CHALLENGE OF CHANGE FOR THE HIGH SCHOOL COUNSELOR
(A TYPOLOGY OF CHANGE PROCESS)

by SSS

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CHAPTER I

INTRODUCTION

In recent yesrs, guidsnce progrsms hsve been introduced, expsnded snd modified st a repid psce throughout the nstion. Many people sre still somewhst uncertsin ebout the objectives, methods, or results sssocieted with modern guidsnce progrems. Yet, numerous studies of the cspebilities needed for geinful employment, end the changing trends point strongly to the need for effective guidence if students sre to be properly prepered for productive, sstisfying lives.

Effective guidence progrems ere needed todsy more than ever beceuse of the eccelereting rste of change in many aspects of life. If one understends chenge, its beginning, its probeble course end possible outcome, then it is possible to do something ebout the direction it tskes to effect some control over it. The counselor who does not understand the phenomenon of chsnge, or who sssumes thst his experience is sufficient to meet all the problems experience his students will bring him, is certainly obsolescent.[1]

Counseling is by neture aimed et the future. When one tries to look ehesd to the days when change is common for everyone, including the counselors and students, it becomes obvious thst prediction is hszsrdous.

The modern high school counselor needs to know more sbout which behavior patterns are waning in their use snd effectiveness in society.

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1 Adolph Unruh and O. T. Richardson, "Counseling in en Age of Change," The Clearing House, Vol. 41, No. 3 (November, 1966), pp. 149-150.

He needs to know that knowledge is increasing at an accelerated rate and he needs to know in which areas his knowledge of the situation is becoming less valid. He cannot place implicit faith in the facts and information he currently possesses. Nor can he predict accurately, day after day, what knowledge, information or skills will be needed to gain a rewarding entrance into the market place. Neither can he know what kinds of experiences are available in other institutions which may be expected to maximize the student's potential.[2]

The counselor knows about the mobility of the American people, but cannot predict where the student will find a new home. He may know that research is an initiator of change and a producer of new opportunities, but he cannot predict what they will be or what use will be made of them. He knows there will be racial problems, problems of employment, questions about social behavior, and inter-cultural relations, but he cannot predict their intensity, frequency, nor the degree of his counselee's personal involvement in them. He does know that his students must learn to approach each new challenge with equanimity, with intelligence, and with a problem-solving attitude. Information is by nature, temporary and changing, and problems once solved have a way of coming unglued. If the counselor will accept the assumption that decisions once made are quite likely to need revision and that life consists of continuous decision making, greater permanency may be reached.

If the counselor will accept that it is possible to build into students' mental structures the image of the change process and a

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[2] Robert S. Larson, "Counselors Concern for the Changing School and Curriculum," National Association of Women Deans and Counselors, Vol. 29, No. 4 (Fall 1965), pp. 22-23.

percaption of themselvea aa change agants, then ha may assume that studanta can begin to concaptualiza thair problams in a way that develops a meaaure of strength, aacurity and purposa. Tha ege of tha taana ia a critical ona for building personality, and for building a concept of tha world that clearly reflects an axpectation that changa end innovation are a part of it.

Attention should be given to the fact that an increaaing percentaga of high school graduatea go on to collage. Before many yeara elepse, the educational ladder will extend from ege threa and Project Headatart, through college. How much doaa the counaalor know about hia atudents' aocio-economic background and the changing neture of the social, economic, and culturel world into which thay will graduate? Tha great metropolis, conatantly increasing in siza, continues to absorb tha major portion of the population, but at the same time it becomea more impersonal and objective. Soon much of the work, and many joba will be automated and progremmed. Uneducated and unguided youth will find little aympathy in the buaineas community.

More and more women will prepare for a variaty of careers including poaitiona in buainass end industry and proprietorship.

Changas in buainess and induatry and tha innovationa of alactronica have uprootad many formerly stable occupations. The realization that today a machine can perform work on the aame lavel aa a peraon with a 12th grade aducation placaa a premium upon, not only more educetion and counseling, but a bettar quality of both.[3]

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[3] Unruh and Richardson, op. cit., p. 150.

These changes and uncertainties of the future have had, and will have even more in the future, an impact on youth. Thus, the situation for the school counselor becomes a serious one. Unless he is a constant and critical student of the socio-economic scene and endowed with vision, he may be counseling his students for an assault on the Maginot line. But counseling is by nature aimed at the future. The problem is to untangle the mixed cues that come from many impressions, and to analyze the seeming instability and insecurity which the future presents.

Statement of the Problem

It was the purpose of this study to investigate through a study of available literature the effects of the dynamic forces of change, upon counseling today's youth. The changing factors studies will include (1) the characteristics of change as they relate to the counseling phase of the total educational program, including some major curriculum changes; (2) the agents of change, conditions which influence counseling, predictions, mobility, educational opportunities, percentage of women in the labor force, changes in business and industry, the interdependency of people; (3) focus of change, the kinds of jobs, or positions, that will be available in the future, the racial problem, attitudes and values; and (4) implications for counseling, that change is reality, and that as a result of these changes the counselor should know about the changing nature of the social, economic, and cultural world into which her student will exist.

Importance of the Study

Conditions for counseling are constantly changing and in various ways. It is obvious that institutions change. The counselor should be concerned with some of the motivational factors of these changes.

If one can describe change by indicating its various characteristics, then it is possible to observe it more closely and to have some management of it. One characteristic is rate, another volume, and a third is direction.

In the difficult task of counseling youth, one tool would be of considerable help to the counselor. He should strive to develop the ability to use the conceptual tools of the modern educator. One such example is a typology of change. From this, the counselor should learn to make projections and guesses, contrasts and comparisons so as to extract every possible interpretation and meaning from his study of the information.

Definition of Terms

Change. The term "change" is relatively simple, although as a sociological concept it may be rather comprehensive. Change here means simply the process of becoming different in any sense, whether it be evolutionary--changes growing in a connected order out of earlier phases of change, or revolutionary--a process of fast change.

Numerical Control. "Numerical control of machine tools" is achieved through coded instructions on punched cards, or on magnetic or

paper tape, which can control the sequence of machining operations, selection of the proper tool, speed and feed, flow of coolant, and machine positions.

Readers who wish to know more about numerical control will do well to consult Occupational Outlook Quarterly* for February, 1965, Vol. 9, No. 1, "New Technology in Metal Working" by John J. Macut.

Method of Study

Available books, periodicals, reports and pamphlets in the main libraries of Kansas State University and the University of Kansas were investigated. The information depended very heavily on educational periodicals; current material was used as much as possible.

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* Bureau of Labor Statistics, U. S. Dept. of Labor.

CHAPTER II

CHARACTERISTICS OF CHANGE

By any cruda measurement, the contemporary world appaars to be changing more rapidly than at any time in human history, particularly if we accept an arbitrary division and define the contemporary period as the twentieth century. In fact, tha early part of the century looks rather placid by comparison with the last two decades. Unless our vision is simply miopic and distorted, this strongly suggests that the rate of change is accelerating. And so it is.

The peculiar textures of contemporary change may be summarized by a set of generalizations:

1. For any given society or cultura rapid change occurs frequently or 'constantly'.

2. Changes are neither temporally nor spatially isolated--that is changes occur in sequential chains rather than as 'temporary' crises followed by quiet periods of reconstruction, and the consequences tend to revarberate through entire regions or virtually the entire world.

3. Thus, since contemporary change is probable 'everywhere' it has a dull basis.

4. The proportion of contemporary change that is aither plannad or issues from the secondary consequences of delibarate innovations is much higher than in former times.

5. Accordingly, the range of material technology and social strategies is expanding rapidly and its net effect is additive or cumulative despite the relatively rapid obsolescence of some procedures.

> 6. The normal occurrence of change effects a wider range of individual experience and functional aspects of societies in the modern world--not because such societies are in all respects more 'integrated' but because virtually no feature of life is exempt from the expectation or normality of change.[1]

If one can describe change by indicating its various characteristics, then it is possible to observe it more closely and to have some management of it.

One characteristic is rate. When one remembers that 90 per cent of all the scientists who have ever lived are still alive, it is possible to see that change has come upon us very rapidly. Twenty years ago a Congressional report stated that ten mathematicians were all that were needed for all industry in the United States. Today, however, more than 200,000 are needed simply to operate the various computers. It is said that 50 per cent of the children in the elementary grades today will be employed in occupations that do not now exist. It is possible then to see that rate may be accelerated or decelerated depending upon the circumstances and the factors involved.

The evidence is not conclusive as to the speed which industry is making use of technological change and automation. If management is applying such changes at a much more rapid rate than in the past, then the implications for the present are greater, for there will be less time to cushion automation's impact on employment and society. An example of this, as shown in Table I, is the narrowing gap between a discovery and the application of that discovery. The speed with which at least discovery of automated equipment was applied is further indicated by the following statement:

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[1] Wilbert E. Moore, Social Change (New Jersey: Prentice Hall, Inc., 1965), p. 2.

"While adoption of electric power in industry took fifty years, automated accounting systems, introduced barely ten years ago to banks, are installed in more than one half of the banks in this country now."[2]

Intense acceleration might result in a revolution, whereas change that takes generations for its completion would be more descriptive of evolution.

TABLE I

NARROWING INTERVAL BETWEEN DISCOVERY AND APPLICATION IN PHYSICAL SCIENCES*

Innovation	Year of discovery	Year of application	Time span
Electric motor	1821	1886	65 yrs.
Vacuum tube	1882	1915	33 yrs.
X-ray tubes	1895	1913	18 yrs.
Nuclear reactor	1932	1942	10 yrs.
Atomic bomb	1938	1945	7 yrs.
Solar battery	1953	1955	2 yrs.

* Eli Ginzberg, Technology and Social Change (New York: Columbia University Press, 1964), p. 87.

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[2] Charles C. Killingsworth, "Automation, Jobs and Manpower," in Subcommittee on Employment and Manpower, United States Senate, Selected Readings in Employment and Manpower Exploring the Dimensions of the Manpower Revolution (Washington: Government Printing Office, 1964), pp. 203-204, hereafter cited as Selected Readings.

A second characteriatic of change which can be observed is volume. Innovationa may begin in one achool department and apread quickly to another. Significant changes at school can affect what happens at home. When schools begin to strengthen their curricula and asaignmenta, the increaaed homework makea it difficult for the family at home to help and a change in family relationshipa resulta. When the school and the home change, it ia obvioua that relationships with the church probably undergo some changea alao.

Another characteristic is that change haa direction. The eaaieat way to illuatrate thia concept ia to note that the population is flaeing the center of the great cities and arriving in vast numbera in the auburbs. Tha continuing development of machines, tools and gadgets makes lifa much easier in the home and on the farm, and so there ia a change from drudgery and long daya of hard manual labor to a life of mechanized labor and leisure. This much daacription may point out that there is a movement in an obaervable direction.[3]

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[3] Kingaley Davis, "Urbanization--Changing Patterns of Living in Simpaon, H. S.," The Changing American Population. A Report of Arden Houae Conference (New York: Inatitute of Life Insurance, 1966), Chapter 3.

CHAPTER III

FORCES OF CHANGE

Education and Training for Occupational Change

The developments in every broad occupational group seem to call for ever more education and training. The need for educational and skill upgrading will not be confined to the rapidly growing professional and technical fields, nor even to white-collar employment generally. The demand for better educated and trained workers appears to be all inclusive.

The need for education is further underscored by the likelihood that a person may face several job changes during his working career. No longer can a boy or girl expect just one occupation to cover a lifetime of work. Even today, a 20-year-old man could be expected to change jobs six or seven times during his work life expectancy of 43 years. Being able to adjust to changing ways of work applies to women as well because little is likely to remain the same over the 40 years. A single woman can, on the average, plan on working. Even married women, on the average, can count on rather lengthy work life expectancies--about 30 years for those without children, and about 25 years with children. To be able to switch from one specific job to another, a person must have an educational background broad enough to enable him to absorb the training and retraining that will be necessary to permit him to switch. "Stay in school" is indeed the motto for the decade ahead.

Educstion (Approsches to Chsnge)

The question now sriaes: To whst extent will "the mechanization of human thought snd aense proceasea" directly affect the conduct of the American achool? Dr. Jsmes Conant in s much discuaaed work already has aounded s grim warning that the unemployed snd/or delinquent (many of whom sre school dropouts) pose sn slarming problem for our aociety. As the diatinguished educstor-ststeaman put it: "We are sllowing socisl dynamite to accumulate in our lsrge cities." Dr. Conant is here referring to thoae young people who drop out of achool or graduate without prospecta of either further education or employment. The young peraon who drops out of school, for whatever reason, haa little opportunity in s aociety that demands apecislized akills for moat of its jobs. "From the purely economic point of view, education has three principsl effecta: (1) it csn increaae the versatility and adsptsbility of people and thus help them to adjuat to change; (2) it csn open up new opportunities of employment; snd (3) it csn increase the productivity of workera."[1]

It ia atrongly recommended, therefore, that educstional opportunity be open to sll. A first principle of a progreasive snd humane society is that no peraon ahall be deprived by financisl berriers--or by berriers of ethnic or national origin, religion, age, plsce of reaidence, or family background--of the opportunity for maximum growth snd development through education.[2]

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[1] Jsmes B. Consnt, Slums and Suburbs: A Commentary on Schools in Metropolitan Areas (New York: McGrsw-Hill Book Co., 1961), p. 11.

[2] Ibid., p. 25.

Curriculum Changes

Of all the recent changes, what is commonly referred to as the current curriculum reform movement has been the most influential. It has reached into thousands of classrooms in the past decade.

The movement is discipline-centered, the ends and means of schooling being derived from the academic subject. Some educators claim that this cycle of discipline-centered curriculum reforms is over. The writer would doubt it, although it may have reached its peak in the sense that new outlines are taking shape. For the next several years, however, educators' concern will focus more and more on the total curriculum, rather than on bits and pieces of it. If all goes well, this second cycle will reach a plateau in perhaps 10 or 15 years. Perhaps the third cycle will then be what one might call the humanistic curriculum and it may become significantly evident by 1990 or 2000.

These three cycles are not discrete nor are they new. They represent the periodic reappearance of some persistent themes in formal education--concern for organized subject matter, concern for the learner's total educational diet, and concern for man himself.[3]

Prediction as a Force of Change

Prediction is a fundamental concern of counselors who counsel with clients in the process of making decisions. That is, attempts are made to forecast future success, satisfaction and other types of behavior on

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[3] John I. Goodlad, "Directions of Curriculum Change," The Education Digest, (February, 1967), p. 34.

the basis of present knowledge about a given individual. The use of test results in counseling is almost always oriented to the future.

Historically, however, much has been written in the counseling literature about the counselor as a prediction maker. Strang[4] wrote that the counselor examines data for accuracy, completeness, and relevancy, then formulates and evaluates interpretations before arriving at a best judgment.

Therefore, the counselor is in a perplexing position as he attempts to determine his role as prediction maker: counselor experts inform him that he should function as a prediction maker, but the weight of the available experimental evidence is convincing in revealing the predictive superiority of the statistical methods. Since most educational and vocational counseling is future oriented, the question is not whether counselors do make predictions in actual practice, but whether they should.

Mobility of the Population

Every year nearly one American in five changes his residence.[5] One person in four lives in a state other than the one in which he was born. There is a movement to the West, to the Southwest, and to the states bordering the Pacific and Atlantic oceans, the Gulf of Mexico, and the Great Lakes. There has been a movement of the rural population to the urban-suburban areas to the extent that the urban population now exceeds the rural population in a majority of the states.

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[4] Ruth Strang, Counselor Techniques in College and Secondary Schools (New York: Harper and Brothers, 1937), pp. 58-59.

[5] Bureau of the Census, Mobility of the Population of the United States, March 1960 to March 1961 (Washington: U. S. Department of Commerce, 1962).

Eight million men and women, or about 1 out of every 10 who did any work in 1961, changed jobs during the year. Some moved volunterily in search of better jobs or for other personal reasons. Others had to make changes because of job loss.

High rates of job changing among youth, due in part to a lack of training and experience, point to e need for improved vocetionel guidance end educetion. On the other hand, the difficultias faced by older workers in finding new jobs are barriers to necessary edjustments in the economy.[6]

For the kind of society that is developing, a highly mobile one, characterized by rapid change end facilitated by en unpredicteble technology, the development of mobile and flexible students is essential. These will be students who are planning or seeking e career. The need today is for those who are able to get today's job done, shift gears, and move on to the next, edapt to new purposes and programs, and move efficiently among new ideas, institutions and technologies. Peradoxicelly, if there is to be purposeful development for todey's youth, it will be preparation of them for the unexpected. Mobility todey means much more. It means the ebility to move into the rapidly-changing future, not peinfully but eagerly.[7]

The Changing Role of Women

The myth that women ere of e necessity subordinate to men and must remain in the kitchen ell their lives has been a long time dying, even

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[6] Ralph E. Mason end Peter G. Haines, Cooperetive Occupetional Educetion end Work Experience in the Curriculum (Illinois: The Interstete Printers end Publishers, Inc., 1965), pp. 8-9.

[7] Kenneth F. Mulligen, "Cereer Development and the Future," Journal of College Plecement, Vol. XXVI, No. 4, (April, May, 1966), pp. 10-12.

among women themselves. Females outnumber males by 2,600,000 in Americs end slthough the preveiling sttitudes fsvor--end picture--the American woman ss mother snd housewife, there is s need to reconsider the problem in terms of woman's contributions to our society.[8]

The work force will grow by about 13 million during the 1960's end by another 7 million between 1970 end 1975, resching s total of 93 million. Almost half of these new workers will be women.[9]

Higher educstion for Americsn women begsn during the nineteenth century. The first suthentic instance of s woman being permitted to secure s college educstion was in 1837 when four young women were sdmitted to Oberlin College. One hundred snd twenty-seven yesrs lster, in 1964, there were spproximately 1,812,000 women enrolled in colleges snd universities throughout the nation. Enrollments sre expected to resch 2,715,000 by 1970.[10]

Aristotle ssid that "lesrning is en ornsment in prosperity, s refuge in sdversity, snd s provision in old sge." Although this is s time of prosperity, higher education for women is not ornamental. Never before has the educstion they received been so influentisl in shsping their future lives for the multiple roles they must plsy in modern society ss wives, mothers, citizens, snd esrners.

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[8] Donald G. Mortensen snd Allen M. Schmuller, Guidsnce in Todsy's Schools (New York: John Wiley & Sons, Inc., 1966), pp. 85-86.

[9] U. S. Depsrtment of Lsbor, Manpower, Chellenge of the 1960's (Washington: U. S. Government Printing Office, 1961), p.6.

[10] Florence Louise Phillips, "The Changed Ststus of Women," Educetion, Vol. 87, No. 4 (December, 1966), pp. 246-247.

Earlier marriage, longer life, better health, and modern technology's labor saving devices have had a profound influence on the life patterns of American women. Most women marry and seek employment after their children are grown. Furthermore, in our society the activities of the American woman cannot be confined to the home, for the conditions in the community and in the nation have a great effect on the welfare of her family.

The societal trends which have influenced changes in the life patterns and social roles of women are revealing. Today the life of the young woman differs greatly from the life of the grandmother's day.[11] Four out of five women in the U. S. have been married at some time during their lives. In 1900, however, two out of three women in the total population had been married. The average age of marriage is twenty as compared with twenty-two years of age at the turn of the century. The average couple can expect to have fifteen more years together after the last child has left home, and women outlive their husbands by approximately six years. Over half of the total number of women in the labor force are married, and the average age of the employed woman is forty-one as compared with twenty-six in 1900.[12] In 1960, 5,408,000 of the 3,000,000 women between the age of sixty-five and sixty-nine were employed. Today a woman of seventy has a life expectancy of twelve years.[13]

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[11] President's Commission on the Status of Women, "American Women" (Washington: U. S. Government Printing Office, 1963), p. 58.

[12] Bailey C. Urban, "Working Wives on the Upward Move," The Wichita Eagle and Beacon, March 5, 1967, p. 3E.

[13] President's Commission on the Status of Women, op. cit., p. 66.

An increesing number of women are making decisions which are crucial not only for them but for society itself. In the U. S., women control seventy per cent of the savings, purchase ninety per cent of the merchendisa produced for family use, and directly influence financial consideretions in a number of other fields.[14]

Even though their roles as mothers and homemaker take precedenca over their other roles, young women of today must be educated for citizenship in the home, in the community, end in the nation.

Higher educetion in colleges end universities must help to prepare the Americen woman eccomplish these objectivas. It must et tha seme time help her perform her varied functions throughout her long life with excellence.

The Reflections of Industry

Industry reflects the demands made upon it by others in the market pleca. It also reflects what sociaty in generel, at home, and abroed is requiring of ell of us. Any enelysis of what industry expects of youth must, therefore, be mede in terms of whet tha future of Americen industry holds for all of us.

We are living in a fest-moving world faced with difficult problems, revolutionary changes end unsurpassed opportunitias. We are witnessing the spaca race, the development of atomic power, new nations being creeted by the gift of independence, foreign competition, and domestic competition for foreign markets.

Industry, consequently, is experiencing changing markets, e revolution in production methods, tremendous increases in cepitel

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[14] Ibid., p. 71.

requirements, new and diffarent personnel naeds, and a complexity of government regulations and controls--ell in all, a way of industrial life which now requires great intellect end highly skillad personnal. Industriel managament, as we may hava known it in the past, muat now sdept itself to the crucial problem of nationel survival, end this survivel depends more upon quality of human rasources than on elmost eny othar factor.

Along with thesa complexities, we are fecad with e staedy increasa in the populstion of this country as well es in the world et large. This, of course, means a rapidly growing markat and the consequant demand on industry to increase its capacity end raisa its efficiency.[15]

A population explosion is no guarantee for a booming economy. A lerge population without a sound aconomy can be a dangar rathar than e guarantee of progress. Our aconomy must grow with tha populetion and ona of the fecets of e sound economy is technological development. Manpower is the key resourca of this technicel davelopment, which means that tha technicel proficiency of the work forca must be raised to e very significent degrea.

Our ability to grow economically, to creete naeded naw jobs end to build lasting prosparity hingas on our willingneas to ambrece end foater tachnological changas and to cope with the problams arising from that change.[16]

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[15] Robert Arthur, "What Industry Expacts of Youth," American Vocational Journal, Vol. 40, pp. 18-20.

[16] Ibid., p. 21.

The most revolutionary change affecting us directly is the use of numericel control snd computers on machine tools. These systems plsce routine and repetitioua work on machinea and relesse men for more creative taaka.

The guiding principle of our competitive ayatem ia: if a compsny doea not possess manufscturing efficiency, it csnnot aurvive. Automation will gradually reduce the number of manual workera in manufscturing. Fewer operators will be needed to produce incressing quantities of maaa-produced gooda. On the other hand, the need for engineera snd technicians will increese. They will hsve to be more highly educsted, more highly trained, and more technically qualified than ever before.

The job opportunities for the young man with limited potentisl are diminiahing rspidly. The besic knowledge required for the industrial employee hsa changed drastically in the past five yeers and will continue to change.[17]

He will be required at times to perform taaka that will involve the use of complex machinery to disgnoae trouble and the creation of new or improved methoda of repsir. He will be required to follow complicsted directions snd to communicate, both orally and in writing, hia ideaa, solutions, snd directions to others. During his lifetime, his job may be obaolete several times, making it neceassry to acquire new skilla.[18]

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[17] Ibid., p. 21.

[18] "Tesching Obsolescent Skills Widens Gap between Education snd Technology," Catholic School Journsl 64 (June, 1964), pp. 44-45.

Machine tool companies are building machines so complicated that skilled men who normally have the responsibility of assembling them are finding it difficult to keep up to date. Retreining is then called for. The machines that ere presently in the design stege have control systems beyond our imagination. Consequently, the young man seeking employment in industry todey has a long road aheed of him. He must be edequately equipped with the necessary tools to survive the journey. He must have potentiel in three basic ereas: ettitude, skill, and knowledge.

He must have a realistic attitude toward learning. He will be working in an everchanging climate which requires that he not only acquire the skill of his present task, but that he keep abreest of new techniques as they develop. It has been said that a man sterting in industry todey may have to leern four different trades in his lifetime. It is essentiel that he understands this end accepts it as e way of life.[19] This means among other things, the realization that he will be working different shifts, thet he may be called upon to relocete et other plents or even be assigned to work in other countries.

Deleys in arriving et important decisions in work make education and training more difficult to obtain; valuable years of productivity end personel developments are wasted, both to the individual and to the nation's economy. Authorities agree that adequate guidance and proper career plenning could eliminate much of the frustration encountered by

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[19] Seymour Wolfbein, "Labor Trends, Manpower, and Automation," Man in the World of Work (Boston: Houghton Mifflin Co., 1964), p. 20.

youth in the transition from school to work.[20] It could reduce job turnover and narrow the gap, averaging six years between high school graduation and continuing education.

It would be impractical to expect anyone coming into industry to have acquired all the techniques necessary to perform the various tasks of any trade. Additional training is, and should be, industry's responsibility. On the other hand, it is fair to expect that the employee has acquired on his own the basic background of knowledge. If he has the necessary knowledge and the aptitude, he can be trained. An understanding of basic principles in several fields is thus more essential than ever before.[21]

The advance of technology was mentioned as having perhaps the greatest influence on our lives today. "Among the many facets that are in various ways determining our future, perhaps nothing will have a larger impact on the value structure of our culture, and the value of individuals than the increasing automation of industry."[22]

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[20] Dunlap Knight, Personal Adjustment (New York: McGraw-Hill Book Company, 1946).

[21] Blum, op. cit., p. 26.

[22] Sterling M. McMurrin, "Education for Freedom in a Free Society," School Life, XLIV, No. 6 (April, 1962), p. 5.

CHAPTER IV

FOCUS OF CHANGE

The Changing Nature of Occupations

The changing nature of the occupational world, the world of work, is in reality an interaction of many forces. Among the major aspects of the forces for change are: changing make-up of the labor force, changing employment demands in occupational areas, and changing requirements of worker competence. Educators must analyze carefully the changing occupational "mix" if curricula and counseling are to be responsive to actual conditions in the local service area.

From now to 1975, the labor force will grow even faster than the population as a whole mainly because of the large number of young people reaching working age. The labor force is expected to grow from 73 million in 1960 to 93 million in 1975--an increase of 20 million (or 27 per cent).[1] At the same time, the population will grow about 25 per cent. The increase in the labor force is only the net increase over this period. The number of new workers entering the labor force will far exceed this figure. The difference between the total entering or re-entering and the net growth of the labor force represents persons absorbed into the labor force as replacements for those workers who, during the same period, will have died, retired, or left for other reasons, such as disability, or for marriage, or to take care of children.

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[1] Mason and Haines, op. cit., p. 10.

During the next 10 to 15 yeers, much lsrger numbers of young people than in the past will be in the work force, even though s higher proportion of youth will remain in school longer. Also, women workers ere teking s more prominent role in the lsbor market. Young people under 25 will eccount for elmost half of the net increese in the labor force between 1960 end 1970. Their proportion in the lsbor force will rise from less than 19 to more than 23 per cent. From 1970 to 1975, workers from 25 through 34 yesrs of sge will sccount for the grestest increese. However, over the 15-yeer period from 1960 to 1975, young people under 25 snd edult women over 25 will, in the eggregete, sccount for two thirds of the net increese in the lsbor force.[2]

Significsnt changes hsve tsken plsce snd csn be expected to continue to teke place in the occupstional structure of the U. S. labor force. One of the most important changes of the post-World War II period hes been the much greater growth in the number of workers in white-collar and service occupations es compered with manuel workers, snd especislly the very lerge increese in the number snd proportion of professional snd high level manegeriel workers.[3] Employment of white-coller workers rose by more than one helf (54%) between 1947 and 1964, rising from less than 20.2 million to more than 31.1 million. Employment of service workers elso rose substantislly, growing from 6.0 million to 9.3 million, en increese of 55%. At the same time, employment of blue-collar workers incressed

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[2] Mason end Haines, op. cit., pp. 10-11.

[3] Ibid., p. 12.

much less rapidly, increasing about 8 per cent, from 23.6 million to 25.5 million. The number of farm workers actually declined, falling from 8.1 million in 1947 to 4.4 million in 1964, a drop of 45 per cent.[4]

Looking ahead, as shown in Table II, an increase of nearly two fifths for white-collar jobs over the next decade is indicated. Among white-collar occupations, the most rapid increase in requirements will be for professional and technical workers, which may grow twice as rapidly (54%) as the average for all workers. Requirements for clerical workers are also expected to increase rapidly, rising by nearly two fifths, and sales workers by nearly one third.[5] The demand for managers and officials is expected to rise somewhat more slowly increasing less than one fourth between 1964 and 1975. Requirements for blue-collar workers are expected to rise by one sixth between 1964 and 1975.[6] Among the blue-collar workers, the most rapid increase in requirements will be for crafts-men, a rise of somewhat more than one fourth, or about the average rate of increase for total employment as a whole. Requirements for operatives will increase more slowly, by about one seventh, and little change is expected in the demand for laborers. A more than one-fifth decline in requirements is anticipated for farmers and farm workers.

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[4] Howard R. Bowen and Garth L. Mangum, Automation and Economic Progress (New Jersey: Prentice-Hall, Inc., 1966), p. 86.

[5] Ibid., p. 88.

[6] Ibid., p. 89.

TABLE II

MAJOR OCCUPATIONAL GROUPS OF WORKERS,
ACTUAL 1964 EMPLOYMENT AND
PROJECTED 1975 REQUIREMENTS*
(NUMBERS IN THOUSANDS)

Occupational group	1964 Employment		Projected 1975 Employment		Per cent change 1964-75
	Number	Per cent	Number	Per cent a/	
Total, all occupational groups	70,357	100.0	88,700	100.0	26
White-collar workers	31,125	44.2	42,800	48.3	38
Professional and technical	8,550	12.2	13,200	14.9	54
Managers, officials and proprietors	7,452	10.6	9,200	10.4	23
Clerical workers	10,667	15.2	14,600	16.5	37
Sales workers	4,456	6.3	5,800	6.5	30
Blue-collar workers	25,534	36.3	29,900	33.7	17
Craftsmen and foremen	8,986	12.8	11,400	12.8	27
Operatives	12,924	18.4	14,800	16.7	15
Nonfarm laborers	3,624	5.2	3,700	4.2	b/
Service workers	9,256	13.2	12,500	14.1	35
Farm workers	4,444	6.3	3,500	3.9	-21

a/ Projections assume a 3 per cent level of unemployment in 1975. Per cents do not add to totals due to rounding.

b/ Less than 3 per cent.

* U. S. Department of Labor, Bureau of Labor Statistics, "Industry Productivity, Projection." p. 23.

As a result of these differential rates of growth, the occupational composition of the nation's employment will be different in 1975 than it was in 1964. The major changes will be in the proportions of professional and technical workers, service workers, and clerical workers, all of which are expected to rise significantly, and in the proportions of farm workers, operatives, and non-farm laborers, which will decline as a proportion of total employment. The remaining occupational groups will be roughly the same proportion in 1975 as they were in 1964.[7]

Although many factors other than technological changes have had and will continue to have a significant impact on the occupational structure of the labor force, technological change is nonetheless a major determinant of occupational employment shifts. However, technology is inextricably woven with the other factors influencing employment, and the impact of technology itself is often hard to distinguish.[8]

One impact of technological change on industry occupational patterns can be seen most clearly in industries which are declining in employment. In these industries the greatest decreases in employment have usually taken place among laborers and others in the least skilled groups.

Institutions

"College grads are a dime a dozen. Quite a bargain for an item it costs $10,000.00 to produce."[9]

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[7] Bureau of Labor Statistics, U. S. Department of Labor, "America's Industrial and Occupational Manpower Requirements, 1964-75," The Outlook for Technological Change and Employment. p. 20.

[8] Bowen and Mangum, op. cit., pp. 85-86.

[9] "Oh, How Your Life Has Changed!" Changing Times, Vol. 21, No. I (Jan., 1967), pp. 12-13.

For twenty years tides of change swept the schools. Partly it was sheer numbers. First ex-GI's packed the colleges, going to school on the GI Bill and living with their wives and babies in old barracks and quonset huts.

Then their babies grew and trooped to school by thousands. There were 20,000,000 children in elementary schools in 1947 and there are 36,000,000 today.[10] For a time, building enough classrooms for them seemed nearly impossible. Building them fast enough proved utterly impossible. Youngsters went to makeshift, overcrowded schools for half-day sessions. In these 20 years, we spent over 50 billion dollars to build schools.[11]

It was a nationwide problem and help came on a national scale. Decade-old barriers were finally surmounted, and the federal aid money poured forth. Simultaneously legal props were knocked away from school segregation, lighting new hope for groups long under-privileged.

Inside the classroom was ferment, new ways of teaching nearly everything. Youngstars in the grades were sent to learning foreign languages. Tapes and cameras and TV and teaching machines moved in to help the teacher. Old-time arithmetic was so changed by new math that even youthful parents had trouble helping with homework. A bauble the size of a basketball was lofted to the sky in 1957, and suddenly PTA meetings erupted with demands for more emphasis on math and science. The bauble's name: Sputnik.

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[10] Ibid., p. 13.

[11] Richard I. Miller, Education in a Changing Society (New York: McGraw-Hill Book Co., 1963), pp. 94-95.

But the biggest educational change of all was everybody's heightened need for knowledge. The high school dropout is today's lost man; tomorrow's will be the college dropout. Advanced degrees are expected for many beginning jobs right now.[12]

This upgraded need for knowledge worked two further changes. It set more young people than ever aiming toward college and it made college admission a prime goal of secondary education. Now one judges a high school not by how well its graduates manage life but by which colleges they enter.

Meanwhile, the big, wealthy college, public and private, placed more emphasis on their graduate schools. Those that had none are adding them. And an increasing share of undergraduate schooling is taking place in a new setting, the two-year community college. In a few years, most college students may be at those close to home schools.[13]

Change as an Aspect of Our Culture

The rate of change is accelerating to such an extent that it is almost bewildering. Wolfe has estimated (probably on the conservative side) that available scientific and technical knowledge doubles about every fifteen years.[14] Thus, the tempo by which the increments in knowledge accrue is rapidly accelerating.

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[12] Ibid., p. 14.

[13] C. C. Wrenn, The Counselor in a Changing World (Washington: The American Personnel and Guidance Association, 1962), p. 11.

[14] D. Wolfle, "Guidance and Educational Strategy," Personnel and Guidance Journal, No. 37 (1958), pp. 17-25.

In a forecast made in 1959 of potential scientific and technological developments expected during the 1960's and 1970's, Bello envisaged a world that might have been derived from science fiction.[15] He predicted that by the mid-sixties radio-telescopes would probe the "edge" of the observable universe, that manned satellites would be launched and returned safely, that nuclear explosives would be used experimentally for non-military purposes. These developments have already occurred. One of his predictions for the late sixties was the use of satellites for communication purposes. Such satellites have been in orbit since July, 1962. Wrenn has projected a number of "long range" technological developments,[16] many of which have now long been realized. But such is the fate of one who dares to predict developments in the changing world of today. What may appear to be an expert's fantasy of today becomes tomorrow's reality.

These scientific and technological developments promise many wonderful products for the consumer, but they do not offer a stable basis for developing life plans. In the face of anticipated changes, it is difficult to imagine any basis on which youth can make long-range occupational plans with any degree of certainty that they will be able to carry them through to completion.

Although the specific nature of the society of the 1980's and beyond cannot be forecast with any degree of accuracy, there are some general indications of changes that might take place during the next two decades.

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[15] F. Bello, "The 1960's: A Forecast of the Technology," Fortune (January, 1959), pp. 74-78.

[16] Wrenn, ibid., Chapter 2.

The counselor therefore may use the projections described in the following paragraphs with a reasonable degree of assurance that they will provide the student with a number of anchor points for considering his world of the 1970's and 1980's.

The population increase throughout the world will constitute one of our major concerns. It has been estimated that the present population will grow to 211.4 million by 1970--an increase of some thirty million over the 1960 population.[17]

The growth of the population in the United States will vary among the various age groups. The number of youth will increase markedly during the next few decades. In 1958 the number of children under eighteen years of age was estimated to be sixty-one million, which represented an increase of about fifteen million over the number in 1950. This rate of increase is about twice that of the total population.[18] According to the Wrenn report, in 1980 the number in the age group of fourteen to seventeen will be double what it was in 1950.[19]

Cultural ambiguity probably will increase as the size of the population increases. Established living patterns will either have to be changed or modified in order to accommodate the inevitable population changes. Undoubtedly the trend toward large cities will continue. As the size of the

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[17] National Planning Association, National Economic Projection: Elements of Economic Growth, Judgment Models in 1965-1970, 1960 Series (Washington: The Association, 1960).

[18] Eleanor H. Bernert, "Demographic Trends and Implications," in E. Ginzberg (ed.) The Nations Children, Part I, Report of the 1960 White House Conference on Children and Youth (New York: Columbia University Press, 1960), p. 27.

[19] Wrenn, op. cit., p. 17.

citias increases, providing transportation and housing facilitias will posa major socisl problams. Tha slums will still exist. Courtship and marriage patterns will probably be alterad. The avaraga age at which young paople marry is decreasing; this chsnge, of course, has implications for educational planning. Wrenn indicatas that in 1960 the aversge age of marrisge for men was 22.6 snd for women, 20.4.[20] Tha sight of the baby buggy on tha csmpus, a rarity befora 1946, is now commonplaca, as fsthar watches the baby while mothar sttends clsss, or vice versa.

The social institution most seriously sffacted by the mushrooming population will ba the school. By 1958, anrollments in the elamentary schools were astimatad at some thirty-ona million students, an incraase of nina million over 1950 anrollments. Enrollments in the high schools had shown an incresse of 2.2 million during the same period, or a total of 10.6 million. Projactad enrollments to 1970 indicsta that thare will then ba some thirty-sevan to forty million alementary students and more than fourtean million high school students in the Unitad Statas.[21]

Even as this paper is being writtan, providing nacasssry buildings snd staffs for schools is s major nationsl problem. In September, 1964, there was an expected shortaga of 118,000 taachars for a total of more than 1.5 million alementary and sacondary positions.[22] It is likaly that aconomy messures will ba required in order to meat the nacassary expanses

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[20] Ibid., p. 29.

[21] Bernert, op. cit., p. 31.

[22] Nstional Educstion Associstion, Teacher Supply and Demand in Public Schools of the United States, Rasaarch Report, 1964, R-9 (Washington: Tha Association, 1964), p. 16.

of expsnding echool facilities. Thus the so-called "eupplemental" eervices, includ ing guidsnce eervicee, may be in for eerioue scrutiny by those who control the budgst. The nature of the echools themselvee may be modified rsther dresticelly ae e new technology of human leerning ie developed ee new procedures ere devised to meet the preseuree of increased enrollmente.

As ths populetion boom continuee throughout the world, dire predictione sre being made ebout the drein on eveilsble food suppliee end natursl reeourcee. At the preeent rete of consumption known reserves of certein minerale could be exheusted in e few yesrs. Stepheneon[23] end Meir[24] sss hops for meeting future neede, however, through edvences in technology. Meir, for exsmple, maintains that there is s basic fsllecy in ths peeeimistic outlook regarding the sufficiency of resources for the future: the eesumption thet there is e fixed baee for evailebls rssources. According to Meir, svaileble resources will chenge es the need arieee. For exemple, through chemistry, what were once wasts producte hsve now besn turned into pleetics, thue creeting new reeources. Alreedy scientiets heve turned to the ses for food, minerals, end watsr, end to the eun for solar energy. Who knowe whet epace exploretion will uncover. Along with the diecovery of these new resourcee, new jobe snd new induetriee will develop.

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[23] E. P. Stepheneon, "Past Gaine end Future Promiee," H. Jsrrett (ed.), Science end Resources (Baltimore: The Johne Hopkine Prees, 1959). p. 28.

[24] R. C. Meir, "The Worldwide Prospect," H. Jerrett (ed.), Science and Resources (Baltimore: The Johne Hopkins Prees, 1959). p. 34.

Whether science can cope with the problem of increasing population is a question only the future can answer. Whether there will be food, clothing, shelter, and jobs for all, or whether the "have nots" will become even poorer than they are now, there will be accompanying changes in our way of life--changes that will challenge the skill of the counselor and make even more difficult the adolescent's task of knowing just who he is.

Race Relations. Once upon a time there were two kinds of children--black and white. But now we know that a child is just a child with a mind wanting to be taught, a human being needing and waiting for the tools with which to process his development. This change was not brought about in a day or a week or a decade. In this country alone, it has taken more than one hundred years to look beyond and beneath the color of a child's skin.[25]

The history of minority groups everywhere it seems has been marked by bitterness and prejudice, where it has not been tragic. "Man's inhumanity to man" is no where more in evidence than in the treatment of those who may for one reason or another differ from the majority. But this is a problem which must be faced by those seeking to help all individuals. There is, in fact, no escape from what is taking place in American society. The issue of civil liberties has become part of our every day reading, and few can, or will, foretell the outcome in this heated and complex area of human relations.[26] The writer is hopeful and very optimistic.

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[25] Saul S. Beck, The Changing Counselor in a Changing Culture (New York: Chronicle Guidence Publications, Inc., 1965-66).

[26] B. Bettelheim and M. Janowitz, Social Change and Prejudice (Glencoe, Illinois: The Free Press, 1964).

Whatever else is involved, people are "the basic national resources" of our society, as has been emphsaized by many writers.[27] As Ambassador Galbraith writes:

> Maybe there are other ways of augmenting the flow of resources into personal development. Since the society is changing, we dare not assume that we have the last thoughts in the subject. For man has not retreated before the machine; rather the machine has become desperately dependent on the improvement of man.[28]

It follows then, if we are to use these prime resources, a whole new approach to the problem of minority groups will have to be found.

In early social groups, "enemy" and "stranger" were synonymous terms and xenophobia (fear of strangers) still lingers on as a grim reminder of those perhaps less civilized times. Primitive man hiding in his cave may have had good cause for such behavior since for him, every stranger was indeed an enemy. With the technological society has come, however, the need for living and getting along with others. Modern modes of transportation and communication have, despite personal feelings in this matter, made us all neighbors at least in time and distance.

The nature of prejudice is being studied on numerous different fronts, but it is no secret that prejudice still exists. Everyone has certain prejudices. Why people dislike others is not always quite clear, but that they do is common knowledge.[29] The problems ahead of us will require the efforts and cooperation of every citizen; but it is difficult to

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[27] Mortensen, op. cit., p. 86.

[28] Ibid., p. 87.

[29] Alan P. Grimes, Equality in America (New York: Oxford University Press, 1964), p. 60.

see how this is possible under conditions of distrust and prejudice.[30] For guidance personnel the issue is of paramount importance since they are involved in a function which is dedicated to helping every individual make his maximum contribution. There is need to explore the nature of prejudice and, if possible, turn its energies into constructive channels. Byrne in describing the counselor's duties, sums up the case for every guidance worker:

> The counselor's goal, firmly based on the human worth of the individual, regardless of education, intelligence, color, or background is to use his technical skills: (a) to help each counselee attain and maintain an awareness of self so that he can be responsible for himself, (b) to help each counselee confront threats to his being, and thus to open further the way for the counselee to increase his concern for others wellbeing, and (c) to help each counselee bring into full operation his unique potential in compatibility with his own life style and within the ethical limits of society.[31]

The Changing Family. Social changes hurt worst at the family level.[32] Parents are affected more by the changing nature of the home than are the children who know nothing else. The parent, though, is constantly trying to put new wine into old casks, to see the home in 1960 as similar to the one in which he or she was reared in 1930. The controls and aids that were used with the parent may not fit the home conditions under which their children live and they blame both themselves and the "times" when they find this out. The slow-paced home life, with focused authority and both parents in the home for several hours per day, fits the conditions of urban, split-

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[30] Ibid., p. 90.

[31] R. H. Byrne, The School Counselor (Boston: Houghton Mifflin Co., 1963), pp. 19-20,

[32] Saul S. Beck, op. cit.

level living less well than it does the small-town or rural setting, particularly that of a generation ago.

It is more important than ever before that the counselor become a student of family life. If the home is so important an influence in the life of the child, and within the foreseeable future it will certainly continue to be the most important, and if the home is changing, then the counselor must keep up with the changes in order to understand and help the student. How can the counselor help Bart in vocational planning, for example, unless he knows that Bart's home is a very closely knit one in which every decision is discussed by all members of the family? With Mary the parents are "emancipated" and carefully follow the hands-off policy which avoids exercising any influence on a child's decision, a policy interpreted by Mary as "they don't care." Peter, on the other hand, is in the middle of a power struggle between father and mother and must attempt to satisfy both. Ken comes from a home where the father leaves all home and family decisions to the mother, but the mother wants the father to accept responsibility for some. As a consequence, both avoid doing anything about "school decisions." How indeed can the counselor communicate effectively with a student unless the counselor's perception of the home from which the student comes is reasonably close to the reality? He may not know this student's home, at least not at first, but he must know the various patterns of modern family life and the social influences that create these patterns.

It seems apparent that the careful student of the family will distinguish between long-term and short-term changes in marriage and family phenomena. Long-term trends--smaller households, changing authority patterns,

changing role of husband and wife--are undoubtedly related to industrialization and urbanization trends. Perhaps also these are expressions, in the social language of this period, of equalitarian and achievement values. Short-term changes are those in response to economic levels and conditions of war and peace, best typified by marriage rates and birth rates.[33]

It seems likely that the long-term trends will not be modified easily no matter how much agitation is developed. They are a reality to be lived with like death and taxes. No one is going to bring back the economically integrated, self-sufficient, authority-centered rural home both because only 12 percent of American families now live on farms and because rural families also change. Living in metropolitan areas will increase as will the proportion of married women who work outside the home. Family mobility has increased, with about one fifth of American families reported as moving from one community to another within a single year. Many of these trends may well be a cause of concern but they are tied to long-range social changes which are likely to persist or intensify.[34]

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[33] Byrne, op. cit., p. 21.

[34] Wrenn, op. cit., pp. 28-29.

CHAPTER V

IMPLICATIONS FOR COUNSELING (THEORY OF RATIONALE)

First, and most basic is the helping relationship to students, parents, and teachers. The writer is convinced that the counselor must be seen more and more as a helper to teachers, not taking the teacher's problem students off his hands, necessarily, but in being a thoughtful and sensitive person in terms of student behavior as the teacher meets these problems. Maybe this includes being the helpful person to the teacher personally. Certainly this must be true of the counselor's relationship to parents.

One cannot talk with parents about their children without seeing pretty clearly the needs and problems of the parents. And maybe all one does in helping a parent with the child is to help the parent with himself. Just listening with some degree of acceptance may change the parent's attitude toward his child and the school more effectively than anything one might do directly. A counselor can be the first person the parent ever had contact with at the school who simply listens to the parent talk about himself. The counselor does not have to have answers. Maybe the student's problems never come into the picture. The writer is convinced that this is one valuable way of working with parents.

Secondly, the counselor is the coordinator and developer of certain things in the school program which together could be thought of as a guidance program. The writer is thinking particularly about the way in which information about students is collected, interpreted, and utilized by everybody

on the staff. Probably this is a counselor function. Somebody has to know the community resources and provide some liaison between the school and the community; maybe that is the job of the counselor. If this coordination can be done by the teachers, the principal, or someone else, fine; don't take it on. And don't take on too many of these general functions. This is what counselors have done in the past.

The third responsibility of the counselor is to serve as a member of the educational team of the school, a team composed of the principal, teachers, supervisors, and other personnel workers such as school psychologists. The counselor is a member of this team, and he cannot stand off and be superior. The problem is how to find a way in which his particular talents and abilities can be best utilized. These abilities die on the vine if he is asked to do a lot of busy work and become an administrative assistant to the principal or a trouble shooter for the teacher. If this occurs then his team membership is being prostituted, even though he is a member of the team and must do some things that everybody does, such as serving on committees.[1]

The image of the counselor presented thus far is that of a person who is increasingly aware of his specialized responsibilities. He is a person with a mission, the boundaries of which are encompassable. He is an educator and he is a psychologist but neither term describes his work with adequate preciseness. He is a specialist in student behavior, its present manifestations and its potentials for growth. He sees the student as a dynamic changing personality, constantly affected by various

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[1] The Teachers College Journal, Indiana State College, Terre Haute, Indiana, Vol. XXXV, No. 6, May, 1964.

environments, each of which in turn is dynamic and moving in certain directions. He is a specialist in human relations and in the psychology and sociology that makes people behave the way they do.

The image here presented is that of a changing counselor, too. The look is to the future; each counselor will move from where he is now in the direction of these stated goals if the needs of our changing children and youth are to be met. He may never arrive there--he may find it quite enough to keep moving. No one expects any more. No counselor need be a superman but he must be a person who is able to live with the awareness that he can never quite live up to his job. All who want a placid self-contained life should apply elsewhere.[2]

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[2] Wrenn, op. cit., p. 134.

CHAPTER VI

RECOMMENDATIONS, SUMMARY AND CONCLUSIONS

1. Perhaps the most serious deficiency in our educational system has been the inadequate opportunities available to those in greatest need, namely, children of families and communities where there is cultural deprivation, segregation or isolation. At least 100,000 additional classrooms and 133,000 teachers would be necessary by 1970 to provide compensatory full-year education from ages three to five for all who are in need of it.[1]

2. The quantity and quality of primary and secondary education, especially in low-income urban areas and rural backwaters, should be improved.

3. High school graduation should become universal. It is generally accepted that those with less than a sound high school education are unprepared for both employment and life. To accomplish this, both the problems of motivation and inadequate family income must both be faced realistically.

4. For most secondary school pupils vocational training should be deferred until after high school. General education is especially necessary in a rapidly changing economy in which versatility and flexibility are at a premium. The training for many--perhaps most--specific jobs can and must be done on the job as a responsibility of the employer. However, properly designed vocational education can help implant the self-renewal indispensable for continuing adaptability in a changing world.

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[1] Conant, op. cit., Chapter 11.

5. A nationwide system of frea public aducetion through two yeera beyond high achool (grede fourteen) ahould be established.

6. All quelified students ahould hava reeliatic access to university education. No quelified atudent should ba deprived of education at eny leval because of his family's leck of financial resources.

7. Educetion, treining, and retreining should be availeble to individuals throughout their livas. The ability to manege change, whether to keep up with new developments in a profession or to retool for a new job, requirea that further educetion be available when needed. Public education ahould provide e comprehenaive program of educational opportunity for peraons of all agea end of verying educational attainments. A system of educetion that ia open-minded, with freedom for mature atudents to anter, leave when alternetive experiences aeem mora fruitful, end then re-enter, cen be e reality through the coordinated efforts of public schools, community colleges, vocational achools, univeraitiea, end amployers.

8. Of apeciel importence is the need to provide more extensive educetionel opportunities for edults whoaa besic education ia daficient. It muat be recognized that every effort to improve the education of children now in school will increase the disedventagea of adulta with substandard education. Recent developments in educetional technology appeer to have special epplicebility to the needa of the edult leerner.

9. Workera ahould be given incentives to underteke full-time educational programs during periods of layoff and during negotiated aabbaticel leeves.

10. The task of expanding educational opportunity must also focus on those who appear unable to respond effectively to existing systems and methods. New educational technologies are under development that show promise of helping those who have been regarded as slow learners or as poorly motivated.

11. In retrospect, one of the highest return investments we as a nation have made was the GI bill following the Second World War and the Korean War. Not only did we aid veterans to make up lost years, but we brought about a veritable social revolution. Men and women whose backgrounds precluded the possibility of higher education and advanced training were lifted into totally unexpected positions in life. And in simple monetary terms, the investment has already been returned in taxes on their higher incomes. The lesson should not be forgotten or neglected.[2]

Our world has faced change since the beginning of time, but we have a different problem than our predecessors. The difference is in the rate of change. A generation ago one could more nearly teach definite answers to specific questions in most subjects, and this type of education was entirely satisfactory for students who were graduating into a world that was fairly stable and certain--a world where the knowledge they learned in school would last a lifetime. Look at the contrast today. The time has passed when it makes sense to concentrate our efforts on teaching specific answers to specific questions.

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[2] Bowen and Mangum, op. cit., pp. 65-66.

Our students of today will in a few years be called upon to answer many questions to which we do not know the answers today. More important, they will be solving problems for which we do not even know how to pose the questions.

Sixty per cent of today's male students will eventually end up in jobs which do not even exist today. With such a rapidly changing world ahead of us, the question to which we must seek an answer is:

How do we educate our students to live and work in a world which will be so very different from what we know today? We literally are in the midst of a tremendous knowledge explosion. By 1800 the sum of human knowledge was doubling every 50 years. By 1950 the sum of knowledge was doubling every 10 years, and by 1970 it will be doubling every five years. This ever expanding knowledge explosion not only presents difficult questions of what we teach and how we teach it, but also poses complex questions of how to find and use the knowledge which is available to us.[3]

Fortunately there seems to be a way to master these huge quantities of information--that way is the computer. A typical computer can memorize a billion or more bits of information in a matter of seconds. These computers can talk to each other over distances of thousands of miles, and they are so efficient and so fast that the entire novel "Gone With the Wind" could be transmitted in about three minutes.

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[3] F. Mark Garlinghouse, "Challenge to Educetion in an Era of Accelerated Change," School and Community, Vol. LI, No. 5 (Jan., 1965), p. 11.

In the field of education, the computer ahould have great potentiel. But it is, after all, a machine end it can do only what aome human brain tella it to do. The computar does not know anything. It can store end recollect, identify and judge when it is told how. But it has to be told by man. The computer is incradibly fast, accurate and stupid. By compariaon, man is alow, aloppy and brillient.

In the interaction of the two, there will certainly be written a major part of the atory of our future progress. What ahould we be doing about it? How do educatora kaep pace? There is no single, simpla enawer. Perhepa the anawera will be found through research, and here the word is used in its broadeat sense--to include all kinds of experimentation and special studies of new ideas.

Some research is needad in such areaa as:

1. How the public achools can best epproech the alimination of the unskilled worker.

For the atudent who is not headed for college, perhaps we need some drastic changea in our thinking about the kind of education which will beat prepere him for life in this world of accelerating change.

2. How long should the achool yeer be?

Our preaant concept of nine months of achool and three montha of vacation originated with our fermer ancestora who needed to have their children availabla to help them on the farm during the aummer. Ia the idea atill practical even though times have changed?

3. How do we best teach our young people to continue to be good, independent learnera so that they can keap pace with the changing world?

A recurring obsarvation of this report haa been the vagueneaa of the educational reaponae to the challenge of the new technology. Donald Michael haa atated the iaaue well:

> Tha problem involvea looking aheed five, ten, twenty yeara to aee what era likely to be the occupetionel and social naeda and attitudea of these future periods; planning the intellactual and social educetion of each age group in the numbera needed, motivating young people to aeek . . . certain typea of joba end to adopt the deairable and necaaaary attitudea; providing anough suiteble teachera; being able to alter all of theae aa the actualitiea in aociety and tachnology indicate. . . .
>
> If we do not find the anawera to theae questiona soon, we will heve a population in the next ten to twenty yeera more and more out of touch with . . . reelitiaa, ever more the victims of inaecurity on the one hand and ennui on the other, and more and more mismatched to the occupational needa of the day. If we fail to find the anawera, we can bumbla along, very probably heading into diaaster . . . .[4]

Becauae vocational and technical education are a aervice ao vital to the nation, thera now exiata aomething of a nationel conaenaua that new efforta be mede, that deciaiona and commitmenta be reached. The Vocational Education Act of 1963 evidencea en adminiatration and congreaaional determination to come to gripa with thia nation'a probleme of youth and work. By ita nature, that act waa formulated aa a bank account for, ea a mandata to, American education to provide naw and meaningful vocational preparation for thia nation'a youth. Educational daciaiona will have to be made, decisiona that will affect the future direction of the entire educational ayatem, juat aa aarlier vocational education deciaiona did in 1962 and 1917. The questiona are, therefore, by whom and on what baaia.[5]

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[4] Donald Michael, The Silent Conquest (Santa Barbera, Calif.: Center for the Study of Democratic Institutiona, 1962), pp. 41-42.

[5] Grant Venn, Man Educetion and Work, American Council on Education, Washington, D. C., 1964, pp. 153-154.

Technological change will continue, as a master of all or as a servant for all. The overriding necessity of our time is to prepare youth and adults to use technological advancement for the benefit of every individual and the strengthening of the total society.

Education, although not the sole means, is the best means by which the individual and society can adjust to technological change. The real task is to make education the driving force in the equipping of all youth and adults to meet the technological explosion already so far advanced.[6]

The new technology has removed the margin for educational error. Historically, the number and kind of jobs available to the uneducated and undereducated permitted schools and colleges a "margin for error" in planning educational programs and providing educational opportunities. Today, however, the inability of a technological society to make full use of uneducated individuals narrows the margin to the point where the repercussions of each educational failure can be felt throughout the entire society.

Technological change has immediate impact which is nationwide in scope. The absence of a national educational policy has tended to obscure this factor, which affects the course of both general and occupational education. The uneducated becomes the unemployed no matter where he resides.

Occupational education must become a responsibility of society. The cost of failure to provide occupational education is incalculable, whether viewed in terms of national security, economic growth, or political and social stability. A proper investment in occupational education is at least a generation overdue.

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[6] Venn, op. cit., p. 155.

Occupational education must become an integral part of total education. The importance of general education to the individual and his success in occupational preparation, as well as to the preservation of national values, cannot be overestimated; however, it is not enough for the great majority of youth and adults who work in today's society. To provide general education without occupational education is to ignore the facts of modern technological life; to attempt one without the other is to be totally unrealistic.

Occupational education is the responsibility of every segment of the educational system. Each segment of education must provide the kind of occupational education most appropriate to students enrolled in that level of the educational system. No single segment of education can provide the diversity of occupational education needed to meet the wide range of occupations or abilities and aspirations among youth and adults of the nation.

Higher education has a responsibility to raise the educational level of all American youth. It is no longer sufficient that junior colleges, colleges, and universities educate the relatively few. Rather, post secondary education must become a catalyst for the over-all improvement of a free society. The evidence was never clearer that the greatest waste of human talent results not only from a failure to educate the gifted but from neglect of those who make up the great "average" in America.

Sound occupational choice is made in direct proportion to information, guidance, and opportunity available to the individual. The right to choose an occupation does not assure anyone of a good choice unless there is a basis for judgment. Failure to provide adequate occupational guidance to youth

and adults represents still another tragic waste of manpower. For too long, choice of occupstion and therefore choice of occupational preparstion has been left primarily to chsnce.

The image here presented is that of a chsnging counselor, too. The look is to the future; this means provisions for keeping auch information current and up to date and provision for its interpretation to both students snd staff. This may be done by the counselor's use of the group process, through regular classes as parts of the curriculum, and through automated provisions for the materials to be kept current and in condition for use by students and counselors. He should be expected to provide lesdership in ideas that grow out of his knowledge of student life and human relations in gensrsl, and knowledge of vocational and social conditions.

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CHALLENGE OF CHANGE FOR THE HIGH SCHOOL COUNSELOR
(A TYPOLOGY OF CHANGE PROCESS)

by

OVETTA W. STEELE

B. S., Alabama State College, 1962

AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

College of Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1967

The prasant aga is like no other, but is one in which tha revolution in science and technology has transformed the entire pattern of deily life. Since change is the order of the day, no one can predict with security what the next cantury will produca or what lifa will be like then. Ona can only try to distinguish some importent currant trends, to project them, and to see whet tha results ara most likely to be.

Tha burdan of uncerteintias and tha drastic scope of elternative possibilitias which have bacome apparent in our time have made commonplaca the edage that "human history is more and more a raca batwaan aducation and catastrophe."

Social changa is not only rapid, but uncartain and complicatad. Ona cannot predict pracisely how it will effect our valuas and our way of lifa. Tha releasa of atomic anargy is both haartening for human welfara and frightaning.

The increasing recognition that women hava much to contribute in all occupations and profassions is a move in the right direction. But it will changa tha concept and make-up of tha family in ways that cannot be foresaan. Such changes posa problems but they ara problams which saamingly can ba mat if we ara prapared to face up to the full implications of thasa problems.

Tha growth of the world's populetion has grave implications for American youth and thair education. An undarstanding of population phanomena and their educationel implicetions is assantial to the task of providing educetion for a growing and mobile population.

Migration has been part of America's history, and easy mobility s characteristic of its people.

The automation revolution is changing the occupational structure fully as drastically as did the industrial revolution, the difference being in the increase of the brain power required.

The changing nature of the occupational world, the world of work, is seemingly an intersection of many forces. Among the major aspects of the forces for change are changing make-up of the labor force. The occupations that require the most education and training have grown the fastest, while employment has dropped in unskilled jobs. Among blue-collar workers, those in skilled jobs had almost all of the increase in employment in the past decade. The number of farm laborers declined, and there was no real increase in operative and other semi-skilled jobs.

Social change hurts worse at the family level. It is more important than ever before that the counselor become a student of family life. If the home is changing, then the counselor must keep up with the changes in order to understand and help the student.

The counselor of tomorrow will no longer be a teacher appointed to the job because she relates well with students or because she merits some reward for years spent in the classroom. Rather, she will be a highly trained professional who is capable of helping students in any and all areas of their lives.

The answers to complex educational problems always have been difficult, but even more so now and for the future. Even as talk

concerning deciaions on certain iaaues being made, the guidelines themselvea are changing. Therefore, we have less and leas direction and knowledge from past experience than we have ever had before.

Thia report, ebove ell, looks to the future. It emphasizea the crucial fect that there is only one way to continue to serve youth in the years ehead. One must understand the new forces of change that ere influencing young people, as well es others. One must leern to apply new insights into the nature of tha individual.

An ettempt has been made to write clearly and aimply about the changes of today, about the needs of young people for counaeling help in e rapidly changing world, indeed a Challenge of Change for the High School Counselor.