto Ricans in class 4 ; 10.8 %
31. No. of South American students 31 ; 83.8 %
32. No. of other nationalities 2 ; 5.4 %