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ABSTRACT

Extensive recommendations by workshop participants on the preparation of graduate students in speech pathology and audiology are followed by four resource papers given at the workshop. Recommendations concern provision of services based on total management of communication disorders in hearing and speech centers, general philosophies and principles of training programs, graduate degree programs, relationships between training centers and service agencies, and professional standards and certification. John E. Kralewski then discusses the training of hearing and speech professionals for the future health care system and pays special attention to changes occuring in the health care delivery system such as organizational developments and the American Hospital Association proposed plan. The second paper, by D. C. Spriestersback, examines differing philosophies involved in educational programs for preparation of speech pathologists and audiologists and notes trends toward more emphasis on comprehensive medicine, more interprofessional sharing of responsibilities for management problems, and more flexible admission procedures. Different philosophies of administrative policy are noted briefly by Jack L. Bangs, followed by mention of the data boom, computerization, age extension, linguistics, and punishment by John V. Irwin. (CB)

Preparation of Graduate Students in Speech Pathology and Audiology for Employment in Community Hearing and Speech Agencies

Monterey, California
March 5 - 8, 1971

WORKSHOP PROCEEDINGS

Organized and Conducted by
THE NATIONAL ASSOCIATION OF HEARING AND SPEECH AGENCIES
Washington, D. C. 20006

Co - Sponsored by
THE AMERICAN SPEECH AND HEARING ASSOCIATION
Washington, D. C. 20014

August, 1971

Jack L. Bangs, Ph.D.
1913-1971

This volume is dedicated to the memory of Jack L. Bangs, Ph.D.

A profession is made great only by the greatness of its members. The greatness of Jack L. Bangs, Ph.D. is reflected throughout the hearing and speech movement.

From Washington and Oregon to Iowa and finally Texas, Dr. Bangs blazed a path with a swiftness few could follow, but with an impact on hearing and speech that all have come to know. In research, teaching, administration and clinical practice, he gave himself in full to his chosen profession, and excellence was the criterion he set for himself and others to meet.

Born in 1913, Jack Bangs received his B.S. degree in 1938 and the M.A. degree in 1941 from the University of Washington. He went on to earn his doctorate from the University of Iowa in 1948. He began his professional experience at the University of Oregon, serving for two years as director of the Speech Clinic. He then returned to the University of Iowa as a research assistant until 1947, when he became associate professor at the University of Washington.

In July, 1951, he moved to Houston where he became director of the Houston Speech and Hearing Center. Here, his sense of humor, sincerity and great ability won him the respect of professional colleagues from many disciplines. He was appointed clinical professor of audiology and speech pathology at the Baylor University College of Medicine and served as a staff member of Houston's M.D. Anderson Cancer Research Hospital. He was named to *Who's Who in the South and Southwest* and was listed in Volume III of *American Men of Science.*

Throughout his career, he was greatly concerned about the impact of the hearing and speech field on the total health care movement, and he contributed much through his leadership in the American Speech and Hearing Association and the National Association of Hearing and Speech Agencies. During his many fruitful years of service to ASHA, he served as vice president in 1960, as executive vice president in 1967, and chaired eight different committees. In January, 1971, his fellow associates in ASHA awarded him their highest honor by voting him president.

Dr. Bangs was also a very special kind of leader for NAHSA. In 1964, he served as chairman of NAHSA's Committee on Admissions and Standards and in 1967 as a member of the Professional Advisory Committee. Realizing the critical shortage of trained personnel to render service in the hearing and speech field, he was instrumental in developing NAHSA's supportive personnel project and served on the advisory board for this program.

In March, 1971, Jack Bangs met with selected members of both ASHA and NAHSA in Monterey, California, for the Institute on Graduate Training in Speech Pathology and Audiology. He delivered an excellent paper on the philosophies involved in providing hearing and speech services, and his concern was that the profession move toward a rehabilitational, rather than medical, model for services.

On May 2, 1971, the profession which Dr. Bangs had so carefully nurtured was dealt an irreconcilable blow. On this day, Jack Bangs died of a sudden heart attack. His untimely death is a severe setback for the entire hearing and speech movement. Time did not permit him to finish all he set out to achieve, but the victories he won paved the way for others to follow. He willed to us his spirit and conviction to carry onward that which he had so well begun.

It is in this spirit that the participants of the Monterey Conference, to whom Jack Bangs gave so much, dedicate the publication of these proceedings and papers.

AMERICAN SPEECH AND HEARING ASSOCIATION

Office of the
PRESIDENT
Central Institute for the Deaf
Division of Speech Pathology
818 South Euclid Avenue
St. Louis, Missouri 63110

October 30, 1970

Dear Colleague:

The purpose of this letter is to endorse the enclosed announcement of an important workshop jointly sponsored by NAHSA and ASHA. This workshop will bring together directors of graduate training programs and directors of community speech and hearing agencies for consideration of mutual problems and objectives.

The NAHSA training grant has provided the funds for this workshop. NAHSA invited ASHA to participate as a joint sponsor. A planning committee composed of three ABESPA directors and three community clinic directors has set up the workshop content and agenda, selected speakers and has selected the participants to be invited.

This workshop, in providing the occasion for interaction between training directors and clinic directors has the potential for constructive and creative contribution to professional advancement. I urge you to accept the invitation to participate.

Sincerely,

Frank R. Kleffner, Ph.D.
President
American Speech & Hearing Association

cc: Dr. Kenneth Moll
Dr. Kenneth Johnson

FRK/mek

V

FOREWORD

This workshop was sponsored jointly by the National Association of Hearing and Speech Agencies and the American Speech and Hearing Association through NAHSA's training program, supported in part by a grant from Social and Rehabilitation Service, Department of Health, Education, and Welfare.

The general purpose of the workshop was to provide an opportunity for a "dialogue" between directors of community hearing and speech centers and directors of graduate programs in speech pathology and audiology, concerning the adequacy of graduate training in preparing graduates to work productively in a community service-oriented agency. Attendance was limited to sixteen community agency directors and an equal number of directors of university graduate programs.

During workshops sponsored by NAHSA over the past several years, administrators of community agencies raised questions pertaining to the relevancy or adequacy of graduate training in meeting the needs of community agencies. The criticisms centered around the alleged lack of many of the fundamental skills and attitudes requisite to successful clinical practice, such as: (1) knowledge on the part of the clinician of his role in the spectrum of community health services; (2) a feeling of responsibility for the client; (3) the most basic orientation to the economics of speech and hearing services; (4) the ability to accept and/or use supervision; and (5) experience in counseling parents of children with speech and/or hearing handicaps.

It should be noted that the charges against the training institutions are not categorical. A limited number of institutions are doing a good job with most of the problem areas. Nor are the complaints one-sided. It may be that agency administrators are not willing or are unable to accept their share of responsibility for the continuing professional development of employees. Complaints voiced by agency administrators are most certainly not deliberately induced by the training institutions, but rather may be the result of some of the problems they themselves are facing.

The workshop objectives were as follows:

1. To delineate basic philosophies, general and specific goals, and operational procedures involved in both community speech and hearing programs and in training programs.

2. To identify fundamental skills and attitudes requisite to the performance of the qualified professional person as seen by both community speech and hearing programs and by training programs.

3. To identify and delineate current and future trends in the provision of speech and hearing services affecting the first two objectives.

4. To define basic issues involved in preparing the professional person:

   a. Types of experiences in relation to requisite fundamental skills and attitudes;

   b. Roles of training institutions and community speech and hearing programs in total preparation.

The design of the workshop provided for the development and presentation of four resource papers. As planned they were "resource" not "position" papers. The workshop developed some significant recommendations and identified some of the basic issues involved even though there was not time to explore specific solutions. This, hopefully, can be accomplished in similar future workshops.

It can be reported, with a great deal of satisfaction, that early in the workshop the participants agreed that it would be fruitless to emphasize the shortcomings of either the university or the community programs. Accordingly, by mutual consent the discussions centered on means of improving both programs with the thought in mind of providing the highest quality of service to the individual handicapped by a communicative disorder. This decision cleared the air for some honest and fruitful discussions.

Substantial progress was made in opening channels of communication between these groups that previously had not communicated in a purposeful manner. From numerous participants came expressions (1) of satisfaction with the workshop experience; (2) a desire that the proceedings, including recommendations, be honestly and completely reported; (3) that activity in implementing some of the recommendations be encouraged through interim projects; and (4) that a follow-up workshop involving essentially the same individuals be sheduled during the 1972 grant year. It is hoped that these proceedings including recommendations have been "honestly and completely reported."

Plans are being formulated to comply with the recommendation that a follow-up workshop be scheduled. While the content and methodology will again be prepared with the assistance of an advisory committee representing the two groups, it is suggested that a significant portion of the workshop will be devoted to the presentation and discussion of interim activities. It is further suggested that attention be given to a total and continuous professional development program that utilizes the resources of both the university and the community agency.

We wish to express our appreciation to all participants for their thoughtful contributions. Special thanks go to those who prepared and presented excellent resource papers.

Washington, D.C.

August, 1971

Irwin Brown, Ph.D.
Chairman, Planning Committee

Edgar B. Porter
Director of Education and Training
NAHSA

CONTENTS

RECOMMENDATIONS OF WORKSHOP PARTICIPANTS

I. SERVICE DELIVERY

A. Management

1. Increased emphasis should be placed on providing services based on total management of communication disorders in hearing and speech centers.

2. Identification and specific descriptions of the tasks to be performed in providing comprehensive services to individuals with communication disorders are primary requisites. These tasks should be identified in relation to different types of service settings, with emphasis on both the commonality and variability of tasks among such settings. The task analyses should not be "time-locked" to service delivery systems that are now in existence, but rather should project what might be involved in future delivery systems.

3. Newly identified tasks should be organized in relation to provision of services. Important aspects to be considered are which tasks should be assigned to the fully qualified professional and which may be assigned to other types of personnel. Such assignments should be based on such criteria as the effectiveness and economy of providing needed services. The primary role of the professional is to make professional judgments, plan programs, supervise other personnel, develop innovative procedures and methods, assume responsibility for total management of clients and for the economics of providing these services. The professional person should not be utilized primarily as a skilled technician in performing routine evaluative tests.

4. Service programs should be constantly re-evaluated to determine whether the specific talents of personnel are being used most effectively.

5. An effort should be made to develop more satisfactory measures of evaluating the effectiveness of programs and personnel. The training program's effectiveness in preparing students for service and the agency's effectiveness in providing clinical services to patients with hearing and speech disorders should be measured.

6. In administrative development of grant applications, in qualifying for carrier payments, and in other criteria-aspect requirements, service programs are often confused by what is meant by the phrase,"... eligible for certification..." This qualification should be clearly defined in terms of methods of providing services.

7. The future of isolated service programs should be examined. They may continue to stand alone, rather than become parts of corporate groups, only at the price of continued and increased effort.

8. The hearing and speech profession must face a slowly growing, but definite trend to unionism by therapists in public and private programs. This represents a real management problem in terms of how to handle this and in terms of the out-put training programs can provide in pre-job orientation.

9. From a purely management standpoint, supportive personnel offer real opportunities, but also real problems. As costs rise and dollar-competition increases, financial exigencies may force program managers to turn increasingly to supportive personnel.

10. Historically, service programs have been asked to provide training services during the Clinical Fellowship Year that they are not necessarily financially able and/or willing to offer. Service centers that can and do take CFY personnel should supply specific cost information on the expenses of supervision, administration, and other areas of fiscal function. This cost information can help determine in-service training expenses and adjustments for first-year salaries for CFY persons, as well as other fiscal data. If no national average can be established, category-types of cost formulae can be developed.

B. Services

1. Supportive personnel should be utilized to increase delivery of services. Guidelines and controls are needed to regulate the services of these personnel.

2. The American Speech and Hearing Association and the National Association of Hearing and Speech Agencies should collaborate to develop a services brochure that can be a model for service and training programs throughout the United States. The brochure should include the following:

   a. Services available throughout a particular geographic or population area.

   b. The differences, and reasons for them, between the services and fees of training centers and purely service centers.

3. The job-task requirements most typical of service programs, the personnel categories, the jobs involved in each personnel category, and the tasks required for each job should be developed.

   a. The extent to which service programs are involved in the delivery of speech therapy, language therapy, or a mixture of speech-language therapy needs to be determined.

4. Service programs should probably be allowed to dispense hearing aids as part of their services.

II. TRAINING

A. General Philosophies and Principles

1. The design of training programs should be based on the following steps:

   a. A determination by job task analysis of what knowledges, skills and attitudes are required for individuals to perform professional responsibilities most effectively, including consideration of those attributes necessary for the individual to be able to adapt and change procedures and roles as needed;

   b. Exploration of ways in which such attributes can be developed most effectively, maintained and enhanced throughout the individual's career. Such explorations should involve close evaluation of present training models and the development of new models.

2. There should be a continuing evaluation of whether training models are actually providing the professional with the knowledges, skills and attitudes needed to perform the assigned tasks. Such evaluations should be carried out in regard to the following criteria:

   a. Evaluations should be based on objective assessment of professional performance in carrying out tasks and of the effects of such performance on the client, rather than simply on the completion of certain courses and experiences or subjective judgments of supervisors.

   b. Evaluations should be made of an individual on a periodic basis, not just at the time he completes a formal training program or at a time when he has limited professional experiences.

3. A "professional" model of training leading to a professional degree should be considered to replace the traditional model leading to a graduate degree. Such professional training should include, among other aspects, the following:

   a. An emphasis on development of a professional attitude on the part of the individual with recognition that he is to become an "expert" in communication disorders, relating to other professionals on that basis;

   b. Experiences in relating to other professionals in a variety of settings.

4. More training emphasis should be placed on producing an individual whose primary roles will be making professional judgements, planning programs, supervising other personnel, developing innovative procedures and methods of providing services, total management of clients and consideration of the economics of providing services. Less emphasis should be placed on making the professional person a skilled technician in performing routine evaluative tests and therapeutic drill activities. Individuals may now be "overtrained" in performing some technical tasks such as routine pure-tone audiometry.

5. Training should be directed first toward the teaching of principles of evaluation and management, and then toward the development of experience in applying such principles through a practicum directed specifically toward service goals.

6. The issue related to the training of a "generalist" versus a "specialist" is an important one. Two types of possible specialization are determined according to type of communication disorder or type of employment environment. Either type of specialization may present problems due to the wide variation in types of disorders handled in many service settings and the considerable differences that exist in the organization and operation of service programs classified within the same general category as, for example, among community agencies. Specialization should be recognized by "certificates of specialization;" however, such specialized training should be provided following basic training as a "general practitioner." A definition of the point at which separate specialization "tracks" should be diverge is needed. For example, should specialized training occur as part of a university program, or should it be delayed until completion of a professional degree and occur primarily in a service setting.

7. The profession needs to emphasize the importance of teamwork in serving patients with hearing and speech problems. The teamwork concept may not be too prevalent in academia where students are in training. However, it is a widely used procedure in agencies allied with hospital clinics or medical school clinics. Consequently, students in training programs should learn the importance of the teamwork approach and should be encouraged to draw upon the knowledge and expertise of other disciplines, such as psychology, psychiatry, neurology, otology and vocational guidance.

8. The prestige of the college or university teacher who supervises student practicums should be increased. Too often the basic scientist receives a higher salary than the superlative clinician on the college faculty.

9. The continuing lack of communication between teachers of the deaf and audiologists warrants major consideration of methods to alleviate this problem.

10. Most agency directors favor the use of supportive personnel. However, there is no consensus of feeling or attitude regarding supportive personnel among training directors. Clinicians in training should be exposed to the potential value of utilizing supportive personnel.

    In training audiometric aides, it is more important that the aides develop positive attitudes toward working under supervision and understanding limitations of the scope of their jobs. Levels and abilities needed are not yet fully defined for various audiology and speech pathology positions. Thus, it is difficult to formulate meaningful task descriptions of what supportive personnel should do. Careful job task analysis of professional as well as supportive positions should be done.

11. In the selection of students for training in audiology and speech pathology, academic ability of the student is only one of the factors considered. Some colleges and universities use the General Record Examination, the Miller Analogies Test, and other examinations to try to predict student ability in college. Personal interviews with students are utilized. It is frequently difficult to assess student motivation, attitude, and personality and the measures used to assess these are generally subjective. Thus, it is difficult to predict at the outset of training those people who are not really suited for the field of audiology and speech pathology.

12. There are a number of limitations and constraints inherent within all training programs that affect the type and quality of student practicums in the university. For example, a training program related to a university medical school may have access to a large laryngectomee population for training purposes, but may not have as strong a program in adult aphasia. Skills in handling a variety of communicative problems and exposure to a large variety of handicapped individuals should be the thrust during the training program practicum. Most training programs recognize their weaknesses and use consortiums, institutes, and visiting professors to help compensate for these recognized deficiencies. Although job settings vary, the clinical fellowship year cannot feasibly be used to acquaint the clinician with all job settings.

13. There is an urgent need for job-task analysis in university training programs for each degree-level of training and for each specialty within each degree-level. Until this is done, training programs cannot intelligently answer what it is they are training.

14. Training programs do not seem to indoctrinate students or prepare them for "real rehabilitation." Students sometimes seem to be trained to offer only one thing: therapy services for specific communicative disorders. Rehabilitation should be inherent in all training programs.

15. The question of whether training programs should be involved at any level in the process of training "program managers," or whether the manager must develop on the job should be determined and its implications on training programs defined.

16. Realistic "pass-fail" criteria and evaluation structures for practicum training need to be established as definitely as they are for the academic portion of training.

17. Training programs suffer much criticism from those outside the university sphere. In their own defense and for the understanding of others, training programs should supply analyses of the pressures that specifically shape their policies and practices. How much of the training is done by tradition, by honest conviction, by mandate or requirement needs to be determined.

18. The question as to whether Master of Arts programs are offering academic degrees, professional training degrees or both should be answered as well as what the final product represents.

B. Nature of Training

1. Masters Degree Training

a. Content

1.) Students are not taught the economics of speech and hearing services in the training programs. Many such programs are fully subsidized by the university and often do not charge for the clinical services they provide. Hence, students should learn the "financial facts of life" relating to program costs, necessity for fee income for a hearing and speech center, how agencies are financed, budget pressures, and other financial considerations.

2.) Students should learn how to relate to other professions, how to write reports that other disciplines will read, and what to say and what not to say in critical reports.

3.) The physician is trained to view the audiometric data in terms of needed medical or surgical treatments. The audiologist should look at the patient in terms of the effect of his hearing loss on his social, educational, and vocational efficiency. Students are sometimes not taught this distinction and may "play doctor" by including statements which only the physician has the right to report.

4.) Frequently, audiologists come out of training programs with a preference to be just audiologic diagnosticians. They are not concerned with or comfortable with their additional responsibility for aural rehabilitation measures. They do not seem to be

taught how to counsel patients about their hearing problem, yet this important aspect should be included in effective training programs.

5.) Recent graduates frequently do not appear to understand normal child growth and development. These aspects should also be included in the training program.

6.) Students appear to lack an understanding and knowledge of the availability of various community resources that can assist in serving the patients' varied needs. Many other social services and health and vocational agencies are available, but new staff members recently from training institutions are often not familiar with these important agencies. Some recent graduates lack general knowledge of the availability of other input from the community which they can use in patient care. Clinical practicums in agencies is one way to acquaint new professionals in the field with community resources, and this should be considered.

7.) Hearing and speech professionals have a responsibility to work with all age groups, yet some new staff prefer only or know only how to work with a limited age group. Broader exposure to various age groups should be included in training.

8.) Students frequently are not aware of the importance of follow-up on patients over a period of time to test the validity of their patient care. They should be taught to measure the effectiveness of what they do for the patient in therapy.

9.) Audiologists and speech pathologists function in various job settings - schools, agencies, private practice, industry and government. Hence, they need a variety of competencies to function in the various settings. Those coming to community speech and hearing centers need better understanding of the work requirements in this kind of job setting.

10.) Students should be taught who is to function as manager of a case when they are in training and later, when they are in an agency setting.

11.) Training programs should teach the organization and management of public school programs, agency programs, clinical programs, and private practice, and the extent to which these programs this should be determined.

12.) Professional associations should secure funds to hold local, state, regional and/or national workshops for the directors and teachers in training programs to demonstrate how to analyze and separate training program costs into various budget components

and to identify training costs in teaching, practicum, diagnostics, therapy, research and overhead. These should be taught in some degree to students.

13.) Training programs should revise their curricula to cover the following:

a.) The essential foundation courses in normal development and early-age functions in speech, hearing, language, and related fields.

b.) The academic courses relevant to the types and severities of disorders that are most prevalent among pre-school children.

c.) The practicum experience associated with the evaluation and remediation of communicative disorders among pre-school children.

b. Practicum

1.) Students may have too much didactic training and need increased supervised clinical practicums. Audiology and speech pathology courses and curriculums are modeled after teacher education, not medical education. Our model is training students for one service, rather than living and operating in a daily patient care atmosphere like the physician. The physician teaches skills he has learned through actual practice with patients. Similarly the college professor of audiology and speech pathology should at times be placed in a community hearing and speech center to supervise students. A greater variety of patient problems would then be available for the student.

2.) There is confusion over supervision in training practicums. Supervision is poorly defined. Levels of supervision qualification criteria should be established.

3.) The ASHA requirement of 275 hours of practicum is believed insufficient and the training programs that are accredited are too oriented toward the public schools. These areas of training need to be re-evaluated.

4.) Practicum experiences, in some instances, can be provided more effectively in service programs outside a university setting, and this should be recognized.

2. Post-Degree Training

a. The economics of the clinical fellowship year should be re-examined and the roles of the agency, the training institution, and the trainee in

sharing costs should be established.

b. Continuing education programs should be implemented to upgrade knowledge and skills of audiologists and speech pathologists.

c. The report of the American Speech and Hearing Association's Sub-Committee on the Clinical Fellowship Year should be re-read and re-appraised.

d. The following questions are in need of further clarification:

1.) How many interns in speech pathology and audiology can or should one supervisor try to supervise?

2.) How many internship positions can a community hearing and speech center provide?

3.) Should a precedent be established wherein an intern at an agency should not expect to remain there after his one-year internship, but should accept employment at another agency?

4.) What would it cost the agency to provide supervision of an intern for a year? Would the fee income from the work of the intern offset the cost of supervision?

5.) What other models are possible for the clinical fellowship year?

e. A post-degree period of on-the-job training (internship, clinical fellowship period) is essential to the training of a professional person. The goals and procedures of this training, particularly supervisory procedures, should be specifically defined.

f. A formal apprenticeship period with close supervision on the job, minimal salary, and formal evaluation should possibly be required before certification.

III. RELATIONSHIPS BETWEEN TRAINING CENTERS AND SERVICE AGENCIES

A. Joint Responsibilities in Training and Service

1. There is a need for a structured, ongoing interaction between personnel of training centers and agencies which employ their students as audiologists and speech pathologists. Directors of college training programs should confer with hearing and speech center directors to determine the competencies students should have.

2. A feedback mechanism between the agency and the training program should be developed, so that the training program can be informed of the strengths and weaknesses of its products - the audiologists and the speech pathologists.

3. Both training programs in colleges or universities and service programs in various settings have responsibilities for professional training. As a result, both types of programs should be involved in planning more effective training and in evaluating the training.

4. Decisions concerning the settings in which various aspects of training are to be carried out should be based upon the criteria of effectiveness and economy. For example, it might be argued that the provision of basic information about the communication processes and disorders can be carried out most effectively in university settings, while some practicum experiences can be of more benefit if obtained in a service program separate from an educational institution. The post-degree professional experience required (internship, clinical fellowship year, etc.) is now the primary responsibility of the service program. However, it would be much more effective to have it planned jointly with the training programs.

5. Personnel from training programs and from community agencies should begin a joint effort to design and carry out procedures leading to improvement in training. To continue to operate on the assumption that college and university programs are totally responsible for training and community agencies for service will not lead to needed modifications and evaluations of training models. Cooperation and continuing communication between training and service programs are vital to the development of effective training and service and to their continual up-dating.

6. The assumption of certain training responsibilities by community agencies have economic implications. That is, funds have to be budgeted by the agency for activities which are primarily related to training. However, if training activities in the agency are important to the development of more effective personnel for the service program, the funds invested might be partially or totally regained by more efficient and economical service operations.

7. Joint efforts in training programs by professionals from many environments, such as public schools and community agencies, should yield more comprehensive training programs. However, if the efforts of training programs and community agencies alone result in the production of a more efficient and economical "product" (the professional worker), this "product" would be welcome in other employment environments.

8. A profession-wide brochure for the public describing and differentiating between services, fees for services, fees for service programs, and training programs that offer a service component should be developed. (See Service Delivery, B. Services, 2.).

9. The entire profession should collaborate on the problem of financing the Clinical Fellowship Year.

10. Training programs and service programs should cooperate in developing effective public information programs. The training programs should

borrow from the service area for more "political sensitization" of their students.

11. There should be a study and report on the degree to which training programs orient students to the comprehensive needs of clients, and the study should investigate changes that are occurring in service centers involved in meeting the comprehensive needs of clients. There may be too much "communication-only" orientation in training programs. The problem of what is happening to service center activities as they interact in developing comprehensive health care or total rehabilitation delivery systems should be examined.

B. Professional Standards and Certification

1. In view of the present trend towards accountability in both training and service programs, the service agencies should have some voice about certification and licensure standards, and how well training programs meet these requirements.

2. Service programs and training programs should specifically articulate their hiring and producing (of professionals) expectations.

3. The present American Speech and Hearing Association certification standards should be reviewed.

4. National standards for professional training should be established, so that the products of training programs would be less diverse. The training program accreditation standards of the American Speech and Hearing Association may be too general to result in significant reduction of such diversity in program graduates.

C. Basic Problems

1. Formal mechanisms should be established to provide for continued cooperation and communication between training programs and community agencies.

2. Common definitions of various terms utilized in discussion of training and service, such as "rehabilitation," "educational," and "comprehensive," should be developed. Different interpretations of such terms detract from effective communication.

3. Personnel from training programs and community agencies often are not aware of occurrences in the other type of setting, such as changes in curriculum emphasis and practicum experiences or changes in service delivery systems. Keeping abreast of changes in training and service programs requires mechanisms for continuing communication, and these should be implemented.

4. Statements by community agency personnel to the effect that professional persons are not being trained adequately, or statements by training

program personnel that the training is adequate do not represent effective communication which will lead to needed changes. Such statements:

a. Imply a generalization to all individuals and to all programs on the basis of experiences with a small sample.

b. Do not aid anyone in defining specific areas of strength and weakness in an individual's training.

c. Often are made without the benefit of knowledge about recent changes in training or service delivery. For example, weakness in the training of any individual graduating a number of years ago may already have been corrected in a training program. Similarly, institution of new systems for delivering services may not be known to training program personnel and thus, not taken into account in curriculum planning.

d. Do not take into account that differences between service programs in regard to goals and needs may lead to different evaluations of personnel with the same training.

5. Training program directors should attempt to provide more information to prospective employers concerning particular strengths and weaknesses of specific students, rather than general statements. For most effective communication about prospective employees, it is necessary that the training program director have knowledge of the particular attributes and special characteristics required in the employment setting.

6. The National Association of Hearing and Speech Agencies and the American Speech and Hearing Association should provide its members with information about various health care delivery systems, so that planning can be done for the future both in the training programs and in the service agencies.

7. The latitude, if any, of service program directors in prescribing the goals and procedures of training programs should be determined.

8. There is a very marked disagreement between the servcie program directors and training program directors as to how narrowly or how broadly the training of students should be. These differences need to be examined and hopefully, resolved.

TRAINING HEARING AND SPEECH PROFESSIONALS FOR THE FUTURE HEALTH CARE SYSTEM

John E. Kralewski, Ph.D. [1)]

In discussing educational programs for hearing and speech professionals, we must first of all examine the field of practice and how the changes that are occuring in our health care delivery system will affect the roles of these professionals over the next years. Nothing is more certain than change, and change in the health field is taking place in two general dimensions. First of all, we have been and still are experiencing a rapid expansion of technical knowledge and procedures available to perform routine cures that were considered to be near-miracles only a few years back. Secondly, we are now beginning to see increased attention directed toward the organization and delivery of health services and a growing realization that our expanding technical knowledge will be relatively useless, unless we reorganize our health system in a manner that will effectively bring this knowledge to bear on the health care problems of all members of our society. As a result we are witnessing many changes in the structure and orientation of our health system and in the roles played by the component professionals, agencies and institutions in that system.

You are, of course, much more aware than I am of the first dimension of this change: the knowledge explosion and the rapid expansion of treatment know-how. This will affect your training programs both in terms of college programs and continuing education programs, and I'm sure you will be spending a considerable amount of time examining that question during these next few days. The changes in the structure and formation of the health system and the effect of this change on the hearing and speech agency and on the individuals working in those agencies may be a bit more obscure, however, and I therefore would like to devote the remainder of this paper to that area of concern.

Health care systems, as with all social systems, do not stand alone, but instead are formed and changed by the norms and values of the greater cultural and social order. Our health care system as we see it today is deeply rooted in past traditions, and many of the system's characteristics can be found in several other fields as well. Our society is based on individual achievement, activism and the free enterprise spirit. The health care field and many of the institutions in the field therefore developed with these characteristics as inherent parts of their structure in much the same way as the food industry developed with corner grocery stores, the banking industry with small neighborhood banks, and the various craftsmen with their small shops. In the health care field, this resulted in physician's setting up private practices in neighborhood offices, often all alone or perhaps with one partner and some office help. It also resulted in development of the small corner drugstore, the one-man dentist office, the small proprietary hospital and nursing home, and a vast number of other small units, each oriented toward the production of one special service that they could sell for profit and which presumably would add up to a health care product. Our social structure has another characteristic that began to influence our system, and that is a feeling of

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a social responsibility to provide services for those whose needs were not being met by private medicine. Again, following our individualistic orientation, however, this charitable characteristic often took the form of non-profit charitable organizations rather than governmental institutions. The social climate was such that the provision of services by governmental agencies was a last-choice alternative to be used only if those services could not be provided by the free enterprise system or through locally sponsored non-profit agencies, most of which also charged at least some fees for their services. Governmental agencies therefore were developed to provide services for those who could not pay. As gaps in the services provided by the for-profit sector became increasingly evident, a number of non-profit organizations and agencies were formed to fill in these gaps and provide such services. These services were often on a partial fee-for-service basis, subsidized by community funds of three types: endowments, contributions solicited on a door-to-door basis and later, the community fund. Many agencies such as the community hospitals, non-profit nursing homes, hearing and speech agencies, the mental retardation projects and others developed along these lines, each oriented toward a specific service or disease entity and each dependent on the for-profit sector to provide general medical services. It appears that many of these non-profit agencies were not oriented toward the provision of services for the poor, however, and tax-supported governmental programs therefore continued to develop to fill these needs. In addition, governmental programs and controls were developed to deal with the so-called public health programs such as communicable diseases and the control of the for-profit agencies. These programs developed into what we now know as the public health field, and together with the governmental agencies now are known as the public sector.

As was previously mentioned, other fields developed along similar lines, with small production units each doing their "thing" as one-or two-man shops. As our country grew and developed and knowledge expanded, the production units in other fields continually restructured their operations and grew into relatively efficient large-scale organizations that produced and distributed goods and services. The free enterprise system provided in many cases the incentive for this change. Organizations had to compete or go out of business, and to compete they had to make sure that they were organized in an efficient manner and were able to get the products and services to the people at a competitive price. The corner grocery store, butcher shop and other small food producing and distributing agencies therefore developed into the modern-day food chains, and the craft shops developed into manufacturing firms.

In the health field this evolutionary process has been slow to take place. The field has been shielded from the economic pressures that have caused other fields to change since 1) we limit entrance to practice in the field and therefore control supply and competition of services, and 2) the consumer cannot determine what and when to buy in terms of medical care as he essentially has no choice but to use the services when he is ill. Thus, while you can buy less expensive food when your budget is tight, you cannot buy a cut-rate appendectomy when the doctor decides that you need one. We have therefore been able to continue providing health care services in much the same manner as we did 100 years ago; and our health system has as a result not kept pace with the developments in other fields. This is further complicated by the fact that the knowledge available to the field has changed dramatically, creating a great deal of specialization of task performance while our ability to organize these specialized talents into a program has remained

much the same as a nineteenth-century cottage industry. As a result we have tremendous technical know-how, but lack the ability to bring that knowledge to bear on the health problems of our communities. The distribution system continually malfunctions and we run into a variety of problems. We expect the patient to be able to diagnose his illness, at least within certain parameters, before seeking help since he will be forced to choose between a number of specialties as his primary contact with the system. Once he visits these specialties, he may get relief from his specific complaint (if he was fortunate enough to have selected the right specialist), but may have a number of undiagnosed conditions that are overlooked because of the narrow orientation of the practitioner. If the patient has incorrectly diagnosed his condition, the specialist will, in most cases, help him find the appropriate practitioner for his specific illness; but this then means a visit to another doctor, another costly work-up and another bill. If he should be so unlucky as to require hospitalization the whole procedure is again performed resulting in further anxiety and the receipt of yet another bill. Our system expects the patient to find his way through the maze of practitioners and institutions to get care with little coordination of the various talents into a total health care product. We are unable in most cases to get information and patient data from one facet of the system to the other, and as a result are spending millions of dollars duplicating x-ray, lab and other procedures.

The system lacks a general entrance point that can be easily recognized and used by the patient to gain access to care, and also lacks a method of guidance through the entire system so that a patient will get the comprehensive services that he needs. Many of our screening programs and other programs developed by various non-profit agencies therefore do not result in tangible benefits because the abnormalities discovered by the agencies never come to the attention of the individual physician, or because the physician does not know about the services of the agencies and therefore fails to refer patients to them for care. The physician cannot be blamed for this problem, nor can the hearing and speech or other agencies be criticized for these failures. Both are working in a health care system that lacks the organizational framework to bring these talents together, and until we have that framework, we will continue to limp along with agencies such as yours turning up an ever-increasing amount of problems in schools and other situations and then discovering that they are never followed up because they are not able to initiate treatment.

As a result of these many failures in the provision of even the most basic health services on a continuous, comprehensive basis and the rapidly increasing costs of maintaining the present inefficient system, there is growing agreement that the system must undergo significant and far-reaching organizational changes. The initiative for this change originated from both consumer groups and from producers of services, such as yourselves, who were dissatisfied with the present medical care system. This initiative has now acquired considerable support among legislative bodies as well as governmental leaders, Blue Cross agencies and professional associations such as the American Hospital Association. This initiative has now become articulated in legislative proposals seeking to establish a health system that will provide comprehensive, continuous health care to all segments of our society on a health maintenance basis. These proposals envision all of our citizens, rich and poor alike, using the same health system with easily accessible entry points to the system and guidance through the system so that proper talents

and facilities are utilized to the maximum efficiency in returning the patient to a state of well-being, and maintaning that state of well-being through preventive medicine means. These proposals would establish a financing mechanism which would pay for a broad range of health services on a preventive medicine basis with incentives for maintaining health.

There are therefore two major areas that should be of concern to us in terms of training hearing and speech professionals for the future health care system. If the health system develops into larger corporate structures, as it surely will under these pressures, how will the individual agencies such as yours relate to these larger units? Secondly, as the national health insurance programs develop, as it appears they surely will as a result of these same pressures, how will those programs affect hearing and speech agencies, and how can you be assured of adequate financing to operate your units?

First of all then, let's look at the organizational developments that appear on the horizon. The health care field has long resisted the transition to large-scale organizational patterns as has been pointed out before. The ability to resist this change has, by and large, been due to the fact that the field has been shielded from the economic and social pressures that caused other fields to form corporate structures. This shield is now weakening, and the field is consequently responding to organizational changes. As a result we are seeing the development of larger organizational units designed to provide broader health care services. Large medical clinics are forming, hospitals are assuming in-patient and out-patient as well as ambulatory care roles; and hospitals, medical practitioners and insurance programs are forming joint corporations to organize, finance and deliver medical services on a comprehensive basis. This trend is now being increasingly facilitated by the H.E.W.'s development of the health maintenance organization concept. Under this concept organizations may be able to qualify for Federal funds to develop health care organizations that would, in turn, contract with governmental programs to provide comprehensive health services to specific population groups.

The Ameriplan proposed by the American Hospital Association is another indication of the direction of the future. This plan would establish through legislation a health care commission at the Federal and State Levels to develop and establish health care benefit rates and to enfranchise corporations to provide services in given geographic areas. A group of individuals or a previously established organization, such as a hospital or medical clinic, could under this plan apply for a franchise to provide comprehensive health services to a population group in a specifically defined geographic area. In order to be eligible for consideration, these organizations would have to show that they have the capabilities of providing total services either through their own talents and facilities or through arrangements, such as subcontracts, with other auxiliary talents and facilities. Under the Ameriplan consumers would have an opportunity to obtain their health services through the corporation or continue to use the existing health system outside the organization. There would, however, be incentives to join a health care corporation since this would bring with it a health maintenance and catastrophic illness insurance program at no cost to the consumer. The consumer would be eligible to register with a health care corporation and receive these insurance benefits if he had purchased or been provided with a health insurance plan to cover basic expenses not covered in the Ameriplan proposal. Consumers could change organizations at specific times

during the year if they were dissatisfied with the services provided by their original corporation.

Those who favor the Ameriplan believe that it will bring the many facets of our health care system into a coordinated program. They believe the corporation would present easily accessable entry points for consumers, and once the consumer is in the system he would be provided with the many talents and programs necessary to return him to good health and maintain that status. The system would therefore assess the patient's health care needs and would have access to the programs and professionals to meet those needs regardless of how diverse they turn out to be. They believe the patient would therefore be treated as a whole being instead of a specific illness. The important point is that the system would be oriented toward the patient's total needs, and would be able to deal effectively with those needs because they would have the tools and talents necessary to do so. Those who propose this plan also believe that it would solve the problems of the doctor-poor areas of our country. The corporation, according to the sponsors, would be able to develop satelite clinics and hospitals tied into a system of graduated health care, with the primary care eminating from the clinic and small hospitals, secondary care from the somewhat larger and more sophisticated hospitals, and tertiary care for serious illnesses from the teaching hospitals and their staff. The satelite clinics would provide health services for the many areas of the country which are not now able to attract health professionals. This does not mean that a complete range of services would be immediately available in all communities regardless of their size or location. Rather, it means that primary medical services would be available in the clinics at all times, with various other services available either at the next step in the system or at the clinic on a one-day-a-week basis.

While the Ameriplan may appear to be a drastic change to many, it none the less likely represents the future health care scene. The Ameriplan will probably not be adopted as such, but it seems clear that our health system will evolve into some sort of larger organizational structure within the next few years and will take its place among other corporate industries. Along with this change it seems equally probable that the health care financing mechanism will change. Today some 83% of the population has some type of health insurance. These plans, however, cover only about 32% of the health care bill and leave many families with little or no coverage. Many of these health insurance plans pay for services in a manner that has caused over-utilization of services and skyrocketing medical care cost. We therefore will probably see these programs solidified into some form of national health insurance in the next few years. There are in fact 10 to 12 proposals presently being developed, some of which have been introduced as legislative bills. These proposals differ considerably in nature, yet there are major themes that seem apparent in most of the plans. These themes seem to indicate the likelihood of a program that will be Federally sponsored and administered through the Social Security system, possibly with fiscal intermediaries such as Blue Cross Blue Shield and other insurance programs reviewing and paying the bills at the local level. It appears that most of the proposals favor joint funding on the basis of employer-employee contributions and general revenues with some modification of the reimbursement method to assure quality care, while not causing an over-utilization of facilities and services. The fee-for-service concept in this context may give way to a capitation reimbursement rate or a modified capitation negotiated fee-for-service agreement.

As these changes occur, health professionals will find themselves producing in a totally different health care system and health care climate. The system may well be characterized by larger organizational structures responsible for the total health care of specific population groups. These organizations would include the entire range of health professionals, either on a salary basis or through subcontract agreements, and the over-all organization may well be paid on a capitation basis from a national health insurance program. The arrangements between the umbrella organization and the various professional groups may be on a salaried basis or may be in terms of subcontracts on, again, a capitation basis or on a negotiated fee-for-service arrangement. Regardless of the type of remuneration method, the corporation will likely have to be in control of or have access to the various talents and agencies necessary to deliver comprehensive health care in order to qualify for participation in the national health insurance program.

In the hearing and speech discipline, these changes will affect both the practitioners and the agencies. First of all, the practitioners, whether they are audiologists, speech pathologists or one of the many emerging subspecialties, will be working not as separate individuals, but as team members oriented toward comprehensive health services. This means that these practitioners will have to integrate their talents with the talents of many other diverse practitioners such as doctors, nurses, etc. and will have to successfully work with these other professionals to develop health care programs. The hearing and speech practitioner will no longer be working in a relatively isolated setting dealing only with his own professional group. Instead, he will have to prove himself capable of performing a specific set of tasks, relating those tasks to those performed by other professionals, and be able to work with those professionals on an integrated program basis. To do this with any degree of success, hearing and speech professionals will have to be oriented toward this team approach to health care in the very earliest stages of their careers. Educational programs therefore will have to integrate their training into a broader medical care teaching complex so that their students will be in constant contact with other students in the field. Through this involvement, the hearing and speech students will develop an understanding and respect for other health care professionals, and these various other health professionals will in turn develop an understanding and respect for the hearing and speech specialist. Since the roles of all health care professionals probably will change as the system changes, training programs will have to work with the evolving health care system to determine appropriate roles for their graduates. Once established, the training programs will have to develop certification and licensure programs to assure the public that their graduates are competent to perform these roles.

The graduate must also be prepared to work in an ever-changing system. Our health care system has been relatively stable organizationally for some years. We now, however, see rapid changes occuring, and must logically expect these changes to alter the way we deliver medical care. As a result, all health care professionals must be prepared to interact with the system and change both the system and their specific roles as the health care needs and demands change.

This places a special burden on the training programs. First of all, they must be oriented toward a dynamic, changing field of medical care organization rather than concentrating solely on the technical aspects of the job and ignoring the changing methods of organizing services. It means that the teaching institutions will have

to get involved with the delivery of health care in order to keep abreast of the changes and the effect of those changes on the roles of their graduates. It also means that the teaching institutions will have to get involved with the delivery of health care in order to keep abreast of the changes and the effect of those changes on the roles of their graduates. It also means that the teaching institutions will have to reconsider their priorities and reallocate their resources to include a much greater emphasis on continuing education in order to keep their graduates up-to-date on the technical and organizational aspects of the rapidly changing field.

The development of larger organizational units in the health care field will also have a great effect on the type of individual and the talents needed in the field, and this will again affect the training programs. First of all, the field will require an individual who understands the relationships between professional employees and large-scale organizations, and secondly, understands the potential benefits that can be derived by practicing with organizational support. In other words, the successful health care professionals in the future will be those who understand the workings of the large-scale organization and how that organization can benefit and support his activities instead of considering the organization as a suppressive instrument. The fact that the large organization will have to deal with small clinic units in order to provide health services to a broad range of consumers in both rural and urban areas, means that there will be a need for a range of talents in the hearing and speech area as well as in other areas. In the clinics and other point-of-entrance areas they may need someone with only limited knowledge of hearing and speech problems with a more specialized individual at the back-up units. Again, this will require the training institution to provide different degrees of specialization for different positions in the overall medical care scheme. It may require the training institutions to provide some specialty training to non-hearing and speech specialists who will operate as the generalists in the point-of-entrance clinics. It also will make it necessary for the training programs to actually participate in the development of a health program which they can then use to determine the types and degrees of hearing and speech talents needed at each level. This is a vast departure from the traditional development of a specialist in the academic setting.

The graduate working in the future health system will also have to be prepared to work in a totally different health care culture. These larger organizations, operating with health insurance funding, will have to provide health services to all segments of society and all subcultural groups as a right instead of a privilege. This will bring with it a more demanding public, prone to criticize the services and sometimes seemingly ungrateful for the care provided. Our health care system, whether we wish to admit it or not, has always had charitable overtones. Many of our programs operate on community-donated funds and rely heavily on volunteer workers. Health care is considered by many to be a charitable act to help the sick and injured, and in turn they expect the patient to be grateful for these services. The changes in the organization and financing of the field will alter this orientation to one of health care as a right and the production of health care services as a business enterprise. With these changes in mind, professionals will have to understand the differences among these groups and develop the appropriate services to meet their different needs. As these changes occur the public will be less willing to support community health care services on a "community fund" basis since they will be paying taxes for a national health insurance program. With some exceptions, specialized agencies may therefore find it impossible to operate as separate autonomous units

and will find it necessary to join larger organizational structures funded through a national health insurance program. These agencies will then be operating on an entirely different basis, with more attention devoted to the development of appropriate relationships and arrangements between the health care corporations and their particular agency. These arrangements will include specific role assumptions by each agency, funding mechanisms to carry out that role, and management information systems to assure role performance by the agency and the professionals within that agency. Hearing and speech agencies in this context may find themselves in competition with each other and with outside organizations to perform services for health care corporations. This competition will probably be beneficial to the hearing and speech field since agencies will survive only if they are well-run and can perform a valued role at an efficient competitive price.

The health care field is undergoing far-reaching changes that will greatly affect the manner in which health professionals and health agencies interact to deliver services. This situation is causing many to view the future with a great deal of anxiety as they see traditional positions challenged, roles altered, and cadres of new professional and subprofessional talents developed. In order to cope with these changes and maintain valued roles, professional groups and the training institutions underpinning those groups will have to devote continued attention to the developing health system and constantly reorient their training to meet the needs of this changing environment. The resulting health system will be greatly strengthened by this involvement, and the agencies and professionals practicing within the system will be performing roles that in many ways will be far more challenging and rewarding than in the past. We therefore should view these changes not with alarm, but with anticipation of expanded roles and new challenges.

DIFFERING PHILOSOPHIES INVOLVED IN EDUCATIONAL PROGRAMS FOR PREPARATION OF SPEECH PATHOLOGISTS AND AUDIOLOGISTS

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I was pleased to be invited to participate in this conference because I have long been interested in improving the processes by which the facilities of training programs validate the content of their curricula. Why this interest developed in my case is not clear to me. Maybe it stems from my strong service drive and thus my concern for serving the speech and hearing handicapped in the most effective fashion possible. In any event it gained its first tangible expression when I directed a master's thesis in 1949 which sought to sample the opinions of graduates of the Iowa program concerning the adequacy of their training.

I am sure that it is perfectly clear to all of you that for the past six years I have not been spending my time thinking primarily of the speech and hearing handicapped. Therefore, I can only conclude that one of the reasons for my invitation to address you was the perspective that I may have acquired from working in a broader realm of higher education. In any event I shall draw on my recent experience whenever it seems helpful in demonstrating either that the problems faced by our profession are not unique or that our present posture with respect to given issues should not be viewed as immutable. Certainly the experience has made me highly aware of the relative character of positions, of the inter-relationships of forces and of the constantly changing character of man's arrangements for serving his purposes. Therefore, I must adopt a more flexible attitude toward my profession than I held when I was younger and less experienced. But enough self-reflection.

Where Have We Come From?

Before getting to the heart of my comments, I should like to make some historical observations to set the stage. First, I should like to trace briefly the development of the profession with particular reference to its decisions concerning the nature and levels of training, and the assumptions basic to those decisions.

We came into being as an organized group about 45 years ago. We came from a variety of backgrounds: teachers of English, psychologists, teachers of dramatics, general educators, even a few physicians. We were concerned about persons with communication handicaps. Some of us wanted to help these handicapped persons directly; some of us wanted to learn more about the causes and treatment of the communication problems. In fact, almost from the beginning of our identification of a common concern, we developed training and research programs for dealing quite specifically with the problem.

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The pre-World War II years were relatively quiet ones for us. During that period we were an orgnaization made up primarily of college and university-based persons, located in programs in education, speech or psychology, studying communication handicaps, and teaching courses to students, most of whom would today be viewed as generalists, who were preparing to handle a variety of areas of communication, adjustment or teaching.

World War II forced us to respond to a host of new problems. The state of our technology and the level of our understanding of human behavior and disease was such that communication problems took on a new significance. We needed to be able to communicate under difficult conditions; therefore, we needed to know more about the processes involved in the generation, transmission and reception of the speech signal. Many more of our wounded were surviving requiring intensive programs of rehabilitation. Teams involved in language retaining and aural rehabilitation were in great demand. Better understanding of the possible consequences of speech handicaps among persons called to military service required new inputs concerning the minimal standards for that service. But demands for our services brought problems, related primarily to who we were and the nature of our rights and responsibilities. We were at one of the important crossroads in our professional development. As a result of our actions or inactions we could become an ancillary medical profession, working under prescription of physicians primarily in medical settings, or we could become a distinct professional group, insisting upon the right to set our own professional standards, prescribe our own programs of professional preparation, and, of course, take full responsibility for the consequences of our professional action. It is interesting to speculate what type of group or groups we might be today if we had not taken aggressive action at that point to establish our own professional identity. But our leaders of that day did take vigorous action. As a consequence our professional development has been very different from that of the nurses, the occupational therapists, and physical therapists for example. One of the consequences of this response was that we tended to emphasize the non-physical causations of speech and hearing handicaps which, in turn, has had its consequences in terms of the emphases which we have given to our research and to the training of our people.

An onslaught hit us immediately after World War II. There was a heightened awareness of the needs of the handicapped at all levels. There were more people in need of remedial services. New programs of training and service sprang up in great profusion. Research programs were mounted and pursued with great vigor primarily in academic settings. Clearly the public saw a need for service to communication handicapped during this period and responded generously to support training and service programs. It was a time when we operated on the principle that what we had to offer was good. Therefore, doing more of the same was largely what was required. And so we ran headlong on, arguing mildly along the way but not really coming to grips with any very fundamental issues about who we were, why we were, or where we were going. It was another heady period, shared, I must observe, by almost all other professional groups in this country.

But, we mustn't pass this period too quickly and too glibly. It was not without its significant contributions. Perhaps one of the most dramatic ways to sense the magnitude of these contributions is to compare the textbooks in our field in 1950 with those in 1965. Even the beginning student can see that the depth of our understanding of the processes basic to speech and hearing increased

markedly, that we improved the specificity of our understanding of the nature of many of the communication problems with which we are concerned, and that we were beginning to develop principles of the therapeutic management which had a ring of validity to them growing out of our increased understanding of the nature of the problems with which we were dealing. Of course, no group, even though it is motivated by the highest ideals of service, can survive unless it has unique skills drawn from the understanding of a body of knowledge and applied effectively to meet a given need. When we don't work from an evolving body of knowledge, we quickly run out of professional steam and are shunted aside for more vigorous professionals. Whether we like it or not, we are tied to and dependent upon those in our field who dedicate their efforts to increasing and improving our understanding of the processes of communication with which we are concerned. Consequently, talk on all sides about special interest groups and other kinds of organizational structures has a ring of unreality to it.

Where Are We Now?

I am choosing to speak of the present as the period from 1965 to now. Having established ourselves as a learned and professional group, we have spent a good deal of energy during the present period establishing minimal standards for training and service. A good bit of controversy has been involved but the very fact that we have been concerned indicates that we are dealing in a responsible way with the questions with which any profession must be concerned if it is to survive. This is not a new problem nor are we alone in having to cope with it. As some of you know, I have been stimulated by the writings of Abraham Flexner who had such an impact on the professional development of the medical profession during the 1900's. Listen to what he has to say about professions: (3)

> ...professions involve essentially intellectual operations with large individual responsibility; they derive their raw material from science and learning; this material they work up to a practical and definite end; they possess an educationally communicable technique; they tend to self-organization...the responsibility of the practitioner is at once large and personal ...He is not under orders; though he be cooperating with others, though the work be team work rather than individual work, his responsibility is not less complete and less personal...it is the steady stream of ideas...which keeps professions from degenerating into mere routine, from losing their intellectual and responsible character...members of a given profession are pretty well agreed as to the specific objects that the profession seeks to fulfill, and the specific kinds of skill that the practitioner of the profession must master in order to attain the object in question.

If we agree with Flexner's concept of professions, and I do, then we have been doing many of the things during the present that any self-respecting profession should be doing. We have developed a body of knowledge; we have established and retained our individual responsibility; we have demonstrated our concern for the larger good. However, we still have far to go before we agree on "the specific objects that the profession seeks to fulfill, and the specific kinds of skill" that we must master.

Over two-thirds of the members of our profession are engaged in some type of clinical activity outside of a college or university setting. That is as it should be if we are truly a service profession. If our members were not so engaged, there would be no point in having a profession, a point which many academicians tend to forget. Early in this period I made the following plea:(10)

> It seems to me that it is high time for our profession to re-evaluate the position and importance of the clinician. I could argue that he deserves the most respected position of all. His job is certainly one of the most complex. His understanding must be characterized by breadth and profundity. He must understand...a host of communication disorders, counseling, learning, growth and development, linguistics, acoustics, anatomy, work environments, community resources, etc., etc. In fact, I could argue that some folks have left the role of the clinician because it was too demanding while the ivory tower provided a comfortable escape! Furthermore, it seems to me that too many of our teachers, and I am one of them, have had too little, if any professional experience in a clinical setting. Consequently we fail to instill enthusiasm and realism into the teaching of students who intend to work in these settings. Many of our training institutions have tried but have failed to attract experienced clinicians to their teaching staffs because they have not been able to figure out a way to provide their advancement in salary and rank. As a consequence we have left this type of teaching too frequently in the hands of graduate students or have failed to deal with the subject at all.

I cite this quotation to make the point that during this period we have been trying to find the appropriate balance in our system of rewards between teaching and research on the one hand and clinical work on the other. I must keep emphasizing, however, that this issue is one which has been common to the great majority of other service-oriented professions.

Because we have been able to agree on the "specific objects" of our profession and because we work with such a wide variety of types of communication problems in such a wide variety of settings, we have spent a great deal of time during this period discussing and debating the nature of the skills that our graduates should have. Involved is the issue of the generalist versus the specialist and the extent of the responsibility for his continued training to be given to the new graduate and the employer immediately involved in his initial entry to the profession. Should the training institutions limit their training to general background and basic skills? By doing so they would presumably do a better job of giving the student greater potential for growth and more options for selecting future jobs. However, if that philosophy is followed, provisions would have to be made by employers to provide a kind of residency training which they are currently not budgeted to provide. If we don't follow this route, can any given training program be expected to provide good clinical training for all of the settings in which our members work or should there be specialization according to setting among training institutions? Such arrangements would, of course, tend to lock students into given work settings once they had chosen a particular training institution.

It would, of course, be nice if we were the only profession developing in the world. In this type of professional Garden of Eden we could be free to select our

purposes and responsibilities without regard to all of the grey areas of professional jurisdiction. But such is not the case. Again we have responded in the fashion typical to most other professions. During this period we have worried a great deal about our image and rights as well as about our responsibilities. In doing so, we have tended to freeze our professional role and to become defensive about our existence. These types of responses tend to result in professional status quoism.

In 1962 I had the good fortune to hear an address by Dr. Brock Chisholm who served for a period as the Director-General of the World Health Organization. He spoke of the "survival group" and traced its development from the time when it consisted of the individual concern only with his own survival, to the immediate family, to the enlarged family, to the clan, principality, kingdom, nation, empire. In each instance, the survival group, as defined at the moment, accepted responsibility for its own welfare at any cost to other individuals or groups. We have survival groups today including professional survival groups. We have speech pathologists, audiologists, special educators, psychologists, academicians, school speech clinicians, classroom teachers, and on and on. Commenting on some of the implications of the survival groups in an address to the American Cleft Palate Association, I said:(11)

> ...these groups also have traditions which tend to make them operate as though they agree with the phrase, "My profession, right or wrong;" traditions which tend to blur their view of the whole problem; traditions which tend to create distored views as a result of the magnifications which are made of those facets of the problem with which each group is concerned and which prevent other facets of the problem from being equally magnified because of ignorance or fear for the group's status. These traditions tend to keep us from taking the pediatric view, from doing the kind of thinking which is unfettered by biases and prejudices. They tend to keep us from making maximum use of existing knowledge to solve our problems and to progress. They tend to create attitudes which make it easy for us to allow ourselves the luxury of professional provincialism and defensiveness despite the fact that we are involved in a big business, big both in terms of human and materialistic values.

I assert that society should not and will not allow us to afford this kind of professional isolation in the future any more than it will allow such professions as medicine, dentistry, psychology or social work to do so. Somehow, in the future we must find more objective and mature ways of looking at ourselves and the justifications for what we do.

This then is a brief look at the past and the present. Many other issues and trends are also worth noting; certainly others commenting on the same periods would have chosen other issues and trends. Obviously my purpose has not been to be exhaustive or definitive. Rather I have tried to make the point that, as a profession we have had problems but they have not been unique to us. In fact, they would appear to be rather typical of any professional group that has vigor, imagination and spunk. But we, along with all other major professions, haven't done well enough.

As all good professions do, we have taken stock from time to time. Here is a summary of some of the discussion at the 1963 Highland Park Conference on Graduate Education in Speech Pathology and Audiology on the definition of the field and the roles of the professionals working in it:(2)

> In our social milieu no one of course need be in any way apologetic for occupying a clinical role. Our highest accolades are reserved for just those who contribute most to alleviation of suffering and the rehabilitation of the unfortunate. In the desire to examine the relation of speech pathologists and audiologists to the basic bodies of knowledge from which they draw, the Conference participants never lost sight of the humanitarian thread running through their activities....
>
> It is patently impossible for even that scientist most disinterested in the clinic to dissociate himself from the humanitariam consequences of his work, and certainly at no time was there a tendency for any such to denigrate the clinical applications of speech and hearing science...(one conferee commented:) "Basic science has to be justified on the basis of its application. This is peculiar to our field; when we study a process for the sake of study, we then become OTHER specialists."
>
> One can of course think of exceptions to this generality or perhaps think of a very long lag before clinical application, but there is no doubt in the minds of most leaders in the field that speech pathology and audiology is a clinical profession.

In 1964 ASHA sponsored a Seminar on Guidelines for Supervision of Clinical Practicum in Programs of Training for Speech Pathologists and Audiologists at Boulder, Colorado. (9) Among the summary statements of that Seminar were the following:

> The participants were apparently willing to go on record as believing that a diversity of clinical practice (all types of disorders, all ages of subjects, all settings for remedial activity) was the advisable preparation for a speech pathologist or audiologist, regardless of the nature of his ultimate specialization. The lack of opportunities for such diversity, the seminar felt, would be a weakness in a training program.
>
> Strong emphasis was given to the general aim of providing the trainee with systematic and adequate experience in working with representatives of related fields of professional interest. The strong implication of this view is that a portion of clinical practice should be carried out in settings other than the speech clinic in a training center. It was recognized that the general incorporation of this feature into programs of clinical practice would make supervision more difficult, for the training program could neither abandon nor always control clinical practice which occured in settings other than its own. It was the consensus of the group, however, that programs of clinical training which do not include systematic opportunities for working at a variety of settings, and thereby preclude acting with representatives of other professional fields, are clearly not adequate.

From the Subcommittee on Human Communication and Its Disorders of the National Advisory Neurological Diseases and Stroke Council comes these comments:(6)

> In considerable part,...remedial procedures have been developed from experience by applying principles of behavior modification that have been developed in educational psychology, by applying knowledge of the counseling relationship developed in clinical psychology, etc. Much has been done simply on the basis of good judgment, a priori analysis, and trial and error procedures. Recently, however, there has been an acceleration of experimental work that is directly relatable to clinical procedures. One example is the application of programmed learning techniques to the clinical situation. Since a substantial part of remedial work in speech involves learning of new motor skills, or modification of old motor habit patterns, the techniques of programmed learning seem likely to have valuable applications. Also, the paradigm of the operant conditioning experiment has seemed to have possible application....In a number of areas having to do with speech and voice problems, the development of interdisciplinary teams has proven extremely valuable, both in promoting research and in the development of improved management and treatment procedures...(They) should be encouraged in all settings in which it would appear that they have a chance of reasonable success.

In 1969 ASHA sponsored a conference on "Undergraduate Preparation for Professional Education in Speech Pathology and Audiology." Here are some excerpts from the summary of that conference: (14)

> Clinical competence means that a person possesses the skills necessary to deal with disorders of speech and hearing. These clinical skills are developed, in part, by exposure to appropriate factual information. An academic curriculum provides such factual information when it contains the appropriate content arranged in the most effective sequence.
>
> The subject specified for the conference was the undergraduate portion of a training program in speech pathology and audiology which extends through the M.A. level. In theory, at least, attention can be concentrated upon whether it is the only formula for producing minimal clinical competency; or whether terminal baccalaureate programs are ever justified; or whether the same kind of program is appropriate for training aids, supportive personnel, and those who will have limited responsibilities; or which tasks in our profession are sufficiently limited in complexity and responsibility to be performed effectively by people trained to do those jobs and no others.
>
> The widest agreement was that we should begin to think in terms of at least two types of undergraduate programs. The two-track model was coined to describe them. One track is a terminal under-graduate program, specifically designed to produce aides or supportive personnel who are able to perform specific tasks under appropriate supervision. A program of this sort has specific and limited objectives and is not a preparation for further training. The second track is a preprofessional program leading solely to training at the graduate level.

Neither strict adherence to an articulated set of standards, nor freedom to experiment with novel approaches to training is likely to be productive in the absence of reliable evidence about how a particular program affects clinical competence. Evaluating the product of a training program is surely as important as protecting or changing the program form. Until more is known about what variety of training programs is possible, and how variations change the information or skills acquired, sharp restrictions or overly rigid specification for undergraduate programs had best be deferred.

Undergraduate preparation for graduate training is, and will continue to be, a sensitive and important aspect of professional development as speech pathology and audiology. Part of the sensitivity stems from the obvious fact that it is difficult even to discuss what is appropriate or inappropriate in undergraduate programs without raising questions about what constitutes clinical competency, what degrees of responsibility are to be exercised, and what is to be done about supportive personnel, and all of the others who know something about speech and hearing disorders. To be effective, undergraduate programs must look to their own procedures and make their own aims clear. Without a good foundation, no enduring superstructure can be erected.

Current Trends in Higher Education

Before going further I'd like to spend a few moments discussing how we came to have the posture that we have in higher education today. I do this to remind us all that we came to where we are through an evolutionary process. This history suggests that we can expect to be at a different place tomorrow.

We need to recognize that there is no immutable significance to the baccalaureate degree. During the 19th century higher education was available only to a select few who studied in one of the learned professions--theology, philosophy, law or medicine. The bachelor's degree was viewed during this period as a social status symbol. During the first part of the 20th century it attracted thousands of persons because it increased their earning capacity. It became a requirement for entry into a significant number of professions. Today it is clearly losing this significance as higher education comes within reach of the masses of our people and as the amount and complexity of the knowledge which we must master increases at a podigious rate. Many thoughtful educators are predicting that 14 instead of 12 years of schooling will become universal, and that the first higher degree to be awarded in the future will come at the 18th year or at approximately the level of our present master's degree. In this scheme the baccalaureate degree will become an anachronism. I agree with this prediction despite the drive in some circles to challenge the importance of any training beyond high school and despite the trend for some employers today to hire persons with lower levels of training particularly in some of the technical fields.

I am not, however, predicting that we will not devise new modes of delivering our services as speech pathologists and audiologists which will recognize the place of persons who have not completed the minimum training of the specialist in our

field. On the contrary, I feel that we can and should review the tasks before us with the intent to find appropriate and rewarding places for persons with less than master's degrees in our fields.

Now a few comments on the current scene in higher education. As you may know, there is a Carnegie Commission on Higher Education. It is scheduled to make a complete report of its work in 1972. In the meantime it is issuing special reports on urgent issues as soon as the Commission has had the opportunity to review them. Most recently it has issued reports on health education and on education beyond high school. Because these are stimulating reports I will be quoting heavily from them during these comments.

The Commission has made the general comment that the greatest priorities for higher education in the 1970's are:(5)

a) to provide greater equality of educational opportunity for all our youth,
b) to undertake reform and innovation, and
c) to provide more health care personnel.

The Commission also notes in its report on health education that one of the goals of that education should be "to provide more appropriate training for the work actually to be performed..." In many ways that seems to be the theme of many critics about all segments of higher education--better training in teaching for those who teach, better training in research for those who do research, better training in the performance of services for those who serve.

Now to an enumeration of some of the issues facing us:

Tracks and Options

We have been hearing much these days from a variety of quarters--from government officials, from educators, from foundation executives--to the effect that we have got to extricate ourselves from the inexorable educational track which takes the student from kindergarten through advanced university degree in one big push. There is also much questioning of the validity of a college education for the bulk of those persons now aspiring for post-high school training. Here are some comments from the Carnegie Commission:(7)

> ...College today supplies a smaller proportion of lifetime knowledge. It is one of many sources of knowledge and less a rare and one-time opportunity. The approach need not be as it once was: everything now and never again. Formal education at any level is no more important part of education than its totality. Education, in all its myriad forms, surrounds modern man. Rather than long-extended formal education in advance, more jobs require some basic skills and knowledge in advance and then a willingness to keep on learning and opportunities to learn. Some occupations and professions...will increasingly require periodic formal updating of knowledge.

....

...We oppose the sharp distinctions now made among full-time students, part-time students, and adult students. Education should become more a part of all of life, not just an isolated part of life. An educational interlude in the middle ranges of life deserves consideration.

....

Higher education is now prejudiced against older students. They should be welcomed instead. Too often they are looked upon as inferior.

The Carnegie Commission goes on to say:(5)

We recommend 126 area health education centers (in addition to 36 recommended health science centers) to serve localities without health science centers. Each of these centers would be at a local hospital.... They would train medical residents and M.D. and D. D. S.-candidates on a rotational basis; they would carry on continuing education for local doctors, dentists, and other health care personnel; they would advise with local health authorities and hospital; they would assist community colleges in training allied health personnel....This proposal would put essential health services within one hour of driving time for over 95% of all Americans and within this same amount of time for all health care personnel.

We favor:

° Shortening the time it takes to become a practicing medical doctor from eight years after the B.A. to six years.

° Improving the curriculum by tying more closely together basic science and clinical instructions-they now too often stand as unrelated worlds. Improvement could also be achieved by tying clinical instruction to work with "garden-variety" as well as "exotic" patients; by creating several paths, rather than only one, for students depending on their prior background and their special interests-for example, a psychiatrist needs less basic science than a person intending to become a research scientists and by having the students help determine the curriculum.

(The Commission recommends that "many of the reforms in medical and dental education deserve serious consideration. Students are calling for more flexible admission standards to bring in applicants with varied educational and cultural backgrounds.... They believe that a larger proportion of the curriculum should be elective and that there should be more chance for independent study activities and individualzed instruction...they are calling for early contact with patients and for more carefully integrated relations between basic science and clinical instruction so that abstract parts of the curriculum become more meaningful in relation to the treatment of individual patients. They seek less compartmentalized instruction and more

emphasis on comprehensive medicine, with the patient viewed as an individual in a family and in an environmental situation that may have an important bearing on his condition.")

- More appropriate training for the work actually to be performed...
- (Relating) health care education more effectively to health care delivery.

These comments provide much food for thought. Most especially, they support the notion that the priorities and structures of educational programs change. In the context of this paper these suggestions should not only provide specific ideas for change but should also encourage an attitude of openness to change. Reactionary rigidies in these days will not be adequate for survival.

Finally, I must observe the trend for interprofessional sharing of responsibilities for the management of problems. In addition to ourselves, the dentist, the nurse, the social worker and others are emerging as members of a team that share in the responsibilities for health management decisions. To deserve such a role requires significant training and experience in patient management.

What are some of the possible tracks and options that are available to us? Most of us will subscribe to the philosophy that we are treating the total individual rather than a specific disorder. (As an aside, I must observe that I think we mean to do so but too often fail to do so.) But the breadth of our conception of our task has a profound impact on the nature of the curriculum that we establish for the training of our students. How much psychology, sociology, cultural anthropology, are to be a part of the prescribed curricula.

The nature of the training provided is influenced by our attitudes concerning the generalist versus specialist question. The trend in higher education today is to move to a more general curriculum during the early stages of training, thus providing more opportunities for making vocational decisions during a greater period of the training, and for increasing the options for lateral professional movement later in life. More specifically, the courses we offer will depend on the degree of unity that we perceive in our field. Goldstein, for example, perceives a great deal of unity. In a recent paper in which he argues for a model communicology embracing language and language disorders, hearing and hearing disorders, and speech and speech disorders, he states:(4)

> Training for communicology should not focus initially on the three specialty areas but on the areas and enterprises of any health-related profession that assumes independent management of patients: etiology and pathology, diagnosis and evaluation, habilitation and rehabilitation, and prevention and conservation....Basic courses in acoustics, linguistics, semantics, phonetics, etc., could be reorganized to make them applicable to more students allowing more economical use of faculty time. Courses leading to the understanding of normal aspects of hearing, speech and language are basic to all three specialty areas. A core curriculum can be built around the normal aspects as well as around many common aspects of clinical practice.

I have included this quote from Goldstein not to press his point of view but to dramatize the potential effect on training of one's position on the generalist versus specialist issue, particularly as it relates to the degree of unity which is conceived for the field as a whole.

The generalist versus specialist issue also present itself when one determines if he does his good works primarily through a kind of global response to the individual requiring help or if he is a behavior modifier of specific acts. The training required for a person who perceives of himself as the provider of models of acceptable verbal communicative behavior and of the attitudes toward that behavior is considerably different from that of the professional who attempts to apply the paradigm of operant conditions and the techniques of programmed learning.

Another variable related to the scope of training concerns the degree to which preparation must be provided during formal training for self-improvement and professional growth. Training for a person fully prepared to move directly into independent practice in a given setting will be quite different from that of the person who has been trained in the rudiments of independent practice on the assumption that he will receive on-the-job training during his initial employment. The ASHA ad hoc Committee on the Clinical Fellowship Year took some positions on the issues which have been ratified in principle by ASHA. Let me read several of the statements from the report of the committee: (13)

- The educational program for the profession is a continuing life-time process variously involving formal academic training, voluntary professional development, and experiences leading to increased clinical insight.

- Academic training is not sufficient in itself for full participation in the professional.

- A period of supervised clinical experience in an appropriate clinical setting is a necessary component of a total program of professional preparation.

- The Clinical Fellowship Year should, insofar as possible, be designed to complement formal academic training, compensating for recognized deficiencies in training.

- Although primary responsibility for the management of the CFY rests with the directors of service agencies, successful achievement of the optimal program depends upon cooperation and interaction with the directors of training programs. (It is a truism that directors of service programs must be primarily concerned with the welfare of the clients being served. Therefore, the supervision provided by them during the CFY will be designed to improve the clinical effectiveness of the applicant. Since the ultimate goal of the profession is to prepare workers to serve persons with communication disorders, it follows that there must be a feedback from the service programs to the training programs to the end that the training is relevant and effective to meet the needs of the real world. A profession which does not insure such feedback is guilty of irresponsible professional neglect.

Some of the aspects to be considered, then, when thinking about the scope of training include the degree of scholarship that is required by the effective practictioner to keep abreast of the times, the degree to which one should be trained initially for entry into independent practice, and the degree to which professionals should be trained to allow for their professional mobility both vertically and horizontally.

Now a few comments on the sequencing of training. Many fields, including communicology, have arranged training programs on the assumption that one should study the processes basic to behaviors prior to studying the behaviors themselves. Implicit in this assumption is the notion that one has to understand normal processes before he can deal appropriately with abnormal processes. In recent years there has been a distinct trend toward moving students earlier into opportunities for interaction with the types of persons they are ultimately destined to serve. The changes in the medical curricula are one example of this trend. However, it should be noted that these students have already completed a rigorous pre-professional preparation.

Another aspect of the sequencing of training concerns some of the considerations which I have just spoken about relating to the level of training to be required by employers for initial entry into the field. Do we prepare the person fully for independent practice upon entry into the field, or do we prepare him by stages? At this point let me quote again from the Carnegie Commission:

- Young people should...be given more options (a) in lieu of formal college, (b) to defer college attendance, (c) to stop out from college in order to get service and work experience, and (d) to change directions while in college.

- Opportunities for higher education and the degrees it affords should be available to persons throughout their lifetimes, and not just immediately after high school.

- More educational, and thus career, opportunities should be available to all those who wish to study part-time or return to study later in life, particularly women and older persons.

- Society would gain if work and study were mixed throughout a lifetime, thus reducing the sense of sharply compartmentalized roles of isolated students v. workers and of youth v. isolated age. The sense of isolation would be reduced if more students were also workers and if more workers could also be students; if the ages mixed on the job and in the classroom in a more normally structured type of community; if all members of the community valued both study and work and had a better chance to understand the flow of life from youth to age.

I am sure that is obvious to all of you that our models of training and work in our field would have to be significantly reorganized to accommodate the recommendations of this Commission. In the ensuing discussions at this conference you will need to rationalize your judgments on these issues.

Now I should like to turn briefly to some variation in training modes. My list includes: apprentice vs. supervised trial-and-error training, training in breadth vs. depth, training in educational clinics vs. training in on-line clinical settings, and the insistence of formal academic training vs. the application of equivalency training for knowledge and experience where applicable.

John O'Neill commented on one of these issues in his ASHA presidental address. (8) He said:

> ...we will need to prepare our students for the eventuality that our professional approach may change from a practice-oriented, clinic-oriented profession to a population oriented or community-oriented profession...We know that when a student goes into a practicum agency he finds different models, different value systems, and different ways of looking at problems as well as considerable stress on relationships with other professions. Thus, we must provide ways for our students to examine methods of delivering services, to study and evaluate delivery of health care as well as to develop more efficient ways to deliver care and to fit into a pattern of comprehensive management.

Fred Darley commented on the depth-breadth issue in a recent article. (1) He spoke about the training of a board-certified neurologist or internist. He said:

> This physician during his junior and senior years of medical school... would have first-hand clinical experience with about 400 patients. During his year of internship,...he would have had first-hand experience with 864 more patients. During his 3-year residency he...might see...a total of 2200 more. By the time he goes out to set up his practice, he has had first-acquaintence with 3464 patients for whom he has had personal responsibility, many of whom he would have followed for extended periods of time, to say nothing of the hundreds of other patients whom he would have been exposed to in case conference, teaching rounds and classroom demonstrations. He has been there. He has seen our particular problem before.

It is obvious, of course, that our profession has never provided clinical training of such intensity, both in breadth and depth. Should we? Can we?

Some of you may have read recently of the move toward external degrees in higher education generally. Such programs offer a wide range of exposures to substantive material and determine academic status primarily on the basis of examination rather than through the accumulation of credits by completing formal courses in residence at a college or university. You need to be aware that the trend is away from highly prescriptive, highly structured courses in residence and to the provision of training that is much more adapted to individual interests and capacities. In my opinion the training programs in our field cannot afford to ignore the trend.

Finally, I should like to comment briefly on evaluation. In this context I am referring to the processes by which we determine the competency of our trainees to perform as professionals in our field. The symbols of the results of our evaluations have been degrees and certificates of various sorts. Along with a

number of other professions we have confused degrees (given by academic institutions) with certificates (ordinarily awarded by professional groups). In light of the trends to more equivalency testing, it is quite possible that the differences between the two types of symbols may increase and that professional groups may be called upon increasingly to certify the professional competency of the members of their fields. If this trend finds its way into our field, the workers in our various clinical settings may, in reality, become far more central to the training programs of our professionals than they have been in the past.

Another type of evaluation is made by consumers and society at large. As our society has come to realize that our resources are finite, it has moved with great intensity and speed to reevaluate the priorities of the problems with which it is faced. Many well established professions are being forced to reevaluate the effectiveness of their services and the systems by which those services are provided. The Ivory Tower cannot survive unless its inhabitants take new interest in the countryside that supports it. In your discussions at this conference you will need to take these forces into account as you discuss programs of training. I suspect that some of you in the training business may find this a bit hard because I suspect that the backlash of accountability has not found you yet and that you are not nursing the welts from it. If so, I trust that you won't dismiss the problem as one of little consequence.

In Conclusion

May I share with you a few of the comments that I made during a panel discussion of the Role of Speech Science in the Educational Program of the Speech Clinician during the 1969 ASHA Convention. (12)

> What are the criterion measures against which the effectiveness of our training is to be judged?...I observe that scientists, including speech scientists, wouldn't remain in the laboratories very long if they failed to specify their criterion measures and related their investigations to these measures...I assume that among the criterion measures should be the ability to identify speech, hearing and language disorders; the ability to modify disordered communicative behavior to more effective patterns such that those affected can function more effectively in an appropriate social milieu; and the ability to continue to improve our effectiveness in accomplishing the first two objectives during our professional lives...When we fail to keep the criterion measures constantly in mind, a number of things happen:
>
> 1) We are apt to place emphasis on the person as an organism rather than as a person who behaves...
>
> 2) If our training programs tend increasingly to ignore the behavioral aspects of the problem, we are going to find ourselves increasingly recruiting students who truly wish to study the organism and who could care less about being in messy, frustrating and demanding clinical centers where the action is.

If we do keep the criterion measures constantly in mind, several other things will happen:

1) Our concept of the sciences basic to speech will necessarily be broadened to include more emphasis on the humanities and the social sciences, particularly those closely related to the behavioral sciences.

2) We will recruit persons to our field who have a strong service orientation who will be fully rewarded by improving the communication abilities of their fellows. If we are successful in this recruitment, we will undoubtedly have to make some compromises. We may have to be content with a satisfactory rather than an in-depth understanding of some of the knowledge in the natural and biological sciences. "Satisfactory" levels here will be defined as the result of validation studies which relate performance criteria to training.

3) Those of us in training institutions will join forces with our colleagues who are facing our clients daily to specify more fully what skills are required to make the behavior modifications and to translate those findings into curricular content. This means we must not only specify better the nature of the communication disorders but we must also be willing to follow our graduates to determine how they measure up, modifying our programs when necessary to improve our products. It also will mean we must be willing to give far more thought to continuing education, as we are willing to admit that we have been able only to prepare our students in a limited way for entry positions.

So far as I can tell, these assertions are in keeping with today's times.

My purpose today has been to review with you some of our past, to place our profession in the broader context of the present and to present a few thoughts about the future in such a way hopefully to encourage you to think about new priorities and new modes as unfettered as possible by the shackles of the past.

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DIFFERING PHILOSOPHIES INVOLVED IN THE PROVISION OF SPEECH AND HEARING SERVICES

Jack L. Bangs, Ph.D. [1)]

Introduction

The topic assigned to me as a resource paper came as somewhat of a surprise but as I reviewed the entire program, the surprise became a pleasant one. It was apparent to me, after looking at the program, that if the resource papers were presented in the mood and tone as apparently intended by the planning committee a constructive discussion among the responsible people attending this meeting could ensue.

As many of you know, my life-long technique when discussing training in our profession as related to subsequent services in clinics such as the one that I have managed for a number of years, is to overstate the problems as I see them, in the hopes, I presume, that the shock of my overstatements would have at least partial constructive effect. However, the format of this official program does not allow for Bangsonian red flags to be waved. As is usually the case when one is handed a topic of this kind on which to make comments, it is sometimes or always difficult to determine what meanings the various words in the title had to the individuals who were doing the planning. For instance, in my case, I wondered what the word "differing" meant in this context and to what "differing" reffered. In terms of the planning committee's thinking, I made the assumption that "differing" meant "differences among clinics providing services," not "differences among universities and clinics in the provision of services," and I shall approach my topic therefore from this point of view.

Philosophies involved in the provision of speech and hearing services vary enormously with the exigencies and the environments in which the services are performed. Probably it is for this reason that in the body of this paper, I move actually from philosophies to realities and exigencies and back. What I'm saying is that the real facts of life often dictate the types of services and manner of performance of those services, rather than philosophical considerations. On the other hand, services rendered by many clinics are based on philosophical considerations-derived from continued study of their own clinical program and programs of others and not philosophy-based on what might be termed "traditional methodologies" handed down year after year by self-protective association, training faculties or clinical hierarchy.

My original reaction to the subject on which I have been asked to speak was that I did not have the competency to cover the gamut of philosophical considerations. I know, for instance, very little about the facts of life which influence the provision of services in public schools, or services that may be rendered by private practitioners, or as a matter of fact, university clinics. I had also had little or no experience functioning within a hospital clinic and none at all concerned with speech and hearing services rendered within a physician's office, and while I probably could have made some good guesses as to the kinds of philosophies that influence the services rendered in these various environments, I felt that I must confine my discussion to the environment in which I have been functioning for a good many years. Therefore, while these other sites for services need review, I am limiting this discussion to speech and hearing services as rendered in a community center.

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1) Executive Director, Houston Hearing and Speech Center; President (1971) American Speech and Hearing Association

Text

While reducing this discussion to a single environment certainly simplifies things for me, I would like to point out that no two community clinics function in the same manner. They vary from each other in innumerable ways, but I wish first to delineate several major factors which influence the philosophies affecting the provision of services within various environments. The interactions among these factors may be exceedingly complex and obscure and there will be no attempt on my part to unravel these possibilities.

The first of these factors is related to the group or groups or individual or individuals creating the community center. Speech and hearing facilities don't come into existence spontaneously or by some sort of cosmic process. They are generated as a result of need, interest, and subsequent activity by groups or individuals. Community speech and hearing clinics may result from the need of a fraternal group, or a sorority, or a civic organization to have some sort of a project. Among their members there may be an individual who has a deaf child or a child who stutters, or a very young child with a language disorder. That individual then says, "This is a need within our community; why doesn't our organization sponsor the development of a community center to meet this particular need?" On the other hand, some centers have developed as a result of community planning, in which for instance, the health section of the community council, decided that City X needs a well-developed speech and hearing center to provide diagnostics and therapy for those with communication disorders within that community. As a matter of fact, it is not without reason to believe that the wife of a very wealthy aphasic individual will realize that there's no therapy available within their city, and begin a campaign to develop a service program for stroke victims and contributes significant funds to this work. Obviously, this is going to influence the philosophical considerations that prevail at least at the time the original or initial program is begun. In each of these circumstances, influences are at work which will to some extent affect the philosophies involved in the provision of services. Some of these influences are subtle, some of them are much more readily apparent.

A second strong influence is the policy-making body within the center, this being the Board of Directors and its committees. Boards are directly responsible for formulating and carrying out the policies of a community speech and hearing center. Some boards are made up almost exclusively of physicians; others of lay individuals, with a few professional people such as physicians, speech pathologists, audiologists, and social workers. Others consist solely of businessmen or even the members of a sorority which may have initiated the development of the speech and hearing center. Most community centers have available to their board a professional advisory committee. If the majority of the members of that committee are physicians, one influence will be felt. If the majority of those physicians are pediatricians or otologists or neurologists or psychiatrists, different influences will certainly be felt. However, if many of the members of that committee are speech pathologists, audiologists or educators, there are or can be quite different effects on the philosophies influencing the provision of services. Some more modern boards contain a considerable proportion of consumers who may be the parents of the communicatively disordered children; or even physicians who purchase diagnostic services from the center. Each of these can and often do exert pressures leading to the development of certain services or emphasis on one program at the expense of another. Recent

emphasis on community involvement has created new influences such as those of the poor, blacks, and Mexican-Americans. The direction that a program of services in any community center may take can be profoundly influenced by these new interest groups. I do not wish to leave the impression that the staff of any community speech and hearing center has no opportunity to exert its own influences and to follow its own philosophies, but what I am saying is that centers are created by individuals or groups and they are created to serve the community, and they are also governed by that community either through boards or committees. The amount of non-staff influence can often be attributed to the intensity of feelings, the amount of financial support, the enormity of various aspects of community needs, and the interaction of the staff with all of these factors.

The educational background and environment of the director of a community speech and hearing center and his staff will have considerable influence on the applicability of philosophical considerations in services--for instance, the director of a community service whose training has been received in a strong university program where practicum was derived solely from the university medical school teaching hospital and the university clinic, will have quite a different approach to services than will someone trained in a comparable university program located in the community's speech and hearing center and utilizing also the medical school hospital and public schools. Faculties closely associated with community facilities of this kind cannot help being influenced by the realities of that existence as they differ from those associated with more traditional scholarly environments.

The influence of faculty members on their students is probably the strongest factor of all. Students rarely come away with philosophies which differ from that of their mentors and the authors whose works they have been studying. For instance, if practicum in a university program has always been on a one-to-one basis, group work in the new environment will seldom be initiated. If diagnostic tools were tests X, Y, and Z, rarely will we find tests S, T, and V added. But even more unique would be the elimination of all or part of either test X, test Y or test Z because in his training environment the student was taught to utilize the entire test, whether needed or not. University A has a strong interest in rehabilitative audiology. University B does not, or A has little or no expertise among its faculty in the area of voice disorders. The effect of these diversities of expertise or interest within training programs on services in clinics which employ their graduates should be abundantly apparent.

Some speech and hearing centers are not self-contained or self-directed, and philosophies will surface which will be quite different if the speech and hearing center or facility is housed in a cerebral palsy treatment center or a comprehensive rehabilitation facility. Factors inherent in each of these environments would most certainly affect the services which would be rendered. There are no doubt many more factors which will exert influences on the philosophies involved in the provision of services, and I'm sure that many of you have thought of them as I have been speaking. I hope the most obvious ones which I have mentioned will help all of us to appreciate the complexity of interaction affecting philosophical considerations in the provision of services.

Now, what are some of the philosophies, and how do they differ and thus influence the provision of services? As I pointed out in my introduction, synonyms which I might use for philosophies are "exigencies," "practicalities," or "real-life situation;" however, I make the assumption that our planning committee wished to have parallel

and euphonious construction in the program, and therefore assigned the word "philosophies" to each of the resource papers. There are numerous differing philosophies, and one of my most difficult jobs has been to arrange these in some sort of a logical sequence. I decided that one way is to present them in this paper in somewhat the same manner that they become apparent to a new employee of a speech and hearing service. Obviously this sequence varies from one circumstance or environment to another, but the general pattern is still there.

One of the first things which strikes the new professional staff member of a speech and hearing center is the amount of or the lack of supervision with which he is confronted. In some instances, the employee's reaction is, "How much supervision will be available to me?" In other words, some search for direction in their new environment. On the other hand, others resent direct supervision from their peers. They are functioning on the basis that their training and their experience have been adequate for the position and environment which they are now entering. The amount and nature of supervision varies enormously among centers. I know of some where case loads, procedures, scheduling, test instruments used, referrals, counselling, billing and report writing are entirely the problems of each individual clinician from the date of his arrival on the scene. At the other extreme are centers where all or most of these activities are built into the supervisory or coordinator responsibilities of a single person. Either one of these extremes can be considerably unnerving to the arriving staff member. Too strict supervision tends to stultify services, reduce innovative thinking, produce stereotyped programs and in fact weed out those who in the long run may have the initiative essential for program development and intelligent change. On the other hand, if the philosophy of administration is that each staff member should be capable of doing his own thing under all circumstances, the evidence for this philosophy being that he has acquired a graduate degree and the CCC, the result can be disorganization, inefficiency, fiscal chaos and a demoralized staff. By and large it has been our experience that most professionals like supervision which is constructive, provides for a framework within which everyone in the organization works, yet allows independent thinking, discussion, and then application of new principles or ideas. This kind of coordinated program provides the new staff member with the benefits of years of experience of the supervisor, without restricting his own initiative. The philosophy in regard to supervision which is held by the center will greatly affect the services provided, both in service character and nature.

Often directly associated with the amount and type of supervision is the center's philosophy in regard to program structuring. Some professionals believe in largely unstructured therapy programs while others structure their services in such a way as to eliminate any possibility of innovation. These kinds of philosophies and all of the modifications which fall between the extremes will have a significant influence on types of services, program, numbers of persons served, and intra-center professional relationships. On the other hand, approaches to services may be carried out in an eclectic, innovative, pragmatic, traditional, or methodological fashion largely as a result of influences from training programs, subsequent experiences, supervisors, or the program philosophies in regard to these factors, which are closely tied to structuring vs. nonstructuring. It seems quite apparent that such philosophical attitudes will affect the manner in which services are rendered by any individual center.

Sordid as it may seem to some, fiscal policies of a center may have a profound influence on its philosophies and associated services. Administrators of most programs, whether from the field of speech pathology or audiology or business administration, know that money is needed in order to make services available, and that to provide quality and comprehensive services requires considerable funds. The policy involved is quite frequently reduced to, "Should the charges for services cover the entire costs of the services," or "Do we function on a deficit basis, with donated funds or philanthropy making up the difference." Up until the time a new employee arrives at a community speech and hearing center, he has not had to consider how much it costs for him to render services. At this point in time, however, it becomes exceedingly important and it is necessary for the administration of the center to think in terms of the cost involved for the services rendered by each employee, including the overhead added to the direct costs. The common statement by the professional person is, "I wish I didn't have to charge anything," or, "I don't want to discuss finances because this will destroy my professional relationship with the individual that I am serving." Centers with adequate financial support from fees or other sources and whose philosophy is to charge what is needed to provide services can afford effective staff, equipment, materials, and good services. I am not implying that the higher the fee, the better the service. I am merely saying that if the administration believes in covering costs it makes services more easily and adequately rendered. I happen to believe also that adequate fees do something for professional morale and pride in self. Telling a staff member that within the team he or she is worth x dollars an hour (or some other unit) frequently alters his professional attitude.

A more direct effect of sound fiscal policies can be seen in the following illustration. It had long been the attitude of a center's diagnostic staff that counseling subsequent to original encounter should always be available to the patient. That is, if the parent or spouse called several days later the staff member should be free to arrange additional conferences for which no charges were made. Management didn't argue this for some time, but kept careful time records of conferences, and subsequently found that these supplementary visits were costing the center a considerable amount. The staff was then asked to charge for the time involved in supplementary visits and parents were informed of this at the time of the original diagnostic procedure. The result was not a reduction in the number of counseling sessions but more effective ones. The staff found that discussions were confined to the problems and did not deteriorate into time-consuming personal accounts. This fiscal policy or philosophy has led to improved services and freed professional staff for additional services.

A philosophy of fiscal responsibility may affect services in several additional ways, some good, some detrimental. Many administrators find themselves (I said many; I mean most) operating deficit programs. They then look at, among other things, case loads and scheduling. They may find a wide variety of philosophies among staff members in regard to case loads. Such statements as follows are made. "I cannot perform audiometric tests on more than (one-two-three) people in a day." "Classes for preschool children cannot exceed (three-four-five-six)." "Case reports take three hours a day." "I must have at least (two-three-four) hours a week for professional reading." "We should have staff meetings every week, or twice a week." I'm not certain where some of these deeply embedded philosophies come from, but they

are universal. The magic number of six, for instance, as applied to the maximum number of children who can ever be in a class for handicapped children seems to be deeply ingrained in the minds of educators of the deaf.

It is apparent to each administrator what the effect of such philosophies is on services and yet frequently to some of the professional staff it is equally apparent that increasing case loads, revising and shortening case history procedures, cutting down on the use of center time for professional reading, etc. will result in an inferior program of services.

Some programs believe in strong family or spouse involvement. Others prefer to keep the habilitation or rehabilitation procedures strictly within professional hands. Either attitude will effect services in a number of ways. The philosophy of parent involvement to its proponents means strong reinforcement, shortened total therapy time, and better family relationships because of greater appreciation and understanding of the problems involved. The opponent says family involvement tends to dilute what I am doing as a professional and in some cases destroys what I have accomplished. Either of these philosophies will effect services and certainly strong family involvement is anathema to the new, young speech pathologist just out of school who is faced with one or two deeply concerned parents usually several years her senior who look to her for authoritative answers to their most critical problems.

One of the areas of service which apparently harbors large philosophical differences is group vs. individual therapy or training. Many new young speech pathologists have had little or no experience in classroom activities for the language-delayed child, much less in group articulation therapy, esophagal speech, or group work in retraining adult aphasics. Discussions with administrators and supervisors of center programs will elicit wide philosophical divergence of opinion on the effectiveness of group training. Usually such discussions are intense because each side takes his point of view quite seriously. One way to get them together is to intimate that group therapy provides more income. In this event each disclaims any monetary interest but argues for his philosophical point of view on the basis only of what he deems is in the best interests of the persons receiving services. From the point of view of the administrator there must be some circumstances where group work is efficacious, and others where it is not, but the fact is, group services are usually less expensive to finance than individual therapy.

The basic professional discipline of the director of a program results in philosophies affecting the delivery of services. Physicians, social workers, and speech pathologists or audiologists have been directors of various professional programs. A physician will quite obviously tend to follow time-honored medical practices in the sequence of events leading from identification of a communication disorder to the delivery of habilitative-rehabilitative services while a speech pathologist may take some shortcuts when he is aware of the fact that he is dealing with a primary stutterer or a relatively straightforward non-organic articulation problem. He is also less inclined to pull around him, or he cannot afford to, all of the related disciplines which might or might not be useful. He is much more likely to seek social services from another agency, ask the family physician for his pertinent medical information and to decide basic laboratory tests and an EEG probably may not be helpful when designing a therapy program. So the physician

director tends to stress physical findings and de-emphasize needed behavioral changes, the social worker director may tend to stress family and environmental interactions, and the communicologist what he knows. All of these differing philosophies will modify the professional staff and thus the provision of services.

One philosophical position appearing on the scene has not yet hit many of our service centers and few if any of the training institutions. This is a reduction of emphasis on the handicapping conditions and stress on the educational needs of involved children. This means many things: (1) reduction of the medical model; (2) increase in the role of educator; (3) reduction in classes for categories of handicaps; (4) increased use of the qualified speech pathologist and audiologist in the same supportive role as the physician; (5) increased role for the aide; (6) increased role for the educational diagnostician and prescriptor, and (7) a real need for changed curricula for teacher-clinicians working with the child with delayed language regardless of his handicapping condition.

When one adds to this philosophical consideration the fact that in the not-too-distant future it is very likely that all handicapped children will be eligible for education in public schools as soon as the handicap is identified, even at birth, one realizes that our profession must sit back and decide where it is going, where its services will be needed in the future and what the time-table is.

Probably no single issue in recent times has so incensed our profession as the threat of the aide or the supportive person. We are not alone in this; medicine, social work, nursing, physical and occupational therapy have all been menaced by the spector of the non-professional taking over. Speculations run the gamut from "We need thousands of them now," to "There are many speech therapists who are unable to find a position," or "The aide needs to be trained on the job," or "With one year in a university," "to two years in a junior college." Philosophically, I suppose that this finally resolves down to how much can we afford to give up to the non-professional and still retain a need for us. From the point of view of many consumers in community centers, it becomes a matter of what are the things now done by the professional which can as easily be done by the non-professional and in fact what should the certified person be doing that he is not now doing?

Related to this topic are the philosophical considerations underlying the use of students to provide services for which fees are charged. In many instances, a community center would not survive without this free provision of services. Other centers take the attitude: (1) that without one-to-one supervision of the student he cannot be learning properly, and (2) the public has a right to expect services from fully qualified professionals when they are led to believe that services of high quality are being provided.

Some centers believe that they should provide services to all individuals with communication disorders, regardless of age, associated disorders, or the existence of similar services in the community. On the other hand, it is a common philosophy among some community agencies not to duplicate the services rendered by another institution. For instance, one center may only provide services for preschool children, adults, and young adults not in school, the philosophy being that the center does not wish to duplicate the public school programs in their community. In some instances, community agencies agree that they will not provide services to individuals whose primary disorder is the expertise of another agency. For example, a speech and hearing center would, under these circumstances, refer a

child with a communicative problem whose primary disability might be cerebral palsy, or mental retardation, or vision, to an appropriate community agency which would serve both the major disability and associated communication problem. Any of these varying or divergent philosophies will effect the services rendered by a center and can of course be somewhat puzzling to the new employee used to providing for all aspects of communication disorders.

One of the problems frequently facing speech and hearing centers is the cost of time. This frequently becomes critical when diagnostic procedures are considered. The newly graduated clinician has been used to taking an elaborate case history, running all of the tests he wishes, and then writing a detailed narrative report. It often comes as a shock when it is suggested by his new supervisor that some of the tests he has run duplicated others or that he got all the information he needed from a few subtest items and did not need to run a complete battery and that a check-off form may provide all of the information contained in an elaborate narrative case history.

Associated with this is the philosophy in some institutions that diagnostic departments and habil.tation-rehabilitation divisions should be completely separate entities. This often leads to a hierarchy in which the diagnostician is paid more than other staff members even though training, years of experience, and competence are equivalent. On the other hand, it is the philosophy of some centers that the function of diagnostics is to provide a basis for training procedures and that all staff members must be capable of administering and interpreting test results in terms of prescription for training. To these centers this means all staff must be able to do all things.

The final philosophical difference I wish to mention is concerned with competency vs. professional certification. Many centers are finding that certification and competency are not equivalent. While some adhere strictly to the thesis that certificates for physical therapists, social workers, audiologists, speech pathologists, or occupational therapists are needed before a person is employable others are taking closer cognizance of the fact that some employees may have the competency to function adequately or in a superior fashion and yet not have the required certification. In my opinion this philosophy is rapidly becoming a significant factor in our field as well as in all of special education. I anticipate the time when service agencies and public school special education programs will seek employees on the basis of demonstrated competency rather than certification. This will mean that training programs must find out from the consumer what competencies their (the training institution's) product must have and establish within the training program means by which to evaluate the graduate's competency--this, rather than certifying to the fact that a graduate has completed x number of courses and x number of hours of practicum.

Conclusion

I am certain that there are many other differing philosophies which have been overlooked in this paper. I can only hope that for some of us, some of the concepts of which I have spoken will stimulate broad discussion.

PROFESSIONAL TRENDS AND ISSUES

John V. Irwin, Ph.D. [1]

The body of information that constitutes the heart of our training program should also be the foundation of our service programs. This body of knowledge is, at best, tantalizingly incomplete and, at worst, indisputably contradictory.

In this paper I have selected certain professional issues that are very current. These are issues for which consensus does not obtain. These are issues that cut across the individual clinical specialities. These are issues that confront both service and training programs. For these are issues of the profession.

THE DATA BOOM

WHY?

One of the major trends in speech pathology/audiology is an increased interest in data. This trend reflects several factors, among the more important of which are the following:

ACCOUNTABILITY

Contemporary doctrines of accountability have emphasized the need for data in speech pathology/audiology. Specific policies of the Federal Government undoubtedly accelerate this trend. For example, in the Early Childhood Education Program, accountability for both the service provided and for the program providing the service is a featured guideline.

COMPUTERIZATION

The numerical magnitude of the data that can accrue in major service programs literally defies pencil and paper tabulation. The availability of the computer has, for the first time, made such data potentially manageable.

REFINED MEASURES

More ways of obtaining clinical data are available to the clinician today than ever before. In audiology, the number of specialized tests increases yearly. In speech pathology, particularly in language, sources and types of clinical data multiply. The sheer wealth of available data emphasizes the importance thereof.

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OPERANT CONDITIONING

Dr. Skinner's major contribution may not be so much his concept of changing behavior through reward and/or punishment, but rather his development of technology for the automatic counting and recording of responses and reinforcements. As operant techniques become more common in both identification and intervention aspects of speech pathology/audiology, the importance of the countable become greater.

BEHAVIORISM

As part of its historic revolt against introspection, behaviorism developed what has been termed a pseudo-scientific emphasis on the observable. It is true that the so-called "cognitive" psychologies are currently staging a strong resurgence. Nevertheless, the uncritical acceptance of the doctrine that only data that can be objectively observed can be used has contributed to the data boom.

KINDS OF DATA

CENSUS

Census data include such factors as age, sex, race, geographical location, employment description, marital status, and other factors. Although the accurate ascertainment of such data poses certain problems, these types of data can, in general, be well handled.

CLINICAL

Clinical data are of two basic types: (1) Value data, i.e., those referring to communicative handicappingness in an environment and to changes in such status and (2) Cost data, i.e., those referring to time, personnel, and such tangibles as facilities and equipment.

COMMUNICATIVE HANDICAPPINGNESS IN AN ENVIRONMENT (VALUE). One of the amazing characteristics of the field of communicative disorders is the lack of a measure of the impact of communicative deficits on the economic and social life of the individual. No standard measure of communicative handicappingness exists. Attempts have been made. The Social Adequacy Index represents one such attempt; compensation for hearing loss, another.

Lacking the ability for the moment to measure handicappingness directly, present day clinicians attempt to estimate communicative handicappingness. One method is to predict handicappingness on the basis of one or more measures. The Social Adequacy Index is an example of this type of an attempt. Another type of attempt is the scaling technique, in which observes--either individually or as panels--seek to estimate either by equal appearing interval or direct magnitude observation the degree of the handicap. Introspective techniques have been used, in which individuals seek to report the consequences of their own communicative problems. Finally, the case-correlative technique has been employed. But, as of this writing, no one of these is adequate.

As a consequence, the field at present is focusing on deviations in communicative behavior. The assumption, one that has not been completely tested, is that the greater the deviation from a norm the greater the handicap. This assumption can be in certain clinical fields. For example, in articulation, one may count the number of deviant phonemes, the deviation types, and even the stimuli that evoke variation in the deviation. In short, in those clinical fields in which we can assign operational definitions of defective behavior, we can obtain operational data.

But, in those fields in which operational definitions are not available, as in stuttering, for example, it is difficult if not impossible to apply counting techniques either to assessment of the communicative behavior or to changes in that behavior.

TIME-PERSONNEL-TANGIBLES (COST). As a field, we are now able to apply cost accounting techniques to our activities. Although practicies are not completely uniform, it is possible to measure cost with relative precision. Unfortunately, the usefulness of our cost figures is materially reduced by our lack of value figures. Assume, for example, that a Center has data to prove that treatment of an aphasic is more (or less) expensive than treatment of a laryngectomee by a factor of X. On what basis can the difference in cost be justified, ignored, or interpreted?

SUMMARY

The intent of this section is not to condemn data or the importance of data. Rather, the intent is to suggest that the field must recognize the assumptions on which we collect data, be aware of the motivations that sometimes influence us, and accept overtly both the possibilities and the limitations of data, particularly in the important area of communicative status. So far as clinical data are concerned, speech pathology/audiology must not make over-promises to others. Above all, we must not make over-promises to ourselves.

COMPUTERIZATION

FUNCTIONS

DATA HANDLING

The three major data handling functions are storage, retrieval, and display. These well known functions need not be developed in detail here. It is, however, probably important to recognize that, perhaps because of the very ease of storing, it is wasteful if not dangerous to store items without meticulous plans for retrieval. It is probably also well recognized that computer display may be graphic as well as tabular, as in on line data recording.

SIMPLE ARITHMETIC

In addition to retrieval functions, the computer can economically perform many arithmetical functions. For example, in mass articulation testing, given the birthdate of the child, the date of the examination, and the articulatory

responses, the computer can derive the age of the child, derive a total articulatory score, make a distinctive feature analysis, and weigh each of these against the precise age of the child at the time of the examination.

INTERPRETATIVE FUNCTIONS

Given systematic provision for all possible alternatives, the computer can select those individuals who satisfy stipulated patterns of criteria or, conversely, can detect certain types of error. For example, in mass surveys, the computer can match the reported or calculated age against the typical age for a given grade, and, given age limits in advance, can either note the potential errors or--perhaps more helpful--substitute an "expected" age and note that it has done so.

A major function of the computer is to establish relationships among variables. Regression matrices are among the most common of computer outputs.

PREDICTION TECHNIQUES

In clinical usage, the predictive functions of the computer are most important. To date, in our field, the most usual prediction technique has been that of correlation. Increasingly, however, we are making use of extrapolation, that is, the computation of a line of best fit and the extrapolation of that line to the future. A third technique, at the moment relatively untried, is to search for the most similar case.

CONTROL FUNCTIONS

The computer lends itself to control of the basic accuracy of data. For example, in a recent survey of some 12,000 children, the print-out reported .07% of the children as being neither male nor female.

The computer also makes it possible to monitor the activities of people, the cost of these activities, and the consequences of these activities.

LIMITATIONS

NUMERICAL

A major limitation of the computer is that processing does require the reduction of the data to numerical form. In clinical activities in speech pathology/audiology, this usually means measurement, counting, or scaling. Certain clinical activities lend themselves to this function. For example, pure tone tests, speech reception thresholds, articulation tests, radiological measurements, and certain test scores can be so handled. On the other hand, other clinical activities such as the evaluation of stuttering, suprasegmental features, or language structure are not yet easily reducible.

PLANNING

The amount of planning involved in the serious clinical use of the computer is not understood by the average layman. Alternatives that the independent

clinician resolves almost at an unconscious level require deliberate pre-preparation for computerization. This planning is not only time consuming, but may restrict data collection either to activities that are not of prime importance or that are not completely comprehensive.

THE LOCK-IN PHENOMENON

Day-to-day flexibility is difficult to obtain with the computer. Data obtained by one standard may mean little if correlated with data obtained by another standard. Thus, as the magnitude of the stored data increases, the lock-in phenomenon becomes more real. The time and effort of change may make the continuance of the undersirable desirable.

COST

Despite the apparent ease and rapidity with which data can be processed, computerization is expensive. Computerization should be attempted only if the quality, number, numerical aspects, and proposed uses of the data can be shown to justify it.

PERSONNEL

Finally, it should be pointed out that for most individuals in speech pathology/audiology, the effectiveness of computer usage will be at least in part determined by the quality and availability of the computer personnel with whom the speech and hearing people interact. Full exploitation is dependent upon intelligent, highly trained, and cooperative computer personnel. Unfortunately, today, it is not easy to find each of these three elements--particularly time and cooperation--available in full degree.

AGE EXTENSION

It is true that speech pathology/audiology has never imposed arbitrary limits on the age limits within which it worked. In fact, however, clinical practice has tended to emphasize the early school age child, the functioning adult, and, recently, the preschool child. Because of new impetus from both education and medicine, a recent tendency has been to extend these age patterns both upward and downward.

UPWARD EXTENSION

AREAS OF SPECIALIZATION

So far as upward extension is concerned, the major clinical areas of interest have been hearing, voice, and language. In hearing, the use of the hearing aid and of surgery to improve the communicative functions of the older adult continue to increase. In voice, the major clinical endeavor is still the laryngectomee. In language, the prime clinical interest continues to be the adult aphasic.

IMPACT

The impact of this upward extension on the field--particularly in terms of change--will probably be relatively small. In the first place, the prognosis for clinical work with this population is not favorable. For the most part, these conditions are related either to advanced age or specific deterioration in general health. Second, the economic value of working with this group is disproportionately poor as compared to working with either children or young adults. This economic pessimism reflects both the possibilities of remission of the life expectancy at the time of treatment. Moreover, as cited by Spahr (71), remarkably little research is being done in the communicative problems of the geriatric population. So, the tremendous stimulation of new techniques is lacking. Finally, people in this age group lack parents--either actual or surrogate--and thus frequently do not have the clinical assistance forced upon them that would be most compatible with their interests.

DOWNWARD EXTENSION

AREAS OF SPECIALIZATION

The major areas of expansion at present are language, learning disorders, and hearing. Language is of great importance today, partly because of increased recognition of the importance of language, and partly because of the sheer viability of linguistics at the present time. The concept of learning disorders--although difficult to define either theoretically or clinically-cuts across so many conventional categories as to inevitably focus much of the imagination and attention of the future. Finally, the increased availability and clinical utility of early hearing testing techniques make it now possible to measure hearing literally even from before birth.

IMPACT

As interest in and techniques for early identification and intervention develop, the importance of predictors will increase. We now recognize that these predictors may be cultural, individual, organic, or both. Linguistics, sociology, psychology, and speech pathology/audiology are combining to increase the accuracy of cultural predictions. But our knowledge in this area is yet so limited. For example, the nature of a picture stimulus used to evoke connected speech may result in misleading data with respect to language differences in racial and economic groups. The Perinatal Study is giving us increased information about the impact of early health and environmental experiences on the child.

At the same time, our techniques of early intervention--both medical and behavioral--are increasing at an almost geometrical rate. Thus, the impact on the future of our field in early childhood will be great. Society has accepted not only the tools but the social value of these tools. Improved systems for identification and intervention will inevitably follow. Finally, because of the age, maturation will work with rather than against our attempts to influence behavior.

TABLE I. DRUGS USED IN NEUROLOGIC AND PSYCHIATRIC PROBLEMS IN CHILDREN*

I. Major Tranquilizers

A. Phenothiazines
1. Chlorpromazine (Thorazine)
2. Thioridazine (Mellaril)
3. Fluphenazine (Prolixin)
4. Etc.

B. Reserpine (not used)

II. Minor Tranquilizers

A. Diphenyl methane group
1. Diphenhydramine (Benadryl)
2. Hydroxyzine (Atarax)
3. Meprobamate (Miltown)

B. Benzodiazepines
1. Diazepam (Valium)
2. Chlordiazepam (Librium)

III. Stimulants and Antidepressants

1. Amphetamine (Benzedrine)
2. Dextroamphetamine (Dexedrine)
3. Methylphenidate (Ritalin)
4. Imipramine (Tofranil)

IV. Anticonculsants

A. Grand Mal
1. Barbiturates
Phenobarbital
Mephobarbital
2. Diphenylhydantoin (Dilantin)
3. Mysoline

B. Petit Mal
1. Tridione
2. Zarontin
3. Valium
4. Etc.

V. Others
1. Artane
2. Cogentin
3. L-dopa
4. Etc.

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DRUGS

With the increased interest in learning disorders, minimal language deficits, and various behavioral problems in children, the possible potential of drug therapy has become increasingly important. The hope continues to be that a drug or drugs will be found whose administration can both (1) control background behavior and (2) stimulate actual learning.

Table I, Drugs Used in Neurologic and Psychiatric Problems in Children, lists by category and trade name the major drugs now available. Unquestionably, impressive though it now is, this list will be modified in the forseeable future.

At present, it is difficult to render a precise judgment as to the value of drug therapy with communicatively handicapped children. Many physicians would concur that drugs, used on individual prescription and with careful clinical observation by the physician, may sometimes control distractive behavior and thus facilitate learning. Unfortunately, little data can be found today to support the belief that any drug now available actually stimulates the learning process directly.

THE NEW LINGUISTICS

Recently the work of linguistics and psycholinguists has had great impact upon the field of speech pathology/audiology. The work of Chomsky (57), McNeill (68), Tikovsky (prep.) and Deese (70), to name representative figures has been of great importance.

STANDARDS OF LANGUAGE AND LANGUAGE ACQUISITION

The new linguistics, by its emphasis on the nature of language and the relationships of language to a culture, has enabled speech pathology to re-examine its concepts of "dialect" variation in this country. With the subsequent recognition of the fact that many so-called "dialects" are actually complete and efficient languages, the speech pathologist is forced to decide which language to use as a standard and in which language to train the child.

Our concepts of language acquisition must be examined anew. As Taylor and Swinney (prep.) have said, our present concepts are based on the behavior of white, middle class children, emphasize production almost to the exclusion of reception, and reflect performance as opposed to competence. McNeill (70) has recently sought to put the language acquisition process in biological perspective. But, for the nonce, flux continues to be the order of the day.

PERFORMANCE AND COMPETENCE

Learning theorists have typically emphasized a performance and thus have emphasized the importance of motivation (reward and punishment) on learning behavior. Hilgard and Bower, (66), however, insist that learning and performance are different and must not be confused. Logan and Wagner (66) regard these as two types of learning. Nevertheless, in the views of certain theorists, learning requires only contiguity; performance requires motivation.

A somewhat parallel distinction has recently been introduced in linguistics. Many linguists assert that the competence of an individual represents his knowledge of his language, i.e., his learning, and performance represents the way he actually talks. In this view, competence is not only dependent upon contiguity but is also species specific. Performances, as in the distinction just suggested in learning theory, is dependent upon motivation.

In speech pathology, these parallel distinctions from learning theory and from linguistics become useful. Traditionally, speech pathology/audiology has analyzed communicative disorders essentially from the standpoint of performance. Recently, however, the field has come to see that competence is also important. That is, defective communication may either be breakdown in competence or in performance. Speech pathology typically adds the concept of individual differences, either in competence, as may be true in certain types of brain injury, or in performance, as may be true in certain types of hearing loss.

Clearly, the cross implications of these ideas to speech pathology need elaboration, clarification, and application. In particular, our concepts of the acquisition of language, error, and the teaching of language must be restudied.

PREDICTION

TYPES

Basically, two types of predictions need to be made. We want to be able to predict those individuals who need to be put into our system; and we need to predict those individuals who need to be dismissed from our system. Or, to put this differently, we need to be able to predict individuals who have a high risk of developing or maintaining communicative handicaps; and we need to be able to predict individuals who can most advantageously be dismissed.

Historically, speech pathology has been most concerned with prediction of individuals who will need speech therapy. Many major studies, of which Pettit's (57) study is an early example and the Van Riper and Erickson study (69) a recent example, have been attempted. At the moment, however, at least in articulation, we probably are not able to predict safely on an individual basis those individuals who will and who will not need clinical speech intervention.

Today, however, I wish to place primary emphasis on the second type of prediction: that is, prediction of dismissal.

DISMISSAL CRITERIA TECHNIQUES

It is probably true to state that the field as a whole has no standard technique for dismissal. Indeed, the small number of studies in dismissal is appalling. In general, however, to use articulation as an example, clinicians have tended to carry the child until his clinical behavior approximates the final desired communicative behavior. That is, one carries the child until he achieves 100% success in the situation in which the success is either measured, scaled or estimated.

REWARD	PUNISHMENT
(1) Add Food	(2) Add Shock
(3) Remove Shock	(4) Remove Food
ACCELERATES	DECELERATES

Figure I. Reward and Punishment

More recently, attempts have been made to employ a percentage of the final criterion as a prediction of success and as a basis for dismissal. Thus, McDonald (68) has suggested that with primary age children that a performance percentage of 30 or 40% correct may indicate ultimate success. Weston and Irwin (71) have employed an 80% criterion in the Paired Stimuli Technique. These techniques assume that a change that has started will continue and that therapy need not be continued until the change is complete. These techniques compare present performance to a standard. More recently, attempts have been made to predict ultimate success on the basis of rate of change and final percentage. The assumption here is that if the rate of change is rapid, dismissal may be safely made at a lower percentage of the final standard that if rate of change is slow. This latter type compares change in performance to a standard.

These types of predictions are very important in service situations. Obviously, it is dangerous to dismiss cases to soon. But, equally obviously, it is uneconomic to continue therapy beyond the requisite period.

PUNISHMENT

BASIC THEORY

Basic theory is shown in Figure I, Reward and Punishment. This is an operational conceptualization of reward and punishment. Thus, as is shown in the figure, a reward by definition accelerates behavior and punishment--also by definition decelerates behavior. Both reward and punishment can be of two types. In one type, an addition is made contingently; in the other type, a removal is made contingently. Thus in theory, reward and punishment can be shown to be equals and opposites.

THE LITERATURE

Although the equal and opposite theory is quite clear, the literature tends to reject the effectiveness of punishment. In particular, both Thorndike (31) and Skinner (53), two of the leading figures in instrumental conditioning, have rejected the effectiveness of punishment. But punishment continues to be investigated experimentally. Solomon (64), in his address as President of the American Psychological Association, emphasized that across the board statements about punishment cannot be made but that punishment must be evaluated in a specific situation.

In behavior modification generally, some success has been obtained with the type of punishment shown in Square No. 4, that is the contingent removal after the undesired behavior. At present, it may be fair to state that reinforcement of the type shown is Square No. 1, that is Contingent Addition, is the most commonly used technique.

Most recently, in stuttering therapy, attempts have been made to use the type of punishment shown in Square No. 2, that is the addition of a contingent shock or reprimand after the nondesired behavior. And, with the emotionally disturbed, some success has been reported with contingent removal of shock as shown in Square No. 3.

The picture with respect to punishment is not completely clear. Equal and opposite of reinforcement it may not be. But recent applications do suggest its continued evaluation.

SYMPTOM SUBSTITUTION

BASIC THEORY

According to Grinker (68), modern symptom substitution theories go back to Freud's work with Breuer in the early twentieth century. In this work, which was done with patients under hypnosis, Freud developed the belief that symptoms were an expression of psychic conflict, resulting from genuine early childhood experiences. This theory, with some modification and elaboration has continued to be stated and restated until today.

THE EVIDENCE

Unfortunately, despite the clarity of the theory, and despite its obvious impact on many clinical fields including speech pathology, data for or against the validity of the hypothesis are not abundant. Engel (68), has commented that theory has outstripped fact. Yates (60), even more bluntly, has said that it is indeed singular that a theory that so affected clinical work has had no evidence to support it.

DEFINITIONS

It is probable that the lack of agreement as to the meaning of the term symptom has complicated evaluative process. Cahoon (68), for example, regards a symptom as "a mechanism for the expression of basic conflict." But Costello (63), recognizes three types of symptoms, only one of which is appropriate for the symptom substitution issue. And Eysenck (60), on the other hand, completely denies the existence of unconscious wishes. In view, then, of these different meanings with respect to the term symptom itself, it is not surprising that interpretations of the importance of the theory have varied.

SYMPTOM SUBSTITUTION IN AUDIOLOGY

In general, our standard audiology textbooks have recognized the existence of the conversion symptom. Thus, in such standard texts as those of Newby (64), O'Neill and Oyer (66), Davis and Silverman (70), and Sataloff (66), the existence of the functional hearing loss is specifically recognized and the possibility of a symptom substitution if the loss is "taken away" emphasized.

SYMPTOM SUBSTITUTION IN SPEECH PATHOLOGY

As yet speech pathologists have not been as specific as audiologists in their recognition of the symptom conversion. Yet, Aronson (69), Rousey (65), Van Riper (57), Perkins (57), and Moses (54) have specifically recognized this possibility. Most recently, Murphy (70) in an evaluation of operant techniques for stuttering, reminded the field of the potential--if unproven--dangers in symptom substitution.

SUMMARY

Symptom substitution has become more important as behavior modification becomes--for many workers--the technique of choice. The clinical literature suggests that symptom substitution is most likely to occur if a symptom is removed quickly, if rapport with clinician is not close, if no change in the life style of the patient occurs, and if a rationale for the change is not given. These, the criteria for high possibility of symptom substitution, are also descriptive of behavioral modification.

Behavioral techniques are too powerful in certain situations to ignore. Individual therapists who use behavioral techniques must observe their successes and failures, must note side effects, and must stay abreast of new developments. It is no longer possible to live comfortably with the vague possibility of symptom substitution. The field must find answers to these questions: Does symptom substitution occur? If so, can one isolate the cases in which it is most likely to occur? If these cases can be isolated, can behavioral techniques behavioral techniques be safely used if dynamic techniques are introduced as well? Answers to these and related questions are imperative if behavioral modification techniques are to be used with full effectiveness and safety.

PHILOSOPHICAL DETERMINANTS

Speech pathology/audiology does not have heavy philosophical orientation. But, because this field deals with people it must be concerned with concepts of people.

Basically, two contradictory concepts in psychology exist today. One is the so-called stimulus-response concept. In this approach, the human being is seen as a somewhat passive figure that responds to the stimuli of an environment.

In the second basic type, the individual is seen as having life direction that makes it somewhat independent of the environmental stimuli.

This difference is of importance to the practicing speech pathologist. The passive S-R Concept, which is probably accepted implicitly if not explicitly by many practitioners, suggests strongly the possibility of manipulating the client. The other approach, which has, I believe, less acceptance, implies a purpose to the human and makes him less subject to manipulation.

Today is not the time for choice on this issue. But, for those of us who may have worried over the dangers of mechanistic manipulation, the increasing emphasis on "humanistic" explanations can be reassuring.

CONCLUSION

I have presented a series of clinical issues in which rapid growth and development is evident but in which also confusion is obvious. I have presented these as a lesson in humility for the field. So long as these and many other issues of clinical importance remain unresolved, so long do the teaching and service aspects of our field need to stay united. With answers like these unavailable, service and instruction dare not separate. Only our united effort can facilitate maximum benefit to the client.

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