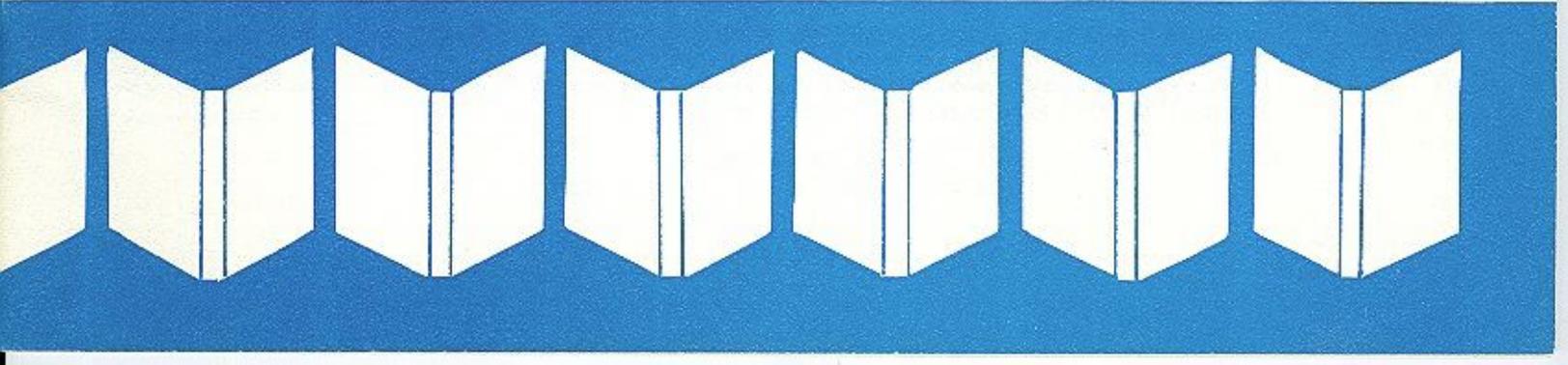


spring
1974

educational considerations

published at kansas state university college of education



DIOSDATIMAAOEA

Teaching, research and service have traditionally been viewed as a threefold obligation of Colleges of Education, most often translated into their separate realities by the activities of individual faculty members. With the recent advent of accountability within higher education, however, considerable effort has been expended to state in more precise terms the meaning of the teaching, research and service trilogy.

To appreciate the necessity of deciding once and for all the priority which should be given to teaching, research, and service, it should first be recognized that allocations of state money are based on student credit hours produced. Thus, as viewed from the legislature, teaching is the only recognized and rewarded activity of a state-supported college or university. Teaching then, or to be more precise, the enumeration of students for purposes of financial support, is the primary obligation of Colleges of Education.

Viewed in terms of local school district expectations, however, Colleges of Education are most often criticized for their overly theoretical orientation and their lack of service commitment to practical school problems. Service then, or to be more precise, the provision of assistance to local schools under circumstances of zero financial remuneration, is the primary obligation of Colleges of Education.

From the vantage point of serious academicians, of course, the priority shifts again, this time to the production of new knowledge through research and publication. Publication, it might also be added as an aside, is a major basis of survival and advancement within the academic world. Research then, or to be more precise, the accumulation of a portfolio of published work, is the primary obligation of Colleges of Education.

One can see from this cursory review that teaching, research, and service are all vital responsibilities and all three must receive first priority. In meeting this admittedly awkward obligation, Colleges of Education have devised several options of operation.

The first option usually considered is what we might call the "campus-wide diffusion" approach. In its most extreme form this approach actually involves the development of research bureaus and extension service units to assume research and service obligations, leaving teaching to persons hired to teach! This approach has not received much favorable attention within Colleges of Education, and might be considered an almost extinct species.

Another option, often not used because of its rational origin, is to have individual faculty members assume responsibility for concentrating on their own unique interests and strengths in reference to teaching, research and service. This option, of course, requires considerable overall organizational planning and is thus for the most part depreciated within Colleges of Education.

The most often employed option suggests that each individual faculty member has responsibility for all three institutional obligations. For want of a better name, this has come to be called the "all things to all people" approach. It is an easy option to install and therefore has received a great deal of attention and support in Colleges of Education around the country. However, an additional hidden complexity has only begun to surface as accountability has reared its head. In effect, each faculty member can either attempt to engage in teaching, research and service activities on an equal basis, the "mediocre total coverage approach," or the faculty member can do a little of each, yet concentrate on one to the partial exclusion of the others, the "fudge-a-little approach." Measurement-for-merit issues create headache proportion problems for administrative personnel saddled with the responsibility of coming to grips with this issue, especially within those departments of the College which house professional measurement specialists who have spent a lifetime working on comparable measurement and evaluation topics!

A relatively new variation of the "you've got to do a little of everything" approach has emerged which holds great promise because of its basic simplicity and rigorous evaluation design. It is the last word on the subject! It is called the "Detailed Identification Of Specifically Defined Activities To Increase Management Accountability And Organizational Effectiveness Approach," or DIOSDATIMAAOEA for short! Faculty members identify the teaching, research and service responsibilities they want to pursue during the coming year. Decision makers then can look for "gaps in obligation." When such gaps are identified, these same decision makers can contact faculty members with an already planned teaching, research, and service agenda for the coming year and ask that they modify their DIOSDATIMAAOEA inventory so the total waterfront will be covered. At the end of the year faculty members must provide documentation which substantiates the fact that all items on the work inventory for the year were successfully completed.

Of course, last year I was unable to cover a class for a colleague called away suddenly, because such an activity was not on my teaching activity list. Nor was I able to submit a substantial dollar figure research grant which was announced mid-year, because such an activity was not on my research activity list. And I did have to refuse to serve as keynote speaker at a regional conference of some importance, because such an activity was not on my service activity list.

We are making progress nonetheless, and within one or two more years I'm convinced we'll have this ambiguity concerning teaching, research and service well in hand.

EDITORIAL BOARD OF REVIEW

- Lewis A. Bayles, Chairman
Department of Foundations of Education
Atlanta University, Atlanta, Georgia
- Don B. Croft, Director
Claude C. Dove Learning Center
New Mexico State University, Las Cruces
- James A. McCain, President
Kansas State University, Manhattan
- Donna M. Rudolph, Associate Professor
Sangamon State University
Springfield, Illinois
- Fred T. Wilhelms
Lincoln, Nebraska

Co-Editors

- Charles E. Litz, Assistant Professor
Department of Administration and
Foundations
Kansas State University, Manhattan
- Warren I. Paul, Assistant Professor
Department of Curriculum and Instruction
Kansas State University, Manhattan

PUBLICATION INFORMATION

Educational Considerations is published at the College of Education, Kansas State University. **Educational Considerations** and Kansas State University do not accept responsibility for the views expressed in articles, reviews, and other contributions appearing in this publication. In keeping with the professional educational concept that responsible free expression can promote learning and encourage awareness of truth, contributors are invited to submit conclusions and opinions concerned with varying points of view in and about education.

Educational Considerations is published three times yearly in fall, winter, and spring. Editorial offices are at the College of Education, Holton Hall, Kansas State University, Manhattan, Kansas 66506. Correspondence about manuscripts and reviews should be addressed to the Editor. Unsolicited manuscripts should be accompanied by a self-addressed envelope with sufficient postage to insure its return. No remuneration is offered for accepted articles or other material submitted.

Material submitted to **Educational Considerations** can be as brief as a paragraph or as long as, say, 2000 words. All of it, including indented quoted matter and footnotes, should be typed double-spaced. Footnotes should be at the end of the manuscript. Headings should not be underlined. Please submit three copies of each manuscript. The author's complete name, address, and telephone number should be on a separate sheet attached to the original or one copy of the manuscript, not on any copies of the manuscript itself. Photographs, drawings, cartoons, and other illustrations are welcome. Authors should be prepared to provide, if requested, copies of permission to quote copyrighted matter. Queries about possible articles are certainly encouraged; however, a favorable reply is not to be considered a request for the article. For manuscript style other than specified above, be guided by the *MLA Style Sheet, 2nd Edition*, Modern Language Association of America (62 Fifth Ave., New York, N.Y. 10011; May 1970, \$1.25). The editors reserve the right to make grammatical corrections and minor changes in article texts to improve clarity. Address questions about special styles to the Editor.

Subscription to **Educational Considerations** is \$4.00 per year, with single copies \$1.50 each. Correspondence about subscriptions should be addressed to the Business Manager, c/o The Editor, **Educational Considerations**, College of Education, Kansas State University, Manhattan, Kansas 66506. Checks for subscriptions should be made out to **Educational Considerations**.

Printed in the United States of America.

educational considerations

Volume 1, Number 3: Spring 1974

Guest Editorial	Inside Front Cover
MBO and Performance Appraisal	Robert E. Chasnoff 2
Communication Deficiencies From Chimp to Child	John H. Hollis and Joseph K. Carrier, Jr. 6
Moral Growth: Some Educational Implications	Robert P. Craig 12
Poem: A Classroom Battle of Wits	Wesley E. Smith 15
Heterogenous Classroom Ahead: Enter at Own Risk	Richard D. Peterson 16
Book Review	Joseph M. Hawes Inside back cover

High student motivation, growing self knowledge, and encouragement of innovation are all features of the intern program Dr. Chasnoff describes. He also points out that a major factor in its success is its humanistic setting.

MBO and performance appraisal

by Robert E. Chasnoff



Dr. Chasnoff is a professor at Kean College of New Jersey (located in Union and known until October 1973 as Newark State College). Prior to joining the College's faculty 16 years ago, he taught elementary students at Fieldston Lower School, Riverdale, New York, for three years and was principal of Brooklyn (New York) Community School and then Director of Recreation of the Hartford (Connecticut) County Home. He holds a bachelors degree from the University of Connecticut and masters and doctoral degrees from Columbia University. His postdoctoral studies, in the behavioral sciences, were at the NTL Institute for Applied Behavioral Science. He has served as an adjunct staff fellow for NTL. Dr. Chasnoff is Director, Laboratory for Applied Science, Union, New Jersey. At Kean College, he most recently has been involved with flexible field-based programs which encourage students to mature by accepting responsibilities.

The technologies for management by objectives (MBO) and performance appraisal in the intern program described herein are part of a system-wide, long-range organizational development (OD) program in the public schools of South Brunswick, New Jersey. With the National Training Laboratory (NTL) Institute supplying consultation and training services, the OD program was originated in 1967. The OD program was expanded a year later to include the student teaching intern program and other programs. The intern program involved South Brunswick supervisors and cooperating teachers as well as student teachers and faculty members from Newark State College, Union, New Jersey.

Fundamental to the intern program from the beginning was the concept that it was an innovative plan that would directly improve classroom instruction in South Brunswick schools.¹ Interns were viewed as staff members. They were paid a small stipend. Thus, on one hand, interns enjoyed the status and the income and, on the other hand, the organizational demands made on them were seen by them as clearly legitimate.

The program's original proposal provided for a humanistic approach to MBO and performance appraisal, and this has been carried out. This article describes (1) the attempt to create a humanistic work setting so that the MBO and performance appraisal approach could work, and (2) the specific technologies used to carry out the MBO-performance appraisal approach.

THE SETTING

In each of the summers of 1968 and 1969, the intern program included six weeks of preliminary work. Two weeks of human relations training and planning for work in four-week experimental schools were carried out, with consultation and training continuing during the actual running of the summer schools. The summer programs were followed by full semesters in which OD training and consultation sessions and team conferences were held. Included in these sessions and conferences was emphasis on organizational issues, management and consultation skill development, interpersonal relations, and the introduction of the MBO and performance appraisal approach.

Since the federal funding was terminated in 1970, the school system and the college have been continuing the collaborative program during the school year (without stipends for interns), building upon the organizational structures and technologies that had been introduced, the

developing management skills that had been acquired, and the supportive, innovative climate that had been growing in the South Brunswick schools as a result of this and certain other programs.

The intern program now involves a good deal of mutual collaboration, choice, and diagnosis within clearly specified guidelines to prepare the proper setting for each semester. Student teachers are invited to a meeting several months before their assignment begins. Their expectations and questions are shared with those of South Brunswick teachers and supervisors and the college staff. A South Brunswick administrator identifies the role of the intern program as an integral part of the total school program. Each intern is told that his or her end-of-semester college grades will be determined collaboratively with him or her by school and college personnel. The interns also hear that four four-hour workshops, attended by interns, teachers, South Brunswick supervisors, and the college staff, will be held after school during the semester. (These workshops are planned by *ad hoc* committees made up of system supervisors, teachers, interns, and college personnel. The South Brunswick Board of Education gives salary credit to teachers for their attendance at these workshop meetings and their work with interns.) Seminars for interns, but open to others, also are announced. Attendance at the seminars by interns is optional. Topics are to be determined by the interns.

The interns are instructed initially to visit as many classrooms as they wish, to stay in any place as long as they want, and to confer with anyone to determine where and with whom they might achieve what they feel they need to learn.

An important aspect of the setting is mutual choice of people with whom one works. During the first week of the semester, interns and teachers confer with each other and with South Brunswick supervisors and the college staff with respect to the kind of person with whom they wish to work. In these conferences, the broad goals the interns hope to achieve are reviewed and the broad goals teachers feel they have the capacity to help interns achieve are discussed. Teachers also assess and make known what they wish to get for themselves out of working in this program. Interns are urged to continue to visit as many classes as they wish and not get locked into a classroom that looks safe. Teachers are urged to be candid about their preferences.

By the first workshop, held early in the semester, initial agreements are made as to where and with whom interns will *begin* their more intensive classroom work. (We stress the *begin* because we want to make it easy to move later.) Many arrangements are used, depending upon interns' broad goals and teachers' assessments of themselves, their classrooms, etc. Thus, some teacher-intern teams decide that one intern and one teacher agree to work together for the first six weeks and assess at that time where the intern should work next. Other teachers and interns decide on other combinations, such as working in several classrooms from the beginning. Sometimes teams are composed of several interns as well as several teachers. In such cases, school supervisors become active members of the team.

Of more importance in the work setting of this program is the fact that, in general, South Brunswick schools are

places where innovation is encouraged, systematic problem solving is a norm, much teacher involvement in program development exists, and support for professional growth is system policy. Experience has shown that teachers and interns sense this humanistic work setting and, thus, can be trustful both of the leadership offered them and of the technologies employed. Teachers are not afraid to ask interns, other teachers, and supervisors for help. The teachers value the interns. They ask for personal feedback. Moreover, over the years, a high level of trust and directness has been developed between the South Brunswick and Newark State College staff members. In such a setting, the author believes, the technologies described below are possible for effective MBO-performance appraisal.

THE SPECIFIC STEPS IN THE MBO AND PERFORMANCE APPRAISAL

Some of the specific steps in the MBO-performance appraisal are carried out in three-way conferences. Some are introduced in the seminars but more in the four workshops noted earlier. In the early years of the intern program, the workshops were generally led by NTL Institute consultants; now the sessions are planned and led by volunteer members of planning committees composed of interns, teachers, system supervisors, and college staff.

Organizational Diagnosis

Interns are introduced to the sharing of data by participating in organizational diagnosis in the workshops. Depending upon the size of the group and the number of South Brunswick teachers and supervisors new to the intern program, organizational diagnosis is accomplished in different ways in different semesters. For example:

- role groups draw pictures describing themselves in the program.
- small groups do a force field analysis (FFA)² and share their products.
- small groups brainstorm lists of possible problems, which are duplicated for future use by teacher-intern teams to assess how they are doing.
- writing down problems that role groups foresee followed by sharing of products.
- team of teachers and interns respond to a program of diagnostic questions prepared by the workshop planning committee.

Diagnosis of intern

The workshops, seminars, and conferences focus upon diagnosis of the individual intern and the work setting. Frequently the FFA is used. After completing the FFA, diagnosis is intensified by determining which forces are clearly seen, which require more data, which are strong, and which are weak. Often, at first, many of the forces deal with

relationships with pupils. After some probing, however, interns see the need of gaining more data from pupils before the forces are known to be clear or strong. Sometimes the name of a force is changed from "kids don't mind me" to "my anxiety."

Brainstorming

The next task is to brainstorm a wide variety of ways to reduce the effect of a restraining force identified in the FFA (To prepare for brainstorming, loosening-up, creativity-induced exercises are used, e.g., brainstorming ways to make a hole or brainstorming a wide variety of uses of an ordinary, red, building brick.)

Training in writing objectives

When a workshop includes brainstorming, teams are asked to take one of the ideas or a combination of ideas they brainstormed and think of an objective that would diminish the effect of a restraining force. The teams are instructed merely to make three copies of one objective; we provide them with carbon paper.

We ask the teams to place their statements in a pile on a table. We indicate that the teams' next task is to pick up several objectives written by other teams and to assign a mark on a scale from 1 to 10, using the following guides:

- specificity: concrete, described in terms of actual behavior (pupils' or interns')
- measurability: the criterion for determining whether the objective has been achieved is explicitly defined
- challenge: behavior that an intern currently probably is unable to do now and is worth doing
- realism: behavior that is attainable, given the field they are working in, the level skill an intern might have, and an appropriate objective for their kind of school
- time element: end of semester or other specific time clearly identified

In addition to the scoring from 1 to 10, the participants are instructed to write words or phrases that might be helpful to the writers of the objectives such as, "you left out the time element," "garbage," or "if you insert the word such-and-such it will be clearer." This task generally is accompanied by a good deal of hilarity over marking each other's work, recognition that different groups assign vastly different marks for the same statement, and discomfiture suffered by some teachers who thought they were quite skilled at writing behavioral objectives.

Sometimes we present participants with a list of objectives (see box) that had been prepared for another program.³ The participants are instructed to decide which statements are useful and which are not and what characteristics of style do or do not make them useful.

Defining performance objectives

The next task is that of beginning to agree upon a set of behavioral objectives for each intern that become the preliminary management objectives and appraisal criteria for

Sample Statements of Objectives

1. All pupils will be able to tie their shoes after 13 weeks.
2. Tying shoes is a skill we are really going to work on this year.
3. Principals support Follow-Through.
4. On a questionnaire administered to all parents on February 15, 75% of those parents responding will indicate they feel principals are in support of Follow-Through.
5. The PAC will work effectively this year.
6. The PAC will make 5 decisions this year.
7. By June 1, 70% of the pupils in the first grade will be able to say all the letters of the alphabet in sequence.
8. By June 1, the children will be able to recite the ABC's.
9. The children will love reading.
10. Given a chance to select books to take home, 70% of the pupils will decide to take home at least one book.
11. An observer in the classroom sees that, during a 20 minute work period, 3 pupils push others whereas a week earlier, 7 pupils were seen to push others.
12. There will be effective classroom discipline in all classrooms.
13. The children enjoy school.

the team composed of the intern, a teacher or teachers, school supervisor, and college staff member. The objectives are checked to determine if they satisfy the following criteria: the corporate needs of the situation in which the intern is working, appropriateness to the intern's present level of development as a prospective team teacher, and consistency with the college's general goals for student teachers.

Some fairly typical objectives agreed upon have been the following:

- By December 1, I will be able to describe ten science experiments designed to increase intermediate graders' creativity; the ten will be judged by three educators as likely to increase creativity
- By December 15, I will have introduced five science experiences that were rated on anonymous questionnaires by 75% of the pupils as interesting, and 2 out of 3 professional observers will give five bits of evidence each that the lessons induced creative thought among pupils.
- By the end of the semester, I will be able to lead my class through the halls to the playground without having to reprimand them more than three times.
- By November 1, I will ask for feedback in a conference and will reduce to zero the number of defenses or excuses I give for unsatisfying results.
- By October 15, I will have gotten Billy to answer me, when I speak to him, 3 out of 4 times.

Making individual plans

In follow-up team conference, also agreed upon are: things to do in the classroom; visits to make to other classrooms; topics to bring up in interns' seminar (discipline is always brought up); things to read; data to be gained from observations made by school staff members, college personnel, or other interns; data to be gained from pupils by means of interviews, questionnaires, and observations; and data gained from studying video tape of lessons. These teams check to see if the objectives contain clear criteria for data needed to determine the college marks that are required at the end of the semester (pass-fail for eight credits in student teaching and combinations of nine credits of A* B* C* etc., for assigned courses for which students are registered.)

As the semester progresses, objectives are checked to determine which have been achieved, what new objectives need to be added, and where and with whom these objectives might best be achieved. At the end of the semester, the total list of objectives are the criteria for the final evaluation and final college marks. All people who work with the intern in the course of the semester participate in the final evaluation conference. In most cases, final marks are agreed upon easily because many data are available. However, there sometimes have been conferences in which bargaining has taken place, where either the intern or others have pushed for higher or lower grades.

DISCUSSION

Our experience with the humanistic approach to MBO and performance appraisal has been most positive. Independent learners among the interns do better than dependent learners. At first, the interns are wary, seeing the objectives as a kind of stern assignment in humanistic clothing. As the semester progresses, the interns take greater charge over their learning. They become more open about their weaknesses and where they need help. They are, at first, amazed, then pleased that teachers ask them for advice on how the teachers should function in their classes. They are encouraged to experiment and become less defensive about mistakes. They learn to trust the college staff and ask for help. They fit into the school system's climate which generally permits personal conflicts to be aired rather than be covered up. Interns report a sense of control over their own learning by having clear objectives on which to work. They report that by writing clear objectives for themselves, they are better able to clarify objectives for pupils to gain. They demonstrate a change over the course of the semester from initially being concerned about "maintaining control" to "trying to do with the kids what we are doing," that is, diagnosing and setting objectives collaboratively. The interns report that what they are doing for their own development really works with their pupils. There have been amazing turn-arounds when interns who previously received only passing grades suddenly, upon their return to campus, won honors and felt motivated and goal-directed for the first time. Many interns continue their contacts with people they knew in the intern program.

The main evidence of success of the program is that administrators, supervisors, teachers, interns, pupils, pupils' parents, and college staff describe many specific ways in which the interns help the schools do a better job. In South Brunswick, much emphasis is placed upon individualization of pupil diagnosis and instruction. Teachers report that they could not now do the job of individualizing instruction and working with small groups without the interns. Teachers point to pupils and groups whom the interns "reach" which the teachers could not. Teachers report on new ideas brought in by interns and helpful feedback interns have given them on their work with pupils and about themselves. Supervisors are delighted with the ready reserve of effective substitutes the interns represent.

At this time in New Jersey, when fewer than fifty percent of elementary education graduates are hired to teach, all the South Brunswick interns who want teaching positions get them. South Brunswick administrators cite the interns as their best source of supply for new teachers, considering them "experienced" and creative.

Doing something worthwhile that is recognized by others provides profound motivation for the interns. They feel they truly are part of the staff. The innovative, open, supportive climate that has been created, maintained, and even fought for by the Superintendent of Schools, permits the program to operate as effectively as it does.⁴

The humanistic approach to MBO and performance appraisal described in this paper has been, the author feels, a valuable technology; but we also feel it has worked well because of the kind of system in which it has been used. The technologies used in this program did not create the system. The system permitted the technology to operate. The author would not recommend this approach to be "tacked on" to a system that does not contain the humanistic conditions briefly described here.

FOOTNOTES

1. The OD program was funded by the Elementary and Secondary Education Act, Title III, an act specifically designed to implement innovative classroom practices in elementary and secondary schools.

2. David H. Jenkins, "Social Engineering in Educational Change: An Outline of Method," *Progressive Education*, vol. 9 (1949), pp. 193-197.

3. Robert Chasnoff, "Evaluating Progress," in *Organizational Improvement in Follow-Through Projects*, U.S. Office of Education Grant No. OEG-O-70-4941 (266) (Washington, D.C.: NTL Institute for Applied Behavioral Science, 1972), p. 23.

4. I would like to be able to list the names of all the people who have helped create and maintain the climate for our work but I know the editors will have to say no. A few, however, must be noted as central figures who provided much needed support, ideas, and skill: Dr. James A. Kimple, Superintendent of Schools; Ruth Small, Jobyna Smith, and Patrick Garzillo, South Brunswick administrator-supervisors; Teachers Alice Baionno, Jane Clute, Margaret MacMurray, and Eileen McManus; Marie Sainz of Newark State College; and Dorothy Mial and Peter Muniz of NTL Institute. Over a hundred interns have inspired all of us so that we learned along with them.

Equating speech with language is a fallacy, declare these authors. They describe a "plastic word" non-speech response approach that "opens a whole new vista for teaching the language-deficient child" to communicate.

communication deficiencies from chimp to child

by John H. Hollis and John K. Carrier Jr.



Dr. Hollis is an associate professor of Administration and Foundations at Kansas State University, concentrating in Special Education. A *cum laude* graduate of the University of Wichita, he holds an M.S. degree from Kansas State College, Pittsburg. He received his doctorate with honors (Child Development major) from the University of Kansas in 1968. Mental retardation, developmental psychobiology, and animal behavior are his current fields of interest, and he is writing a book to be entitled *Prosthesis of Exceptional Behavior*.

Programmed learning, communication, and mental retardation are the three fields currently of most interest to Dr. Carrier. At the University of Kansas, he is both a research associate in the Bureau of Child Research and an adjunct assistant professor in the Speech Department. Dr. Carrier holds a B.A. (Speech major) from Denison University and an M.S. and Ph.D. (both majors, Speech Pathology and Audiology) from the University of Pittsburgh. His monograph, *Application of Functional Analysis and a Non-Speech Response Mode to Teaching Language*, to be published by the American Speech and Hearing Association, is in press.

PROSTHESES FOR COMMUNICATION¹

It has long been recognized that communication deficiencies are a salient characteristic of many handicapped children. For example, assessments of speech and language behavior of mentally retarded individuals reveal significant deficiencies in communication skills, e.g., vocabulary, sentence structure, conceptual and abstract language skills, voice quality, and articulation of speech sounds.² These behaviors may be only slightly below norms or may appear to be totally absent, but in any case the language and speech behavior is observed to be deficient in normal human environments.³ It could be argued, however, that although these children lack speech and language, they are not retarded or deficient with respect to communication *per se*. Rather, many do communicate by other means such as gestures, scent-marking, and role playing (non-verbal behavior that functions in a communicative fashion).

The problems in teaching children with speech and language deficiencies may, in some ways, parallel the problems encountered by researchers who have attempted to teach chimpanzees to use a human communication system. They have learned essentially that spoken language, as used by humans, is not feasible in an organism lacking certain cognitive or physiological abilities, but they have also learned that certain types of prostheses, adapted to the organism, made some parameters of communication quite possible.

Environmental Prosthesis: Acculturation mode

Four decades have passed since Kellogg⁴ in 1931 discussed humanizing the ape. He was aware of the discovery of "wild" children, those who had been reared in feral environments, i.e., with little or no human contact. There are a number of reasonably well documented accounts of these children, e.g., "Itard's wild boy,"⁵ Tredgold's 1915 description of Kasper Hauser,⁶ and Squires' 1927 report about the "wolf children" of India.⁷ These children were reported to have displayed behavior that would be considered adaptive with respect to survival in a feral environment. However, they lacked language and were, in general, significantly retarded with respect to the acquisition of behavior deemed acceptable by organized society. Kellogg⁸ hypothesized that these children had progressed too far, perhaps beyond some "critical period," to reverse the behavior acquired in the feral environment.

In order to test the reverse, it was Kellogg's idea to take an ape and rear it in a *prosthetic environment*, a human environment. Relevant to this, he states: "The opinion seems to persist among certain contemporary psychologists that a sharp qualitative demarcation between the behavior of man on the one hand and the behavior of infrahumans including the anthropoid apes, on the other hand, is an established fact."⁹

At the time Kellogg proposed his study for humanizing the ape, it was hypothesized—even believed—that the anatomy and vocal mechanism of the ape was such that it did not preclude the possibility of human speech.¹⁰ Although Kellogg and Kellogg¹¹ and Hayes and Hayes¹² have reported very limited success in human speech development in the chimpanzee (i.e., three to four words), for the most part the hypothesis is untenable today.

PROSTHETIC TRAINING

Phonologic Prosthesis: Mechanical Mode

Disease and injury may cause damage to the vocal, articulatory, or auditory system. Prosthetic devices have been developed to partially compensate for some such handicaps. A variety of types of artificial larynges have been developed for laryngectomies and hearing aids are helpful for many auditorily impaired individuals. Except for the very young, individuals have developed speech and language prior to the necessity for a prosthetic device. It is an established fact that even moderate auditory handicaps may severely impair the development of speech and language. However, there is little evidence with respect to phonologic problems, perhaps because in most cases language has developed prior to the trauma to the larynx. There is, however, at least one report of teaching speech and language to a child laryngectomized at 20 months of age (Peterson's, 1973).¹³ The training goals were to teach esophageal sound production, articulation, and training in expressive language.

Although it was pointed out previously in this article that the chimpanzee was capable of producing human vocal responses, a review of the literature¹⁴ suggests that the vocal apparatus of the chimpanzee differs from that of man to an extent that militates against the development of human speech (a phonologic deficiency). However, there appears to be sufficient evidence to substantiate the ability of the chimpanzee to learn to respond to human speech (receptive-auditory mode), i.e., complex auditory stimuli.¹⁵ To this point the chimpanzee's handicap in language development (speech) appears to be phonologic in nature. The problem is then, how to circumvent the anatomical deficiencies associated with the production of human speech sounds. The chimpanzee has frequently been selected as the "drawing board" for the study of higher mental processes. This no doubt has resulted from the fact that the chimpanzee ranks high on the phylogenetic scale with respect to sociability and intellectual potentiality.¹⁶

Premack and Schwartz,¹⁷ believing that the chimpanzee's major deficiency lay in the expressive (productive) area of speech, embarked on a project to develop a synthetic (mechanical) device capable of producing complex auditory

stimuli. Although this device would not require the chimpanzee to vocalize, it would require a complex set of motor movements to operate it and the ability to make complex auditory discriminations. Most importantly, this approach to the problem forced Premack and Schwartz to make a comprehensive review of language development, grammar, and syntax.

The study of the continuity problem between man and chimpanzee was continued by Premack and Schwartz in an experimental fashion. What they proposed to teach the chimpanzee was a sort of five-dimensional code in which the auditory dimensions were correlated with the motor dimensions. The production of auditory signals was to be controlled by a joy-stick apparatus with the sound produced by a device similar to an electric organ. It was proposed that the chimpanzee would be taught a phrase-structure grammar.

The most important question was, would this study teach us something about language development or would it result in just another failure to teach the chimpanzee to talk? Premack¹⁸ subsequently stated that "not only human phonology but quite possibly human syntax may be unique to man." However, there was still an assumption that, irrespective of higher cortical functions (e.g., Pribram¹⁹), semantics which form the basis for language are present at the subhuman level. Therefore, Premack and Schwartz²⁰ decided to circumvent the larynx problem with a synthetic device that was capable of simulating vocalizations.

It is the authors' opinion that this multidimensional system is much too complex for the young child or ape. This system was eventually discarded, perhaps because of that complexity; however, there is perhaps good reason to use the chimpanzee as a "drawing board" for delineating strategies and tactics relevant to communication problems. Later in this article we will see that Premack was successful in establishing a continuity between human language and animal communication. For starters, with respect to language and speech, primates may be considered functionally limited—even with respect to the expressive aspects of speech and language development. In this regard we should be aware of the *fallacy of equating speech with language*.

Phonologic and Auditory Prosthesis: Gestural Mode

Now, consider the chimpanzee as subject, another "drawing board." There is little doubt that the laboratory and home-reared chimpanzee still displays many of the characteristics of a wild animal.²¹ However, chimpanzees are highly social animals and do respond differentially to social roles, even those played by a human.²² Moreover, the chimpanzee finds manipulatory mechanical problems his forte and even laboratory chimps have been frequently observed to gesture spontaneously.²³

Fingerspelling and the American Sign Language (ASL) are standardized systems for two-way communication for deaf or retarded children. Training a chimpanzee to use ASL would provide a linguistic environment analogous to that of a deaf child with deaf parents. In one situation, the Gardners undertook the task of training Washoe, a chimpanzee, to use ASL.²⁴ The strategy was to take advantage of two chim-

panzee characteristics: (1) the ability to make complex hand movements, and (2) the frequency with which chimpanzees have been observed to imitate human acts. The tactic for training was to provide an environment conducive to the development of chimpanzee-human social interactions, while applying shaping and operant conditioning techniques to develop sign language in the chimpanzee.

The Gardners maintained records on Washoe's daily signing behavior. By the 22nd training month of the experiment, they were able to list 30 signs that met their criterion; for example: come-gimme, up, open, drink, you, smell, clean, and hear-listen. The criterion for acquisition consisted of at least one appropriate and spontaneous occurrence each day over a period of 15 consecutive days. The results showed a median of 29 signs per day with a range of 23 to 28 different signs out of a total of 34 signs. Reliability consisted of the agreement between three observers that the sign was actually in Washoe's repertoire. The chimp's rate of acquisition for the 21-month period clearly indicates the phenomenon of "learning to learn" or "learning sets."²⁵

The Gardners acknowledged a context problem and viewed it in terms of sign transfer, i.e., from a very specific referent in initial training to new members of each class of referents. Thus, after Washoe learned, in initial training, *open* for a specific door and *hat* for a specific hat, she was able to transfer her learnings spontaneously to new members of each class of referents. The Gardners cited several examples of this class of behavior.²⁶ For example, they pointed out in their discussion of key use (to open locks) that Washoe learned to ask for keys (emitted key sign) when no key was in sight. In addition, Washoe was observed to use signs (i.e., two or more signs) in strings apparently spontaneously (i.e., without specific stimuli). At this point we can pose the question, did Washoe develop a functional language? The results of the experiment show that Washoe demonstrated: (1) spontaneous naming; (2) spontaneous transfer to new referents; (3) spontaneous combinations and recombinations of signs. Fouts²⁷ has, in essence, replicated the Gardners' ASL study, using four young chimpanzees. Thus the learning of ASL in the chimpanzee population is not unique, and it can be concluded that Washoe was not an exceptional chimpanzee in her ability to acquire signs. This type of study also can apply to retarded-deaf children, as Berger²⁸ found in a clinical program using similar procedures.

Phonologic and Auditory Prosthesis: Synthetic [plastic-word] Mode

Up to this point, we have seen the contribution of linguistics, programming, and logic to teaching language to the chimpanzee and some application to the deficient child. The limiting factor for language development by the chimpanzee or language deficient child may not be language *per se*, but the complexity of the response, i.e., its topography. For example, as Carrier noted, the response mode most commonly associated with language is oral speech, which can be defined as various phonemic responses arranged to create morphemes—which, in turn, may be arranged to create grammatical utterances.²⁹ Three years ago, Premack³⁰ reversed his earlier experimental direction

and moved from the complex topography required by a mechanical device for phonologic prosthesis to a simple synthetic ("plastic word") system using abstract "words" on movable metal-backed plastic pieces. Again, Premack was asking the question, can the chimpanzee be taught language? The determiner of the answer to this question is "what is language?" First, Premack provided a list of exemplars, things the chimp (or child) must be able to do in order to demonstrate a functional language. Second, he stated a method of training must be provided so that the chimp can be taught the exemplars in question. For starters, Premack suggested the following exemplars: (1) words; (2) sentences; (3) questions; (4) metalinguistics (using language to teach language); (5) class concepts; (6) the copula (verb link); (7) quantifiers; and (8) the logical connective—e.g., "if-then." The word stimuli in this system are pieces of plastic backed with metal so that they will adhere to a magnetized slate. The plastic-words are abstract in configuration and are analogous to Chinese characters. The placing of the plastic-words on the slate requires only gross motor movements, a great simplification when compared to the complex motor behavior and auditory discriminations required for spoken and gestural communication. A second advantage derives from the fact that the sentence made by the chimp is permanent, thus circumventing the memory problem. Third, the experimenter can modulate the difficulty of any task by controlling the number and kinds of words available to the subject at a given time. It should be evident that the phonologic problem has been **prosthethized** and that the basic unit is the word.³¹

Using the plastic words, Sarah, Premack's chimpanzee, is now able to read and write more than 130 words. But more importantly, she has learned the following: (1) use of the interrogative; (2) metalinguistics; (3) class concepts; (4) use of simple and compound sentences; (5) pluralization; (6) quantifiers; (7) use of the logical connective—"if-then"; (8) and the conjunctive *and*. What Premack in fact has accomplished is to prove a functional analysis of language. This approach to analyzing and teaching language has reduced the cognitive parameters of language to discrete events that can be defined and manipulated. This strategy coupled with the tactic of a simple response topography provides a powerful technique for training communication deficient children.

Teaching Language to the Severely Retarded

It is a foregone conclusion that there is a significant relationship between language development and measured intelligence. The traditional intelligence tests contain both verbal and performance scales. It is the verbal scale (language) that proves most difficult for the retardate and places the severely retarded in the category of untestable in situations requiring language use. Are these children severely retarded (with respect to measured intelligence) because of failure to learn language or because of some yet undetected factor? It would appear that the interactions between language and non-language learning are so strong that it is doubtful that a child can make much progress in learning one without acquiring skills in the other (e.g., Kellogg and

Kellogg³²). In an attempt to answer these questions, Carrier³³ has begun a replication of Premack's experiment with Sarah, using severely retarded children as subjects.

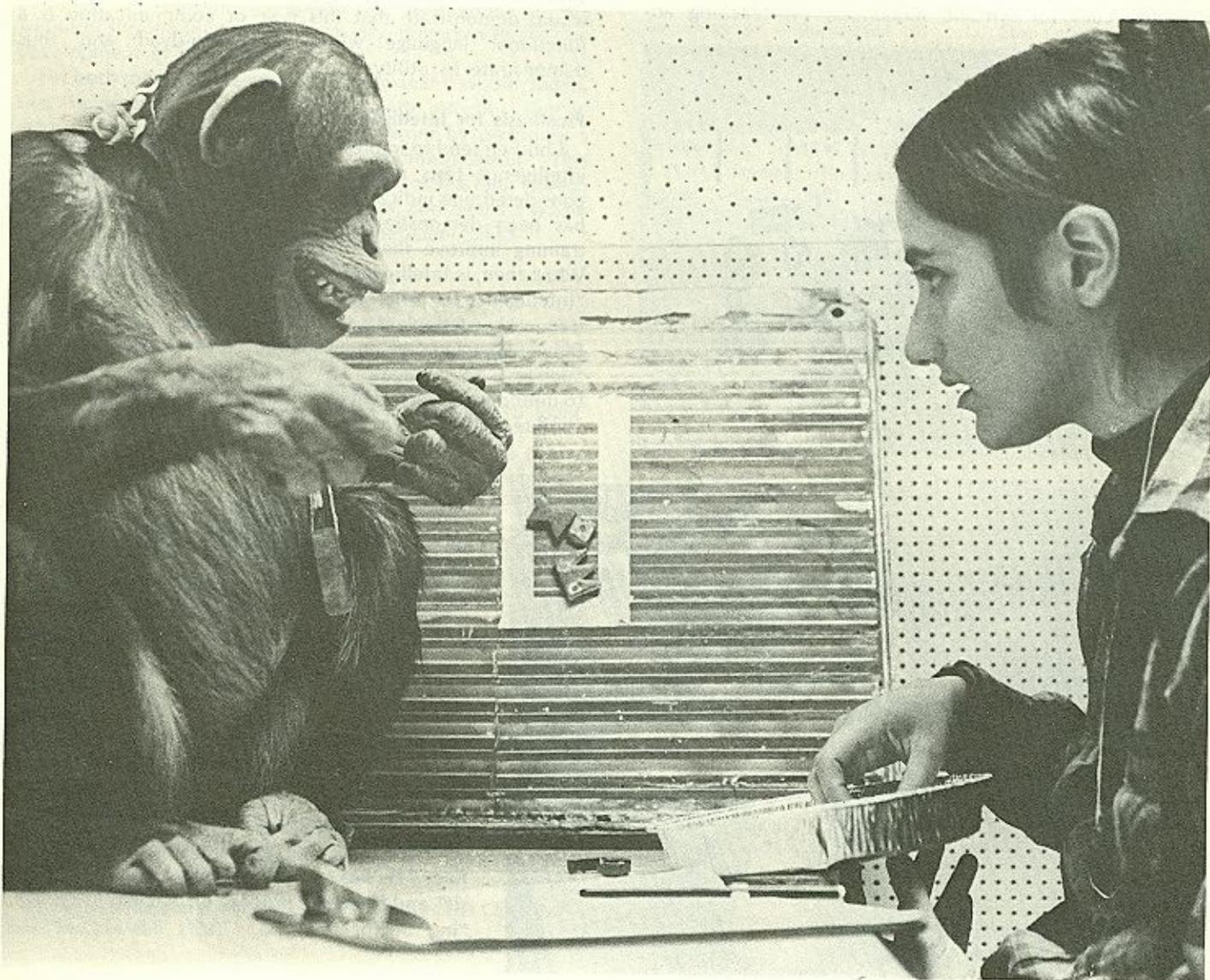
We first must accept the premise that the language system of a child's environment is a fact of life, and however inefficient it may be, is the one the child must learn. Thus, the process of determining program goals for children requires not only a consideration of language function, but also a consideration of semantics and syntax as they actually exist. In other words, the programmer must select from the corpus of acceptable linguistic responses, a set that will serve the communication needs of the child. Carrier³⁴ outlined a model for language development in the child³⁵. Since it is quite complex, only a brief outline of the initial steps will be presented.

The first step in the development of this model was an attempt to define operationally two sets of rules and prin-

ciples, each of which is an integral part of language. One set of rules consists of those used for the selection of symbols to represent different meanings. In writing, the written symbol boy may be used to represent a young male human. Such rules and principles relate to what we may refer to as the semantic parameter of language. The other set of rules or principles, relating to what we call the syntactic parameter of language, consists of those which determine the sequential arrangement of symbols in a standard grammatical response. For example, in an active declarative sentence, the subject noun precedes the verb, articles precede nouns—the order of words is a constant as "standardized" through usage. In Carrier's analysis³⁶, semantic and syntactic systems are treated separately, although each is certainly dependent on the other for ultimate linguistic performance. The purpose of the syntax parameter of the model was to define operations that would result in correctly arranged sequences of symbols.

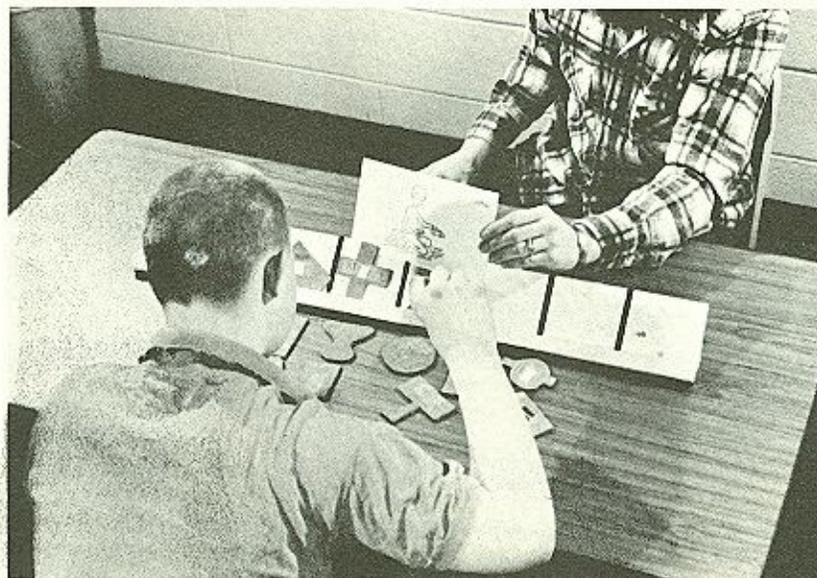
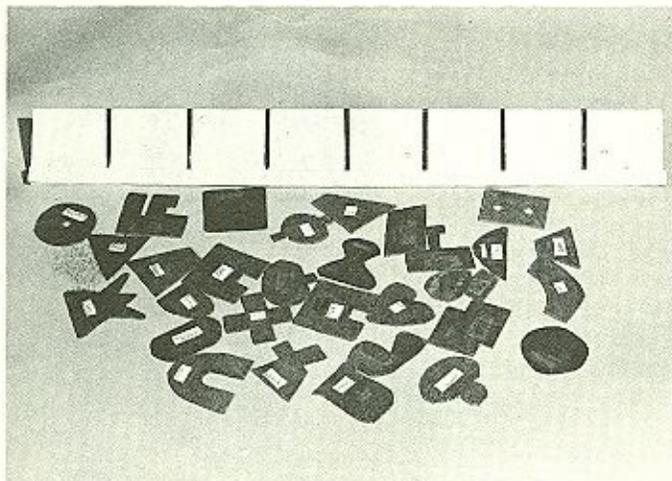
Figure 1. Elizabeth (chimpanzee) writing a message to Debby. The message reads (top to bottom), "Give banana Elizabeth." Debby is about to give Elizabeth a piece of

banana. At this stage of training Elizabeth had learned 25 words. (Courtesy of David Premack, January, 1974).



The function of the semantic model was to delineate operations necessary to appropriately select symbols. The semantic model, because there are many functionally determined classes of symbols, consists of several different parts. Each part defines the operations necessary for selecting a specific member from that class. The operations are nothing more than series of binary discriminations, performed in specific sequences.

Presently, data are available for 50 subjects who have gone through at least some part of the training sequence. These subjects are all institutionalized retardates classified as severely or profoundly retarded.³⁷ Many of the subjects do have mild sensory and/or motor involvement, but none is so impaired as to be physically unable to perform the required tasks. None of the subjects initially used speech for communicative purposes. The results, to date, may be summarized briefly as follows: (1) the acquisition of the first two verbs and prepositions is the most difficult; (2) session times required to learn various constituents become shorter and shorter as subjects progress through the programs; (3) the data suggest that semantic features of the symbols are becoming cues for syntactic sequences; (4) teaching ad-



ditional sentence structures becomes easier; (5) errors in advanced stages of the program resemble those in the grammar of speaking children; (6) the subjects become extremely proficient at constructing sentences, but as the number of alternative forms becomes large (e.g., 50-100), rate of response decreases and occasional errors occur.

Prosthetic Implications for Retarded Children's Communication Deficiencies

Of the methods presented in this article with regard to the prosthesis for communication deficiencies, Premack's systematic approach to teaching language appears to offer the most promise. Carrier³⁸ presents rather impressive evidence which substantiates this conclusion, even though his work is still in its early stages. Perhaps most significantly, Carrier has obtained conclusive evidence that when using Premack's non-speech-response mode, many severely and profoundly retarded children can and do learn at least parts of a communication system. The next step visualized would be to have two retardates communicating with each other over closed-circuit TV using plastic words. Certainly, this would demonstrate that this type of communication is a functional language within the peer-dyad and thus demonstrate its utility.

Prosthesis for Intelligence?

Children tend to improve steadily in their performance on intelligence tests until their late teens (which could be considered one indication of mental growth). In addition, it has been demonstrated that retarded children can with training improve their performance on intelligence tests. What, then, is intelligence? One succinct answer is Boring's: "Intelligence is what the tests test"³⁹ A relevant point frequently overlooked is that intelligence tests (e.g., Stanford Binet) are validated on academic classroom performance. Such tests do not measure a "common factor," but if we were to infer one, it would have to be the ability to use language. Until recently this was considered an ability ascribed only to

Figure 2. Retarded child's response tray and word symbols. The symbols represent sentence units as follows: article, noun, aux. verb, and preposition.

Figure 3. A retarded child writing the sentence, "The boy is sitting on the floor." He has completed, "The boy is sit" and is in the process of placing "ing" on the tray.

humans. However, the successes of the Gardners⁴⁰ and Premacks⁴¹ in teaching language to chimpanzees no longer makes this a valid assumption.

Let us now consider the severely or profoundly retarded child with respect to the concept of intelligence. We have classified him as retarded on the basis of measured intelligence, knowing full well that the tests are heavily loaded with language. Furthermore, we have already pointed out that the interaction between language and non-language learning may be so strong that it is doubtful that a child can make much progress in learning one without acquiring skills in the other. Even a cursory overview of Premack's work would suggest that he is rapidly developing procedures for demonstrating the concepts underlying language. These concepts are independent of language and are developed through the natural contingencies provided by the physical environment, rather than through social contingencies as are applied to language. For example, Mason⁴² has studied in detail the concepts developed by infant rhesus monkeys with respect to the physical characteristics of their mother surrogate, a nonsocial entity. It would appear that the mapping of existing environmental distinctions (one's stimulus surroundings) is a necessary prerequisite for the development of language.

For both the retardate and very young deaf it would appear that the prosthesis for intelligence may be a reality. That is, we now can surmount the language barrier by providing a non-speech response mode for communication. This eliminates the need for learning speech, or learning speech simultaneously with linguistic principles, and opens a whole new vista for teaching the language-deficient child.

FOOTNOTES

1. This article is a condensed version of Working Paper No. 298, Parsons Research Center, Parsons, Kansas. Selected parts of the original were presented at the 1973 meeting of the American Association on Mental Deficiency at Atlanta, Georgia. This paper in part was supported with funds provided under NICHD grant 00870-0.

2. J. Matthews, Speech problems of the mentally retarded. In L.E. Travis (Ed.), *Handbook of Speech Pathology*, (New York: Appleton-Century-Crofts, 1957). See also B. F. Skinner, *Verbal Behavior* (New York: Appleton-Century-Crofts, 1957).

3. O.R. Lindsley, "Direct Measurement and Prosthesis of Retarded Behavior," *Journal of Education*, Vol. 147 (1964), pp. 62-81.

4. W.N. Kellogg, "Humanizing the Ape," *Psychological Review*, Vol. 38 (1931), pp. 106-176.

5. I.M.C. Itard, *The Wild Boy of Aveyron* (New York: Appleton-Century-Crofts, 1962).

6. A.F. Tredgold, *Mental Deficiency* (New York: William Wood, 1915).

7. P.C. Squires, "Wolf-children' of India" *American Journal of Psychology*, Vol. 38 (1927), pp. 313-315.

8. Kellogg, *op. cit.*

9. *Ibid.*, p. 160.

10. See Thomas Stewart Traill "1821 Observations on the Anatomy of the Orangutan." *Mem. Wernerian Nat. Hist. Soc. Edinburg*, Vol. 3 (1818), pp. 1-49.

11. W. N. Kellogg and L.A. Kellogg, *The Ape and the Child* (New York: McGraw-Hill, 1933).

12. K.J. Hayes and C. Hayes, "The Cultural Capacity of Chimpanzee," *Human Biology*, Vol. 26 (1954), pp. 288-303.

13. H.A. Peterson, "A Case Report of Speech and Language Training for a Two-Year-Old Laryngectomized Child," *Journal of Speech and Hearing Disorders*, Vol. 38 (1973), pp. 275-278.

14. A.L. Bryan, "The Essential Basis for Human Culture," *Current Anthropology*, Vol. 4 (1963), pp. 297-306.

15. C. Hayes, *The Ape in Our House* (New York: Harper & Brothers, 1951).

16. R.M. Yerkes, *Chimpanzees* (New Haven: Yale University Press, 1943).

17. D. Premack and A. Schwartz, "Preparations for Discussing Behaviorism with Chimpanzee," in F. Smith and G.A. Miller (eds.) *The Genesis of Language* (Cambridge, Massachusetts: M.I.T. Press, 1966).

18. D. Premack, "A Functional Analysis of Language," *Journal of Experimental Analysis of Behavior*, Vol. 14 (1970), pp. 107-125. The quotation is on page 107.

19. K.H. Pribram, *Languages of the Brain* (Englewood Cliffs, N.J.: Prentice-Hall, 1971).

20. Premack and Schwartz, *op. cit.*

21. Hayes, *op. cit.*

22. W.A. Mason, J.H. Hollis and L.G. Sharpe, "Differential Responses of Chimpanzees to Social Stimulation," *Journal of Comparative and Physiological Psychology*, Vol. 55 (1962), pp. 1105-1110.

23. Yerkes, *op. cit.*

24. R.A. Gardner and B.T. Gardner, "Teaching Sign Language to a Chimpanzee," *Science*, Vol. 165 (1969), pp. 664-672.

25. H.F. Harlow, "The Formation of Learning Sets," *Psychological Review*, Vol. 56 (1949), pp. 51-65.

26. Gardner and Gardner, *op. cit.*

27. R.S. Fouts, "Acquisition and Testing of Gestural Signs in Four Young Chimpanzees." *Science*, Vol. 180 (1973), pp. 978-980.

28. S.L. Berger, "A Clinical Program for Developing Multimodal Language Responses With Atypical Deaf Children," in J. E. McLean, D.E. Yoder, and R.L. Schiefelbusch (eds.), *Language Intervention With the Retarded* (Baltimore: University Park Press, 1972).

29. J.K. Carrier, *Application of Functional Analysis and Non-Speech Response Mode to Teaching Language*. Report No. 7, Kansas Center for Research in Mental Retardation and Human Development, Parsons, Kansas, 1973.

30. D. Premack, "Language in Chimpanzees." *Science*, Vol. 172 (1971), pp. 808-822.

31. *Ibid.*

32. Kellogg and Kellogg, *op. cit.*

33. Carrier, *op. cit.*

34. *Ibid.*

35. For additional information, write Dr. J.K. Carrier, Parsons Research Center, Parson, Kansas 67357.

36. Carrier, *Application of Functional Analysis and Non-Speech Response Mode to Teaching Language*, *op. cit.*

37. R.F. Heber, "A Manual on Terminology and Classification in Mental Retardation," *American Journal of Mental Deficiency*, Vol. 64 (1959), Monograph Supplement (Rev. Ed., 1961).

38. Carrier, *op. cit.*

39. E.G. Boring, "Intelligence as the Tests Test It," *The New Republic*, Vol. 35 (1923), pp. 35-37. The quotation is on page 37.

40. Gardner and Gardner, *op. cit.*

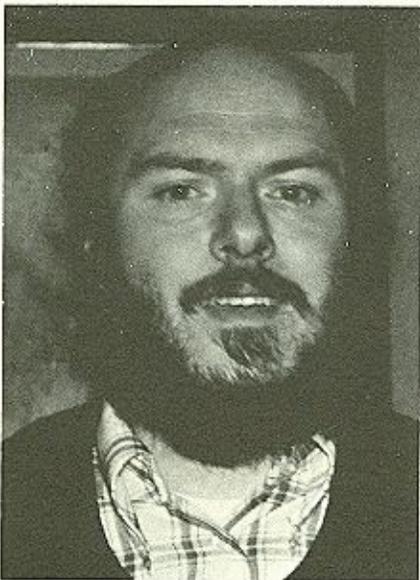
41. A.J. Premack and D. Premack, "Teaching Language to an Ape," *Scientific American*, Vol. 227 (1972), pp. 92-99.

42. W.A. Mason, in personal communication to J.H. Hollis, 1971.

As a condition of moral education, each member of a school — including every student — has “responsibility for involvement in the decision-making process. Decisions are to be made by consensus and not by majority,” this author suggests. Given current school and power realities, his points are provocative.

moral growth: some educational implications

by Robert P. Craig



Dr. Craig is on the faculty in the College of Education at Wayne State University, where he specializes in the philosophy of education. He has taught philosophy and educational philosophy courses on the college level at both Wayne State University and Madonna College, Livonia, Michigan. At Wayne State he was involved with the integration of educational history and philosophy with the Vocational Arts Intern Seminar. This is a competency-based program; Dr. Craig was responsible for developing the competencies in the areas of history and philosophy of education. He admits some philosophical objections to the competency-based program, but agrees that the experience was invaluable.

The philosopher John Dewey once remarked that the aim of education is growth. When asked what the purpose of growth was, he stated that growth leads to more education. Although some of Dewey's critics accused him of using circular arguments, his point is an important one: the aim of education is not as specific as some of the behaviorists would have us believe; the broad aim of education is necessarily vague and ambiguous. This is in the nature of the beast.

What, then, is growth? Dewey did not want to separate the cognitive aspects of the educational process from the affective. In order to grow, the student must progress both in skills and in emotional maturity. The development of the affective side of man does not occur apart from the development of the cognitive. This point is also recognized by Jean Piaget and Lawrence Kohlberg. I believe that Kohlberg's research on moral development gets at the meaning of growth, and I feel that his views have vast implications for the art of teaching.

I will not define "growth." To do so would be absurd, since growth is a process. I will, though, utilize Kohlberg's research in discussing growth; at some time during the process the teacher has hints and evidence that the student is growing.

I am presupposing that moral growth cannot occur without cognitive growth, and I am likewise presupposing that both types of growth can and do occur in every classroom which is at least a bit democratic. Two important questions need to be answered: (1) How does the student learn morality, and (2) how can the classroom teacher facilitate moral growth?

It is evident that education is a moral activity. Teachers prescribe behavior for students. There are rules of the classroom and other school procedures each student must follow. Since teachers prescribe student behavior, and many of these prescriptions are of the "thou shalt not" sort, teaching is a moral activity.

By morality I do not mean the uncritical compliance with institutional or classroom rules and procedure, though. Morality involves principles, and the principles, as the philosopher Kant saw, involve universality. By a moral principle I mean "treat each man as an end in himself, and not as a means to secure profit or pleasure," for example. This moral principle is a version of Kant's categorical imperative. A moral principle, then, is a method of dealing with incompatible claims. Most men have moral principles, but some principles are better than others because the consequence of holding some principles is better than others. It is better to treat an individual as a person, than to treat him

as a thing. How can I prove this? I can't. This is philosophical presupposition. I can only appeal to your personal intuition. Are there moral principles which are better than others?

At any rate, since education is basically a moral enterprise, shouldn't teachers have a working knowledge of the nature of moral development? Teachers are often available to discuss problems in math or history, but what about discussing moral problems, either the student's moral problems or moral problems as they occur within the subject matter? I have heard many teachers say that they must be objective; they must not deal with either morality or religion. The community would be up in arms; this is worse than discussing evolution in a science class.

It seems that some parents and teachers entertain a rather negative philosophical presupposition concerning the nature of children: they believe that children are basically lazy and need to be rigidly controlled. Without copious rules and regulations children would only do what is pleasurable, and not consider the consequences. Thus the adult needs to impose proper and correct standards upon children. Jean Piaget disagrees with this view. He writes:

It is . . . absurd and even immoral to wish to impose upon the child a fully worked-out system of discipline when the social life of children among themselves is so sufficiently developed to give rise to a discipline infinitely nearer to that inner submission which is the mark of adult morality. It is idle, again, to try and transform the child's mind from the outside, when his own taste for active research and his desire for cooperation suffice to ensure a normal intellectual development. The adult must therefore be a collaborator and not a master, from this point of view, moral and rational.¹

It is true that in our contemporary society many are asking normative kinds of questions—"What ought I to do?" "Why ought I to obey authority?" These questions cannot be answered from without. An external answer is another's answer. Piaget continues:

Let us therefore try to create in the school a place of individual experimentation and reflection carried out in common; where they come to each other's aid and balance one another.²

The psychologist Lawrence Kohlberg agrees with Piaget, and Kohlberg has empirical evidence that moral development can be retarded if rules are rigidly imposed from the outside. Kohlberg investigated a number of cultures, and came to the conclusion that moral development follows universal sequences of stages. The stages are:

I. Premoral level.

Stage 1: Obedience and punishment orientation. Egocentric deference to superior power or prestige.

Stage 2: Naively egotistic orientation. The child conforms in order to obtain rewards.

II. Conventional moral level.

Stage 3: Good-boy orientation. The child conforms to avoid disapproval.

Stage 4: Authority and social order orientation. Orientation to doing one's duty and to showing respect for authority and maintaining the given social order for its own sake.

III. Post-conventional moral level.

Stage 5: Contractual, legalistic orientation. Duty defined in terms of contract, general avoidance of violation of the will and rights of others, and majority will or welfare.

Stage 6: Conscience or principle orientation. Orientation to principles of choice involving appeal to logical universality and consistency, and not merely a consideration of actually ordained social rules.³

Kohlberg believes that many psychologists have incorrectly divided man's personality into specific traits and behaviors. This is evidenced by the current appeal of behaviorism in psychology and competency based educational programs in education. In each of these examples proper behavior is specified in measurable terms. Psychologists who deal with moral character likewise divide man into a series of behaviors or habits. Kohlberg calls this "the bag of virtues and vices" psychology. Moral virtues are listed, and since each virtue, like honesty, is a behavior, practice of that behavior makes perfect.

Kohlberg disagrees with this behaviorist mentality. He writes:

If we define our moral aims in terms of virtues and vices, we are defining them in terms of the praise and blame of others and are caught in the pull of being all things to all men and end up being wishy-washy.⁴

One's morality ought to be based upon a personal decision and commitment; it must not be merely a matter of learning and practice. Likewise, simply pleasing others is not the only rationale for acting: what happens in situations where there is a conflict of interests? Which party do we please?

It is obvious that moral education is a difficult process both for students and teachers. Morality is not accomplished when the student is able to recite a list of correct behaviors, nor is it accomplished when the student practices the various virtues. Yet, moral education can occur in most classrooms.

For Kohlberg, the basic form of moral education is the teaching of justice. Since the most fundamental values of our society are values of justice, the school ought to be concerned with such values. The school cannot be neutral in regard to the teaching of values, and justice is a primary value.

Justice is concerned with basic and universal human rights; it implies the consideration of the rights of others and the treating of each man with respect. For Kohlberg, justice is a principle and not merely a rule. Rules have exceptions and

can be violated; justice cannot. "Treat everyone impartially regardless of the man," is Kohlberg's definition of justice.⁵

Kohlberg claims that the teaching of justice is initiated by the process of drawing out of the child his innate preferences and opinions about various moral problems. Moral education is the drawing out of that which is within. Thus, if the child is permitted to progress through the stages of moral development, he will do so.

This Platonic conception of moral education is accomplished through moral problem solving, dialogue and discussion. Kohlberg found that classroom discussions of moral problems can aid in the student's progress through the stages of moral development. He found that presenting and discussing issues in civics, racism and sexuality can initiate an increase in the individual's stage of moral development.⁶

It is necessary, then, for the peer group to have more control over classroom management and discipline. Peer group interaction is necessary in moral development. Kohlberg writes:

The Russian educational system demonstrates the power of allocating disciplinary responsibility to the classroom peer group in maintaining conforming behavior. Without suggesting use of this system, it demonstrates the need to systematically explore alternative approaches to the peer group.⁷

In reality, moral education needs to encompass the activities of the school and the neighborhood. If moral education is restricted to the school, it is obvious that the neighborhood could have a negative effect upon the child. If the school tries to encourage principles of justice, and the home or neighborhood encourages principles of racism, it is evident that the child will be caught in confusing circumstances.

The problem of moral education is not exclusively an educational one; it involves the family and the larger society. The attempt by the school to change values will be extremely difficult if the values derived from the child's school experiences contradict those derived from his social experiences.

The school, though, can aid the student's process of moral development. Of course moral development would be more profound if the society were a place where justice is a living reality. Moral education follows a number of steps: (1) The teacher must cause dissatisfaction in the student concerning his personal knowledge of the good. (2) This is done by exposing the student to moral conflicts for which his moral principles have no easy solution. (3) The student is exposed to disagreement and argument about these moral conflicts with his peers. (4) Moral growth occurs to the extent in which this is done.⁸

A specific example of the above. Students at one level, stage three, for example, should be exposed to the arguments of students at stage four. The teacher would develop and clarify the various arguments. Then a new dilemma would be presented to each group. Kohlberg writes:

Initial results with this method with a junior high school group indicates that fifty per cent of the students moved up one stage and ten per cent moved up two stages.⁹

For Kohlberg, then, this notion of moral problem solving is the beginning of the process of moral education. It is only a beginning, though. The entire school needs to be an example of justice, of respect for the considerations and opinions of all involved. It means that each member of the school has the responsibility for involvement in the decision-making process. Decisions are to be made by consensus and not by majority. This implies that the student would need to be aware of the needs of others in the school and the needs of the community. Students would be allowed a degree of involvement to which they are not presently accustomed.

This theory of moral development has a number of implications for education. Contemporary education has been influenced by the behaviorist psychology of reward and punishment. Some behaviorists claim that man performs pleasurable behavior and avoids painful behavior. Thus, the educator ought to use positive reinforcement in securing his educational goals. But, as Kohlberg's research demonstrates, this emphasis on positive reinforcement emphasizes a Stage-1 or, at best, a Stage-3 orientation of obedience based on reward or punishment.

This psychology of positive or negative reinforcement places moral responsibility outside the individual. If the reward does not follow, neither does the behavior. The technique of using positive reinforcement is successful, it is claimed, in developing habitual response and behavior. Thus, teachers who utilize this method are viewing morality as the training of good habits. This approach is subject to Kohlberg's "bag of virtues" criticism.

Also, many educators and administrators believe that correct behavior is that which conforms to the rules and regulations of the school. Thus the idea of maintaining the existing institutional order for its own sake is emphasized. This is, at best, Stage-4 morality. Mere adjustment to or acceptance of the group norm is not the only meaning of morality.

Thus, teachers ought to distinguish between disobeying a procedural principle and disobeying a moral issue. Although procedure is necessary, its violation need not constitute a moral offense. If heading a paper properly is an instance of correct procedure, it does not follow that failure to do this is an instance of immorality.

It also seems to follow that if the administration believes that telling a lie is a real moral offense, but the child has not yet developed to the stage where he has the ability to make this judgment, it is unfair (even immoral) to treat this behavior as genuine moral behavior.

The teacher must understand the moral development of students. Imposition of adult moral standards is improper and harmful. Facilitating moral development is not easy, but it is possible. The teacher can aid in the moral development of students if he knows the aspects of moral development he should facilitate, and he knows the methods for achieving

this. Although American society is not at Stage-6, a better society can be the result of all our aiding each other toward the development of moral principles—principles of respect for the worth and dignity of all men and the principle of justice.

FOOTNOTES

1. Jean Piaget, *The Moral Judgement of the Child*. (London: Routledge and Kegan Paul, 1932), p. 411.
2. *Ibid.*, p. 412.
3. Lawrence Kohlberg, "The Development of Children's Ori-

tations Towards a Moral Order: 1. Sequence in the Development of Moral Thought," *Vita Humana*, Vol. VI (1963).

4. L. Kohlberg, "Education for Justice: A Modern Statement of the Platonic View," in T. Sizer (ed.), *Moral Education* (Cambridge, Massachusetts: Harvard University Press, 1970) p. 64.

5. *Ibid.*, p. 70.

6. L. Kohlberg, *Stages of Moral Development as a Basis for Moral Education* (publisher: Beck, Crittenden, and Sullivan, 1971), p. 16.

7. *Ibid.*, p. 17.

8. Kohlberg, "Education for Justice: . . . ," *op. cit.*

9. *Ibid.*, p. 82.

CLASSROOM BATTLE OF WITS by Wes Smith

Toes tap to unheard music,
Fingers play with hair.
Nineteen unique expressions
That say they are not there.
Instead each mind is wandering
A million miles through space,
Leaving a fidgeting body
And a slightly puzzled face.

There they are, slowly reclining, declining, inclining
Towards their fantasies.
Here we are, gradually refining, entwining, spit-shining
Their mental capacities.

Funny Thing, though —

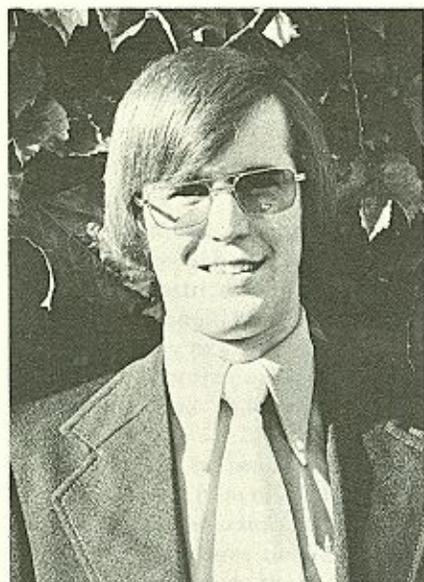
They make me want to tap my toes
To that same tune they hear,
And loosen up my necktie
Because it seems so near
Confining me, if you know what I mean —
If I know what I mean, because
I just can't seem to concentrate anymore.
My mind's not what it once was.

There they are, supposedly learning, discerning, earning
Their way into our grown-up world.
Here we are, secretly burning, yearning, returning
To the youth from which we've been hurled.

Experienced educators sometimes forget how a first-year teacher feels in trying to cope with new and complex responsibilities. For Mr. Peterson, keeping communications open proved a major key to learning — for his students, and for himself.

heterogenous classroom ahead: enter at own risk

by Richard D. Peterson



Mr. Peterson has been teaching social studies at Horton Watkins High School, Ladue, Missouri, since the fall of 1972. He had received his B.S. degree from Kansas State University earlier that spring. Currently, Mr. Peterson is also enrolled in the University of Missouri's graduate program in Learning Disabilities; he has been able to use a number of his skills with students in a special world history course who have reading difficulties and other problems. Mr. Peterson's enthusiasm and patience have particularly enhanced his teaching effectiveness in working with these students.

As I looked out at my last hour class that first September afternoon, I wondered what the year ahead would hold for us. They were twenty-three experienced students—admittedly only sophomores in high school. Nevertheless they were professionals in their field. What did I have to offer? I was their World History teacher in my first year of “professional growth,” which I soon learned to be the educational jargon for heroic action in combat conditions. I knew that I was full of drive and energy; I was ready to supply the motivational push these students might need at critical times. Little did I realize then just how much motivational TNT would be needed in that one class alone during the course of the year.

But why should I be shaky? The first five periods of the day had gone well enough. My other students seemed to have a large potential for growth to be tapped in the days and weeks ahead. The other teachers in the department were full of support, as was our administration. No, I decided, I could not get first-day jitters when I almost had the first day behind me. So with a ringing of the bell and a renewed determination, I gathered my strength for the last introduction of that first introduction day in my career.

From my first word I knew that sixth hour was different. There had been more commotion while they had entered the room, I recalled, and now I saw that their attention to my exciting, warm, humanistically personal presentation left something to be desired; there seemed to be activity in every part of the room. I had to gain and keep the attention of twenty-three unique human personalities. Each had his own hopes and fears, dreams and expectations, strengths and weaknesses, likes and dislikes. I had never been so totally confronted with the exciting challenge of human creation. The year ahead would be one of discovery as I grew in appreciation for those twenty-three individuals whose lives came together one hour a day in that World History class.

To allow the reader vicariously to experience the rich diversity of my sixth hour class, I would like to talk of the individuals as I now know them. It is important to stress the fact that I knew none of these facts—or at least very few of them—on that first day. These composite pictures are the result of a year's reading, discussion, and most importantly, observation and interaction with these unique human beings. Wouldn't it be marvelous if a teacher could come to such knowledge on the first day of school so the whole year could be geared with special needs in mind? It may be a wild dream, but it is a worthy goal for each teacher to pursue. But

out of the dream and back to reality; let me call the roll before they all jump out the window! If ever there was a class that deserved the title: "heterogeneous," it was this one. See if you don't agree.

First on the roll list—but generally last in the door after the bell—was Bob Anderson.* His socially acceptable longish blond hair and worn blue jeans were only a facade covering a great insecurity. Bob had many things in his mind; his whole year was a time for sorting things out. In the process of sorting, he often dreamed on through history. When he came back to reality, he had only a partial concern about the work he had missed. He wanted to keep up with his work, but he could never keep his mind on the job at hand. This was not new to his sophomore year, for since kindergarten he had dreamed, and many of his academic skills were behind that of his peer group.

Way across the room from Bob and a world from him in social groups was Pat Burch. Pat had a very pleasant personality and was very handy with audiovisual equipment. He had better-than-average abilities but had a motor and visual coordination problem that made his handwriting almost indecipherable. His ideas were generally "right," and he produced intelligent, well-thought-out answers to essay questions. But the written product was something to behold. He found his social happiness with the school's athletic group, but he most definitely was not a Big Man on Campus type.

Coming in the door late as usual was Jane Brown, a physically mature, socially active non-student. It wasn't that she couldn't do the work, but rather that she never settled down long enough to give herself a chance. Her parents were often flying around the country for different social activities, and Jane often accompanied them. Her immaturity was shown clearly one day when the principal observed the class. Everyone else was on best behavior and actively involved in the day's discussion. I was so proud of them. But Jane started a private laughing spell over some of the weekend's highlights. It got so bad that she even embarrassed her not-so-easily embarrassed classmates. To be honest, there were days when I hoped her "tardy" *would* turn out to be an absence.

On the same side of the room with Jane was Myron Bartholomew, a very bright boy who lacked motivation for his schoolwork. He played the drums in a rock group on weekends and often serenaded us during class. But Myron loved maps and did special work for me on a map unit. Truly, with a map and his drums Myron was very satisfied and happy.

Valerie Davis was next in the roll book. Her hand was probably already up to go to the bathroom so she could get her daily smoke. Valerie had a nice enough personality but seemed fairly low in ability. In her sophomore year she was reading on the fourth grade level. I started her on independent units early in the year, but she never wanted to work away from the classroom. A minority group member who went to our school because her father was on the staff, Valerie was extremely conscious of social groups and desperately wanted to belong at the high school. She did fairly well with her independent work, but I'll never forget her hand up in the air during class discussion. If she needed help

and I neglected her too long in order to finish a point with the whole class, she would ring out, "Mr. Petel!" Needless to say, the class discussion waited as I attempted to answer her question. The other minority student in the class was Quinton Fairbanks, who transferred into our district shortly after the year began. Quinton was very active in extracurricular activities: football, band, rock groups, and church groups, so much so that he generally came to class completely exhausted, especially since he had gym fifth hour. Quinton needed to catch up on his work, but I felt successful on the day when he just could stay awake all hour.

After Quinton (whether awake or asleep) came Kate Goering, a senior who was completing a missed requirement in World History in order to graduate in June. She was a very quiet and extremely intelligent girl who was significantly more mature than the other class members. She interacted with them hardly at all. I noticed as the year progressed that she was a loner throughout the day. Kate and I got along well and it was my continual goal to bring her out more. Through it all she was fairly contented in her corner of the room.

In another corner sat an unhappy and confused young lady. Cindy Gates was of average ability and only a little behind socially from the other students. She soon fell behind in her work and then aggravated the problem with poor attendance. She wanted to make it in the worst way, but she could not seem to develop the study habits to succeed in high school. Just when it seemed that she was finding some success, she was out of school for a long time. Then she officially withdrew from school. After much checking with parents who did not know where she was, I discovered via the school grapevine that she had been married and was now working. This came as news to her mother, who told us that if we got in touch with Cindy, to have her call home.

Katherine Groll was generally in class every day but she, too, fell behind in her work. She had extreme difficulty in conceptualizing and was working on a reading level far below the sophomore level. At first I interpreted her lack of response as indicating a lack of preparation. Her later belligerence at being pursued on some points was really a cover for what I thought was a fundamental inability to succeed with the course work. Once I figured out—with the counselor's able assistance—what Katherine was telling me, I was able to devise an independent program more attuned to her needs and abilities.

Richard Hart was at the other end of the academic spectrum from Katherine. He was very motivated in social studies, with a special interest in politics. He has a very probing mind, but tended to neglect the reading assignments, for he was often able to cover lack of preparation with his good questions. Richard had to be encouraged to make real use of his talents and not just coast along.

James Jenkins was a source of constant amazement to me. He was a very quiet, tall boy—one grade ahead of the rest of the class. In his first year of high school he had dropped out, declaring that he had had all the school he needed. After having failed to find a decent job, James was back doing his best to get a high school diploma. He had average scholastic ability, but was behind in his basic skills as a result of a poor attendance pattern. The previous year he had flunked World History twice with one of the most student-oriented teachers

in the department. He never quite got on the beam, but he was determined to stick it out in the hope of finding something better for himself.

Peter King was a very able mechanic who hoped to turn his part-time work into a full occupation upon graduation. He could not see the point of some history; however, he always gave his good effort to think things through—even if he hadn't done the reading the night before at home. He knew that he wanted a diploma to enable him to enter a technical program for mechanics, so he gritted his teeth through this "necessary evil."

"From one extreme to another" would obviously be an accurate description of this sixth hour class. From Peter to Lee Knopf was definitely a set of extremes, for Lee was a highly motivated pupil who really loved history class. She worked hard at it and studied long hours at night even though handicapped by very poor eyesight that necessitated thick eyeglasses. Socially, Lee was somewhat an outcast; she had only one close friend in the class. She had to be encouraged to offer responses in class, for she was often embarrassed by giving right answers when few other students had prepared. Lee found company—at least in the preparation department—with Ed Knight. He was a quiet boy with a very alert mind. His family was from Europe, and he spoke with a noticeable accent. Ed was one of the pillars of that class, for he was generally prepared, and, in addition to answering my questions, he could always come up with some of his own to keep us on our toes. As the year progressed, Lee and Ed turned out to be two of my best students in any class. Needless to say, they often became bored with the repetition needed by other students in the class. They each worked on extra projects that kept them motivated and active even on the "slow" days.

Martha Lawton was an attractive girl more socially mature than the rest of the class. She was very active in vocal music and planned to graduate early from high school so she could start a special program at a local college. She was interested in maintaining a high academic average so she would not jeopardize her admittance into the special program. Her motivation level was one of the highest in the class, but she also tended to be a moody person. So even though she wanted to do the work, she was often distracted from that goal and needed a friendly smile to perk her up. Martha's only friend in the class, Caroline Morton, was a very different person, little motivated by school work. Often distracted, she seemed never able to keep her mind on the things at hand. Following attendance difficulty in our school, she transferred to another high school. But before long she was back with us again, this whole confusing procedure only getting her more behind and out of touch with the reality of the classroom. It was hard to figure out what was happening with Martha; moreover I do not believe she knew what was happening. Somehow, when I looked toward her in the classroom, I always saw a question mark.

From a question mark to an exclamation point, the gradebook list continued to generally happy and always highly motivated Chris MacLean. Probably the class's most well-adjusted member, she fit into several social groups. She liked the class and tried to do her best. Her positive en-

thusiasm and real desire to learn always brightened up the class.

If Chris brightened it up, then John Mitchum usually woke it up. He was a hyperactive boy if ever there was one. John was a student of above-average ability, but he never used all he had to work with because of his million-mile-an-hour speed. He had to be one of the most likeable kids in the whole class, but if I said it once, I said it a thousand times: "John, settle down." We were good friends through it all, but in honest retrospect I cannot claim any dramatic breakthrough with him.

Robert Princeton was one of our better sophomore athletes. He was fairly quiet and could be classed as a solid "C" student. I came to know him better as I followed the sophomore basketball team through a somewhat less than spectacular season. I will never forget the first day his hand shot up with an answer. I figured it was another question—which at first he would not even offer. Yet on that one beautiful day Robert had something figured out before anyone else. I know he felt good that day—I surely did!

Down in the front of the room from Robert sat Janice Rice. She, too, was fairly quiet and needed lots of positive reinforcement throughout the year. She always worked hard and received a "B" the last quarter of the year. She came away with a sincere sense of accomplishment and success. If every student could have such feelings, education would be doing its job.

John Mitchum's best friend in the classroom was Mike Roler, who could have done "A" work all year long but always had too much fun with John. Mike was basically a fun-loving boy who could easily keep up with this diverse group. He enjoyed life and added a very healthy zest to the class. I prodded him to work closer to his potential level, but never lost any sleep over it. His enjoyment and stable mental attitude were worth all the "A's" in the world.

Another athlete in the class was Jerry Werner, who was kept off the teams for a while because of injury. He was a mature boy and always full of insight. He had a good supply of in-depth questions and answers; furthermore, he was not afraid to speak his mind.

By now the list is long and almost complete, but not without Sue Winters. She never became terribly excited about the deep significance of points under consideration, yet that never really bothered me. She gained a lot from the class, as she was at least forced to think and expand her horizons. In turn, the class, especially the socially maladjusted members, gained from her and her well-adjusted outlook. So as is clearly evident at this point, it takes all kinds to make the world—and this sixth hour World History class!

At this point, many would question—as did many of my fellow teachers—how I ever kept my sanity with this class. I'll have to admit that there were days when I swore that this was the "flunk-out" section for freshmen teachers such as myself, almost as though someone were trying to get me out of the crowded profession. But I stuck it out and persevered by keeping in mind — as difficult as it was at times — that each individual in my class needed something every day. All the students longed for some feeling of accomplishment, success, or satisfaction that would keep them going. If they could not receive this reinforcement from classwork, they

would try to receive it in underground ways of disturbance. I soon learned that it was to my own best interest to attempt to provide good feelings from course work. Each student viewed different things as desired successes or objects of satisfaction, and each responded in unique ways. But through all the diversity, they were restating the classic truism that each individual longs to feel he has worth in the eyes of others. In the final analysis, man as a social animal maintains a feeling of self-esteem only when it is reinforced by those around him.

So every day in a variety of ways I sought to add to the self-esteem of those twenty-three individuals. For those whose weak academic skills made success unlikely in the standard program, I provided alternative work. It was crucial for the success of this substitution to have it accepted as meaningful both by the students who worked on it and by the others in the class. Apart from academic material differentiation, there was a great variety of social needs to be met in sixth hour. It had to be my goal to do the best I could for as many of those individuals as possible each day. I knew that we

couldn't make it with all of them every day. But I still tried my best.

With this goal in mind, I can conclude that the sixth hour class was a moderate success last year. We were able to mold a safe and comfortable environment within which twenty-four very different personalities could work and learn together one hour a day. There were days of confrontation, but in the end we never lost a student. Open lines of communication were kept operative, and the continual growth of a social group went on—with expected ups and downs—the entire year. Many of these students are some of my warmest friends today—a year or more after the first opening day. Through a year of learning and growth for us all, love and a concern for the individual prevailed in the end. After this experience, I'm tempted to believe that those factors can remove the "risk" from any heterogeneous classroom. Why not try it and see?

*Except for the author's, the names of all persons mentioned in this article have been changed.

"There is, of course, much in contemporary education to provoke fury. Among our institutions, few depend so mightily on delusion and contradiction as do the schools—and the universities as well, it must fairly be said. The contrast between what we say and what we do is both insufferable and ludicrous. The playing out of these contradictions on small children is, however, immoral, and must stop. Outrage over the suffering of youngsters at our hands is in these respects justified; but outrage unaccompanied by a viable program of remedies rarely leads to reform."

Theodore R.Sizer

Places for Learning, Places for Joy:

Speculations on American School Reform, pp. vii-viii

(Cambridge, Massachusetts: Harvard University Press, 1973)

unreal expectations, and why

STANLEY K. SCHULTZ. *The Culture Factory: Boston Public Schools, 1789-1860*. New York: Oxford University Press (Urban Life in America Series), 1973. pp xviii, 394. \$11.50.

If the latest writing on American public education has a common theme, it is that the public schools are not living up to the aims society has set for them. Public schools, Jensen and others tell us, don't have much effect on inequality in American society. John Holt says that schools are terribly repressive places and that the children who are forced to go there hate them. A recent documentary film, *High School*, shows how authoritarian and arbitrary schools can be. The implication in all of this material is that sometime in the unspecified past the schools performed in a truly admirable way. The schools assimilated the immigrants, educated and transformed the poor and accomplished this in such a way that teachers and pupils alike remember them with affection and admiration.

Schultz argues that this perception is a myth. "I became increasingly annoyed," he writes in the preface, "by present-day pontifications about public education as the principal weapon in the 'war on poverty,' for I had read too many similar statements by Bostonians in the 1830's and Chicagoans in the 1880's about schooling as the panacea for all social ills." In the nineteenth century as in the twentieth, "too many citizens seemed to place most of their hopes for social order in the basket of public education." In short, Schultz is saying that Americans have always expected more from the public schools than they could provide. *The Culture Factory* helps to explain why we have had such expectations.

In 1789 Boston established the nation's first public school system open to the children of all residents and administered by elected officials. For the next three decades the school system limped along, hindered in part by a lack of financial support from the city government and by the requirement that pupils had to be able to read and write before they could be admitted to the school system. In the meantime Boston had grown into a large urban center, and a number of prominent Bostonians concluded the problems associated

with the city had weakened both the family and the church. Since these two institutions were the pillars that guaranteed the stability of society, something would have to take their place. According to Schultz, "Boston and New England educators affirmed that public schools had to replace the family as the chief institution for raising children to responsible adulthood." (p. 67) The school also had to supplant the church as the chief agency for the moral instruction of youth. Thus Bostonians expected the public schools to remedy the ills of urban growth in their city.

As the city grew, it had to come to grips with the problem of increasing enrollments in its public schools. Impressed with the efficiency of New England factories the educators took these industrial establishments as models of organization "for retooling the schools to cope with such urban problems as population density, residential mobility, and the increasing numbers of rural native Americans and foreign immigrants whose arrival required innovative methods of assimilation to the routines of urban life." (p. 104)

The Culture Factory is a major contribution to urban history, the history of education, and the social history of the United States. As such historians, sociologists, and educators should find this book worthy of a careful reading. Historians will find here a close look at the workings of a nineteenth-century American city, while sociologists will see a sophisticated explanation of some of the complexities of one well-known American institution. Educators may take some comfort from the knowledge that the problems of public school administration are as old as the system itself.

This is a solidly and thoroughly researched book written in a pleasant, accurate, and unobtrusive style. The main difficulty is its length. The last three chapters repeat much of the material in the earlier parts of the book and seem to be "tacked on." The topics discussed could have been integrated into the earlier chapters, producing a shorter and more coherent work. On the whole, however, this is an excellent book and deserves a wide circulation.

Joseph M. Hawes
Department of History
Kansas State University

the great school legend

"Once again, this is a critical time in education. Today, children are enrolled in school earlier and attend for more years than at any other time or place in history. Demands on education have again reached an unprecedented peak, and have provoked new problems. But the so-called new set of problems is, in fact, a set of old problems, now insistent and uncompromising. They require that we finally take our traditional rhetoric seriously, instead of continuing to look to legends to explain why, in our time, the promise of our society is unfulfilled and seems destined to remain so."

"We must demythologize the schools and become much more aware of the tension which exists between the rhetorical goals of school and this society's clear willingness to encourage massive welfare dependency and poverty rather than do what is necessary to create autonomy and mobility. My firm belief is that in our environment built on a awareness of such tension, many more children will do well academically. Perhaps even more will do well in a framework of mutual respect and acceptance—of competition against self — rather than within the framework of hostility, suspicion, and incompleteness which presently dominates."

Colin Greer

**The Great School Legend, A Revisionist
Interpretation of American Public Education**
(New York: Basic Books, Inc., 1972)