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ABSTRACT

An explanation for the failure of technology and computer-assisted instruction (CAI) in particular to make much headway in education is that even when innovations are introduced in the classroom, their potentials are not exploited; rather, they are used in traditional ways. The integration of new technologies with other classroom activities is also necessary to realize any advantages. This has not generally been done. Experience with CAI in the chemistry department at Simon Fraser University in British Columbia began in 1969. An interactive program was developed to review basic problem sets with first year students. This program was used in conjunction with explanatory audiotapes. A second drill and practice series was also developed. The materials made little difference in student performance until the traditional structure of the course was changed. The chemistry department gained significant experience with hardware and course development. They exchanged IBM's Coursewriter III system for York/APL which in turn they abandoned for IBM's APLSV which still was inadequate for authoring and delivering CAI. Eventually the department developed its own authoring language which reflected the needs perceived in six years of CAI experience. A 17 item bibliography is appended to the report. (KB)

MAKING C.A.I. MAKE A DIFFERENCE IN COLLEGE TEACHING

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ABSTRACT. The general theme of this presentation is that if tutorial-type computer-assisted instruction (CAI) is to become an accepted and viable means of learning, then its application to that task must result in a significant improvement in the cost-effectiveness of the overall process. Even the best possible CAI program cannot accomplish this unless the immediate outcomes, such as improved achievement or shorter learning time, can themselves be exploited in a useful and meaningful way.

I shall begin by commenting on instructional innovation in general, and on the failure of innovative technology to make much of an impact on teaching. Successful introduction of a new instructional medium usually requires adjustments in the use of other methods, including the classroom experience itself. Thus the manner in which CAI is used seems to be at least as important in determining the "success" of CAI as is the quality of the CAI program itself. CAI should always be regarded as only one component of the course, and must be sensitively interfaced to the other components, such as audiotapes, reading, and lectures.

Some of these points will be illustrated in Part II of the presentation, which describes the use of audio-tutorial and CAI methods that have been used in the teaching of Chemistry at SFU. Details are given of an introductory course in Chemistry in which student performance was improved, not only in that course, but also in a following, "traditionally taught" course as well.

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I tend to view CAI as a communications medium, and thus as something that is more the art of the teacher than of the programmer. Both skills are necessary; it seems that the best CAI materials, like the best textbooks, will be written by a fairly small number of authors who have the facilities and especially the time required to design and develop instructional programs.

Part III will take up the matter of authors, author languages and program transfer. One problem to be given particular emphasis is my feeling that CAI is not evolving as rapidly as computer technology and computing practice in general. Although a few systems are exploiting the current state of the art, the majority still employ primitive and inadequate hardware-- in all too many cases, leading to a poor image of CAI. The most serious thing standing in the way of CAI at the present time is the dearth of effective and well-documented instructional programs. This is partly an effect of the deficiencies of the current major authoring languages, which are unable to serve as practical vehicles for the design and presentation of CAI that is sufficiently sophisticated to be cost-effective.

PART I. EDUCATION AND INNOVATION

In many ways, the classroom has always been something of a backwater of technological change. Overhead projectors, which were frequently used for displaying scores in bowling alleys in the 1940's, did not become widely available in most schools until twenty years later-- and even today, most university teachers seem to be rather wary of them, still apparently preferring the familiar, venerable, and dusty chalkboard, in spite of its limited visibility to the majority of the occupants of large lecture theatres. Ten years ago portable cassette recorders became inexpensively available on a sufficiently large scale that most teenagers could acquire them. But audiotape-based learning material, in spite of its demonstrated efficacy, plays only a minor role in most classrooms, even while the far less effective and more costly "school broadcasts" continue to emanate from the transmitters of the Canadian Broadcasting Corporation and similar national authorities in other countries.

The situation is even more striking when one considers the two technologies that have most radically altered the nature and scope of communicatons in our society during the past twenty years: television and the computer. Although closed-circuit television has been available to many schools since the late 1950's, this medium has made very little real impact on the way things are done in the classroom, even while in the real world outside the school, television has managed to transform many aspects of the education of our children, and in some respects has left the classroom far behind, having succeeded in imparting to many children a view of the world whose scope and sophistication extends far beyond that of the school curricula.

The case of the computer is somewhat different. It has invaded most schools, but only as far as the business office; to most school administrators, "computer" means EDP--, electronic data processing. Occasionally the computer manages to become a subject of the curriculum itself, but even then it is presented more as a tool for business data processing or applied mathematics. It is true that students in universities are now beginning to be exposed to the use of the computer as a tool for problem solving and simulation. Although much effort has gone into developing and distributing programs for such purposes, there is very little published evidence showing any significantly increased learning by this means. In contrast, there is considerable (albeit not always unequivocal) evidence for the efficacy of tutorial type CAI, but this represents a minor portion of instructional computing applications at most universities. A possible reason is that the problems associated with the design and implementation of this style of CAI do not tend to engage the interests of those who are already involved in computer use in a given discipline. The result is that as an instructional device in its own right, the computer is generally regarded as a highly experimental, expensive, and rather doubtful luxury that had best be postponed for the indefinite future.

There is no single, simple reason for the failure of these technologies to make much headway in education; numerous factors, such as the sometimes ambiguous role of educational institutions in our society, the way teaching and learning are considered to enter into instruction, the nature and sociology of the teaching profession-- these and other considerations all enter into the problem in a complex way. All we do know is that somehow, there has been very little real incentive to introduce innovative technology and to make it work in the school environment. In contrast, the non-school instructional environments of industrial and military training have generally been more receptive to innovative and non-traditional teaching methods.

One factor that does seem to emerge, however, is that until recently there has been relatively little external pressure on our schools to make any significant improvements in the results or efficiency of instruction. "Cost effectiveness" has always been a bad word in educational circles, and has only limited meaning in much of higher education anyway, owing to the relatively small and advantaged cross-section of the population that colleges and universities have served; "good" students, by and large, are generally quite capable of instructing themselves; all they require is stimulation and direction, and post-secondary institutions have usually been able to meet the needs of such students without much attention to instructional methodology. For the best of these students, considerations such as student-faculty ratio, reputation of the faculty, and the size of the Library have been and are valid indicators of the overall "quality" of the institution.

These and other traditional criteria began to lose their universal validity during the far-reaching social changes that commenced in the 1960's, when the responsibilities of our institutions of higher learning were extended to a much broader element of our population-- and one that was in many ways ill-prepared academically. At a time when better preparation of students was required at all levels, severe economic constraints have led to a deterioration in performance standards, only partly disguised by grade inflation in many jurisdictions. Partly in response to social and political pressures (including the need to maintain sufficient students to attract the funding they require), many of our colleges and universities have reduced their entrance standards, either by eliminating entrance examinations, or accepting secondary-school grades that have been steadily declining in meaning.

It is only recently that this breakdown of our public education system has begun to attract political attention, elicited in part by newspaper accounts of how the majority of first-year students at several major North American universities were unable to compose English prose at an acceptable level. (That skills in basic arithmetic and mathematics may have declined even more has not as yet been as widely reported.) In the State of New York, the public and political reaction has resulted in the passage of legislation requiring secondary school (Grade 12) graduates to be able to read and write at the Grade 9 level. It seems inevitable that similar pressures for performance improvement will be brought to bear in other jurisdictions, and that our educational institutions will be forced to address themselves to instructional efficiency in a direct way, as the public comes to doubt that simply hiring more teachers, even if this were fiscally possible, is unlikely to lead to any significant alleviation of the problem.

Although the development of external pressure for better teaching may provide the primary driving force for the incorporation of improved technology into our schools, it would be quite wrong to believe that the lack of such pressure has actively impeded technological change in the past. Given even the most progressive attitude and the best of intentions, there are still two major potential energy barriers that must be surmounted before the new technology, once introduced, can be expected to take hold and grow. One of these is simply learning to make effective use of the new methodology. The other, which I will discuss first, concerns the problem of exploiting the benefits of the new method in a way that is meaningful to both the student and the school.

WILL THE DIFFERENCE MAKE A DIFFERENCE?

A number of new instructional techniques-- most notably CAI-- have been introduced and used under conditions where improved learning, shorter learning times, and reduced dropout rates have been clearly documented. Why, then, have these methods not been more widely adopted-- are these benefits not consistent with the goals of our educational establishment?

In some cases (particularly our more prestigious universities), perhaps not. I would like to offer one explanation, however, that my own experience suggests must have something to do with the failure of new methodology to take hold. It does not appear sufficient that a new instructional method lead to an improved outcome: this improved outcome must itself make a significant difference to the educational institution in terms of its own goals. Thus if the raison d'etre of a school, university, or academic department is to provide positions for scholars, or to simply "offer courses", then there will be little reason to go to the trouble of trying something new.

It comes as no surprise to see that, in the U.S., the most active areas of CAI have been in "remedial" instruction among disadvantaged children, and in medical and allied health fields training, where clearly defined educational goals and performance standards exist, and failure to meet them could have disastrous social and political consequences. Most of our academic departments in universities are interested primarily in the "best" students-- the ones who require the least amount of "teaching". Improving the effectiveness of instruction will have little effect on the number of "A" and "B" grades earned;

the principal benefit will be to the underprepared and potential failing students-- who are in any event likely to confer little if any glory on the department that produced them.

One can look at the time factor in improved instructional efficiency in a similar way. What of the fact that the time required for students to learn a given body of material can be substantially reduced? Do we allow this difference to make any difference to the student's overall progress? Our educational process is divided into quanta of grades and courses. Grade 2 is for learning just so much about writing, reading, and mathematics; beyond this the students coast along and try to keep themselves interested while the teacher concentrates on the slower half of the class. In the University, we go by semesters. Chemistry 101 is thirteen weeks long; if, by using a more efficient approach, I complete the material in nine weeks, what difference does it make? The students still have to wait for Chemistry 102 to begin before they can learn more chemistry.

Perhaps the only thing that will eventually decide the issue is the cost factor. It is clear that anything as vague as "cost of instruction" can be computed in innumerable ways, even in traditional teaching. Combining this with the hocus-pocus of computer costing creates enough variables to support anyone's point of view. There has, in the past, been a tendency to cite additive cost figures only-- that is, to consider traditional instruction as "free", so that any improvements such as CAI are add-on "extras". As long as the costs of computers and computing continue their decline at an annual rate in excess of 15%, it appears to be only a matter of time before the topics of educational seminars change from "cost effectiveness of CAI" to "cost effectiveness of teachers".

EFFECTIVE USE

The other major impediment to the adoption of innovative technology has to do with our learning to use it in an effective manner. Just as there is a natural tendency for teachers to teach in much the same way that they themselves were taught, teachers who are presented with a new instructional medium will frequently attempt to use it in a manner that is fundamentally the same as whatever other medium it replaced, without really trying to go beyond the limitations of the old medium and fully exploiting the added capabilities of the new medium.

This phenomenon can readily be observed in institutions which, like my own, have lecture halls equipped with overhead projectors. In the first place, many of the faculty, particularly the more senior ones, will not use the projector at all, even where its use presents a clear advantage to the majority of students in the room. Of those who do use the projector during their lectures, the majority will use it very much like they used the chalkboard: they transcribe their message from lecture notes to projector surface, and then the students are expected to carry out a second transcription from projection screen to notebooks, in the time honored tradition of the schola. Only a small number of faculty of my acquaintance take advantage of the fact that their notes can easily be copied onto transparent sheets before the lecture, so that they need not spend the time writing during the class period. Even fewer eliminate the second stage of a highly inefficient and imperfect process by supplying printed copies of the lecture notes directly to the students. I must confess that it took me several years to adopt these practices myself, but in my graduate photochemistry course, where a surprisingly large amount of time was take just in writing subscripts and superscripts, this more effective use of the overhead projector enabled me to cover approximately 50% more material during the semester.

Many new (and even some old) users of computer-assisted instruction have similarly transferred the styles, limitations, and inappropriate aspects of other forms of instruction to this new medium. A common example is the use of the computer terminal as a device for presenting reading matter, when books or printed sheets would be far more appropriate, particularly when slow printing terminals are used. Another common failing is to transfer the contents of a programmed instruction text directly to CAI, with the effect that a more expensive medium is being used to present material in a fashion that is limited by the constraints of the programmed book.

In the sciences, one frequently encounters CAI lessons that consist of little other than a series of problems very much like the kind that are found in textbooks; the sole function of the program is to present the problem, and check to see if the student's answer is correct. All too often there is no attempt made to go beyond the space limitations of the text by providing a thoughtful, graded development of these problems through several stages of complexity, with special effort made to identify and analyze common sources of student error or misunderstanding.

An example that I have seen at a number of installations consists of a program that randomly selects the components of a chemical reaction, and then calculates the coefficients for the balanced equation. The student is supposed to enter the same coefficients; if he does not, he is simply told he is wrong-- no attempt is made to identify the error or the faulty reasoning that led to it, or to teach the proper approach to equation balancing. This kind of program is computationally elegant, but of questionable pedagogical value.

It is undoubtedly the flexibility of CAI that sets it apart from other instructional media; unless this capability is adequately exploited, it is unlikely that CAI will be worth the time, trouble, or cost. The degree to which this potential can be realized in a given situation will depend very strongly on the skill and sensitivity of the author, and on the power and sophistication of the authoring language-- a topic to which I shall return later in this article.

At the most elementary level, effective utilization of CAI's flexibility involves such things as providing for random selection not only of numerical parameters in problems, but also of the form and wording of the problem itself, so that students are not trained simply to solve certain set kinds of problems.

There should also be alternative means of presenting and accessing the same material, so that the same basic programs can provide instruction in various modes such as tutorial, drill, self-test, etc.

When these aspects of flexibility are combined with internal record keeping capabilities, one is then in a position to move to adaptive CAI, in which the rate and direction of each student's movement through the material is related to that student's preference and performance.

In order to gain the maximum possible benefit from CAI, a rather complete rethinking of the "structure" of the subject matter being taught is required. This is so because the structures we associate with many subjects are, at least in part, artifacts of the manner in which they are commonly taught. Because CAI can introduce so many new dimensions to learning, it is important that we take a careful look at our subjects from these different viewpoints. Ultimately, one would hope that it will become possible to emphasize different kinds of structural development that will correspond more closely to the needs of individual students. As one moves to more sophisticated terminal devices

that are able to produce graphics and film displays, animated motion, and audio responses, the possible ways of structuring the subject increase enormously, and present the possibility of developing alternative course structures attuned to different cognitive styles.

INTERFACING CAI TO THE COURSE

In this section, I want to comment on the second important source of difficulty in making CAI work-- the problem of integrating CAI into the rest of the course. My own experience is that the ultimate "effectiveness" of CAI seems to depend as much on the degree to which this integration is accomplished, as on the basic quality of the CAI material itself. Thus even the best-conceived CAI lessons, presented on suitable terminals, may have only a limited effect on the way in which the course is taught and on the ultimate performance of the students, unless it is carefully and sensitively interfaced to the course it is intended to support.

The most common mistake is to treat CAI merely as an instructional "aid"-- to simply add it on to an existing and unchanged regime of lectures, lessons, and assignments, without making any changes in the style or function of these other activities. CAI is a sufficiently powerful tool that it is bound to exert a perturbing effect on other instructional activities; if these effects are ignored, then CAI is likely to be perceived by the student as something of secondary importance-- as "extra work" for those who want it.

CAI is best viewed as one component of a course that consists of numerous other components such as lectures, group discussions, tutorials, reading and problem assignments, laboratory experience, audiotape-based media, etc. Each component should be used primarily for what it can do best, and all should be integrated in a comprehensive way. This implies more than that the course be "organized"; this organization must be clearly communicated to the students.

The common failure to accommodate other aspects of teaching to CAI seems to be widespread even at institutions that have an adequate CAI system, and seems to be a common reason for the failure of CAI to catch on outside the classes of a very few highly motivated instructors. One problem, of course, is that CAI is basically an "individual study", self-paced method of learning, and that many departments are simply not "set up" (organizationally or psychologically) for that kind of departure

from tradition. Often CAI is their first real experience in this area, and all to frequently they never really accommodate to the idea of self pacing. This is particularly likely to occur where the proponents of CAI are people whose primary interests are with computers rather than teaching.

The specific role that is assigned to the CAI component of a course will vary with the nature of the course, and also with the sophistication of the CAI material and of the terminal on which it is presented. Although CAI dialogs can be divided into many types, there are two that deserve particular attention here because they are so ideally suited to CAI, and their goals are usually less adequately realized in conventional class settings.

One of these is "drill and practice". Despite the unpleasant associations that this term may elicit in many memories, drill and practice represents one of the most important and difficult aspects of teaching. Its importance lies in the fact that most bodies of knowledge require the development of certain basic skills or associations that can only be built up through repeated exercise or pattern practice.

Drill and practice is difficult to present by conventional classroom means. Like any kind of exercise, it is most efficient when both its difficulty and rate are individually tailored to the needs and progress of each student. In the classroom, the teacher must aim for some intermediate group of people, with the result that both the better and the poorer students become bored and discouraged. In addition, drill and practice does not represent a very inspiring or creative application of most teachers' skills, either in the presentation or in marking the results of written drill. The difficulties associated with drill and practice become increasingly serious as classes become larger and the diversity in student background and ability widens. It is very likely that the serious deterioration in basic math and English skills among high school graduates that has recently come to public attention in North America is due, in large measure, to the impracticality of including effective drill and practice in conventional classroom environments.

It must be clearly understood, however, that merely transferring this mode of learning to CAI will not provide any automatic remedy to the situation. Here again, there is a need to completely reconsider the whole process; and to make sure that the computer is furnishing instruction that is significantly more adaptive and interesting than before. It is perhaps unfortunate that drill and practice can be programmed quite easily on the simplest computer systems, which are not always

capable of offering very much improvement over the more traditional methods.

The other dimension of CAI that goes beyond other forms of instruction is simulation. Of course there need not be any fundamental distinction between drill-and-practice and simulation; that is, drill can be based on simulation. Generally, however, simulation involves not so much the development and exercise of specific basic skills as it does the sharpening of the student's ability to select and apply these skills in various situations. Essentially, simulation should be designed to broaden a student's experience-- to provide a "feeling" for the application of principles in a more general context. As such, it represents an activity that is often a closer approximation to the final desired outcome of the instructional process.

As with other forms of CAI, however, it is quite possible to write an elegant simulation program that has little real pedagogical value, owing to inadequate integration of the simulation exercise with the rest of the course. With batch programs, particularly, one must always ask whether the same concepts might not be better conveyed through a few carefully designed and well printed sheets of paper. The contrast is particularly apparent when one attempts to use a slow, noisy printing terminal such as a Teletype to construct a series of graphs.

It is often found that the computational parts of the program are far easier to write than is the documentation required to make them very useful, and too few authors take the time to do this. The best simulations are, of course, highly interactive, and are probably best presented within the framework of a conventional CAI system where these interactive features can be readily utilized.

Part II. CAI AND CHEMISTRY AT SIMON FRASER UNIVERSITY

The purpose of this section is to summarize the experience we have had in developing and applying several innovative instructional methods, particularly CAI, at my own institution. As will be seen, this history depicts a "real", as opposed to an ideal situation that departs quite markedly from what one would ordinarily recommend, and certainly from what might have happened if we had possessed prior experience.

Simon Fraser University is a relatively new institution, having been founded in 1965 as the third public university in British Columbia. Unlike our much larger sister institution, the University of British Columbia, we have no professional schools such as Engineering, Agriculture and Medicine that traditionally supply the greater part of first-year students in the Sciences. As a consequence, the enrollments in such courses tend to be small-- less than 200 in the Fall, and around 20-50 in the low-enrollment Summer trimester. Although we are not faced with the pressure of large numbers of science students, we do suffer from the necessity of accommodating a wide variety of student backgrounds and interests in a relatively small number of courses, since providing different course "streams" for different groups of students would not be economical.

At the time SFU opened, considerable encouragement was given faculty to explore new and innovative teaching methods, and although that atmosphere unfortunately failed to endure beyond the first few years of our existence, it was the essential first step that attracted my own participation in the development of instructional methodology.

Our first major effort was the use of audiotapes as supplements to both laboratory and lecture courses. An attempt [1] was made to apply Postlethwaite's technique [2] to the chemistry laboratory course, but our initial efforts met with only limited success and this aspect of audiotape use was dropped after a few years. The more successful application of audio-tutorial methods occurred in conjunction with the theory part of the course. It bears commenting on here because it established the environment that CAI eventually came to occupy; in a sense, there is a direct evolutionary path between the audiotape work and our first work with CAI several years later.

My principal use of audiotapes commenced soon after my first semester of teaching, when I realized that an undue amount of time was being spent, both inside and outside of class, dealing with the same basic set of routine questions relating the the weekly problem sets that are commonly assigned in First-Year Chemistry courses.

I therefore began making tape-recorded commentaries on each problem, explaining what the problem is about, what chemical principles are involved, and outlining a general approach to the solution-- but certainly not simply dictating the solution to the student, which would clearly have little real learning value. These tapes, together with printed notes that constitute an integral part of the method (and which require students to fill in blanks as they go along, thus introducing an active

element into the activity), were made available in the Library for use on a purely voluntary basis, and received widespread acceptance by the students, as evidenced both by their responses to course-evaluation questionnaires, and their degree of use of the tapes.

Not only was my original goal achieved (fewer students asking questions of the type "How do you do Problem 4?"), but there is good evidence [3] that the availability of these tapes led to improved performance by the weaker students in the course examinations. Many students come to our introductory course with very little ability to analyze and solve simple numerical problems. It is not so much a matter of "mathematics" as it is "problem-solving ability" that is lacking; it may be that the tapes help these students to get the practice that is essential for developing confidence and proficiency in problem solving.

Although it was the weaker fraction of the class that obviously benefited most from the tapes in terms of grade improvement, it was interesting to note that the abler students nevertheless made very heavy use of the tapes, but more for review purposes than because they were "stuck". This phenomenon has been consistently observed in all of our work in instructional innovation, including CAI.

These tapes have since been extended and generalized to cover eighteen sets of problems common to most First Year courses [4]. This has extended their utility to students in other courses, not only at SFU, but also in over forty high schools and colleges in British Columbia and elsewhere.

Another major audiotape project currently underway is a series of units covering various aspects of chemical bonding and structure. In these I am attempting to exploit the combination of the spoken word and the printed page to accomplish what neither medium can do alone. An audio commentary can draw the student's attention to particular features of an equation or a diagram in a far more compelling and immediate way than can text printed on an adjoining page or in a caption. By the judicious use of halftone screening and two-color printing, the spoken commentary can effectively "dissect" a diagram containing a great deal of information.

As was pointed out in the preceding section, the use of a new kind of medium usually calls for the development of new techniques, rather thanthe mere transfer of older methods. In the case of audiotapes, it may require some time and effort (and perhaps some expert coaching) to develop a proper speaking style. Audiotapes are not lectures, and they should not sound

like lectures-- and they should certainly not sound like someone simply reading a text to the student. Similarly, the design and layout of the printed notes and the construction of diagrams must be carefully adapted to the presence and nature of the spoken commentary; styles that might suffice quite well for a conventional textbook may be quite inappropriate in this kind of application. It might be added that I have not found that audiotape material can be developed in significantly less time than CAI lessons; I generally estimate that 50 hours of work is required to produce a 40-minute tape-based lesson.

BEGINNINGS OF CAI

Our experience with CAI began in 1969 when IBM Canada provided us with support for the installation of several terminals in the Chemistry Department. IBM's Coursewriter III CAI system was implemented on our 360/50 computer, and a small group of interested faculty began to write lesson materials and to explore the possible applications of CAI. Although some of the short courses that were written then did receive considerable use at first, this use soon dropped off as the novelty of the method (as seen by both students and faculty) abated. After about six months the terminals were mostly deserted, and served mainly as showpieces for visitors. In retrospect, the direct reason for the failure of our early efforts is fairly clear: we didn't really know what we wanted to do with CAI.

We then tried a somewhat different approach. Having felt that the problem-solving tapes served a purpose that could perhaps be even better served by an interactive method like CAI, I began constructing a series of CAI lessons that duplicated several sets of the CHEMICAL CALCULATIONS materials. The initial lessons were quite well received by the students, who used them quite heavily from the very start.

These problem-tutorial lessons grew to cover some sixty different problems, the whole collection becoming known as the CHEMEX CAI program. During the time that we continued to use Coursewriter, CHEMEX was by far the most popular and heavily used of our Chemistry CAI programs, and its popularity seems to have continued at the other institutions that have implemented our CAI materials.

The reason for the popularity of CHEMEX in comparison to many of our other CAI programs is not hard to understand. A student comes to this program for help on a particular problem-- one that he has attempted, but has not really understood. His

interest and readiness to understand are at a peak, and there is a reasonable chance that this motivation will yield a concrete result. In short, the students apparently feel that CHEMEX meets a real and immediate need.

It is interesting to note that many students apparently find the CHEMICAL CALCULATIONS audiotapes and CHEMEX complementary, in that the tapes, although they lack the interactive feature of CAI, are perhaps better able to generalize beyond the details of an individual problem and thus bring the relevant chemical principles into sharper focus. Thus even though the popularity of the audiotapes declined on a relative basis following the advent of CAI, there is reason to belive that both media fulfill useful and somewhat complementary needs, and I have continued to develop and extend both forms of the same basic material.

Our second major series of Chemistry programs consisted of about twelve programs containing mostly drill-and-practice (with a small tutorial component) covering several basic introductory topics. Most of the drill material made use of randomly-generated problems, something that is exceedingly difficult and awkward to do in Coursewriter. This collection, known as ALCHEM, and a remarkably elaborate program on organic hydrocarbon nomenclature (ORNOM), written by an undergraduate student, comprise (with CHEMEX) the major Coursewriter programs from SFU [5]. They have been implemented at over forty other installations, mostly in the U.S.; it is likely that this represents the broadest distribution of CAI programs in Chemistry that has yet been accomplished-- including programs whose development has been funded by large sums of money through the U.S. National Science Foundation. Since the Canadian Government does not provide funding support for educational development, we had to manage with the minimal funding we obtained from the University, which provided for little more than a small group consisting of myself and a part-time programmer assistant.

USING CAI IN AN OBJECTIVES-BASED COURSE

Although we managed to write a considerable amount of CAI material in the period 1969-1972, it was not really making any apparent difference to the overall performance of the students in the First-Year course. This was due partly to the small amount of material; we had not yet achieved anything near "critical mass", where CAI could be seen as an integral part of all twelve weeks of the course. It began to be clear, however,

that the more or less "traditional" structure of the course might be the limiting factor. In 1972, therefore, I began to make a basic change in my approach to teaching the introductory course. Briefly, I moved toward, but did not totally adopt, the so-called Keller approach. I switched from a "lecture based" system to one that is built around a set of well-defined performance objectives. The course was divided into nine sections, each ending with an examination. Each examination resulted in a letter grade, in which "C" required "50% or better" attainment of 75% of the objectives tested; students who achieved less than this were required to make up their failures by writing another exam.

This system differs from the strict Keller plan in several respects. First, the course is not really individually-paced; the examination schedule is set at the beginning of the semester, and failure to write an exam on the scheduledate results in a failing grade. This policy stems from my doubt that a true self-paced course can compete effectively for the student's time in an environment where all the other courses hold him to a rigid schedule.

A second departure from the Keller plan is that I did not do away with classroom lectures. I feel very strongly that the classroom "experience" is an important facet of university-level education-- as opposed to training, in which the Keller plan undoubtedly excels. On the other hand, I do not believe in giving any more lectures than are required to establish a context for the course material, to inject the cultural and humanistic aspects of the subject, and to hopefully provide some motivation. It is these, of course, that constitute the legitimate purpose of a lecture; by restricting the lectures mostly to these functions, I was able to get by with only about twelve lectures during the semester, instead of 30-36.

The third major difference is that I am still sufficiently old fashioned to believe student grades should, to some extent, reflect ability to achieve criterion performance on schedule. Consequently, students who fail an examination can earn no more than a "C" grade on re-writing it. Also, "A" grades are not awarded on midterm examinations. A student desiring this grade must write the final examination, which is marked in the usual "relative" manner. I view the "A" student as one who can synthesize ideas beyond the confines of specific learning objectives, and the final examination reflects this criterion.

Since I do not teach this course every semester, it is possible to draw some conclusions about the effectiveness of this approach by comparing various aspects of student performance

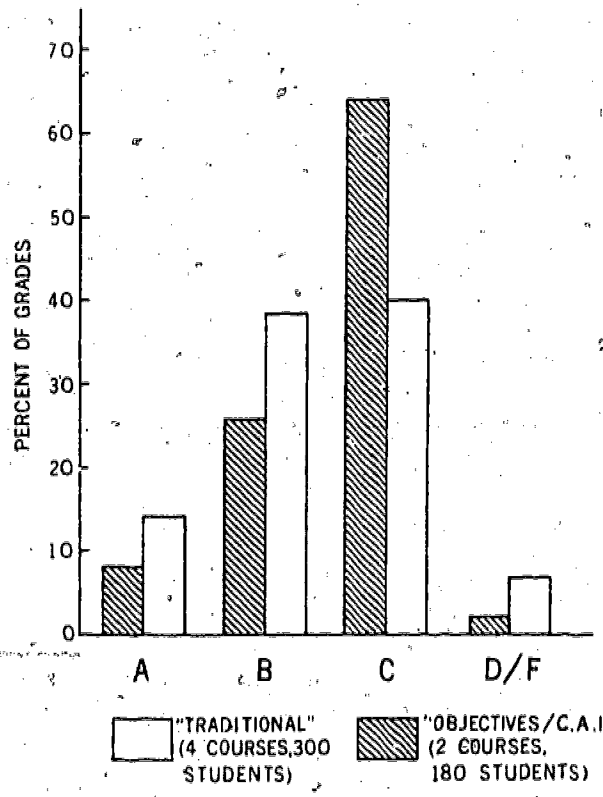

FIGURE 1. Course grade distributions for the Introductory Chemistry course. Several different instructors were in charge of this course during semesters when it was "traditionally" taught.

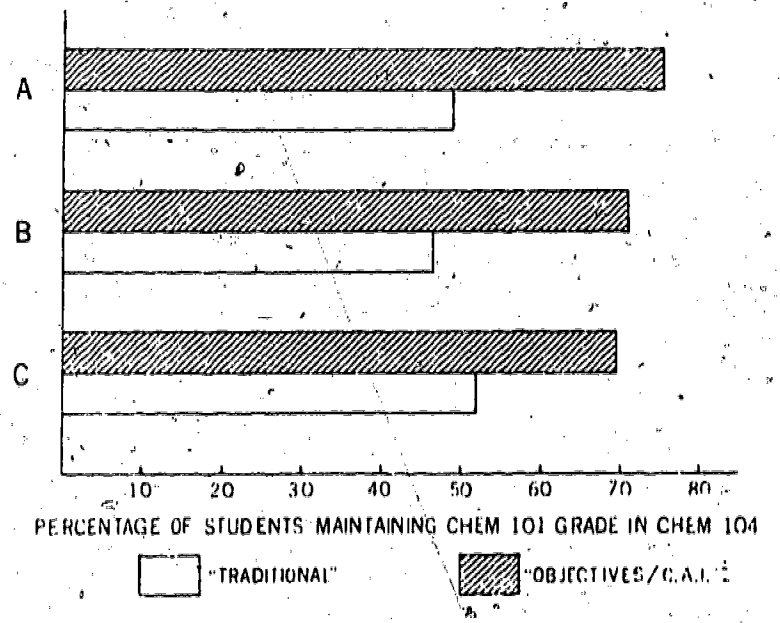

FIGURE 2. Fraction of students receiving a given grade in the Introductory Course, who were able to maintain or improve that grade in the subsequent, more rigorous course.

between semesters in which the course is taught by "my" method and by conventional methods. Making the comparison only between semesters in which enrollments exceeded 80 students, we obtain the grade distributions shown in Figure 1. The very small number of "failures" (D and F grades) is largely a consequence of my compelling students to pass examinations in each section of the course. The distribution of B and C grades is probably an artifact of my "absolute" grading system. The number of A grades, while perhaps lower than that in the other courses, is about the same as I have always given, even when I taught the course "conventionally", and may simply represent my own personal view of what an "A" student is.

Since we do not have standardized examinations or grading practices in our Department, it is difficult to assess the "validity" of the grades from semester to semester. One way of getting at this might be to ask, "how many of your students can maintain or improve the grade you gave them, in the next course they take in the same subject?" This approach seems especially appropriate in this introductory course, whose main purpose is to prepare students for our standard one-year Chemistry sequence.

Figure 2 shows the comparative percentages of students in the two kinds of courses that were able to maintain or improve their Chemistry 101 grade in the subsequent course. It is seen that ordinarily, less than half of the students leaving Chemistry 101 with a passing grade are able to maintain or improve that grade in Chemistry 104. By contrast, approximately 70% of the students in the "objectives-based" course were able to achieve this criterion.

What do these results say about the "effectiveness" of CAI? By themselves, I believe they say very little. The most important and significant aspect of the course is its objectives-based approach. Since many of these objectives relate to particular kinds of skills, the role of CAI is to make it easier for students to develop these skills with a minimum expenditure of time. In other words, the use of CAI is making it possible to present the course in a more effective manner; the "effectiveness" of the CAI itself, while not unimportant, is only secondary.

One point worth noting is that the CAI materials I have developed do not seem to meet the needs of a small group of under-prepared students. These people still must come to me for assistance. However, since CAI has largely relieved me of the necessity of personally ministering to the needs of most of the "average" students, CAI is benefiting these weaker students indirectly by giving me the time to provide them with the more

personalized help they require. This may be another important reason for the small number of failures. The fact that these students are receiving more of my attention also helps me gain a better insight into their learning difficulties, and thus may help be improve the design of the learning materials.

HARDWARE AND SOFTWARE

Our first CAI work was based on IBM's Coursewriter III system, implemented initially on a 360/50 and later on a 370/155 computer. The terminals were 2741 typewriter terminals which provided both upper and lower case printing at around 14 characters per second. We found that six of these terminals could support a class of approximately 100 students at our level of use. It seemed to us that the difficulties in getting students who are not familiar with typewriters to enter complicated equations would be nearly as great as teaching them the theory itself. Consequently we avoided many areas of Chemistry such as equilibrium and bonding that would have required the input of complex expressions or the presentation of structural diagrams. We also avoided using the relatively slow and noisy terminal to print graphs or large amounts of text. While we would have preferred CRT terminals to printers, we did observe that hard copy has some advantages, and we tried to design our CAI materials to allow students to exploit these advantages. The CHEMEX problem-tutorial lessons are an example: students were frequently seen using the hard copy "notes" generated during the lessons to prepare written solutions to the problems.

The student terminals were first placed in an area adjacent to the Chemistry laboratories, but were later moved to a location in the University Library where they would be accessible to more students. The terminals were available seven days and five evenings a week, and an attendant was always available to help students sign on and use the system. We found that the presence of a personable and sympathetic attendant was quite important to allay the anxiety that many students feel when they first encounter a computer terminal. Another essential function of the attendant was to identify program bugs or errors that became apparent during student use of the programs.

The Coursewriter authoring language proved to be the primary constraining influence on the quality and kind of CAI we were able to deliver. Although it does offer many important conveniences, it also has many limitations that were tolerable at first, but became less so as our experience with CAI developed and our requirements became more sophisticated.

In late 1972 we decided that Coursewriter could no longer meet our needs; since our Computing Centre had just implemented York/APL, we decided to use this language for CAI instead. APL, in spite of its power and flexibility, is definitely not an instructional programming language; we therefore attempted to retain some of the advantages of Coursewriter by simulating some of its features (such as implicit branching) in APL. This required not only the writing of special APL functions, but also some basic changes to the APL system itself, including the provision for accessing assembly-language subroutines to perform certain operations that are extremely inefficient in APL.

The resulting APL-based authoring language was far more satisfactory, and enabled us to write better programs with much less difficulty than with Coursewriter. The main gain was the ease of carrying out calculations and specifying random selection of problem parameters.

One disadvantage of going over to such a system was that we were no longer able to exchange programs with other institutions. In practice this did not affect us seriously, since we have never found other centers to be an important source of useable programs.

Although our APL-based system represented a definite advance over Coursewriter from the standpoint of the CAI author, a number of systems difficulties began to manifest themselves. York/APL is relatively inexpensive and requires only a small amount of core, but it is not very efficient, it is incompatible with other implementations of APL, and an undue amount of local maintainence was required to keep it going. At about this time, IBM's new APLSV became available, and it was decided to drop York/APL in favor of this implementation.

APLSV offers most of the features that York/APL had and that APL/360 lacked (a notable exception, crucial for CAI, is error trapping). Although we could not access assemply-language functions through APLSV, we hoped its much greater efficiency would obviate the necessity of doing this. After some experimentation, however, we found that some of the Coursewriter-like operations we wanted were still intolerably slow even in APLSV, and that the large number of utility functions required would leave inadequate room for instructional material in the student workspace.

As a result of these and other considerations, we decided that APLSV cannot serve as a practical vehicle for the authoring and delivery of CAI at the level of quality and sophistication that we feel is required to justify the time and effort that must be devoted to CAI. Since the only other CAI authoring language

that would be adequate is TUTOR, and this language is suited only to the PLATO system, we decided that the only practical solution would be to develop our own programming language. Some comments on this language are given in the last section of this article.

While we were experiencing reasonable success in the use of CAI in the teaching of my Chemistry course, there is another side of the picture that was somewhat less encouraging. This was that after several years, and even after the beneficial aspects of CAI in the introductory course had been demonstrated, I was still the only faculty member in my Department and in the University who was regularly using CAI in regular courses. Although students and some faculty had written CAI modules in several other fields (English, Education, Commerce, Mathematics), these tended to be used either very irregularly or not at all, and in most cases were not developed to the point that they could serve as an integral part of an ongoing course. As a result of this "lack of faculty interest", the University decided to discontinue support of this facility, and CAI service was dropped in 1975.

WHAT WE HAVE LEARNED

Since our work in CAI started out as a pragmatic attempt to apply CAI to a real teaching environment rather than as a "research project", we have had neither the time nor the inclination to gather the quantitative data that would provide a complete picture of the use of CAI and its results. All I can offer are a number of admittedly qualitative and subjective impressions that have developed during our six years of CAI experience.

Most of these are conveyed in Parts I and III of this article, so only a few additional comments need be made here. First, and most important, I discovered that writing CAI lessons and making them work is a full time job in itself; even after the programs are written and put into use, there will always be minor bugs to fix and modifications to be made on the basis of student experience and performance.

It is always wise to design the CAI programs so that they can be used and combined in many different ways, rather than writing them in a way that is uniquely adapted to only one particular course. This usually means a modular approach, although the individual modules may not necessarily be apparent to the students.

The students' view of CAI was interesting; not unexpectedly, they were far more enthusiastic about it than were most of the faculty, and generally asked for "more CAI" when offering suggestions for improving the course. We feared at first that many students would view CAI as a too "impersonal" form of instruction. We soon found, however, that this was a very rare complaint; comments we frequently received were that "CAI lets you make your mistakes in private", and that "being in a lecture room with one hundred other students is no less impersonal". To some extent, the fact that CAI reduced the number of students seeking personal help to the relatively small fraction of the class who experienced serious difficulties, made me and the other course staff more available than we otherwise would have been.

CURRENT DEVELOPMENT

It would indeed be unfortunate if, after having accumulated six years of experience in using CAI materials in two different authoring languages, we were to abandon the work at this stage--particularly when we finally have available a powerful and convenient authoring language. Consequently, for the past year I have been constructing a collection of CAI programs known as GENCHEM, designed to support an entire course in General Chemistry at the first-year college level; much of it can also be utilized in high school courses. Rather than being a pre-packaged "course" in Chemistry, GENCHEM instead provides the basic materials and data from which the instructor can construct a learning aid that is tailored to the particular needs of a given course.

GENCHEM is written in a highly modular manner, so that the lessons can be of maximum use in a variety of settings. The materials are classified into about 25 different subject groups, each of which contains modules that variously emphasize tutorial or drill-and-practice interaction at several levels. The various components can be accessed in different ways: as either self-tests, drills, or "mini-courses" on topics selected by the student, or additionally as pre-defined segments keyed to the schedule and organization of a particular instructor's course.

To aid teachers who wish to use GENCHEM, extensive documentation is being designed that will clearly state what each component of GENCHEM does, and what pre-knowledge it assumes the student will have.

In addition to its role as a set of operating courseware, GENCHEM is intended to serve as a source collection of computer-based instructional strategies that can be used by others who wish to design CAI materials of their own, perhaps written in another programming language. The programs are written in a high-level language that should be fairly easily comprehended by anyone who has a good understanding of program flow in CAI. The program listings themselves should therefore constitute another level of documentation that will convey the general sense of the programs, so that a competent programmer should be able to implement the programs in another authoring language, particularly if a reasonably powerful text editing program is available to minimize the amount of additional keyboard entry required. Naturally, any such "translation" will be within the limits imposed by the local language. This may be a serious practical limitation to many, particularly if the local language is not particularly sophisticated. Use of the very simple CAI languages or non-CAI languages such as APL or BASIC will probably not be practical unless a very large amount of programming manpower is available. Even then, the results are not likely to be satisfactory, since the design of the GENCHEM strategies presupposes the availability of facilities that are not ordinarily available on general-purpose interactive systems.

Similarly, a certain standard of terminal capability is assumed. Ability to present both upper and lower-case letters is essential. About two-thirds of the programs can be used on either printing or display terminals; the remainder are adapted specifically to display terminals with individual character addressing.

It is hoped that the GENCHEM materials, when they are completed, will help to alleviate the severe shortage of adequate course material that must certainly militate against the more widespread use of CAI in the teaching of Chemistry. Of course there will be many who will still be unable to make use of this material owing to the lack of sufficiently sophisticated systems and terminals. Given the rapid development of computer technology, it does not seem wise to sacrifice quality and sophistication of courseware in order to meet this short-term difficulty.

It is hoped that GENCHEM [6], even if not immediately implementable by others, will at least prove to be a useful model for constructing comprehensive CAI packages in other disciplines, and a basis on which others can improve upon the art of CAI in Chemistry.

Part III. TUTORIAL CAI: AUTHORING LANGUAGES, AUTHORS, AND TRANSFER

If the purpose of computer-assisted instruction is to communicate with the individual student, then the function of a CAI authoring language must be to communicate both the instructional material and the instructional strategy to the computer. At first glance, one might expect that a general-purpose computational language would be the ideal vehicle for expressing an instructional program, since most such languages can manipulate and analyze character strings and perform virtually any kind of calculation that might be required. In fact, the use of such languages for anything but the simplest kinds of CAI programs is extremely cumbersome and usually leads to unsatisfactory results. In most cases, the very generality of the language becomes a severe impediment; the algorithms required to implement many of the simplest instructional operations are either hopelessly complex, or else they require the insertion of large amounts of repetitive code. Part of the problem arises from the strict syntax rules that must necessarily be tightly drawn in any language that is to serve a multiplicity of uses, but which simply get in the way of convenient CAI practice.

These deficiencies are particularly serious in a relatively primitive conversational language like BASIC, in which the number of fundamental operations is quite limited, and variable types cannot be dynamically defined. But even in the far more elegant and powerful APL, many of the very features that give this language its simplicity and integrity lead to constructions and restrictions that tend to distort a direct and natural instructional programming style. APL can be used for CAI in its more or less "raw" form, or as a higher-level language in varying degrees of disguise. The resulting programs are generally difficult to debug or modify, are not easily transportable between systems of different manufacture, and the listings of the CAI programs are very difficult to follow. The fact that APL has been used for CAI with some success is more of a tribute to the ingenuity and perseverence of the authors and programmers, than an indication of APL's suitability for this application [7].

General purpose languages are also awkward for students to use in an instructional context; it is rarely practical to "trap" simple errors such as input of an alphabetic quantity when a numeric answer is required, nor is it usually possible to allow a student to enter expressions for trial evaluation, or to intercept special student commands (such as "help") without making special provision at each input point of the program.

There are also problems arising from the limited size of the active workspace or memory region, requiring either frequent "load" and "run" commands on the part of the student, or that the author go to special lengths to manage the use of active memory.

The obvious alternative is to use a specialized language in which simple statements or commands are available to invoke a wide spectrum of operations peculiar to CAI. These include the organization of material into "question groups", analyzing complex student responses, implicit branching, and responding to student-entered commands.

Many such languages have been developed since the early- and mid 1960's. Most of them were developed for use on a single computer system for local use. Some languages were designed for more general use, and a small number of these have received fairly widespread acceptance. Perhaps the most widely used of these languages is IBM's Coursewriter III. Coursewriter is usually considered easy to learn and to use for persons who are not computer-oriented, but its lack of flexibility and extensibility limit its use to rather simple strategies that require little computation. In spite of Coursewriter's many advantages, it has failed to evolve along with computing technology and CAI practice, and its future application seems limited to fairly simple training applications.

The most powerful of the current CAI languages is TUTOR, which was developed as part of the PLATO project at the University of Illinois [8]. In contrast to Coursewriter, the development and use of TUTOR have been tightly coupled, so that the language has been able to evolve of the users. Although TUTOR does have its awkward aspects, it is nevertheless one of the most sophisticated CAI languages, and the only one that supports interactive graphics. Because TUTOR reflects the unique architecture of the PLATO system, its use is presently limited to that system, which is currently being offered by the Control Data Corporation.

PLANIT [9] is a language that was developed with the support of the U.S. National Science Foundation. This language is roughly comparable to Coursewriter, except that it has full numerical computational facilities and allows the use of subroutines. In the interests of transferability, PLANIT was written in FORTRAN. Nevertheless, PLANIT has not received wide acceptance, and it now seems unlikely that it will remain a language of major importance.

A fourth language that bears mentioning is PILOT. Although PILOT was developed in an attempt to create a "simple" authoring language, its principal application has been by users of minicomputers, and its implementation is usually associated with the availability of BASIC. The principal drawback of PILOT is that its capabilities are generally limited to those of the smaller minicomputer systems, which are only marginally suitable for many CAI applications. As computer technology evolves, there should be relatively little need for primitive languages such as PILOT (or even BASIC, for that matter!) for serious CAI work.

"SIMPLICITY" VS. ORGANIZATION

Virtually all CAI authoring languages seem to be described (by their originators, at least!) as "simple" and "easy to learn". Aside from the questionable objective meaning of these terms, it seems reasonable to ask if they are really valuable features at all. Certainly, no one would argue that a CAI language should not be simple to use if the programming task itself is simple from a computational standpoint, as in a fairly linear "question-and-answer" kind of CAI program. But it can be argued that CAI programs of this sort represent a small fraction of what most of us will soon want to do with CAI, and they will certainly fall far short of exploiting the full power (and cost-effectiveness) of the medium, and above all the capabilities of the students who will be using the medium.

A language can be exceedingly simple in terms of number of commands, and thus "easy to learn"; at the same time, it might be almost as difficult to use for reasonably sophisticated work as a non-CAI language might be. The point that must be made is that the instructional process itself is far from "simple", particulary when stated in terms of basic computer operations. A better index of the adequacy of a CAI language would be the amount of <u>organization</u> it offers to help deal with this complexity. It is in precisely this area that the "simple" languages like PILOT, and the non-CAI languages like BASIC and APL clearly fall down. It is not so much a question of WHAT the "simple" languages can do, but how much and what kind of code must be written to get them to accomplish a given instructional task.

It seems inevitable that more and more use will be made of minicomputers in CAI; not only are they cheaper to operate and more reliable, but they are not plagued by "computer politics" and bureaucratic administration to the extent that large central

computing systems are. Although few if any of the present-day mini systems may be capable of supporting a really sophisticated CAI authoring language, a fairly significant fraction of them may well be capable of executing the "compiled" code that might be generated by an adequate authoring language on a much larger machine. In other words, since there will inevitably be more users than authors, and since it is the authoring process that demands the larger machine, it would seem worthwhile to put more emphasis on the separation of these two aspects of CAI. One can envisage systems in which one large computer serves an extended network of minicomputers, each of which handles a number of local terminals. Each mini would communicate with the central machine to receive updated material, and also to transmit performance and use data relating to the programs.

TEACHERS, AUTHORS, AND PROGRAM DOCUMENTATION

It is not unlikely that almost every teacher will one day have access to a personal computer terminal. Others have noted this, and have suggested that this would enable every such teacher to write CAI programs specific to the needs of each class. To me, such a possibility seems no more likely (or desirable) than to expect everyone owning a typewriter to write a textbook. The reasons are the same: the successful CAI lesson, like the successful textbook, requires an author who possesses a good amount of experience and talent, both in designing and using the particular medium, and also in teaching. Both endeavors, and CAI especially, also consume massive amounts of the author's time.

I firmly believe that CAI is (or should be) the art of the teacher, not of the computer programmer. Only the best teachers should be encouraged to develop CAI material. Unfortunately, the number of sufficiently good teachers who are also able and willing to devote the required amount of time and effort to this work is vanishingly small. The temptation to short-circuit the authoring process by leaving most of the work to student assistants or professional "instructional programmers" is always present, particularly when one must rely on an inadequate programming language whose use is accompanied by a good deal of drudgery. The results of succumbing to this temptation to any significant extent are usually apparent in the quality of the finished product. To compose a textbook or a lecture in this manner would surely result in an inferior product. One can only wonder if the rather poor image that CAI has in many quarters does not arise in part from this tendency to regard CAI as a "programming" discipline.

It seems likely that the bulk of the successful CAI materials will be written by a fairly small group of teacher-authors. Because the structure and organization of all but the most "Mickey Mouse"-ish of instructional programs is fairly complicated, these authors will of necessity possess considerable programming expertise as well. Those who want to use CAI in a major way will rely largely on the "import" of these materials from other sources. Naturally, we can always modify, extend, or otherwise supplement these materials to adapt them to our own needs and idiosynchrosies, just as we frequently supplement a textbook with locally-printed written material.

It would therefore appear that the widespread acceptance and use of CAI in a meaningful instructional sense will not be possible until tested and demonstrably "effective" CAI materials become generally available; indeed, it is just the lack of this availability that was cited as a principal inhibitory factor to the spread of CAI, in a study conducted several years ago [10]. More important, the very development of the art of designing CAI materials depends on new and prospective authors having access to existing programs, for use as models; certainly very few conventional authors would commence the design of a new textbook without surveying the best (and worst) of what has been done in the past.

A book, of course, serves as its own documentation; by simply reading it, one can immediately grasp the author's style of approach, the scope of coverage, and its level of sophistication. The same cannot be said of most CAI programs. Any but the trivially simple ones cannot conveniently be "read" like a book, even if the person looking at the printed listing is familiar with the authoring language. In any case, the teacher who is interested in assessing the program is really interested not in the program listing itself, but in the end product of the program, which has no single representation, since any such program will normally specify a multiplicity of actions that will be contingent on the student responses, and perhaps on randomly- specified parameters within the program.

CAI program portability in the broadest sense will require that a number of conditions be satisfied. First, the program listing itself should be as clear and self-documenting as possible. This implies a high-level authoring language whose power and organization is fully consistent with the sophistication of the CAI program. There should be an absolute minimum of detailed computational code, and this should be adequately documented internally. Similarly, the overall organization of the program, meanings of variables, and default conditions should be clearly noted within the program.

Second, there will usually need to be a considerable amount of "external" documentation that describes what each program attempts to do, what prerequisites are assumed, what questions are asked, and what kinds of errors are looked for. Where problems are constructed from randomly-defined parameters within the program, examples should be given that indicate the general range of the different variables. Similarly, the contents of various tables of data that are used in the program should be given in clear, understandable form, so that one can see what the scope of the program will be.

A third level of documentation would cover the actual use of these programs in connection with the overall course. It would suggest ways of correlating the CAI lessons with reading, audio-tutorial exercises, and other class work. If alternative ways of organizing the program are available, these would be explained. This third level of documentation would be a "User's Manual" for the teacher, and would be an important means of combatting the natural suspicion that most instructors harbor toward instructional materials that they have not designed themselves, and which they perhaps do not fully understand.

It is apparent that all this will require a large amount of additional work by the author, not only to prepare, but to revise and update as the CAI programs themselves evolve. It is doubtful, however, that the fruits of any one author's work will ever diffuse to a very wide audience if this is not done. And it is hardly likely that many authors will be inclined to devote several years of nearly full-time effort to the creation of a major group of programs unless there is a reasonable chance that their work can be used by others, whether the return to the author will be purely professional, or financial as well [11].

AUTHORING LANGUAGES AND PROGRAM PORTABILITY

What we have been discussing so far is the transfer of the description, or idea of the program. What of the program itself? The most direct and trouble-free route is of course to transfer between identical computer systems, although it must be pointed out that very few systems are totally identical in all respects. The opportunity for divergence increases rapidly with system size and complexity; frequently the differences between such things as terminal telecommunications control protocols is enough to raise serious difficulties in the transfer of interactive programs.

Many of the largest installations that may be most interested in sharing materials will very likely be committed to their own, and frequently very different authoring languages. This raises a serious impediment to transportability, and there are no simple solutions, short of the utopian one of hoping everyone will adopt the same language.

It has been suggested that authors might make their major programs available in a "documentation language", which would then be translated by interested users into whatever local language is available. A model language has been proposed for this purpose [12].

The major difficulty that arises when languages or systems differ is that the capabilities that the original CAI program requires may simply not be available at the receiving location. For widespread transportability and use, programs must be written in a widely available authoring language that will necessarily reflect a common standard of program sophistication and capability. With all commonly-used authoring languages (except for TUTOR), this standard is entirely too low; it does not reflect the functional capabilities of present hardware or software practice, and it certainly inhibits the realization of CAI's potential. The best programs, the ones that involve years of development work on the part of the author, may well require features that are unavailable in the majority of standard authoring languages, and for this reason they are not easily transferable. The less imaginative, more trivial, (and more "machine-like") programs are the ones that are most subject to exchange. Thus with the present low standards in programming languages, the transfer process does little to advance the state of the art; instead, it promotes obsolescence and mediocrity.

Of course, creative teachers will always be getting better ideas and computers will continue to evolve, so the completely unimpeded tranfer of programs is not a realistic goal. What would seem necessary at this stage is the setting of a minimum standard of functional capability that is reasonably consistent with the best of present CAI practice. This has already been done in Canada, under the sponsorship of the National Research Council [13], and a CAI authoring language consistent with this standard has been designed [14]. It is still too early to know whether this work will ever be translated into practice, but these are certainly moves in the right direction.

A NEW C.A.I. AUTHORING LANGUAGE

Rather than enter into a discussion of what features I believe the "ideal" CAI authoring language would have, it might be more useful to refer interested readers to one practical approach to that ideal. We have been developing a new authoring language [15] which we feel is far more consistent with present needs and practice than are most of the other languages currently available. It evolved from our own direct experience in using Coursewriter III and an APL-based CAI language [16]; it also draws heavily on TUTOR, and also incorporates many features fouund in such non-CAI languages as APL, SNOBOL4, and PL/I. Above all, it reflects the needs that we have perceived in six years of actual use of CAI in real teaching environments.

This language offers several novel features, the most notable of which are briefly listed below:

1. The language is very nearly self-documenting; the listings are quite easy to follow by anycne who has a general understanding of program flow in CAI. Documentation is materially aided by the module structure, the use of DEFINE statements for local and global variables, and the ease of inserting comment lines or comments within lines. These characteristics should significantly advance the cause of courseware portability and generality.

2. While the language is designed to operate interpretively, the programs are first compiled. This yields a considerable increase in operating efficiency (and also generates a good deal of useful debugging diagnostics) without any serious inconvenience to the author/user.

3. It is the only CAI language that offers the major features of Coursewriter, most of the primitive operations of APL (without the special symbols), and a number of TUTOR-like operations, including the very powerful conditional verb specification and the JOIN statement. As in TUTOR, the language is procedure-oriented; this increases the flexibility of the language and enhances the organization and readability of the program.

4. In contrast to the traditional practice of writing a separate system for terminal telecommunications control and for editing of the CAI lessons, our language is designed to take full advantage of the general purpose systems

that are now being more commonly used for these purposes. Thus terminal I/O can be via CMS or MILTEN. Authoring and editing can be done on any on-line text editing system such as WYLBUR [17].

5. Many applications of CAI require access to external data files, such as tables of atomic weights, lists of sentences, etc. The construction and access of such files is easily accomplished in the present language, without recourse to complicated coding on the part of the author. In general, the author need not be concerned with details of memory management, data access or storage.

6. The language meets the major requirements of the functional standard for CAI languages that has been adopted by the National Research Council of Canada. The language is also easily extensible in the sense that the NRC Standard recommends.

Compared to other CAI systems of comparable power, the new language makes surprisingly modest demands on computer resources: although our implementation on the 370/155 system is still not complete, it is estimated that the system will occupy a core partition of less than 40K, exclusive of terminal telecommunications control.

Whether or not this language (which is as yet unnamed) ever gains wide acceptance is perhaps less important than the fact that it provides a vehicle for writing CAI materials at the present time. This is, after all, the rate-limiting step in the evolution of CAI, and in my view it should not be deferred until an "ideal" language comes into wide use. Even if the resulting materials cannot enjoy wide application initially, an author can at least invest his time in a kind of CAI that represents the present state of the art, rather than that of a decade ago. And eventually, when a suitable language does come into wide use, it will certainly have most of the features of the present one, so that translation should be a fairly trivial problem, given the power of modern text editing systems.

Perhaps the most important contribution that this work can make to the CAI community at large will be to demonstrate that significant improvements in present practice are not only possible, but are also quite practical on computer systems of reasonable size.

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6. S.K. Lower: "Guide to Genchem: Computer-assisted instruction for general chemistry". Preliminary draft edition, approx. 80 pages. Simon Fraser University.

7. S.R. Peterson: "Unsuitability of APL for CAI". Simon Fraser University Computing Centre Report No. 34 (1975).

8. The literature on PLATO is extensive. See, for example, S.G. Smith and B.A. Sherwood: "Educational uses of the PLATO computer system". Science, 192 (p 344-352) 1976.

   For a description of the TUTOR language, see B.A. Sherwood: "The TUTOR Language". Computer-based Education Research Lab, University of Illinois, Urbana, Ill.

9. C. Frye: "Report on PLANIT: One Stage of Completion". ERIC Document Reproduction Service, P.O. Box 190, Arlington VA 22210

10. E. Anastasio and J. Morgan: "Factors inhibiting the use of computers in Instruction". EDUCOM, Princeton, N.J., 1972.

11. For a lucid discussion of authors' rights that seems to have direct application to CAI, see C.N. Mooers, "Computer Software and Copyright", Computing Surveys 7 (p 44), 1975.

12. P. Ripota: "A Concept for a Primary Author's Language" (3 volumes); Projekt CUU, 78 Freiburg, Schaenzlestr. 9-11, West Germany

See also, J. Schuyler, "Computer Augmentation of the CAI Courseware Authoring Process-- the CAI Design System", to be published in the Journal of Computer Based Instruction.

13. "A functional specification for a programming language for computer-aided learning applications". National Research Council, Ottawa, Canada 1972.

14. NATAL-74 Author's Manual and Reference Manuals. National Research Council, Ottawa Canada, 1975.

15. S.K. Lower and S.R. Peterson: "A Guide to the S.F.U. CAI Authoring Language". Draft version. Simon Fraser University, 1976. (Approx. 65 pages)

16. S.K. Lower and S.R. Peterson: "A CAI Language Based on APL". Simon Fraser University, 1974. This document describes a language having a Coursewriter-like structure that was implemented in APL.

17. R. Fajman and J. Borgelt: "WYLBUR: An Interactive text editing and remote job entry system." Comm. ACM 16 (314) 1973.

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ABSTRACT

This unindexed, extensively annotated bibliography is arranged alphabetically by author. It contains 167 references, of which most were published after 1970, with a few "classic" references from the 60's. Citations include books, journal articles, dissertations, and experimental studies with detailed reporting of results. Titles selected cover a wide range of topics concerning sex discrimination in counseling and education in general. (MPJ)

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SEX DISCRIMINATION IN GUIDANCE AND COUNSELING
ANNOTATIONS (Volume II)

by

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Abramowitz, S.I., Weitz, L.J., Schwartz, J.M., Amira, S., Gomes, B., and Abramowitz, C.V. Comparative counselor inferences toward women with medical school aspirations. Journal of College Student Personnel, 1975, 16 (2), 127-130.

Psychovocational Evaluations. Counselor Values.

This study proposes to extend the data base on the politics of psychovocational evaluation. Negative attitudes still abound toward females who excel in traditionally masculine occupational areas, such as medicine. It was hypothesized that, in contrast to an identically described male, a female student-client whose psycho-educational record indicated motivation and aptitude for medical school would be regarded as less psychologically adjusted by relatively traditional counselors than by untraditional ones. A sample was composed of 10 counselors who attended the 1973 Southeastern Conference for Counseling Center Personnel and 12 Nashville area graduate students with comparable professional interests. One half of the participants were women. Twelve of the 22 subjects indicated having done psychovocational evaluations or counseling as part of their everyday routine. Each subject submitted two brief case assignments.

The results indicate that the medical school aspiring females evoke more stern judgements from morally traditional counselors than from liberal ones. Traditional counselors, as opposed to non-traditional counselors, judged the psychoeducational histories of female clients as indicating less psychological adjustment than those of male clients. These considerations highlight the implications of the data for counseling practice and training. (8 references)

Antin, M. Kalamazoo: A model for change. Inequality in Education, No. 14, Cambridge, Mass: Center for Law and Education, Harvard University, 1974, 47-52.

Sexism. Textbooks. Curriculum. Athletics. Community Action.

This article recounts the efforts of administrators, teachers and, especially, parent-citizens' committees to eliminate sexism from the Kalamazoo school district. After being shown conclusive evidence of sexism in the elementary reading series, the school board established the Committee to Study Sex Discrimination (CSSD) in 1971. After 18 months the CSSD task forces presented five reports which included short and long-range recommendations in the areas of personnel, physical education, elementary textbooks, selected high school courses, and student-oriented issues. In 1973 when the school board bought a Houghton Mifflin elementary reading program which exhibited the same blatant sex stereotyping as the series then in use the CSSD filed a complaint under Title IX of 1972 Educational Amendment. The pressure of the complaint spurred the development of the Materials Review Committee (MRC) to review all new school materials for sex bias. Houghton Mifflin is incorporating some of the MRC revisions into its changes of teachers' guides. Many school and district administrators have increased their own awareness and the awareness of their staffs of sexism in the schools. Pressure from the CSSD has resulted in the redesign of the home economics curriculum so that it is now coeducational and can attract male and female students. While the CSSD is no longer an official school board committee it continues to fight sex bias in the schools. It has filed a second complaint with HEW relative to the absence of interscholastic sports for girls in junior and senior high school. Kalamazoo has been a model program for dealing with sexism at the school district level.
(no references)

Almquist, and Angrist, S. Role model influences on college women's career aspirations. Merrill-Palmer Quarterly, 1971, 17 (3), 263-279.

Career Motivation. Role Influences. Sex-role Perceptions. College Women.

Career-salient women (those completing four years of college and planning careers) perceive their professors as having a more positive evaluation of their academic ability than non-career-salient women do. They were most strongly influenced by college professors and occupational role models. Career salience is also related to choosing fields of work chosen by male peers and to choosing male-dominated occupations. Career-salient women are likely to have more work experience in a greater variety of jobs than non-career-salient women. Career salience is not significantly associated with the educational level of either parent or with the father's occupational level, but career-salient women are more likely to have working mothers, while non-career-salient women have mothers who tend to be more active in leisure pursuits.

Non-career-salient women are likely to feel that peers, family members, or no one influenced their decisions not to have careers. Non-career salience in women is associated with: sorority membership, being married, being engaged, going steady and positive perception of parental characteristics. It is not strongly related to the amount of dating in college.

To obtain these findings, the researchers administered questionnaires every Fall (from freshman to senior years) to 110 students in one class of a women's college in a private coeducational university. Tape-recorded interviews were also conducted among a sample of the class every Spring. (20 references)

(from H.S. Astin, N. Suniewick, and S. Dweck. Women: A Bibliography on Their Education and Careers. New York: Behavioral Publications, 1974.)

American Psychological Association Task Force. Report on sex bias and sex-role stereotyping in psychotherapeutic practice. American Psychologist, 1975, 30 (12), 1169-1175.

Sexism. Psychotherapy. Remediation. Counseling Techniques. Women Therapists.

This report documents the Task Force's efforts in examining sex bias and sex-role stereotyping in psychotherapeutic practice as they directly affect women as students, practitioners and consumers. A selected review of the literature serves as an introduction to the major issues. The results of an open-ended questionnaire sent to 2,000 women in APA which elicited descriptions of incidents or circumstances which were perceived as sex bias or sex-role stereotyping in psychotherapy for women are reported in casebook format. The four major areas in which the 320 replies are grouped are 1) fostering traditional sex roles, 2) bias in expectations and devaluation of women, 3) sexist use of psychoanalytic concepts, and 4) responding to female clients as sex objects, including seduction. The respondents to the survey also provided information on treatment techniques that they considered particularly beneficial for women and suggestions as to how professional psychology can respond to sexism in psychotherapy. They also listed a variety of circumstances in their training or employment as psychotherapists which showed evidence of sex bias or stereotyping. The recommendations of the Task Force represents their position in terms of priority of needs in the profession of psychology's response to sexism in psychological practices. The Task Force calls for consciousness-raising and increased sensitivity to sex bias and stereotyping influences throughout APA, other psychotherapy organizations, therapists and clients. There is a need to develop guidelines for nonsexist psychotherapeutic practices. Formal criteria to evaluate the education and training of psychotherapists in the psychology of women, sexism and other related issues are needed. Statements regarding sexism need to be included in the Ethical Standards and the Case Book on Ethical Standards should provide illustrative case material. (32 references)

Anderson, R.P. and Lawlis, G.F. Strong Vocational Interest Blank and culturally handicapped women. Journal of Counseling Psychology. 1972, 19 (1), 83-84.

Vocational Interests. Career Development. SVIB. Disadvantaged Women.

This study attempts to validate the usefulness of the Strong Vocational Interest Blank for culturally handicapped women and to study its predictive validity for this population. A sample of 53 female welfare recipients, referred by a state rehabilitation agency, were divided into two groups, Group S, those successful in training or placed in job and Group U, those whose files were closed unsuccessfully or who were not committed to a vocation a year after testing. These women took the SVIB and were followed-up one year later. Mean scores on the occupational scales and group profiles on Basic Interest scales were compared for the two groups.

This sample of culturally and educationally disadvantaged women have distinctive interest patterns on the SVIB showing both primary and secondary interest groups. There is considerable variability even though a large percentage of primaries fall in the nonprofessional area. The only significant difference between Group S and Group U is that unsuccessful clients are more extroverted. Among these women who have been successfully placed in jobs, 86% have jobs that are consistent with their interest scale scores of B or better. The authors suggest that failure to identify differences between the two groups may be the result of not measuring other crucial variables, such as motivation. (2 references)

Association for Measurement and Evaluation in Guidance (AMEG) Commission. AMEG Commission report on sex bias in interest measurement. Measurement and Evaluation in Guidance, 1974, 6 (3), 171-176.

Vocational Interests, Sex-Role Stereotypes, Sex Bias, Methodological Considerations, SVIB, SCII.

This report by the AMEG Commission on Sex Bias in Measurement done at the request of the American Personnel and Guidance Association (APGA) Senate attempts to define sex bias as a statement of its own values and as a guide for evaluating interest inventories. The main concern of the Commission is that results of interest inventories not limit occupational options for either sex. While the Strong Vocational Interest Blank (SVIB) was identified in the resolution as of primary interest, the Commission sought to address consideration of sex bias in all interest inventories. The Commission identified actual items in the inventory, use of homogeneous scales, use of occupational scales and norming procedures as potential areas of sex bias. The nature of the bias and possible remediation in each area are discussed. An evaluation of the SVIB, Forms TW398 and T399 shows sex bias. The proposed revision (Strong-Campbell Interest Inventory) presents a potential improvement. "The new SCII has a common pool of items edited for sexually stereotypical wording and provides homogeneous scales which can be equally useful for men and women in the presence of more limited occupational scales" (p. 175). However, the proof of the reliability and validity of this new inventory depends on future empirical data collection. (9 references)

Astin, H.S. Young women and their roles. In R.J. Havighurst (Ed.) Youth, (Part I). Chicago: The University of Chicago Press, 1975a, pp. 419-434.

Sex Difference. Academic Achievement Educational and Career Aspirations. Self-Esteem. SES Differences. Socialization.

This article reviews recent research on women and the implications of this research for educational and career development of young women. Some descriptive studies report differences in academic achievement and political knowledge and in delinquent behavior and misconduct. [illegible] differences and the results of society's expectations and reinforcements, and differences in the socialization of boys and girls. Developmental antecedents of self-esteem in each sex are partly illustrated. Antecedents of education and occupational development are reviewed. The effects of parental modeling and identification on gender identity, role acquisition, personality development, and aptitudes are discussed and the possible impact of these areas on educational and career achievement and aspiration are also reviewed. It is pointed out that little attention has been given to level of self-esteem, liberal and nontraditional views of feminine roles and female sexuality as mediating factors in young women's career decisions. While women have shown their capability to perform academically, they tend to have lower aspirations educationally and occupationally. This aspect was examined between the sexes and across SES levels. It was suggested that mother-child interaction was important not only because of role model effects but also for the development of personality traits (independence and self-reliance) and aptitudes (mathematics) which predispose young women toward high educational aspirations and nontraditional careers. (26 references)

Astin, H. Women and work. In J. Sherman and F. Denmark's (Eds.) Psychology of Women: Future Directions of Research. New York: Psychological Dimensions, 1978, 23 pp.

Employment, Occupational Aspirations, Self-Esteem, Theories, Research, Recommendations, College Women.

This paper examines women's work involvement and career development. It [illegible] participation, i.e., rates of participation, kinds of jobs held, occupational status as reflected in salaries and work, and worker characteristics. A brief history of women's involvement in the labor force is presented in order that the experiences and involvement of today's women college graduates may be viewed with some perspective. [illegible] in career choice and development including early socialization [illegible] experiences which determine self-perceptions and aptitude development [illegible] societal and institutional barriers which prevent women from maximizing their potential are considered. Failure of traditional career development theories to provide useful guides to women's career development encourages women scholars to seek [illegible] empirical research. The determinants of women's career development. While major variables have been identified through research, the author recommends further research, especially in three major areas relative to the issues of women career choices and development in order to formulate policies and programs to permit woman's fullest development. (21 References)

Astin, H.S. (Ed.) Some Action of Her Own: The Adult Woman and Higher Education. La Jolla, 1975, 154 pp.

Adult Women Students. Continuing Education for Women.

This study was designed to give an analytic account of the development of continuing education for women (CEW) programs, of their impact on the lives of the women they serve, and of their influence on the institutions which house them and on higher education in general. Fifteen CEW programs, selected to represent the diversity of existing programs, were studied in 1974. During the project's first phase, case studies were conducted through site visits and in-depth interviews were held with administrators in the parent institution, the program's director and staff, and women who had participated or were participating in the program. Spouses and children of the women were also interviewed. The second phase involved a mail survey of 1,000 current participants, 300 of their spouses, and 1,000 alumnae of the 15 programs. Usable responses to the mail survey were obtained from 68 percent of the current participants, 61 percent of the alumnae, and 54 percent of the spouses. The method of analysis included frequency distributions, cross tabulations, and regression analysis.

The 15 case study CEW programs are described in terms of their genesis, evolution, services, methods of operation, relation to their parent institution, special problems and strengths, and their impact. A profile of the women enrolled in these programs is presented and their home life is discussed. A final speculative chapter comments on trends in the next 15 years and the future of CEW programs. (66 references)

[illegible] H.S., [illegible] N. and [illegible] S. Women: [illegible] Their Education and Careers. New York: Behavioral Publications, 1974, [illegible] pp.

Career [illegible], Familial Status, [illegible] Education.

This annotated bibliography on women's education and career development and characteristics surveys [illegible] literature through 1971. It [illegible] (1) [illegible] of career choice, (2) marital and familial adjustment of working women, (3) women and the world of work, (4) sex roles and early socialization, (5) history and economics of women's education and work, (6) poli[illegible] and commentaries and (7) continuing education for women.

While the literature in each of these areas has implications for the [illegible] secondary [illegible], the developmental studies and career determinants are especially relevant. Astin warns that much of the research on sex roles, identification and early socialization must be considered with caution. Interpretations tend to be stereotypic, simplistic and ignore individual differences and determinants of behavior. Conclusions are often drawn on faulty or unproven assumptions and insufficiently defined framework regarding socialization. Substantial studies on how women perceive themselves, believe they are perceived by men and how men perceive women suggest sharp contrasts and inconsistencies which would produce conflict in women and indicate problems of communication between the sexes. Studies on career determinants have focused on differences in characteristics of career and non-career oriented women. Women with career aspirations and plans tend to be high achievers, have high need achievement scores, have more academic accomplishments and higher aptitude scores. Women interested in non-traditional careers also tend to score higher on math and computation aptitudes. Many authors report that career-oriented or high achieving women score higher on measures of autonomy and introversion, are more independent and responsible and more insightful. There is a tendency to talk about these women as having masculine interests. However, the lack of validity of the instruments used for career and non-career oriented women makes these findings suspect. Studies indicate the higher the family SES the more positive their influence is on daughters' educational and career plans. Having a working or career-oriented mother has a similar effect. A close relationship with both parents and some identification with the father also seem to be positive predictors of career orientation. The effect of women's perceptions of male attitudes and expectations of women on women's career plans and aspirations and on women's internal state need further investigation. (50[illegible] abstracts and annotations)

Bachman, J.J. Young Men in High School and Beyond: A Summary of Findings from the Youth in Transition Project, (Final Report), Washington, D.C.: U.S. Department of Health, Education and Welfare, May 1972. 50 pp.

High School Dropouts. Adolescent Boys

This report summarizes the major results of the Youth in Transition project, a longitudinal study of young men in high school and beyond. Results are based on a nationally representative sample of over 2,000 adolescent boys. The first data collection took place in the fall of 1966 as the subjects entered tenth grade; three subsequent data collections took place in 1968, 1969, and 1970. Additional data concerning school environments were obtained from principals, counselors, and samples of teachers in each of the 87 public high schools which participated in the study. The major objective of the study was to examine the causes and effects of dropping out of high school. The study examined and summarized: 1) effects of family background and intelligence, 2) differences among high schools in the effects on students, 3) vocational programs in high schools, 4) the impact of various post-high school environments, and 5) several additional areas including plans and behaviors related to military service, drug usage patterns, and attitudes toward illegal drugs.

Among the most prominent predictors which were found to identify the potential dropout were: low socioeconomic level, limited scores on measures of academic ability, poor school performance, limited aspirations, and above average levels of delinquency. The investigators found that dropping out resulted in few changes of any consequence. Their fundamental conclusion is that dropping out should not be treated primarily as a problem in its own right, but rather as a symptom of other problems or limitations. They recommend that: 1) mass media campaigns against dropping out be sharply curtailed, 2) any remedial efforts be concentrated much earlier than high school, and 3) the range of educational options available to 16-18 year olds be expanded. (35 References - publications from the project.)

Backner, B. L. Counseling black students: Any place for whitey? Journal of Higher Education, 1970, 41 (7), 630-637.

Effects of Counselor's Race. Student Satisfaction.

Black and Puerto Rican students from a special educational program provided data on attitudes and opinions regarding ethnic similarity of their counselors. Three samplings were obtained in separate projects, each with its own purpose, each utilizing a different method of sampling, and all three varying widely in reliability and validity. Results from the first study indicate that sex and age are more important factors than racial background when selecting a counselor. The second study showed students to have a preference for a counselor of similar ethnic background, but some of them were also indicating dissatisfaction with their counselor's ineffectiveness. The third study revealed that the only students desiring a counselor from their own ethnic background were students who were already working with a counselor whose ethnic background was similar to theirs. The three samplings provide evidence that black and Puerto Rican students feel that similarity of ethnic background between counselor and student "doesn't matter." The findings suggest that even when a student says that he does feel that his counselor's background is important, this often has more to do with the student's feeling about the counselor as a person than as a white person. (2 references)

(from A.M. Padilla, and P. Aranda. Latino Mental Health: Bibliography and Abstracts. Washington, D.C.: U.S. Government Printing Office, 1974.)

Bandura, A., Ross, D., and Ross, S. A. Transmission of aggression imitation of aggressive models. Journal of Abnormal and Social Psychology, 1961, 63 (3), 575-582.

Aggression. Imitation. Preschool Children.

The major hypothesis of this study was that children exposed to aggressive adult models would reproduce aggressive acts resembling those of their models. They would differ in this respect from children observing nonaggressive models and from those not exposed to any models (the control group). Children observing nonaggressive models were expected to show even less aggressive behavior than the control group. Children were expected to imitate same-sex models more than opposite-sex models. It was predicted that boys would be more likely to imitate aggressive behavior than girls, especially when performed by a male model. The sample of 36 male and 36 female nursery school students, ages 37 to 69 months, was divided into three groups: One group observed an aggressive adult model in a play situation; a second group observed a nonaggressive model in the same situation; a third group had no prior exposure to the models. Half the subjects in the experimental conditions observed same-sex models, and half, opposite-sex models. Each subject was then observed alone in a setting with toys similar to those provided in the models.

Subject groups exposed to aggressive models displayed significantly more physical and verbal imitative, partially imitative, and nonimitative aggressive behavior than the nonaggressive or control groups, which did not differ from each other. Approximately one-third of the subjects observing the aggressive model also repeated the model's nonaggressive remarks. Subjects who observed nonaggressive models spent more than twice as much time as subjects in the aggressive situation sitting quietly and not playing with any of the materials provided. Boys showed more aggression than girls following exposure to male models, particularly on highly masculine-typed behavior. Subjects exposed to nonaggressive male models showed significantly less aggression than control subjects in several forms of play. (16 references)

(from H. S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U.S. Government Printing Office, 1975.)

Barrett, C.J., Berg, P.I., Eaton, E.M., and Pomeroy, E.L.
Implications of women's liberation and the future of psychotherapy.
Psychotherapy: Theory, Research and Practice, 1974, 11(1), 11-15.

Personality Theory. Psychotherapy. Sex Bias. Alternatives

This paper discusses discrimination against women in personality theory and psychotherapy practice and makes recommendations for improving therapy's responsiveness to women's needs. The theories discussed depict women as inferior or mentally ill. Most personality theories assign opposite qualities to the sexes. The authors feel the goal of psychotherapy should be to integrate and establish harmony between such polarities. A review of current psychotherapy practice indicates that while the majority of patients are women, only a small fraction of the therapists are women. Negative counselor attitudes toward women are briefly discusses. Individual psychotherapy is compared to the institution of marriage in that both isolate women from one another, emphasizing individual rather than collective solution and both implicitly expect women to depend on a male. Examples of anti-therapeutic practices include male therapist's sexual exploitation of women clients and failure to deal with crisis situations and conflicts that arise throughout the life cycle of women. The authors believe women's liberation poses the need for changes in the theory, goals and training for psychotherapy. Therapists must directly communicate his or her values to the client and the underlying theory should encompass the whole life cycle, emphasizing maximum individual development and potential oppression of power institutions. The goal should be to facilitate the development of autonomous individuals who value their own rights. More women therapists need to be recruited and trained and all therapists need to be more aware of their own values, attitudes and sources of oppression and limitation of women's options. (42 references)

Baruch, G. K. Maternal influences upon college women's attitudes toward women and work. Developmental Psychology, 1972, 6 (1), 32-37.

Parental Influence. College Women. Working Mothers. Sexual Discrimination. Career Attitudes.

This study assessed alternate hypotheses concerning the tendency of women to devalue feminine professional competence. According to one hypothesis, devaluations are the products of out-group self-prejudice. That is, women who devalue feminine competence have negative attitudes toward the career role and associate it with negative personal and social consequences. The alternate hypothesis is that the devaluations are products of a traditional feminine sex-role standard learned from a nonworking mother.

First-stage subjects were 110 upper middle-class females enrolled at Swarthmore, a college selected for this study because of its rigorous intellectual standards. Tendency to devalue feminine professional competence was measured by a test of reactions to written articles ascribed to male or female authors; attitudes toward the dual role pattern were measured by an attitude scale; and extent of maternal employment was indicated on a personal data sheet. In the second stage, 86 subjects selected for high or low tendency to devalue feminine professional competence were individually interviewed and rated on variables relevant to maternal influences on the subject's view of career commitment.

Results supported the competence model hypothesis that tendency to devalue is associated with having a nonworking mother. Daughters of working mothers evaluated women's competence highly, regardless of any negative personal consequences of working experienced by their mothers. Maternal employment per se did not, however, influence subjects' attitudes toward the dual role pattern. Whether a subject favors this pattern depends on whether her mother endorses it and whether her working mother has successfully integrated the two roles. The implications of these findings are discussed in relation to changing the status and attitudes of women. (6 references)

(from H. S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U.S. Government Printing Office, 1975.)

Bem, S. L. and Bem, D. J. On liberating the female student. The School Psychology Digest, 1973, 2 (3), 10-18.

Sex-Role Stereotypes. Socialization. Children's Literature. Self-Esteem. Girls and Women.

The question of when sex role ideology begins to develop in the life of a young girl was explored in this article through a review of research on differences in child rearing and socialization practices and on sex-role stereotypes in children's literature and textbooks. Reported research findings indicated that socialization practices train grils to be passive and dependent, undermine their confidence, promote "fear of success," and generally limit the options for both sexes. The author noted that of the 15% of all women workers classified as professional or technical workers, one-half are noncollege teachers and another one-quarter are nurses. It was concluded that society controls not so much a girl's alternatives but her motivation to choose among the alternatives, and thus the notion of "freedom of choice" with respect to a career is not relevant for a young woman. (18 references)

(from A. Phelps, H. Farmer, and T. Backer. Selected Annotated Bibliography on Women at Work. New York: Human Science Press, in press. 1976.)

Berger, C. R. Sex differences related to self-esteem factor structure. Journal of Consulting and Clinical Psychology, 1968, 32 (4), 442-446.

Self-esteem. College Students.

This two-phase study explore the factorial nature of the self-esteem construct. In phase one, data from a prior study of self-esteem in 298 college men and women were factor analyzed to identify the factors involved in self-esteem. In phase two, a second overall analysis and separate analyses of 194 male and 78 female undergraduates were performed to explore sex differences in self-esteem.

Results of the first phase yielded five relatively independent factors of self-esteem: Communicative propensity, other-anxiety, negative self-evaluation, positive self-evaluation, and other-certainty. The second overall analysis produced a similar factor structure. However, the separate analysis of the female data revealed that the negative self-evaluation and other-certainty factors formed a single dimension. This connection, which does not appear for males, suggests that the self-evaluation of females is partially contingent on their degree of certainty that other people like them. Explanation of this apparent sex difference would require further inquiry into the developmental aspects of self-esteem. (6 references)

(from H. S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U.S. Government Printing Office, 1975.)

Berman, E. The woman psychiatrist as therapist and academician. Journal of Medical Education, 1972, 47 (11), 890-893.

Effects of Therapist's Sex. Client Attitudes.

The potential effect that the sex of the therapist has on patient treatment is discussed. Women psychiatrists have different attitudes and are perceived by patients in very different ways. Women seek female therapists to rid themselves of the traditional stereotype homebound and subservient woman attitudes. Men see a woman therapist to overcome the memories of their dreaded mothers. However, in most cases, people feel a woman is second best. In a study of 1,000 patients in a New York clinic, the majority of them wanted a male therapist because he was someone they could look up to and trust. The difficulties encountered in overcoming these prejudices are discussed.

(from P. E. Cromwell, (Ed.). Women and Mental Health, A Bibliography. Washington, D.C.: U.S. Government Printing Office, 1974.)

Bernstein, J. The elementary school: Training ground for sex-role stereotypes. Personnel and Guidance Journal, 1972, 51 (2), 97-101.

Sexism in Schools. Counselor Attitudes. Counseling Alternatives.

The position explored in this article was that elementary schools reinforce sexist socialization, and thus provide limiting rather than enlarging experiences. Instances of sexism were cited to be in the areas of classroom learning experiences, textbooks, and adult role models in the educational setting. The author urged the counselor to examine the attitudes and values he displays in working with boys and girls, and suggested several activities in which pupil personnel workers can serve as consultants to teachers, librarians, and school administrators in order to reduce sexism in the schools. Some suggestions for enhancing school guidance programs by offering multiple opportunities for growth and development were also provided. (no references)

(from A. Phelps, H. Farmer, and T. Backer. Selected Annotated Bibliography on Women at Work. New York: Human Science Press, in press, 1976.)

Bing. E. Effect of childrearing practices on development of differential cognitive abilities. Child Development, 1963, 34, 631-648.

Parental Influence. Elementary School Students. Verbal Ability. Mathematical Ability. Spatial Perception.

Investigations covering the early and present-day childrearing practices of mothers were made to test several hypotheses concerning differences in children's cognitive development. Subjects were 60 mothers whose fifth-grade children had similar total IQ's and had either high or low verbal ability (with compensating spatial or numerical abilities). The comparison of high and low verbal group mothers was based on results from a semistructured interview, a factual questionnaire, and a structured mother-child interaction session.

Results revealed significant differences in behavior been mothers of high and low verbal children. Findings concerning these patterns of specific maternal behaviors generally supported the hypotheses. It was concluded that a high degree of interaction between mother and child fosters the child's verbal ability. The marked pattern of help seeking and help giving which characterizes this close relationship of the high-verbal child and mother interferes, however, with the development of the independence and self-reliance required for nonverbal abilities. Interaction with the physical rather than the interpersonal environment provides the freedom to experiment, which develops a child's number and spatial ability. (24 references)

(from H.S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U.S. Government Printing Office, 1975.)

Bingham, W.C. and House, E.W. Counselors' attitudes toward women and work. Vocational Guidance Quarterly, 1973a, 22, 16-23.

21

Counselor Attitudes. Sex Differences. High School Counselors.

This study examines the extent to which negative attitudes about women and work prevail among counselors. A sample of 67 male and 59 female secondary school counselors in New Jersey completed a 50-item questionnaire constructed for this study. Twenty-five of the items judged as attitudinal and answered Agree/Disagree were examined using chi-square analysis. Counselors, in general, express more positive than negative attitudes toward women and work. More men than women indicate negative attitudes on seven items. So much divided opinion, especially in the areas of labor market conditions and women's preferences suggests that either the questionnaire or the subjects attitudes are ambiguous in these areas. Lack of clear definitions may leave some clients feeling uncertain about where they stand with their counselors. Indications are that female counselors may be more clear, positive and supportive of female clients than male counselors. The relationship between counselor attitudes and productive counseling and counseling training need further investigation. (2 references)

Bingham, W. C. and House, E. W. Counselors view women and work: Accuracy of information. Vocational Guidance Quarterly, 1973b, 21 (4), 262-268.

Counselor's Information. Women's Employment. Sex Differences.

How knowledgeable are counselors about the employment of women? This question was the focus of a study in which 67 male and 59 female secondary school counselors responded to a questionnaire containing 25 factual and 25 attitudinal items on women and work. It was found that on 12 of the 25 factual items, counselors demonstrated accurate information. Analysis of the 13 items reflecting inaccurate counselor information indicated significant differences between the responses of male and female counselors. Male counselors appeared to be less accurately informed than females as to the occupational alternatives available to and needed by women, the ability of women to be both workers and homemakers, the general ability of women, whether or not women are clearly discriminated against, and the length of time women spend in the labor force. Analysis of the attitudinal items was not reported. (4 references)

(from A. Phelps, H. Farmer, and T. Backer. Selected Annotated Bibliography on Women at Work. New York: Human Science Press, in press, 1976.)

Birk, J.M. Interest inventories: A mixed blessing. Vocational Guidance Quarterly, 1974 (June), 280-286.

Sex-role Stereotypes. Vocational Interests. Career Development. Sex Differences. Counselor Attitudes. SCII.

This article reviews the studies and position papers on the existence of sex-role bias in the use of interest inventories with women. The effectiveness of interest inventories in counseling women is limited. The inventories, especially the women's forms, tend to restrict career choices for women. Men's and women's options are significantly expanded when both forms are given to each sex. The development of one interest inventory form that controls for sex differences is recommended. The Strong-Campbell Interest Inventory (SCII) may be such an instrument. Studies which examined manuals, profiles and interpretive inventory materials found evidence of stereotypic attitudes and expectations. Recommendations for minimizing errors and misrepresentations in interpretations of results and for increasing counselor's effective use of the materials are included. Publisher's revisions are also noted.

Counselor and client attitudes impact and interact with the interpretation of vocational interest inventories. Results of counselor attitude studies indicate that both men and women counselors see traditional careers as more appropriate for women than non-traditional "male" careers. However, there is some conflicting evidence. Little is known about counselor's sex-appropriate perceptions for male counselees. More research in this area is required. There is some evidence that clients stereotypic attitudes are self-limiting relative to career options. If the full range of career opportunities are to be extended to both sexes, vocational interventions, such as interest inventories, must be revised along non-sexist lines and societal, counselor's and counselee's sex biases must be exposed and counteracted. (30 references)

Birk, J.M. Reducing sex-bias - Factors affecting the client's view of the use of career interest inventories. In E.E. Diamond (Ed.) Issues of Sex Bias and Sex Fairness in Career Interest Measurement. Washington, D.C.: U.S. Department of Health, Education and Welfare, 1975. Pp. 101-121. (Available from Educational Work, National Institute of Education, Washington, D.C. 20208.)

Sex-Role Stereotyping. Sex Bias. Vocational Interests. Inventories. Counselor Attitudes.

This paper reviews research and documents dealing with the issues of sex bias in the use of interest inventories. The focus is on factors that affect the client's view of the whole career exploration process. Potential sources of bias have been identified as the inventory itself, the manual and instructions, the interpretation of the inventory results through published materials, and counselor's and client's perceptions of the results. Four major interest inventories are reviewed, the Strong Vocational Interest Blank, the Kuder Occupational Interest Survey, the Self-Directed Search, and the Minnesota Vocational Interest Inventory. Both explicit suggestions and subtle implications that may be deleterious to women clients' career exploration are present in the inventories Sex-role stereotyping needs to be explicitly discussed in manuals. Since stereotypes develop early, pre-vocational experiences need to be expanded to maximize the range of vocational interest and aspirations for both men and women. Research is needed to discover developmental patterns of women's career interests. Counselor workshops for sex-role awareness and for countering the biases of stereotypes are recommended. Revisions of interest measures, manuals and interpretative materials are needed to aid counselors in bias-free exploration. (65 references)

Birk, J. M., Barbanel, L., Brooks, L., Herman, M. H., Juhasz, J. B., Seltzer, R. A., and Tangri, S. S. A content analysis of sexual bias in commonly used psychology textbooks. Journal Supplement Abstract Service, MS. No. 733, 1974.

Sex-Role Stereotypes. Sex Differences. Content Analysis. Psychology Texts. Bias in Education.

This pilot study content analyzes 13 textbooks frequently used in graduate psychology programs. Texts in the areas of clinical, physiological and social psychology, psychopathology, child development, history, learning, personality, tests and measurement are included. The six criteria used for the content analyses are 1) proportion of content devoted to women and to men, 2) total number of references in Author Index and Subject Index to women and to men, 3) generalizations to human behavior from all male, all female, male and female, and sex unspecified norm groups, 4) sex associated descriptors, 5) sexist colloquialisms and commentaries and 6) sex differences and alternative explanations. The task force finds a commendable absence of gross sexist content. Instances of sexism are more problems of omission than commission. Failure to discuss sex differences or to limit their discussions to genetic-based interpretations is cited, as is failure in many studies to include the sex of subjects and experimenter, as poor scholarship. The practice of making unwarranted generalizations to people-in-general from research based on one sex (usually male) or from studies which neglect to include sex of the subjects is strongly discouraged. The use of stereotyped terms in technical materials, e.g. using "mothering" instead of "nurturing", is also cited as poor scholarship. Suggested guidelines pertain to [illegible] literary style and content to counter English language's [illegible] the masculine, conclude the report. (6 references)

Birk, J.M., Cooper, J. and Tanney, M.F. Racial and Sex-Role Stereotyping in Career Illustrations. Paper presented at the meeting of the American Psychological Association, Montreal, 1973.

Sex-Role Stereotypes. Racial Stereotypes. Career Aspirations. Career Information.

This paper presents some results of an investigation into the existence of sex-role stereotyping and racial stereotyping in career illustrations of popular career information materials. A coding manual based on a categorization system used by Zimet (1972) was developed and two graduate counseling students were trained in using it to rate illustrations for sexual and racial stereotyping. The Encyclopedia of Careers and Vocational Guidance, Volumes I and II (1972), the Science Research Associates Occupational Briefs (1973), the Occupational Outlook Handbook (1972) and a selected array of career pamphlets and brochures were sources of the illustrations rated.

The American world of work, as presented in these illustrations, seems to be almost exclusively populated by white men. White men's jobs appear to be more exciting, challenging and autonomous; 71% of the career representative in illustrations of professional, managerial and technical occupations were men. Women are most often shown as nurses, teachers, secretaries or caretakers of children. Black men and white women are often shown in similar roles as assistants, helpers and service givers. Men are shown as more active and outdoor oriented; women show more positive affect in the illustrations. Career illustrations do not even accurately portray the presence of women and minorities in various occupations. A subtle, but pervasive impression of sex-appropriate and race-appropriate career aspiration may be conveyed by many of them. While the authors find it encouraging that women and some minorities are seen as career representatives in some non-traditional areas, they feel men are too rarely shown in non-traditional, or "feminine" roles. (no references)

Birk, J.M., Cooper, J. and Tanney M.F. Stereotyping in Occupational Outlook Handbook Illustrations: A Follow-Up Study. Paper presented to the American Psychological Association, Chicago, 1975. 11 pp.

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Sex Stereotypes. Racial Stereotypes. Career Literature.

This study is a follow-up to a comprehensive 1973 study of illustrations in popular sources of career literature. Since the 1973 study the Occupational Outlook Handbook (OOH) has been revised. This study compares the revised 1974-75 OOH with the 1972-73 edition. Analysis of the illustrations was done by a graduate student in Counselor Education using a coding manual adapted from Zimet. The rater was trained so that results of this analysis could be compared with the previous one.

Results of the analysis show that women are underrepresented in the OOH, while men and ethnic minorities are overrepresented. Comparison of the 1972-73 with the 1974-75 illustrations yeilds a chi-square value that is not significant, i.e., the illustrations in both editions are basically the same in distribution of men, women, whites and blacks. The distribution of male and female career representatives is unchanged, between the two editions. A greater proportion of women are still shown as a) smiling and generally pleasing, b) in helping or service roles, c) in a sedentary or inactive posture.

This analysis also includes evaluation of illustrations by Dictionary of Occupational Titles classifications. An analysis of the large proportion of women illustrated in clerical and sales occupations yields a significant chi-square value. This type of analysis for the 1972-73 edition is not available.

The authors suggest that the widespread use of the OOH with its sex and race stereotyping needs to be counteracted by use of literature and information which shows women and minorities in non-traditional roles and careers. (11 references)

Birk, J.M., and Tanney, M.F. Career Exploration for High School Women: A Model, Paper presented at the National Education Association Conference, November 1972. 20 pages.

Sex-Roles. Stereotypes. Career Counseling Model. High School Women.

This career counseling model proposes to heighten participants awareness of the influence of sexism and stereotypic attitudes on women's roles and career goals. The model is designed specifically to sensitize participants to the status of "women's roles" as they are, to broaden awareness of what womens roles could be, and to inquire into some of the attitudes which limit present perceptions of women's roles.

The model is designed for use with junior and senior high school students. The program involves 3 one-hour sessions, and an informal follow-up with the high school counselor. Detailed activities for each session are included.

This model was used as a pilot study in a public and a private school. Included in this article are the general impressions of the researchers as well as the assessment of the programs participants at the schools. Suggestions are made for improving the model and for the best situation under which to conduct the program. (7 references)

Bosmajian, H. A. The language of sexism. ETC: A Review of General Semantics, 1972, 29 (3), 305-313.

Sexism in Language. Sex Inequality.

The necessity of conscious effort on the part of women to allow themselves to be defined no longer by men, as a means of eradicating the sexual subject-master relationship, is discussed. Although the language of sexism has been in use for a long time, recent experience has demonstrated that a minority group intent on defining itself and eradicating the language that has, in part, been used to maintain inequalities, injustices, and subjugation can effect changes in language behavior. A conscious effort to diminish the use of the language of sexism may be an important step toward eradicating man's inhumanity to women.

(from P. E. Cromwell, (Ed.). Women and Mental Health, A Bibliography. Washington, D. C.: U.S. Government Printing Office, 1974.)

Brindley, F. B. Social factors influencing educational aspiration of black and white girls. Dissertation Abstracts International. Ann Arbor, Mich.: University Microfilms, No. 71-1648 (HC, $10; MF, $4). 129 pp.

Educational Aspirations, Role of Others. Racial Differences. SES Differences. Girls.

The influence of parents, peers, teachers and counselors upon the level of educational aspiration of more typically middle- and lower-class adolescent black and white girls was investigated. The correlation coefficients of middle-class black and white girls differed significantly only in the correlation between the aspiration level of these girls and that of the girls used for comparison on the basis of intellectual motivation. The correlation coefficients of the lower-class girls were not significantly different on any of the self-assessment variables. Results did not support the hypotheses that girls who perceive conflicting expectations from parents and peers or father and mother especially value the expectations of a teacher or counselor in goal setting. Only the expectations of an older sibling or relative were perceived to bear a significant relationship to the goals of all four groups of girls.

(from P. E. Cromwell, (Ed.). Women and Mental Health, A Bibliography. Washington, D.C.: U. S. Government Printing Office, 1974.)

Brooks, Linda. Interactive effects of sex and status on self-disclosure. Counseling Center Research Report, No. 1[illegible]-73, College Park, Maryland: University of Maryland, 1973, 15 pages.

Sex Differences. Self-Disclosure. Thearpist Status. Sex of Therapist.

This study explores the effect of client's sex, therapist's sex and status of the therapist on self-disclosure. Three hypotheses were generated: 1) Females would be more disclosing than males, 2) Subject-interviewer pairs containing a female would result in greater disclosure than all-male pairs, and 3) Subjects would be more disclosing when the interviewer was presented as a high status rather than a low status person.

The subjects of the study were 40 male and 40 female unmarried undergraduate students between 18 and 25 years of age, who expressed no preference for sex of a counselor. Interviewers were two male and two female counseling students who were coached to use a constant interview method. Prior to the interview the subjects were given a paragraph concerning the status of the interviewer, and a receptionist commented on the interviewer. These manupulations as well as the decor of the interview room established the status of the interviewer. An equal number of male and female interviewees were randomly assigned to high and low status interviewers.

Subjects were rated on self-disclosure using the Revealingness Scale (Suchman, 1965) revised to an eight-point continuum. Two 3-minute segments of time during the 15 minute interviews were evaluated.

Only the hypothesis that subject-interviewer pairs containing a female would result in greater disclosure is significantly supported. A 2x2x2 analysis of variance revealed that 1)males disclosed more to females while females disclosed more to males, 2)dyads containing a female resulted in more disclosure than all-male dyads, 3)males revealed more to high status interviewers, while females tended to disclose more to low status interviewers, and 4)high as opposed to low status male interviewers elected more disclosure from all subjects, while status of female interviewers resulted in no significant differences.

The author stresses the need to use multiple measures for evaluating self-disclosure. The author also cautions that this study involved only initial contacts, and long term contacts may show different results. (13 references)

Broverman, I. K., Broverman, D. M., Clarkson, F. E., Rosenkrantz, P.S., and Vogel, S. R. Sex-role stereotypes and clinical judgments of mental health. Journal of Consulting and Clinical Psychology, 1970, 34 (1), 1-7.

Sex-role Perceptions. Mental Health Personnel. Sex-typed Behavior.

Sex-role stereotyping among clinical psychologists, psychiatrists, and social workers was examined. It was hypothesized that clinical judgments about the characteristics of healthy individuals would differ as a function of sex of person judged, and that these differences in clinical judgments would parallel stereotypic sex-role differences. A second hypothesis predicted that behaviors and characteristics judged healthy for an adult would resemble behaviors judged healthy for men, but differ from those judged healthy for women.

A questionnaire of 122 bipolar items was administered to a sample of 79 clinicians (46 men, 33 women), each subject receiving one of three sets of instructions: To describe a mature, healthy, socially competent (a) adult, (b) man, or (c) woman. Agreement scores on the 38 sex-role stereotypic items and male and female health scores relative to an ideal standard of health (i.e., adult, sex unspecified) were developed from questionnaire responses.

Both male and female clinicians agreed on the behaviors and attributes characterizing a mentally healthy man, woman, and adult, independent of sex. The differing conceptions of what constitutes a mentally healthy man and a mentally healthy woman paralleled sex-role stereotypes. Clinicians did tend to ascribe male-valued traits more often to healthy men than to healthy women, whereas they ascribed only about half of the female-valued traits more often to healthy women than to healthy men. The adult and masculine concepts of health did not differ significantly, but a significant difference was found between the adult and feminine health concepts. (21 references)

(from H. S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U. S. Government Printing Office, 1975.)

Brown, C.R. and Hellinger, M.L. Therapists' attitudes toward women. Journal of Social Work, 1975 (July), 266-270.

33

Therapists' Attitudes. Sex Roles. Sex Differences.

This paper examines the attitudes of various types of therapists toward women. After reviewing the literature in behavioral sciences to trace changes in attitudes toward women, the authors hypothesized that 1) therapists have more traditional than contemporary attitudes toward women, 2) female therapists have more contemporary attitudes toward women than male therapists, 3) social workers have more contemporary attitudes than do other therapists. Of the 274 therapists sampled 177 questionnaires were returned and analyzed.

The first hypothesis was not supported. The essentially normal distribution of responses seemed suggestive to the authors of a generally ambivalent attitude of therapists toward women. Female therapists expressed contemporary attitudes toward women significantly more than did male therapists. Hypothesis 3 also was not supported. Psychiatric nurses scored the highest number of contemporary ratings. But whether these ratings were a function of their professional position, or being women, or a combination is not clear.

A copy of the attitudinal section of the questionnaire is included in the articles. Issues of reliability and validity are also discussed. (13 references)

Campbell, D.P. Women deserve better. The Personnel and Guidance Journal, 1973, 51 (8), 545-549.

Vocational Interests. Career Development. Counseling. SVIB--Women's Form. Strong-Campbell Interest Inventory.

This rejoinder to Huth's review of studies of the SVIB—Women's Form criticizes the conclusions, as well as the lack of comprehensiveness, of that review. This author feels that the Handbook for the Strong Vocational Interest Blank is an important source of information of the pertinent research which was omitted from the review. This author suggests that the failure to differentiate interests for the majority of women goes beyond a weakness of the instrument but reflects inadequacy in the understanding of the role of vocational interests in the career development of women. The author contends that 90 studies of the SVIB-women's form does qualify as extensive investigation. Women do report different vocational interest than men regardless of how interests are measured. Responses among females tend to be more homogeneous than among males. The career versus homemaker dichotomy is attacked as an unproductive concept research-wise and tends to obscure individual differences within each group, differences important for counseling. Finally, a brief introduction to the new "unisex Strong" is presented and some of its potential strengths and weaknesses reviewed. (7 references)

Campbell, P. . and McKain, A.E. Intellectual Decline and the Adolescent Women. Paper presented at the meeting of the American Psychological Association, Montreal, August, 1974.

IQ Changes. Personality Factors. High School Women.

This study was done not only to identify whether adolescent women tend to decline in intellectual abilities to a greater extent than do adolescent men but also why this happens. It sought to find differences between women "decliners" and "non-decliners" in some personality characteristics and their responses to some social stimuli. A sample of 471 high school seniors (290 girls, 181 boys) from two public and two parochial schools in rural, urban and suburban areas of New York State were asked to volunteer (only two refused). IQ scores and type of IQ test taken in seventh grade were identified for all subjects. In twelfth grade subjects were given the same IQ test. Women subjects were divided into two groups, those who experienced a decline in score and those who did not. Both female groups were given FIRO-B test, a semantic differential scale on "myself," an inventory of jobs to categorize for males, females, and both, and questions on the importance of women in man/woman relationships.

Overall, young women showed a decrease in IQ scores during adolescence while young men showed an increase. Women in the "decline" group rated themselves as less active with less need to control than "non-decliners." Decline in intellectual abilities of adolescent women may be sociological in nature. The home environment has been found to have very little effect on this decline (Terman, 1936) while school environment and sex-typing within the school have much influence (Minuchin, 1974). (29 references)

Carter, C. A. Advantages of being a woman therapist. Psychotherapy: Theory, Research and Practice, 1971, 8 (4), 297-300.

Women Therapists. Developmental Experiences. Effectiveness with Patients.

The ways in which a woman's developmental experiences prepare her for being a therapist are discussed and several types of patients for whom a female, rather than a male, therapist is the better choice are discussed. A female hysterical patient would be difficult for a man to work with because her central problems are with the mother-daughter relationship. Psychotic patients often find it easier to relate to a woman since the nurturance of the female activates the patient's dependency needs in such a way that he temporarily relinquishes his attempts to keep the therapist at an emotional distance. Female delinquents and postadolescent women experiencing developmental crises also respond better to female therapists. A multiple approach to therapy combines the unique perceptions of both sexes and is especially applicable to work with male and female neurotic patients. The emotional framework of the female complements and fills deficiences in the cognitive approach of the male partner.

(from P. E. Cromwell, (Ed.). Women and Mental Health, A Bibliography. Washington, D. C.: U.S. Government Printing Office, 1974.)

Christensen, K.C. and Magoon, T.M. Perceived hierarchy of help-giving sources for two categories of student problems. Journal of Counseling Psychology, 1974, 21 (4), 311-314.

Sex Differences. Counseling Sources. College Students.

This study assesses and compares the different sources of help students choose when seeking help with emotional and educational-vocational problems. A sample of 85 females and 85 males completed a questionnaire in which they rank-order sources of help. They were asked to indicate previous counseling experience. Subjects were subdivided on the basis of sex and counseling history and rankings under each problem category were analyzed by Kruskal-Wallis one way analysis of variance for independent samples.

Friends and parents are considered first for help with emotional problems. Faculty members, friends and parents are first preference for aid with educational-vocational concerns. No significant difference of rankings appears for those who had prior counselor contact in high school and those who did not. Sex differences are non-significant on rankings under either problem type. Previous contact with a high school counselor was related to a student's later perceptions of the potential helpfulness of helpgivers. Male counselor is ranked sixth and female counselor seventh for help with educational-vocational problems. For emotion concerns, male counselor is ranked fifth and female counselor, seventh. (15 references)

Christensen, K.C. and Sedlacek, W.E. Differential faculty attitudes toward blacks, females and students in general. Counseling Center Research Report #13-72, College Park, MD: University of Maryland, 1972, 11 pp.

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Faculty Attitudes. Minorities. College Students.

This study was an attempt to identify the attitudinal set which faculty bring with them into racially and sexually mixed classrooms. In order to assess attitudes by faculty toward black and female undergraduates as compared to undergraduates in general, three forms of a questionnaire were developed. The items were identical except on Form B the word "black" was inserted and on Form C the word "female" was inserted. The questionnaires were sent to a random sample of 300 faculty of the University of Maryland, stratified by rank. Of the 204 questionnaires returned 153 (51 percent of the sample) were included in the analysis. The final sample was 84 percent male and 16 percent female.

Overall, the results showed that faculty held more positive attitudes toward blacks and females, particularly females, than toward undergraduates in general. The faculty perceived blacks as serious, hardworking, outspoken students who, perhaps, should be kept in line more. Females were seen as the best, hardest working, most creative students. Results indicate the direction of faculty stereotypes of black and female undergraduates. Such stereotypic attitudes should be considered in assessing variables affecting the student learning environment. (20 references)

Cicorel, A.V. and Kitsuse, J.I. The Educational Decision-Makers. Indianapolis: The Bobbs-Merrill Company Inc., 1963, 179pp.

High School Curriculum. Occupational Choice. Educational Aspirations. Counseling. Institutional Barriers.

In this book, the authors propose that high school is a mechanism which acts in society to decide who takes what jobs. They contend that the distribution of students into such categories as college-qualified and non-college-qualified is to a large extent characteristic of the administrative organization of the high school. Such categories then influence the occupational choices made by the students.

A high school known for its excellence of educational program was chosen to be studied. Parents, students, and counselors were studied. Research was on the "ascription" of parental and student college aspirations.

One part of the study was an exploration of how the student sample were organizationally differentiated and processed by the administrations personnel. Another section deals with the study of activities of counselors at the high school. The development of student counseling as a specialized activity, the status of counselors, and the viewpoints used by the counselors in the problems they handle are examined.

In the final chapter the authors consider the consequences of the trend toward rationalization and bureaucratization of the educational system for the open class system. They discuss what effect the bureaucratic methods used to identify and classify student talent will have on the student population as individuals and as members of adult society. (2 references)

Cohen, M. B. Personal identity and sexual identity. Psychiatry, 1966, 29 (1), 1-14.

Sex-Role Development. Socialization Variables.

The thesis of this discussion is that considerable incompatibility exists between society's traditional definition of sexual role and the optimal development of an individual's personal assets. Supportive evidence is provided by research on early infancy, longitudinal studies of child development, and psychological data on pregnant women and their husbands.

Most children are socialized to regard the male as independent and dominant and the female as dependent and passive. Infant studies have demonstrated innate behavioral and maturational differences in boys and girls. However, these differences are increased by parents' differential handling of male and female infants from birth on: For example, parents tend to talk more to girls and to hold and attend to boys more.

Longitudinal studies show that boys who were most active in childhood become strongly masculine, sexually active, but weaker in intellectual striving in adulthood. Boys nurtured by their mothers give up passivity and dependency under societal pressure in adulthood, but replace these behaviors with social anxiety, sedentary and intellectual careers, and low levels of sexual activity. Cultural pressures on girls to be traditionally feminine cause withdrawal from challenging tasks and decreasing interest in intellectual development. Inborn tendencies toward activity and passivity in boys and girls are not reversed, but are repressed, resulting in anxieties about not being considered appropriately masculine or feminine.

Results of childhood developmental processes are seen in the behavior of pregnant women and their husbands. The caretaking responsibilities and division of labor necessary for parenthood often intensify conflicts about masculine and feminine roles. These conflicts involve insecurity about one's worth as a sexual being and a person, as well as dependency imbalances between spouses. It is concluded that neither activity-passivity nor independency-dependency are valid indexes of masculine-feminine development. The cultural prevalence of these standards only serves to promote female incompetency, male hypermasculinization, and insecurity and lack of individual fulfillment in both sexes. (14 references)

(from H. S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U. S. Government Printing Office, 1975.)

Cole, N.S. On measuring vocational interests of women. ACT Research Report, 1972 , 49, 12 pp.

Vocational Interests. Career Counseling. Sex Differences. SVIB. Kuder. Holland's VPI. ACT's VIP.

This report presents the results of two studies which examined the structure of women's interests as related to inventory interest scales and occupational groups. This structure is compared with that found for men, and possible inferences from women's interests to the full career spectrum are made. An analysis of spatial configuration (Cole and Cole, 1970) was used to examine the results of both studies.

The first study examines the structure of women's interests on Strong Vocational Interest Blank (SVIB), the Kuder Occupational Interest Survey, Holland's Vocational Preference Inventory (VPI) and the ACT Vocational Interest Profile (VIP) to discover if a common structure exists and how it compares to men's interest structure. The analyses show a two-dimensional configuration of women's interests. For each of the inventories examined the configuration tends to be consistent with the Holland ordering and comparable to the configurations for men reported by Cole and Hanson (1971). The second study uses Holland's VPI and ACT's VIP to construct two occupational configurations for women and compares these with women's interest patterns. The occupational configurations of the two sample of women, one of four-year college students and the other two year college students from the two different inventories are quite similar. This tends to support the applicability of Holland's circular ordering of vocational interest to women.

In general, the studies indicate that when women's interest are compared with those of other women, the resulting structure of interests is essentially the same as that found for men. Also, the occupational structure tends to be similar for men and women. Holland's VPI and ACT's VIP are particularly adapt at interrelating women's interests; areas and appropriate occupations. The Strong and Kuder are less effective for this approach. The author maintains that current inventories show women's interest patterns have a common structure similar to men's and their interests can be related to the whole spectrum of both traditionally masculine, as well as traditionally feminine choices. (28 references)

Collins,A.M. and Sedlacek, W.E. Counselor ratings of male and female clients. Journal of National Asociation of Women Deans , Administrators, and Counselors, 1974, 37 (3), 128-132.

Counselor Attitudes. Differential Treatment.

This study is a preliminary effort to delineate areas in which male and female clients in a university counseling center are viewed and treated differently. Ratings of 565 female and 645 male clients at the Counseling Center, University of Maryland, comprised the data for the study. The sample studied included all clients seen from June, 1970 to June, 1971. The instrument used was the Codebook of Counseling Categories, an in-house data sheet kept on all clients. Sixteen of the items on the instrument were used in the study. Item content included demographic variables, intake assessments, process judgments and termination ratings.

The results indicate that systematic differences in the way counselors perceive male and female clients do occur in a university setting. Males were more likely to be rated as having vocational-educational problems than are females, while females more often are rated as having emotional-social problems. From the results of this study, the authors hope to develop further research strategies to specify the reasons for and the consequences of differential treatment of males and females. (13 references)

Committee to Eliminate Sex Discrimination in the Public Schools and the Discrimination in Education Committee of NOW (Ann Arbor Chapter). An Action Proposal to Eliminate Sex Discrimination in the Ann Arbor Public Schools, Pittsburgh, Penn: KNOW, Inc., 1972. 12 pp.

Sex Bias. Discrimination. Remediation. School Policies and Programs.

This document sets out the goals for the Ann Arbor school system as an equal opportunity system. The nature and responsibilities of the Committee are described. They submitted a list of policy action recommendations based on the criterion of equal opportunity to the Board of Education and the Administration for implementation. Policy Action Recommendations are divided into three areas which must be dealt with simultaneously: Recommendations for the Administration; for In-Service Training; for Program Changes. Recommendations for the Administration included immediate written orders to all school staff and personnel to equalize students' access to and treatment in all school programs and activities. These hold explicit implications for the system's architect, lobbyist, budget, hiring practices and various policy and procedural imperatives for the superintendent. Recommendations for In-Service Training deal with sensitizing administrators, teachers, and staff to sex bias in the schools and with encouraging them to actively work for the elimination of discrimination. This sex bias may appear not only in programs and organization but also in expectations and attitudes. Recommendations for program changes and revisions focus on the areas of industrial arts, home economics and vocational education, sex education, athletics and student activities and the academic areas of women's history and math/science and sex bias in instructional materials. (No references)

Connell, D. M., and Johnson, J. E. Relationship between sex-role identification and self-esteem in early adolescents. Developmental Psychology, 1970, 3 (2), 268.

Self-esteem. Adolescents. Sex-role Identification

This empirical study tested the hypothesis that early adolescent subjects with high appropriate sex-role identification have more positive feelings of self-esteem than those with low sex-role identification. Eighth-grade students in a Catholic parochial school, 70 boys and 73 girls, completed the Gough Femininity Scale and the Coopersmith Self-Esteem Inventory. The latter yielded a score for total feelings of self-esteem and subscores for general self-esteem and for self-esteem in relation to social interactions with peers, home life and interactions with parents, and performance in the academic area. Correlations between sex-role identification and total self-esteem were obtained. In addition, the 24 highest and 24 lowest scorers on the Gough Scale for each sex were selected to form four groups: High sex-role identification (high ID) for males and for females, and low sex-role identification (low ID) for males and for females. The data for these four groups were factor analyzed for differences in self-esteem scores.

High ID was significantly correlated with high total self-esteem for boys. For girls, there was no significant correlation between ID and total self-esteem. Factor analysis supported these general conclusions. For total, general, and social self-esteem with peers scores, there was no significant difference between high- and low-ID females, but there was a significant difference between High- and low-ID males. For the same three analyses, the interaction of ID with actual sex was also significant. That is, ID and self-esteem scores on these scales were differently related for males and females. For the total and general self-esteem scores, high-ID subjects differed significantly from low-ID subjects, and the order of findings was consistent: High-ID males scored highest, all females (high and low ID) next highest, and low-ID males lowest. The analyses for the Home-parents subscale and the academic-school subscale showed no significant differences. Neither males nor females showed variations in feelings of self-esteem in these areas as a function of ID.

Results indicated that, as the adolescent male's sexual identification becomes more appropriate, his feelings of self-esteem increase, whereas there is no difference in feelings of self-esteem between early adolescent girls who identify with the masculine role and those who identify with the feminine role. It was concluded that the male role may have reward value in itself whether the role is adopted by a male or a female. (11 references)

(from H.S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U.S. Government Printing Office, 1975.)

Crandall, V., Dewey, R., Katkovsky, W., and Preston, A. Parents' attitudes and behaviors and grade-school children's academic achievements. Journal of Genetic Psychology, 1964, 104, 53-66.

Elementary School Students. Academic Achievement. Parental Influence.

The relationship between parents' attitudes and behaviors and children's academic performance was investigated as part of a larger study. Subjects were 20 boys and 20 girls in the second, third, and fourth grades, and their parents. The sample was representative of all but the lowest social class. The children's intellectual abilities were assessed by the Stanford-Binet Intelligence Test, and academic performance was measured by the California Achievement Test. Parents were interviewed individually regarding general parental behaviors (affection, rejection, nurturance) and specific attitudes and reactions to their child's everyday achievement efforts.

Correlations between IQ and achievement scores were of the same magnitude generally found in research on children's intelligence and achievement. The only general parental behaviors that significantly predicted academic performance pertained to mothers and daughters: Mothers of academically competent girls were less affectionate and less nurturant toward their daughters than mothers of less proficient girls. Neither mothers' nor fathers' expressed values for their child's intellectual experiences were positively associated with the child's academic achievement. The mother's evaluation of and satisfaction with the child's general intellectual competence were positively related to the child's actual academic performance, whereas those of the father were not. Parental instigation of and participation in children's intellectual activities, when correlations were significant, were negatively associated with the children's academic performance. Fathers of the most academically proficient girls tended to praise rather than criticize their everyday intellectual achievement attempts. The greater number of significant correlations between parents' attitudes and behaviors and daughters' academic proficiency suggests that grade school boys may be less susceptible to adult influence than grade school girls. (9 references)

(from H.S. Astin, A. Parelman and A. Fisher, Sex Roles: A Research Bibliography, Washington, D.C.: U. S. Government Printing Office, 1975.)

Department of Public Instruction, State of North Carolina. Elimination of Traditional Sex Stereotypes in Public Schools, Suggested Directions and Strategies. Available from: Amanda Smith, State Department of Instruction, Education Building, Raleigh, North Carolina 27611. 9 pp.

Sex Stereotypes. Discrimination. Remediation. School Policies.

This documents the general objectives and strategies planned by the State Department of Public Instruction in North Carolina for eliminating sex stereotypes in their schools. It deals with general education objectives relative to discrimination, awareness of sex stereotypes, implications for guidance services, student placement and curriculum, and instructional materials. Guidelines for assuring equitable treatment of boys and girls and access to special programs, facilities, extracurricular activities, physical education and interscholastic activities are also outlined. Equity between the sexes in the areas of discipline, marital or parental status and in student representation is to be examined. Equal opportunity for teachers, staff and administrators also must be assured. The schools have the responsibility to make public their policies and activities aimed at eliminating sex discrimination. (No references)

Dewey, C.R. Exploring interests: A nonsexist method. The Personnel and Guidance Journal, 1974, 52 (5), 311-315.

Vocational Interests. Personality Constructs. Vocational Guidance. 47

This report describes a vocational counseling technique called the Non-Sexist Vocational Card Sort (NSVCS) for use with both men and women. Seventy-six occupations or occupational categories derived from the male and female forms of the Strong Vocational Interest Blank, Form DD of the Kuder Interest Inventory are typed on 3x5 cards and coded according to Holland's (1966) sex personality types.

The client sorts the 76 occupations into three categories: those he or she "Would Not Choose," those "In Question" and those he or she "Might Choose." Each of these groups is considered separately. For the occupations not chosen, the client groups them according to those with the same or similar reason for rejection, records these occupations and their related reasons. This is done for the "In Question" and "Might Choose" occupations also. The client then rank orders the "Might Choose" occupations. Finally, the client is invited to comment on the procedure, the occupations present or missing and examine the record sheet to see if it was consistent with her/his perceptions. A homework assignment to more thoroughly explore "Might Choose" occupations can be given. The NSVCS procedure should take 40 to 60 minutes.

The NSVCS technique focuses on the criteria that a client is using to make a vocational decision while involving the client actively in the process. According to the author the NSVCS is less sexist than traditional approaches to vocational counseling because 1) the same vocational alternatives are offered to both men and women, 2) gender of the occupational titles has been neutralized, and 3) the process orientation of the technique allows counselor and client to confront and explore sex-role biases as such biases emerge in the counseling session. (10 references)

Dickerson, K. G. Are female college students influenced by the expectations they perceive their faculty and administration have for them? Journal of National Association of Women Deans and Counselors, 1974, 37 (4), 167-172.

Faculty Attitudes. Role Expectations. Role Aspirations.

This study attempts to determine if there is a relationship between women students' academic-vocational aspirations and their perceptions of what their faculty and administration expect of them. Questionnaires were answered by a random sample of 379 female students at 4 midwestern colleges and universities. The questionnaire included 40 questions: 20 questions designed to give an indication of each student's own academic-vocational aspirations and 20 questions designed to give an indication of how the student felt the faculty and administration of her institution perceived her academic-vocational role.

While the findings do not show a cause and effect relationship, female students do perceive limited support and encouragement in academe. Regardless of the level of their own aspirations these are higher than their perceptions of what they see as the expectations of their faculty and administration of them. A sizeable percentage of female students perceive low expectation for them and are sensitive to differential treatment of the sexes. They do suggest that students with higher aspirations are more apt to feel their faculty and administration have high expectations for them. This reflects the "pygmalion" notion that one's behavior is influenced by another's expectations. Results of the study support the notion that higher education needs to adapt better to serve the needs of its women students. (11 references)

Doherty, M.A. Sexual bias in personality theory. The Counseling Psychologist, 1973, 4, (1), 67-75.

Sex Bias. Counseling Theories. Personality Theory. Sex differences. Research.

This article raises questions regarding the relevance and appropriateness of personality theories as bases for counseling women. In a brief review of early Western Philosophical psychologist two basic themes emerge: 1) male is the prototype of humanity and female is understood in relation to him, 2) cognitive, rational behavior is positively valued and associated with male; affective, sensual behavior identification is feminine. A detailed assessment of Erickson's personality theory for sex bias is presented. Three questions are raised about Erickson's theory. If Erickson's model is essentially a male model it is inappropriate to understanding women. Since Erickson's theory is based on polarities, the author questions the validity and psychological soundness of this approach as currently used in personality theories. Both human experience and empirical evidence have demonstrated that characteristics defined as ends of a dimension exist and interact dynamically within the individual. Finally, Erickson's view of women, his virtual identification of woman with mother and the existence of the productive inner-bodily space as central to her search for identity, is questioned. Psychologists have become increasingly sensitve to the generalization bias as it affects social classes and cultures; they have failed to detect the "generic bias" which seeks to explain human behavior in terms of "man". These theoretical assumptions affect research on sex difference in two major areas: definitions of constructs and selection of research topics. The author maintains that since theorists are products of their own time and culture and develop theories out of their own experiences and unique populations, counselors need to examine these theories to ascertain whether the principles derived from them are compatible with contemporary culture and life styles of their clients. (19 references)

Dorn, D. S. Idealized sex roles among young people. Journal of Human Relations, 1970, 18 (1), 789-797.

College Students. Sex-role Perceptions. Female Role.

This study tested the hypothesis that the female career role of the 1960's has become increasingly accepted as the norm, at least among college students. Forty male and 30 female college juniors and seniors completed an open-ended questionnaire on the double standard of male-female behavior, male-female relationships, the ideal role of the American woman, and whether most other college students would agree with their views on the female role. Fifteen of the male students were interviewed in depth on the reasons for their answers.

Sixty percent of the females and 70 percent of the males thought that the double standard had declined, particularly in the areas of employment, education, sexual behavior, the military, and political involvement. Fifty percent of the females and 70 percent of the males indicated their belief that women were increasingly having egalitarian relationships with men. Both males and females listed as characteristics of the ideal female role an egalitarian relationship with males, a companion-complementary marriage with mutually agreed upon decisions, and a lifestyle allowing the female to develop her capabilities to the fullest. Despite this general consensus, males reported difficulty in acknowledging this ideal in their own behavior. However, perceiving no alternative to accepting female freedom, the males were attempting to overcome both the traditional female stereotypes and traditional male stereotypes of dominance and insensitivity. Subjects thought college students of both sexes would agree with their views on women's role. (12 references)

(from H.S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U. S. Government Printing Office, 1975.)

Education Committee. Report on Sex Bias in the Public Schools. New York: National Organization for Women, 1973. 98 pp. 51

Sex Bias. School Policies. Curriculum. Attitudes. Counseling Alternatives. Careers. Stereotypes.

This report attempts to document sex bias and discrimination in public schools, particularly in the areas of administration, curriculum and attitudes. The report uses Congressional Records, court cases, news releases, correspondence, findings from research and analysis related to curriculum, materials and school policy to illustrate differential treatment of the sexes. The following sections focused on guidance and counseling. In the Congressional Record of March 9, 1971, Shirley Chisolm outlined counselors' responsibilities: "to raise the aspirations of girls, to assist them in achieving a satisfactory identity both as women and as workers, and to help replace past occupational stereotypes" (p. 3). In this same statement Chisholm recommended the formation of a commission to study the educational needs of girls from early childhood through secondary school, the establishment of in-service training for school counselors in special guidance needs of girls and increased appropriations for improved counseling to all students. Ann Jawin in her discussion of Sex Bias in Career Counseling (pp. 42-43) illustrates how firmly entrenched sex-role stereotypes and sex bias mediate against girls having any real freedom of choice regarding a career. She calls for consciousness-raising among teachers, counselors and principals, a women awareness course for students emphasizing career exploration and revision of all course curriculum, programs and books from early childhood on to ensure the elimination of sexism. A need for other counseling services, especially in the areas of sexuality and contraceptives, is also demonstrated.
(6 references)

Elman, J., Press, A. and Rosenkrantz, P. Sex Role Self-Concepts: Real and Ideal. Paper presented at the annual meeting of the American Psychological Association, Miami Beach, Fla., 1970. 9 pp.

Self-concept. Idealized Roles. Stereotypes. College Students.

How men and women conceptualize ideal males and females was studied in relation to their perceptions of typical males and females and their perceptions of themselves. The effects of sex-role stereotypes and sex-role ideals on individual self-concept were also investigated.

Subjects were 52 male and 52 female students at a 2-year community college. A 60-item, bipolar stereotype questionnaire was developed from the longer stereotype questionnaire used in earlier studies. Respondents indicated traits of the typical male and female, the ideal male and female, and their own real and ideal selves on scales consisting of stereotypic differentiating, and non-differentiating male- or female-valued items.

Male and female responses on ideal male and female traits were more similar than their responses on typical male and female traits. Ideal males and ideal females were seen as possessing similar socially desirable adult traits. The real self-images were more like the perceived stereotypes than like the ideal sex roles, and the ideal self-images more closely resembled the sex-role ideals than they resembled the stereotypes. Both males and females perceived ideal men and women as possessing many of the traits presently valued for the opposite sex. Findings suggest a shift by individuals toward more flexible sex typing. (7 references)

(from H. S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U.S. Government Printing Office, 1975.)

Entwisle, D. R., and Greenberger, E. Adolescents' views of women's work role. American Journal of Orthopsychiatry, 1972, 42 (4), 648-656.

Adolescents. Female Role. Career Attitudes.

The effects of adolescents' sex, race, IQ, social class, and residential locus on their attitudes toward women's work role were explored. The sample of 270 male and 305 female ninth graders were attending six Maryland schools described as black inner-city, white inner-city, black blue-collar, white blue-collar, white rural, and white middle-class. Subjects answered three forced-choice questions on women's role included in a large test battery. The questions, followed by indexes of how strongly the subject felt about each opinion, concerned whether women should work, what kinds of jobs they should hold, and whether they are intellectually curious.

Data indicated a marked difference between boys and girls about women's role, with boys consistently holding more conservative opinions. Both sexes disapproved of women holding "men's" jobs. Black students were less opposed to women working than were white students, but they were just as negative toward their doing the same work as men. Both black and white inner-city students were generally willing for women to work. Blue-collar girls were more conservative than inner-city girls on women's role. The greatest differences between girls' and boys' views were found among the middle-class white sample. Although subjects of high IQ generally held liberal views, high-IQ middle-class boys were least liberal. High-IQ blue-collar students of both sexes were the most liberal. These findings are discussed briefly in relation to adolescent sex-role behavior, occupational aspirations and peer pressure, education, and women's role in American society. (5 references)

(from H.S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U.S. Government Printing Office, 1975.)

Erickson, C. E. (Ed.). A Basic Text for Guidance Workers. New York: Prentice-Hall, Inc., 1947, 566 pages.

Guidance Curriculum. Guidance Techniques and Services. Counseling. Placement. Information Sources.

This book is a compilation of writings by various people on topics related to guidance. It is designed as a textbook for basic guidance courses. The book gives a brief view of many of the techniques used in general guidance, such as case-study techniques, interviewing techniques, helping pupils plan programs, group-guidance techniques, work experience, placement and follow-up services, and therapeutic counseling. The book gives some information about organizing a guidance program. Sources of information and assistance are included. (254 references)

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Erickson, V.L. Psychological growth for women: A cognitive developmental curriculum intervention. Counseling and Values, 1974, 18 (2), 102-116 pp.

Moral Development. Sex Difference. Counseling Intervention. Curriculum. High School Women.

This paper focuses on the development of women and the limitations in their personal growth and competencies. The research reviewed indicates that while males and females tend to score equally well at an early age, during adolescence girls tend to level off earlier and at a lower level than boys in a number of cognitive, emotional and moral areas. The author proposes that it is the counselors' responsibility to promote equal personal growth and competence in women as well as men by examining theories of growth and development, then proposing, testing out and teaching related classroom curriculum. The major part of the paper describes such a curriculum for high school girls based on Kohlberg's cognitive-development theory using a seminar-practicum model. The multiple assessments for this women's course included Kohlberg Moral Judgement Scale, Loevinger Sentence Completion Form, Attitude Toward Women Scale (Spence and Helmreich, 1973) and some clinical measures of psychological growth. It appears possible to integrate content and process in curricula in such a way as to promote psychological as well as intellectual growth. This study also illustrates that it is possible to link instructional and counseling models to examine theoretical concepts. This study is one of the first to indicate an intervention mode that will promote movement from conventional toward principled morality and from external to internal sources of ego strength in adolescent females (33 references)

Ewing, T.N. Racial similarity of client and counselor and client satisfaction with counseling. Journal of Counseling Psychology, 1974, 21 (5), 446-449.

Counseling Satisfaction. Racial Differences.

This study posed two questions regarding client evaluations of counseling: 1) does the client react to counseling interviews more favorably when the counselor is of the same rather than of a different racial background? 2) do counselors differ in their effectiveness in counseling students of a different racial background as compared with their effectiveness in counseling students in general?

The evaluation forms for 13 black and 13 white students were randomly selected for each of three black counselors and eight white counselors. Prior to his/her entry to the university, each student had been involved in a counseling interview where topics covered were interpretation of tests, choice of curriculum, and overview of scholastic and personal problems. Students were assigned to counselors haphazardly--purely on the basis of when a counselor had time to see students.

Results indicate that individual counselors were viewed as significantly different from one another in terms of helpfulness. Black students rated both white and black counselors more favorably than did white students. Black students also indicated a greater likelihood of returning to see white counselors than did white students.

The author concludes that there is little support for the hypothesis that counselors need to have the same racial or ethnic background as their clients. Nor is the hypothesis of differential effectiveness among counselors in counseling students with different racial or ethnic backgrounds supported. The author does caution that these findings are limited to one-interview situations and may not be the same for long-term counseling or psychotherapy. He suggests that it is not racial similarity that is important, but the experience of the counselor and the human qualities of both counselor and client. (13 references)

Farmer, H. S. Helping women to resolve the home-career conflict. Personnel and Guidance Journal, 1971, 49 (10), 795-801.

Vocational Development Theories. Role Conflict. Career Choice.

Counselors can no longer dodge the special demands of vocational decision-making with women by saying either "Sooner or later she will settle down and get married" or "A woman can do anything a man can do." This article presented data indicating the increased participation of women in the U.S. labor force and reviewed research literature and theories of vocational development relating to the conflict of combining home and career rather than choosing one or the other exclusively. Factors affecting women's career choices were reported to be women's perceptions of career roles, social myths regarding women's place in society (e.g., "Your place is in the home"), and a cultural lag between economic realities and technological advances on the one hand and the advice offered by society on the other. Counselors were urged to explode social myths, to help clarify the factors involved in the vocational choice process with high school and college girls--particularly where these factors differ from those affecting men, and to facilitate career choices in women which are commensurate with their potential. (27 references)

(from A. Phelps, H. Farmer, and T. Backer, Selected Annotated Bibliography on Women at Work. New York: Human Science Press, in press. 1976.)

Farmer, H.S. and Bohn, M.J., Jr. Home-career conflict reduction and the level of career interest in women. Journal of Counseling Psychology, 1970, 17, 228-232.

Career Attitudes. Sex-roles. SVIB. Sex-stereotypes. Counseling.

This study examines the effect of mental set and cultural bias on career attitudes. The Strong Vocational Interest Blank - Form W was administered to 25 married and 25 single women. All subjects first completed the test under standard instructions. The test was later readministered with new instructions which were intended to reduce the home-career conflict experienced by the women. The new instructions told subjects to "pretend that men have come of age and that 1) men like intelligent women, 2) men and women are promoted equally in business and in the professions, and 3) raising a family is very possible for a career woman " (p. 230).

Results indicate that following the conflict-reducing instructions scores on career scales (author, artist, psychologist, lawyer, physician and life insurance saleswoman) increased significantly and homemaker scales (buyer, business education teacher, secretary, officer worker, elementary school teacher, housewife, home economics teacher and dietician) decreased significantly, the authors conclude that inventory patterns can change if attitudinal response sets are changed and that pretest counseling could reduce the home-career conflict and influence SVIB scores. (19 references)

Feather, N.T. and Simon, J.G. Reactions to male and female success and failure in sex-linked occupations, impressions of personality, casual attributions, and perceived likelihood of different consequences. Journal of Personality and Social Psychology, 1975, 31 (1), 20-31.

Sex-Role Perceptions. Occupational Success. Sex Differences.

This study explores the question of the way peoples' conceptions about sex-roles influence their reactions to male and female success at various occupations. The hypothesis proposed is that success at an occupation will be more attractive in various ways if success is consistent with social sex-role stereotypes.

Subjects were 48 girls of relatively high socioeconomic status, from a private, church-oriented high school. The subjects were randomly distributed one of four possible questionnaries. Each questionnaire described the success or failure of a male or female in Medical, Nursing, or Teacher Training school. Sex and success-failure varied in the four questionnaires. A 2x2x3 analysis of variance with sex, success-failure, and occupation as the factors was done.

This study revealed a tendency of the subjects to upgrade successful males in relation to unsuccessful males, and to depreciate successful females in relation to unsuccessful females. Successful males are evaluated as more positive, more powerful, more rule-following and less feminine than failing males. For females, evaluations are reversed. Successful males and unsuccessful females are seen as luckier, busier, wiser, more logical, and more honest. An easy course of studies is viewed as cause for female success; ability for male success. Males who succeed are seen as likely to continue succeeding, to be praised, to be famous, and as unlikely to wonder if he's normal, or to worry about studying too much. The reverse is true of females who succeed. (19 references)

Feshbach, N.D. A primer for non-sexism in schools. Draft for Educational Horizens, 1975 (Spring). 1 p.

Sexism. Sex Stereotyping. Elementary, Junior and Senior High Schools. Evaluation Instrument.

This article presents a tentative set of guidelines which school personnel, parent groups and advisory councils can use to identify educational practices and policies which contribute to sex stereotyping and bias. This information could then be used as a basis for developing programs and structures whereby educators can play a major role in expanding the concept of women's role. The major rationale for this impetus to change the concept of women's role is the desire to foster and develop the psychological and vocational potential of women based on a moral conviction relative to fair play and equality for all. The evaluation instrument included in the article is intended as a guide to assess possible loci of sex discrimination, bias and sexism. The items are not intended to be exhaustive but are samples of types of items considered as relevant. The instrument focuses on elementary, junior high and senior high school. Not all items are appropriate for all settings. The complete Assessment and Evaluation Schedule can then serve as a focus of discussion by parent-staff groups for identifying, planning and implementing necessary changes. (31 references)

Frank, A.C. and Kirk, B.A. Differences in outcomes for users and nonusers of university counseling and psychiatric services: A five-year accountability study. Journal of Counseling Psychology, 1975, 22 (3), 252-258. 61

Counseling. Persistence. Scholastic Differences. Background Factors. Accountability.

This study examines the relationship of psychological services usage after four years and persistences over five years for all letters and science freshmen (1210 men and 1210 women) at a large state university. Students completed the School and College Ability Test (SCAT, Form UA), the Strong Vocational Interest Blank, Men's and Women's Forms, and student information sheet upon entering college. After four years all names were checked against counseling center and Psychiatric Services records for users and non-users (four categories). Then six years after entering data were assembled from university records on persistence (six categories), grade point average, and major.

Both men and women users of the Counseling Center graduated within four years at a higher rate than any other category. The proportion of students using the counseling center and leaving in bad standing (GPA below 2.0) is lower than for non-users. Among the women, both the total counseled group and the fourth year graduates had somewhat higher quantitative scores on SCAT, but no differences in final GPA were present. In general, counseled and noncounseled students did not differ in initial scholastic abilities, interests, background, or final GPA's and these variables did not explain the differences in completion rate. The authors suggest that counseling was the distinguishing variable. However, the difference may be in unassessed variables. The results may define a potential accountability basis for these mental health services. (12 references)

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Frazier, N. and Sadker, M. Sexism in School and Society. New York: Harper & Row, 1973. 215 pp.

Sexism. Racism. Feminism. Sex-Roles. Self-Esteem. Academic Achievement. Occupational Aspirations. Students.

This book attempts to draw together much of the recent literature and thought on sexism in American society. It attempts to document some of the myths and realities of women's role in this society and instances of sex discrimination which may impact on women and men from early childhood and elementary school through college and adulthood. The authors begin by clarifying the meaning of feminism. A number of traditions relative to marriage, child care, jobs, politics and assumption of responsibility which the authors feel contribute to women's second class status are reviewed. The relationship of sexism and racism is explored briefly. The nature, source and impact of sex differences are introduced. Then, after a checklist of research findings on what a female is like after her trip thrcugh the educational process, the institutional practices, and formal and informal policies in elementary and high schools and colleges which tend to discriminate against either sex are examined in detail. Finally, the authors note some recent changes aimed at mitigating sexism in schools. (14 to 48 references per chapter)

Friedersdorf, N. W. A Comparative Study of Counselor Attitudes Toward the Further Educational and Vocational Plans of High School Girls. Dissertation Abstracts International, 1970, 30 (10), 4220-4221. (Microfilm $3.00; Xerox $8.00; 171 pages.)

Counselor Attitudes, Sex Differences, Educational and Vocational Aspirations, High School Girls.

This study examines counselor attitudes toward educational and vocational goals of high school girls in an attempt to determine the nature and extent of attitudinal differences among counselors. Of a sample of 106 Indiana public school counselors participating in this study, 27 males and 29 females completed the Strong Vocational Interest Blank role playing as a college bound high school girl; 23 males and 27 females role played as non-college bound high school girls. A Personal Information Form was also completed by each counselor. A single classification analysis of variance was used to analyze the results.

Male and female counselors responded differently for the college bound girl versus the non-college bound girl and both displayed distinctive attitudes toward which levels and types of jobs are appropriate for each girls. Counselors perceive college bound girls as identifying with cultural activities and as having verbal skills but items reflecting the difference between college and non-college bound girls were different for male and female counselors. Male counselors associated college bound girls with traditional feminine occupations at the semi-skilled level and think of women in feminine roles characterized by feminine personality traits. Male counselors perceived college bound girls as having positive attitudes toward female occupations and did not even consider male-dominated fields as possible career options for girls. Female counselors perceived college bound girls as interested in occupations requiring a college degree and considered both traditional and non-traditional career options for women.

The author suggests that such differences in attitudes and perceptions of women's occupational roles by counselors may affect the counseling relationship and the higher educational and vocational goals of female students.

Frieze, I.H., Fisher, J., McHugh, M.C., and Valle, V.A. Attributing the causes of success and failure: Internal and external barriers to achievement in women. Draft of paper for conference on New Directions for Research on Women, Madison, Wisconsin, May 30-June 2, 1975.

Achievement Motivation. Sex-role Stereotypes. Attributional Pattern.

This paper is based on the belief that although past studies have attributed causes of women's failure to achieve to internal factors in women, external barriers to achievement are as important, if not more so, than the internal psychological barriers to achievement. Some of the internal cognitive variables which may serve to inhibit women's achievement and the external sources which may affect these cognitions are first considered. Reviewing many of the past studies, the authors find that it is not unlikely that women have lower generalized expectancies than men in our culture as a result of widely held sex-role stereotypes. Literature and theories about attribution of success and failure are discussed, with special emphasis on attributional patterns of women. Mediator variables, such as low self-esteem and fear of success, individual differences, such as androgeny and need for achievement, and situational factors, i.e., competitiveness and type of task, which appear to result in a pattern of general externality in women's attributions are examined.

Research which indicates that similar cognitive variables in others may be important external barriers to female achievement is also analyzed. Cognitions of others concerning women in achievement situations appears to be as important, if not more important, than women's internal cognitions. They can act as barriers in two ways: 1) expectations and attributions can affect hiring, promotion, and other opportunities for achievement; 2) women's internal cognitive barriers to achievement stem from cultural standards to sex appropriate behavior. (88 references)

Garman, L. G. and Platt, W. T. Sex Role Stereotypes and Educators' Descriptions of Mature Personalities. Paper presented at the meeting of the Western Psychological Association, San Francisco, April 27, 1974. 3 pp.

Teachers' Attitudes. Sex-role Stereotypes. Sex Differences.

The following questions were explored in this paper: (1) Do educators' descriptions of healthy, mature, socially competent individuals differ as a function of the sex of the person judged? (2) Does the sex of the educator relate to the use of sex-role stereotypes? A sample of 126 instructors from the elementary, secondary and college levels were asked to describe a healthy, mature, and socially competent adult male, adult female, or adult. Comparisons of the instructors for each of the three different instructional sets provided the following information: (a) educators at all levels show high agreement concerning the attributes which characterize healthy, mature, socially competent adults, adult males, and adult females, respectively; (b) educators' concepts of mature personality differ for men and women; (c) these differences parallel common sex-role stereotypes found by previous investigators, and generally assign less social value or desirability to the feminine role; (d) educators are significantly less likely to attribute characteristics which describe mature adults to a woman than they are to a man; and (e) female educators, while also describing women as somewhat less than mature adults, nevertheless do see women as coming significantly closer to the adult standard than do male educators. (1 reference)

(from A. Phelps, H. Farmer, and T. Backer, Selected Annotated Bibliography on Women at Work. New York: Human Science Press, in press. 1976.)

Goldberg, P. Are women prejudiced against women? Trans-Action, 1968, 5 (5), 28-30.

Sexual Discrimination. College Women. Professional Women.

An experimental study was designed to investigate whether there is real prejudice by women against women; i.e., whether perception itself is distorted by sex discrimination. Two hypotheses were tested: That even when the work is identical, women will value the professional work of men more highly than that of women; and that this tendency will be greatly diminished or reserved when the professional field happens to be one traditionally reserved for women.

Subjects were 140 randomly selected college women, of whom 100 were used for pretesting and 40 in the experiment proper. In pretesting, the 100 subjects were given a list of 50 occupations and asked to rate the degree to which they associated the profession with men or with women. The two occupations most associated with men the two most associated with women, and two neutrals were selected. Six articles from the professional literature representing the six occupations were combined into booklets. Each article was attributed to a male author in half the booklets and to a female author in the other half. Each booklet had three male and three female authors' names. In a group session, the subjects read the articles and evaluated each one on a set of nine questions. No mention was made of the sex of the author in the instructions.

Results clearly supported the first hypothesis: Of 54 possible comparisons of male and female authors, 3 were tied, 7 favored female authors, and 44 favored male authors. The pronounced tendency for subjects to evaluate more highly articles attributed to male authors held not only for the two "male" professions, but for all six. Thus, the second hypothesis was not supported. Results showed a general bias by women against women across professions and for nine different aspects of competence as a professional. (no references)

(from H.S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U.S. Government Printing Office, 1975.)

Gottfredson, G.D. and Holland J.L. Vocational choices of men and women: A comparison of predictors from the Self-Directed Search. Journal of Counseling Psychology, 1975, 22 (1), 28-34.

Vocational Interests. Occupational Choice. Self-Directed Search. College Students.

This report examines three issues in prediction of vocational choice: 1) the validity of components of the Self-Directed Search: The occupational daydream, liked and disliked activities, competencies and occupational preferences; 2) the relative usefulness of a person's current vocational choice of predicting subsequent choices; 3) the issue of sex-bias in some interest and ability measures because women have not had sufficient opportunity to develop interests and abilities in some area and renorming such measures to lessen bias. The Self-Directed Search was administered to two groups of students, 2508 freshmen at a state university and 1,183 students at a public liberal arts college. A follow-up questionnaire asking for the student's current occupational choice was collected three years later for the university sample and one year later for the liberal arts sample.

Predictions made from separate components fo the Self-Directed Search are associated with subsequent choice. This lends support to the theoretical notion that each class of personal attributes contribute to a person's decision. The validity of all predictors supports their practical use in self assessment of individual for career advisement. The occupational daydream is the most efficient predictor of later choice for both men and women, followed by occupational component for men and by the summary code for women. The competencies component appears to be least efficient for men and the activities self-rating is least efficient for women. The results suggest that what a person says he or she wants to do should be used more in counseling practices and research. (About 72% of the women in the liberal arts college and 62% of the women at the state university chose occupations classified as social, making a prediction of a social occupation for all women a better prediction that those made in this study.) (18 references)

Gottsegen, G.B., and Gottsegen, M.G. Women and school psychology, The School Psychology Digest, 1973, 2 (3), 24-27.

School Psychology. Women Professionals, Sex Distribution.

This article reviews the role of women professionals in school psychology, their position in the school system, in profession organizations and their educational attainment. Data are presented for the National Association of School Psychology Membership for 1972. Women comprise 47.7% of listed members, but men are better represented in organizational duties. Only 27% of state delegates were women, 38.8% of chairpersons of committees and regional directors were women and the only woman officer was a secretary. Women appear in greater numbers in professional school psychology organizations than they do in other areas of psychology. According to a tally of APA membership by sex (Astin, 1973), the division of school psychology had the second largest number of women members. The authors conclude with a question as to why women are more welcome to school psychology than other fields of psychology. Is it because of the stereotypic association of women and schools? (8 references)

Gump, J.P. and Rivers, W. The consideration of race in efforts to end sex bias. In E.E. Diamond (Ed.) Issues of Sex Bias and Sex Fairness in Career Interest Measurement, Washington, D.C.: U.S. Department of Health, Education and Welfare, 1975. pp. 123-139. (Available from Educational Work, National Institute of Education, Washington, D.C. 20208.)

Sex Bias. Career Aspirations. Motivation. Fear of Success. Sex-role Attitudes. Vocational Interest Inventories. Occupational Stereotypes. Counseling.

This paper examines the need for sex fairness efforts for black women and relates those needs to the measurement of vocational interest. The areas covered include the status of minority women in the world of work, comparative aspirations of black and white women, career expectations and preferences, occupational choice, motivation, sex-role attitudes, norming procedures, and perceptions of interest inventories for minority women, especially as these relate to employment inequity.

The review of pertinent literature suggests that black women are more likely to enter the labor force, to be more interested in doing so, to work full-time and continuously, perhaps motivated more by a sense of responsibility than by achievement need. Consistent with this is the finding that fear of success imagery is more frequent within a sample of white college women than within the black sample. While black women tend to be more traditional in their sex-role attitudes, they seem to be less constricted by their perception of the feminine role. However, they seem at least as constricted as white women in their perceptions of what occupational roles are appropriate for them.

The authors contend in regard to interest inventories that there may be a discontinuity or mismatch between the interest structure developed by minority females and those possessed by the criterion (majority) group used to validate the interest scale. Thus, the inventory and criterion reference group are biased against minority females, both on sex and ethnicity grounds. The future usefulness of standardized psychological tests and inventories will depend on vigorous research efforts to validate properly these instruments for minority use. The authors suggest a series of guidelines to combat sex bias toward minority women in counseling and interest measurement. (47 references)

Hansen, J.C. and Peters, H.J. (Eds.) Vocational Guidance and Career Development: Selected Readings, New York: Macmillan Co., 1971. 70

Career Guidance. Vocational Development. Career Information. Counseling Interaction. Student Subgroups.

This book of readings looks at the problems in the field of guidance and attempts to project significant developments in the field for the 1970's.

The book covers nine topical areas. The first part discusses a variety of approaches to the nature of work. A second section examines the implications of career counseling in a rapidly changing society. Part three presents an overview of several theories of vocational development. A fourth section looks at the nature of occupational information and considers some procedures for providing career information. The fifth part discusses issues surrounding the counseling interaction. Part six presents an overview of guidance at all levels: in elementary, junior high, senior high and college. The final three parts consider guidance of special populations: part seven looks at guidance of disadvantaged youngsters while parts eight and nine examine counseling of women and adults respectively. (127+ references)

Hansen, L. S. We are furious (female) but we can shape our own development. Personnel and Guidance Journal, 1972, 51 (2), 87-93.

Sex-role Stereotypes. Counseling Interventions. Curriculum Programs. Students.

Reasons for the anger of women about their traditional social roles and limiting social attitudes toward them were examined in this article. Curriculum programs designed to reduce sex-role stereotyping and to promote female development through an exploration of a variety of life styles were outlined for application at the elementary, junior, and senior high school levels. It was suggested that counselor intervention in the educational process from kindergarten through the 12th grade can provide a key to developing the untapped potential of women. (16 references)

(from A. Phelps, H. Farmer, and T. Backer. Selected Annotated Bibliography on Women at Work. New York: Human Science Press, in press. 1976.)

Harmon, L. W. The childhood and adolescent career plans of college women. Journal of Vocational Behavior, 1971, 1 (1), 45-56.

Occupational Aspirations. Persistence of Vocational Preference. Sex Stereotypes. College Women.

The popularity and persistence of early occupation preferences were investigated using the Life Planning Questionnaire for Women and a list of 188 occupational titles from the Strong Vocational Interest Blank. A sample of 1188 freshmen women were asked to report, retrospectively, which of the occupational titles they had ever considered as careers. The research variables were overall popularity of each occupation, median age at which each occupation was first considered, and persistence of vocational preferences. It was found that while early occupational preferences were popular, not all early preferences persisted. The most persistent preferences for women in this age group (after housewife) were among the typically feminine occupations--education and social service. The least persistent preferences involved unusual talent, long periods of training, or short noncollege training courses. Implications for counselors are the need to encourage young women to consider many types of occupations which cut across the boundaries of cultural and sex stereotypes, and to be attentive and responsive to the unusual occupations which an adolescent girl may be considering rather than directing all girls into "fields good for women." (8 references)

(from A. Phelps, H. Farmer, and T. Backer. Selected Annotated Bibliography on Women at Work. New York: Human Science Press, in press. 1976.)

Harmon, L.W. Strong Vocational Interest Blank profiles of disadvantages women. Journal of Counseling Psychology, 1970, 17 (6), 519-521.

Vocational Interests. Job Training. Counseling. Disadvantaged Women.

This study explores the use of the Strong Vocational Interest Blank (SVIB) with disadvantaged women by pattern analysis of the profiles of sixteen women in a New Careers program and nine women in a high school equivalency program. They were minority women from poverty areas who could be called culturally different and educationally disadvantaged. The pattern analysis suggested by Stephenson (1961) was applied to the Occupational Scales of the profiles.

Primary interest patterns emerge for 72% of these women. Each have at least one reject pattern. They do tend to earn a majority of their high scores in only two occupational groups, nonprofessional and medical service. However, there is considerable variety in the within-group pattern. It is true that few of these women obtained high scores in professional occupations. The author concludes that the SVIB can be useful in recognizing individuality in disadvantaged women and helping them to choose satisfying job training experiences. (4 references)

Harrison, B.G. Unlearning the Lie: Sexism in School. New York: William Morrow & Company, Inc., 1974. 176 pp.

Sex-role Stereotypes. Sex Differences. Racial Differences. Community Action Alternatives.

This book presents a chronological, anecdotal account of the struggle by the parents and staff of one cooperative school to recognize sexism in their school. The information for this narrative was gathered through personal observation and intensive interviews with the individuals involved. The author begins by examining many of the folktales concerning sex differences and indication of the pervasiveness of sex-role socialization. The evolution of the movement to recognize and eliminate sexist practices in a school which most parents and staff consider highly progessive, innovative and exciting highlights the multiplicity of obstacles which can be encountered when any faction attempts to combat discrimination. A small group of feminists set up a Sex-Role Committee to explore the possible existence of sexism at the school. The struggle to involve this entire community in this effort is related. The political and social activities learned by trial and error to build the bridges between parents and staff, blacks and whites, men and women are recounted. An objective presentation which includes a videotape of illustrations from readers which depict girls in demeaning ways, a paper by a psychologist on sex differences in cognition and perception and informal discussions about women in literature and in history is suggested as an effective educational tool. Finally, the author relates an assortment of changes which have taken place since the Sex Role Committee was founded. This is the start one school took to try to change the pattern, "unlearn the lie" that girls are innately passive, unaggressive, supportive and domestic while boys are innately dominant, achieving, adventurous and aggressive. (35 references)

Harvey, D. W. and Whinfield, R. W. Extending Holland's theory to adult women. Journal of Vocational Behavior, 1973, 3 (2), 115-128.

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Holland's Vocational Preference Inventory. Construct Validity. Reliability. Adult Women.

This study attempts to determine if Holland's personality types, as determined by the Vocational Preference Inventory (VPI) are valid or meaningful descriptors of women's personality styles and vocational interest. Test-retest reliability data is also examined. The sample consisted of 61 women enrolled in a Continuing Education program for Women (CEW) in 1970-71. The mean age of the women was 40.7, most were married and had been unemployed for an average of 10 years. The construct validity of the VPI for adult women was determined by examining the correlational relationships, directionally predicted on an a priori basis, between the VPI and certain scales of four criterion tests: the Strong Vocational Interest Blank for Women (SVIB-W), the Edwards Personal Preference Schedule (EPPS), the Allport-Vernon-Lindzey Study of Values (SOV) and the Differential Aptitude Tests (DAT). Test-retest reliability was examined by administering the VPI once at the beginning of the course and again three weeks later.

A substantial number of statistically significant positive and negative correlations, predicted on an a priori basis, between the VPI scales, Intellectual, Conventional and Enterprising, and scales on the criterion measures supports the construct validity of these three Holland types. While some significant correlations were found between the Realistic Social and Artistic categories and the criterion measure, a large number of predicted and supplementary relationships were not found to be significantly correlated. While this sample, in which the women were bunched in the Realistic and Conventional categories, may not be representative, the potential of Holland's theory for use with adult women rests, in part, on more validity data with regard to the conceptual meaningfulness of the constructs. Test-retest reliability coefficients, ranging from .653 to .834 indicate an acceptable level of stability of scores over the 3-week interval. (26 references)

Haun, L.E. A study of U.S. counselor educators by sex. The Commission for Women 1973-1974 Report Summary. Washington, D.C.: American Personnel and Guidance Association, 1974. pp. 4-6. 76

Counselor Educators. Sex Differences. Differences by Rank. Differences Over Time.

This study attempts to determine whether or not sex discrimination exists in Counselor Education programs on the basis of the sex distribution by rank of counselor educators. The Counselor Education Directory 1974 (Hollis and Wantz) was the primary source for a listing of counselor educators. It was compared with the Counselor Educator Directory 1971 (Hollis and Wantz) to determine changes over time. Sex was determined by ascribing gender to the first name of the faculty members included. The representativeness of the sample was considered good since 94 percent of the identified institutions were included.

The result showed clear evidence of discrimination against women faculty in Counselor Education programs. The proportion of women receiving doctorates in the field from 1961-69 is markedly higher than the proportion of women faculty in Counselor Education programs. The highest proportion of women faculty are employed at the lowest ranks. The proportion of women employed decreases as rank increases, and rank is usually an indicator of salary level. While the proportion of women employed in Counselor Education programs has increased slightly since 1971, the increase has been at the lowest ranks, with actually a slight decrease in the proportion of women at the highest rank. (No references)

Hawley, P. What women think men think: Does it affect their career choice? Journal of Counseling Psychology, 1971, 18 (3), 193-199.

Career Choice Determinents. Males' Feminine Ideal. Women's Perceptions.

The role that men's views play in the careers women choose was explored in this study. The author hypothesized that women may be influenced in their career choice by what they believe men think is appropriate female behavior. Results indicated that women's perceptions of male views of the feminine ideal differed significantly depending upon the career group to which they belonged. Furthermore, their perceptions differed according to whether or not they were married. It was implied that counselors need to be more sensitive to this important, though often unrecognized, influence on women's career choices. (18 references)

(from A. Phelps, H. Farmer, and T. Backer. Selected Annotated Bibliography on Women at Work. New York: Human Science Press, in press. 1976.)

Hawley, P. Perceptions of male models of femininity related to career choice. Journal of Counseling Psychology, 1972, 19 (4), 308-313.

Sex-role Perceptions. Idealized Roles. Career Aspirations. College Women.

This investigation replicated a previous finding that women's career choices were differentially related to their perceptions of men's views of the feminine ideal. The sample of 136 female San Diego State College students consisted of education, math or science, and counseling majors. Subjects were divided into married and nonmarried categories. Thirty-five written statements to be agreed or disagreed with, according to what "significant men in my life think," were used to rate the importance of woman as a partner, ingenue, homemaker, competitors, and knower. To determine if different perceptions of men's views on women could be related to factors other than career choice, eight convariates of personal data were considered in addition to marital status and career plans.

Those preparing for careers in the male-dominated areas of math and science believed men made little differentiation in male-female work roles and related behaviors and attitudes. Subjects preparing for the more traditionally feminine career of teaching thought that men divided work, behavior, and attitudes into male and female categories. Counselors-in-preparation, although expected to score similarly to teachers-in-preparation, because of the "helping" nature of their profession, instead scored closer to the math-science group. The feminine model held by the math-science group allowed the widest range of career choices without violation of sexual identity. This group and the counselors-to-be were more concerned with having good relationships with and providing support for men than were the women who were planning to become teachers. (16 references)

(from H. S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D. C.: U. S. Government Printing Office, 1975.)

Heilbrun, A.B., Jr. Female preference for therapist initial interview style as a function of client and therapist social role variables. Journal of Counseling Psychology, 1971, 18(4), 285-291.

Sex-role Identity. Counseling Style. Sex and Status Difference of Counselors. Counseling Readiness. Attrition.

This study investigates the relationship between potential female dropouts from therapy and preferences for therapist directive-nondirective interview behavior during the initial contact. The status and sex of the therapist and sex-role identity of the client are systematically varied. The Counseling Readiness scale and the Masculinity-Femininity scale of the Adjective Check List (Gough and Heilbrun, 1965) were used toidentify high and low counseling readiness and masculine/feminine clients among 71 female volunteer clients. Each volunteer was to examine the transcript of an initial interview. There were two sections of the transcript, one section directive, the other nondirective. Also the therapist was identified as a high-status male or female (PhD. in clinical psychology) or a low-status male or female (new graduate student). The client was to indicate style preference on a six-point scale from nondirective, strongly preferred, to directive, strongly preferred.

Overall analysis indicated that high counseling-readiness females do not differ from low-counseling readiness females in directive-nondirective preference when all types of therapists are considered. There is lower preference for interviewers directiveness when the therapist is high in status regardless of sex. Given high counselor status, low counseling-readiness subjects prefer greater directiveness from male than female therapists. Given low counselor status, subjects prefer less directiveness from male than female therapists. In a two-factor factorial analysis of variance for therapist status and sex-role variables a significant status by sex role interaction emerges. Preference for less directive interview behavior for high versus low status therapists is totally attributable to the feminine high counseling-readiness girls. Masculine high counseling-readiness girls demonstrated essentially equal preference for directiveness regardless of status. The author suggests further clarification of the feminine-masculine dimension through research may lead to more effective therapist-client pairings. (19 references)

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Heilbrun, A. B., Jr. Parental identification and the patterning of vocational interests in college males and females. Journal of Counseling Psychology, 1969, 16 (4); 342-347.

Parental Models. Career Aspirations. College Students.

This study investigated whether the relationship between tested vocational interests and parental identification choice can be modified by the masculinity or femininity of the chosen identification model.

Students at Emory University (47 males, 33 females) were administered several scales as part of an intake battery for vocational-educational counseling. Measures obtained were: Child's perceived similarity between himself and each of his parents, indicating type and degree of parental identification; masculinity-femininity of the parental model, measured by subject's attribution to mother or father of nine traits previously shown to be sex-typed for similar samples; and the Strong Vocational Interest Blank.

Results showed the following relationships: Father-identified males had more primary occupational interests than mother-identified males. Males identified with masculine models (mother or father) showed more rejection scores (fewer occupational interests) and more high- or low-interest patterns. Females identified with a masculine mother or feminine father had more primary occupational interests than females identified with sex-role-appropriate parents, and a higher proportion of positive interests relative to total patterned interests. Females with a feminine sex-role model (either parent) had a higher number of rejection scores. A feminine-mother identification was associated with the most limited positive career interest development for both sexes. (21 references)

(from H. S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography. Washington, D.C.: U.S. Government Printing Office, 1975.)

Hernandez, D. Mexican American Challenge to the Sacred Cow. Los Angeles: Aztlan Publication, 1970. 62 pp.

Stereotypes. Mexican Americans. Achievement. Aspirations. Cultural values.

The monograph critically reviews and analyzes the studies that deal with values, achievement and aspirations of Mexican Americans. But first the author presents the historical development of the Mexican American model or stereotype in sociological and anthropological research. The studies were analyzed and assessed on the following factors: (1) researcher's bias, (2) inadequacy and inappropriateness of theoretical framework, (3) sophistry and irrationality, (4) inappropriateness and subjectivity of survey techniques, (5) interpretation of findings. In each instance, these studies are cited for lack of sensitivity to subculture variations, for perpetuating the Mexican American stereotype which then serves as a school rationale for the treatment and manipulation of this ethnic group. (42 references)

Hess, R.A. Social class and ethnic influences on socialization. In P.H. Mussen (Ed.) Carmichael's Manual of Child Psychology, (Vol. 2), New York: John Wiley and Sons, Inc., 1970. pp 457-558.

Socialization. Class and Ethnic Differences. Urban Poor. Family Relations. Personality. Behavioral Systems.

This chapter presents the concepts of socialization and social class, their parameters and interrelationship. A number of the methodological problems involved in the study of class-related behavior prefaces this review of the relevent literature. Lack of uniformity of research techniques, overlapping or nonspecific categories, failure to distinguish social class from associated variables, indirect, unverified data sources and emphasis on central tendencies rather than variability within groups limit these findings' usefulness. Because of the complexity of the topic, the focus of this chapter is on urban poor in the United States to illustrate the types of transmission that occur and to indicate how the circumstances of the environment are translated into child-rearing practices. The circumstances of lower-working-class life in urban society are summarized and adaptive consequences highlighted. Those operations mediating between social ecology and behavior are reviewed. Finally, the research dealing with social-class differences in intrafamily psychosocial operations and in children's personality and behavior are reviewed. (78 references)

Hill, G.E. Management and Improvement of Guidance, New York: Appleton-Century-Crofts, 1965.

Guidance Theory. School Guidance Systems. Vocational Guidance. Student Subgroups. Testing. Personnel.

This three part book describes a rationale for guidance, how to effectively manage a guidance system in the schools and new directions in the guidance field.

Part I is an attempt on the author's part to state his position regarding the meaning and purpose of guidance and to provide material which will enable people in the guidance profession to develop their own goals and philosophy for the field. Part II discusses ways of equalizing the quality of guidance services available across schools. It raises several issues regarding management for improved guidance services. Part III considers five areas of guidance needing more careful attention by professionals in the field. These include: a definition of vocational guidance, guidance for the intellectually talented and the disadvantaged, concern with standardized testing and the selection of guidance workers. (178 references)

Hill, C.E. Sex of client and sex and experience level of counselor. Journal of Counseling Psychology, 1975, 22 (1), 6-11.

Sex Differences. Counseling Behavior. Sex-Role Stereotyping. Self-Confidence. Counselor Training.

This study examines "behavioral effects of sex of client and counselor and the effect of experience level of counselors in conjunction with the sex variables." Twenty-four counselors (12 men, 12 women), half counselors in training and half with at least two years experience, recorded the second counseling session with one male and one female counselee. Satisfaction items, frequency counts of counselor and client verbal behavior, activity level and judge's ratings were obtained for each session. Several multiple linear regression analyses examined main effect of sex and interactive effects for sex and experience.

Inexperienced counselors, both male and female, appear the most empathetic and active and elicit more feeling with same sex clients than with opposite sex clients. With opposite sex clients inexperienced counselors talk more about their own feelings. When experienced counselors, both male and female are paired with same sex client they focus more on feelings and are more empathic whereas with opposite sex clients they are more active and directive but did not focus on feelings. Females are rated as exploring themselves in greater depth than males. These data did not concur with the number of affective self referents which was the behavioral rating of feeling expressed. Clients of female counselors report more satisfaction with the session than did clients of male counselors. The most empathic, active and satisfied counselors are experienced females and inexperienced males. The effects of sex role stereotyping and differences in self confidence are discussed extensively by the author. The implications of these findings for counselor training are also discussed. (17 references)

Nishihi, P. C. Self-concepts of sixth grade girls of Mexican-American descent. California Journal of Educational Research, 1969, 20 (2), 56-62.

Academic Achievement. Self-concept. Interests. Minority Girls. Racial Differences.

An investigation which attempts to determine the relationships among self-concept, academic achievement, intelligence, and interests is presented. The Self-Concept Scale (SCS) and the Child Self-Description Scale (CSS) were administered to 65 sixth grade girls of Mexican-American (MA) descent. Scholastic characteristics were defined by the Lorge-Thorndike Intelligence Test scores and by the Stanford Achievement Test scores. The results obtained were compared with the results from a similar study using white sixth grade girls in Georgia as subjects. The comparison between groups revealed that the mean concept scores for both self and ideal self are higher for the Georgia group than the MA group. There is a significant positive relationship between self-concept and factors of intelligence and academic achievement for the MA group. Mean grade placements on the achievement test for the MA group are two grade levels lower than actual grade. Further, the findings show that both groups of girls assigned themselves similar patterns of self-description. However, the MA sixth grade girl with a high self-concept had more success in academic achievement than did the sixth grader of a similar background with a low self-concept. In view of the results of intelligence and achievement testing, the group of girls from Georgia would have a better chance of entering and succeeding in college. It is suggested that the school provide every opportunity for bringing the reality and the aspiration level of the MA student closer together. (9 references)

(From A. M. Padilla and P. Aranda. Latino Mental Health: Bibliography and Abstracts. Washington, D.C.: U.S. Government Printing Office, 1974.)

Hoffman, L. W. Early childhood experiences and women's achievement motives. Journal of Social Issues, 1972, 28 (2), 129-155.

Achievement Motivation. Parental Influence.

A critical review of child development literature of the last three decades examines women's achievement motives and behavior. Limitations of research on child development, such as lack of standardization of terminology, generalization of results from one population, and ambiguity in conceptualization, affect empirical data in this field. The examination of research on independence and autonomy training of young children, early mother-infant interaction, and sex differences in achievement motivation provide support for the theory proposed to explain female underachievement: Female children are not given enough parental encouragement in early strivings for independence. Consequently, female children do not develop the confidence and sense of independence needed to cope with their environments. They develop neither adequate skills nor confidence, but continue to be dependent upon others. Their achievement behaviors are motivated by a desire to please. Moreover, the females' high need for affiliation often blocks their achievement motives, and their performance is either sacrificed or achieved at the cost of high levels of anxiety.

It is concluded that further research is needed to provide insight into the processes that create differences between the sexes in achievement orientation. (98 references)

(from H. S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography. Washington, D.C.: U.S. Government Printing Office, 1975.)

Hollender, J. Sex differences in sources of social self-esteem. Journal of Consulting and Clinical Psychology, 1972, 38 (3), 343-347.

Self-esteem. College Students.

The interaction of sex of subject with various sources of social self-esteem was examined in relation to level of social self-esteem. Source variables selected were need for approval, course grades, family sibling structure, and perceived parental identification. It was hypothesized that the level of social self-esteem would not differ between sexes, but that its correlates would differ for the two sexes. Subjects were 40 female and 38 male students in an introductory psychology course at Emory University. Social self-esteem was measured by having each subject rank order himself or herself within a set of five social roles; six such sets were ranked by each subject. The Marlowe-Crowne Social Desirability Scale measured need for approval. A nine-item semantic differential rating indicated perceived parental identification. The family structure variables were ordinal position and sex of sibling. Course grades were reported by the instructor.

Results showed a negative correlation of social desirability scores with self-esteem for females, but not for males. For males, a low course grade was associated with lower self-esteem; for females, a high grade was associated with lower self-esteem. Sex differences were also found in the relationship between family structure and self-esteem: For males analyzed separately, first borns with female second siblings had higher self-esteem than first borns with male second siblings; for females analyzed separately, family structure variables yielded no significant differences. For all first borns, self-esteem was lower in females than in males, regardless of sex of the second sibling. For both sexes analyzed together, first borns with second-born siblings of the opposite sex had higher self-esteem than those with same-sex second siblings. No significant differences were found in the parental identification analysis. (16 references)

(from H.S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography. Washington, D.C.: U.S. Government Printing Office, 1975.)

Horner, M. S. Toward an understanding of achievement-related conflicts in women. Journal of Social Issues, 1972, 28 (2), 157-175.

Achievement Motivation. Sex-role Perceptions. Stereotypes. Self-concept.

A series of achievement-motivation studies conducted over a 7-year period is reviewed in detail within the framework of an expectancy-value theory of motivation. The individual female is said to develop an expectancy that success in achievement-related situations will be followed by negative external and/or internal consequences, as a result of a widely held societal stereotype. This stereotype views competence, independence, competitiveness, and intellectual achievement as basically inconsistent with femininity, even though positively related to masculinity and mental health. It is hypothesized that a motive to avoid success is thereby aroused in otherwise achievement-motivated women and inhibits their performance and levels of aspiration.

Male and female college students, female junior high and high school students, and female administrative secretaries in a large corporation were administered the standard Thematic Apperception Test for the achievement motive, using verbal rather than pictorial cues. A verbal cue connoting a high level of accomplishment in a mixed-sex competitive achievement situation was added. A simple present-absent system was used for scoring fear of success imagery. Some subjects also responded to a questionnaire and had intensive interviews which explored the behavioral impact of the motive to avoid success. Fear of success was investigated as a function of age, sex, educational and ability levels, measured positive achievement motivation, and social environment.

Fear of success was found more often among females than among males and increased with age, educational level, and ability (i.e., probability of achieving success) for the females. This fear was most often exhibited by females in mixed-sex competitive situations, rather than in noncompetitive but achievement-oriented ones. It is concluded that highly competent and otherwise achievement-motivated young women, when faced with a conflict between their feminine image and development or expression of competence, adjust their behaviors to an internalized sex-role stereotype. Impairment of the educational and interpersonal functioning of those high in fear of success was found. Some possible causative mechanisms and possible consequences of the motive for both the individual and society are discussed. (19 references)

(From H.S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U.S. Government Printing Office, 1975.)

Howard, S. Liberating Our Children, Ourselves. Washington, D.C.: American Association of University Women, 1975. 59 pp.

Sex-Role Stereotyping. Socialization. Teacher Education. Counseling. Women's Studies.

This handbook is intended as a guide to teacher educators in developing Women's Studies course materials. The foremost goal of Women's Studies in teacher education is to interrupt the process by which sex-role stereotyping is perpetuated in the schools. Examination by students of discriminatory school practices and policies is used to increase their awareness of their own sex biases. Sex differences and the socialization process are studied. Opportunities for developing tools, methodology and materials to eliminate sex role stereotyping in school policies, programs and material are presented. Students study and design strategies for promoting sex equality in educational institutions. The history of Women's Studies and a rationale for incorporating them in teacher education are presented. A course outline and detailed course objectives are enumerated. Numerous learning projects while mostly traditional (lectures, discussions, reading lists, exams, projects and papers) emphasize the involvement of students in the planning, development and teaching of the course. A comprehensive course syllabus and a 272-item reading list are included. (... references)

Hunter, K. Help women plan for the second half. Adult Leadership, 1965, 13 (10), 311+.

Adult Women. Group Counseling.

This article reports on a 10-week non-credit group counseling course called "Plan for the Second Half of Your Life" that was developed at the University of Akron. The purpose of the group was to provide guidance and information to women who wished to resume or begin a career. The speakers included important employers in the area who discussed needs, job opportunities and necessary requirements; university department representatives who talked about academic requirements, courses, the demands for graudates, and academic success of mature students; a panel of women who had combined career and family spoke on the pros and cons of this arrangement, and a medical physician also discussed the advantages and disadvantages of combining career and family; and a modeling school operator who talked about proper grooming and wardrobe for a career return. The course also had an extensive reading list, self-analysis was encouraged, job resume wrting was taught, and conferences with employers or university department chairmen were encouraged.

There were 83 women in the group, 55 of whom had gone to college and 28 held degrees, including 3 with master's degrees. Seventy-eight of the women were married, 3 were widowed, and none were divorced. Their children's ages ranged from pre-school to married. Although family incomes ranged from $4,000-$60,000, 53 percent were between $10,000 and $20,000.

The author felt publicity was very important in reaching these women. While many of them were experiencing conflict about combining home responsibilities with even a part-time career when they began the course, many seemed to resolve this conflict during the 10-week period. (no references)

Huth, C.M. Measuring Women's: How useful? The Personnel and Guidance Journal, 1973, 51 (8) 539-545.

Vocational interests. Career development. Reliability. Predictive Validity. SVIB-W. Counseling.

This article reviews recent studies using the Strong Vocational Interest Blank - Women's form. The author questions the validity of this instrument. It does distinguish two distinct interest patterns of the high scores on physician, psychologist, author, artist and lawyer scales for one group and high scores on housewife, home economics teacher, office worker and stenographer scales for the other. The meaning or implications of this bipolar split is not completely clear. While the predictive validity of the SVIB-W for the "career committed" was about equal to the validity of the men's form, it does not predict which women will become career committed. The author questions the usefulness of this instrument for counseling women since it does not differentiate the interests of the majority of women. (27 references)

Iglitzen, L.B. A child's eye view of sex roles. In NEA's Sex Role Stereotyping in the Schools. Washington, D.C.: National Education Association, 1973. Pp 23-30.

Sex Stereotypes. Occupational Aspirations. Family Relations. Political Awareness. Elementary Students.

This paper summarizes two studies dealing with sex stereotyping among fifth grade students. The first study involving 141 boys and 149 girls sought to show the extent of sex stereotyped views of career and employment patterns, social roles in home and family and the child's view of his/her role as an adult. Children were asked to sort a list of job and personality traits into those "for men", those [illegible]men" and those "for men and women." Boys and girls demonstrated sex stereotyping. Although girls were less inclined to reverse traditional sex-tied jobs than boys, girls were more willing to see jobs open to either sex. Children of both sexes tended to see personality traits as distinctly masculine or feminine, though they did not always agree on which sex should be linked with a particular trait. Overall, girls had varied career aspirations, though these were heavily weighted toward traditional female occupations. Only 6 percent said they would be simply a mother or housewife. However, when asked to describe how they would spend a typical day in their future, girls showed a marked discrepency between their stated career goals and their actual day. Girls emphasized marriage and family much more than boys did. Boys focused more on details of job and career. This data indicated that children with working mothers - especially girls - had more liberal views on roles of men and women in society.

In a second study of 80 boys and 67 girls in the fifth grade an expanded questionnaire was administered to see if sex stereotyping found in the first study was replicated and to see what effect, if any, these views had on children's political attitudes and beliefs. When boys and girls were asked to choose any possible political job the same small number of boys and girls chose to be President. A sizeable number of boys chose mayor, not one girl did. For girls a popular choice was school board head or judge. But whether these choices were made as realistic options or on the basis of stereotypes is indeterminate. On a composite index of political information and awareness girls did more poorly than boys. Other sex differences were in line with the previous study. While stereotyping clearly exists, the data did not show any strong relationship between it and political awareness. (Author abstract)

Jakubowski-[illegible], [illegible] [illegible] growth [illegible] women through assertive training. [illegible] Counseling Psych[illegible], 1977, [illegible].

[illegible] Alternatives.

[illegible] paper [illegible] the [illegible] procedure to teach women new skills for dealing [illegible] roles. Before outlining assertive training [illegible] distinguishes assertive behavior from [illegible] behavior and from aggressive behavior. The article then [illegible] assertive training. Its goals are 1) to educate the woman [illegible] interpersonal rights; 2) to overcome what ever blocks exist [illegible] acting assertively; and 3) to develop and refine assertive behaviors through active practice methods. The creation of awareness and motivation to acquire assertive skills is the first requi[illegible]. Then, the client needs to build through assertive training a belief system that supports and justifies her acting assertive. The client's fears and anxieties about acting assertively must also be all[illegible]. The client can then build assertive skills through behavioral rehearsals including role-[illegible], role-playing and psychodrama. The ultimate [illegible] have the client rely on her own judgement about when and how to act assertively, to develop a natural assertiveness which they can [illegible] in all situations and not just in therapy. (22 references)

Johansson, C.B. Technical Aspects: Problems of scale development, norms, item differences by sex and the rate of change in occupational group characteristics. In E.E. Diamond (Ed.) Issues of Sex Bias and Sex Fairness in Career Interest Measurement, Washington, D.C.: U.S. Department of Health, Education and Welfare. Pp. 65-88. (Available from Educational Work, National Institute of Education, Washington, D.C. 20208).

Sex Bias. Vocational Interests. Kuder. SVIB. Minority Bias. Technical Aspects.

The paper reviews the Kuder and Strong Interest Inventories, exploring the complexities of item sampling, norming, scoring and reporting of results in relation to differential treatment of the sexes and suggests guidelines to eliminate or alleviate any potential sex-biasing factors. At the item development level using the same set of items for both male and females is recommended. Special care should be exercised so items are not inherently more applicable to either gender or discriminate against minority group members. In reference to norming, scoring and reporting results both criterion (occupational) scales and internal (basic interest) scales are of concern. A person's score on a criterion scale measures the extent of similarity to those in the criterion sample. The extent and magnitude of differences between male and female responses and how to accommodate these differences is of immediate importance. Since male-female response differences appear to be fairly stable and large even when occupation is controlled for, the author suggests occupational scales should be developed for male criterion and female criterion samples separately. When appropriate sex criterion sample does not exist opposite sex criterion sample should be used for reporting scales but with cautions about possible sex stereotypes involved. Basic interest scales (internally based scales) are based on the interrelationship of items within the inventory. The author feels using one sample equally representative of males and females would lessen the impact of potential sex bias. Differential response frequencies of males and females could best be handled by using the combined reference group as the norm sample or converting raw scores to standardized scores but separate interpretive norm distribution be provided for males and females. (39 references)

Johansson, C.B. and Harmon, L.W. Strong Vocational Interest Blank: One form or two? Journal of Counseling Psychology, 1972, 19 (5) 404-410.

Occupational Differences. Sex Differences. Sex Bias. SVIB.

This study looks at some of the problems of separate forms of the Strong Vocational Interest Blank (SVIB) for males and females. The questions include whether men and women in the same occupation have different interests, whether these differences are reflected in the occupational scales for men and women, and whether these occupational-scale differences are valid and useful. On the average about 42% of the common items differentiated men from women in the same occupation, and 44% of the common items differentiated the men-in-general and women-in-general samples. While 9% of the common items on the male and female scales reflected valid sex differences, 21% of the common items for male scales and 15% for the female scales represented non-valid sex differences. Apparently, the present system results in scales that incorporate more items related to sexual stereotypes than items related to valid differences between males and females in the occupation. The authors suggest the best way to avoid sexual bias in the SVIB is to design one form of the inventory that controls for sex differences. (2 references)

Johnson, H.S. Motivation and the Mexican-American. In H.S. Johnson and W.J. Hernandez-M (Eds.) Educating the Mexican-American, Valley Forge, Pennsylvania: Judson Press, 1970. Pp. 108-116.

Motivation. Achievement. Ethnic Differences.

This study was designed to identify aspects of motivation which account for differences in academic performance of Anglo-American and Mexican-American students. The study involved a sample of 214 Anglo-American and 224 Mexican-American eighth graders who were classified as low, middle, or high-achievers on the basis of their grade point average in seventh and eighth grades. Intelligence of the students was measured by the California Test of Mental Maturity. Achievement was measured by the California Achievement Test. Motivational traits were measured by the School Motivational Analysis Test. Socioeconomic status was determined using Warner's Revised Index of Status Characteristics.

The results of the study show twice as many Mexican-American boys and four times as many Mexican-American girls as Anglo-Americans in the low-achiever groups. In the high achiever groups twice as many Anglo-American as Mexican-Americans are present. There are few differences in the motivational traits of the two ethnic groups. The author concludes other factors such as parental education, socioeconomic status, and a biased grading system may account for the differences in achievement. (11 references)

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Jones, A.J. Principles of Guidance. New York: McGraw-Hill Book Company, Inc., 1934. 456pp.

Guidance Theory. Rationale. Problem Areas. Evaluation.

This book attempts to clarify the meaning and significance of guidance especially as it relates to the public school by presenting a rationale for the need of guidance, its purpose and basic assumptions, and the problems confronting youth (educational, occupational, leadership, and social adjustment) with which it proposes to be of aid. It attempts to formulate and explain the fundamental principles underlying the guidance movement. While it presents many illustrations of actual procedures and suggestions for improving practices it is not a handbook. It is a theoretical treatise which proposes to give a conception of guidance which will enable teachers and administrators to see its relationship to other phases of education and thus formulate a basis for proper evaluation of its procedures and practices. (4 to 37 references per chapter)

Jones, H. The Effects of Pre-College Counseling on the Educational and Career Aspirations of Blacks and Women Enrolled at the University of Pittsburgh. Pittsburgh, PA: University of Pittsburgh, 1973. 66 pp.

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Counseling Outcomes. Career Aspirations. Occupational Choice. Sex Differences. Racial Differences. Stereotypes. College Students.

This study investigates the effects of pre-college counseling on the career aspirations of minority groups (primarily blacks) and women at the University of Pittsburgh during the 1972-73 school year. The three educational levels sampled were undergraduate freshmen, undergraduate seniors, and advanced graduate students. Surveys were sent to all blacks and random samples of white females and white males (control group) in various schools at the University. Questions dealt with the availability, quantity and quality of pre-college counseling of the respondent and its impact on their career choice. These variables were correlated with student's demographic data and selected personality traits. There were 510 responses, giving an overall response rate of 17 percent. By sub-samples the returns rates were seven percent for black males, 12 percent for black females, 16 percent for white males,and 64 percent for white females.

The results indicate that the impact of high school guidance counselors on their students career choices is negligible. Personal values and interest, and to a lesser extent socioeconomic status, parental encouragement and parental aspirations, have great influence on career choice. The report concludes with a number of recommendations using these findings to improve high school guidance services. (42 references)

Kaplan, R. M. & Goldman, R. D. Stereotypes of college students toward the average man's and woman's attitudes toward women. Journal of Counseling Psychology, 1973, 20 (5), 459-462.

Sex-role Stereotyped. Average Man. Average Woman. Sex Differences.

An anlysis of female stereotypes held by college males and females was performed using the techniques of role playing, and an attitude questionnaire in which subjects were instructed to respond either as an average male or average female would respond. Results showed a significant difference between the sex stereotypes of males and females and an interaction between sex of the respondent and sex stereotype. The average man was portrayed by both male and female respondents as viewing women in a more traditional manner than the average woman. Female respondents perceived a greater difference between the stereotypes of females held by men and women than did male respondents. An implication for counselors is that women clients may have inaccurate perceptions of the views which men hold toward women's role in society. (6 references)

(from A. Phelps, H. Farmer, and T. Backer. Selected Annotated Bibliography on Women at Work. New York: Human Science Press, in press. 1976.)

Klein, M.H. Feminists concepts of therapy outcomes. Psychotherapy: Theory, Research and Practice, 1975, (in press). 20 pp.

Feminist Therapy. Outcome Measures. Sex Bias.

This paper examines the ways in which sex-role biases are reflected in measures of outcomes commonly used in research on therapy in order to highlight differences between traditional and feminist views of mental health. The fundamental distinction deals with whose aims, society's or the individual's, are to be considered first in evaluating functioning. Traditional perspective, the author states, is "what is good for society must be good for the woman." Feminist perspective is "what is good for the woman may not always be good for society."

The mental health concepts examined by the author include Symptom Removal, Self-esteem, Quality of Interpersonal Relationships, Role Performance, Target Problems and Problem Solving, Body Image and Sensuality, and Political Awareness and Action. Each of these topics is examined from the traditional and from the feminist perspecitves.

In summary the author says traditional theory has focused on the way that the individual learns and carries out cultural values and social roles. Traditional therapy has been concerned with helping the individual make this adjustment. The feminist and humanist traditions are more concerned with looking at the processes that the individual uses to internalize and personalize values and roles, and stress individuality more than social conformity. Feminist goals are summarized in a checklist of "Things every therapist should ask about female patients." (34 references)

Kravetz, [illegible] F. Consciousness-raising groups and group therapy: Alternative mental he[illegible]th resources for women. Psychotherapy: Theory, Research and Practice, 1975, (in press). 18 pp.

Consciousness-raising. Psychotherapy.

This paper reviews women's criticisms of traditional psychotherapy, presents evidence to support some of the claims, and describes the consciousness-raising groups as an alternative. The primary criticism stated is that psychotherapy is an adjustment-oriented system, helping women to understand, accept, and adjust to traditional roles and norms. Traditional therapy assumes the problem lies within the individual, rather than possibly with society. The empirical evidence cited to support these criticism includes studies which found that normal female behavior is perceived by clinicians as less healthy than normal male behavior, that therapists rated a majority of male traits positively and a majority of female traits negatively, and that women's life roles are neither valued nor respected.

Consciousness-raising groups are suggested as alternative mental health resources for women. Such groups are often leaderless, politically oriented, and stress sharing of personal experiences and feelings. It is felt that such an approach is desirable where problems of roles and social adjustment are involved. Five outcomes unique to consciousness-raising groups presented in the literature are reported.

The author calls for outcome studies comparing psychotherapy and consciousness-raising groups in order to assess the relative advantages and disadvantages of these two systems. (45 references)

Ladner, J. A. Tomorrow's Tomorrow: The Black Woman. Garden City, New York: Doubleday, 1971. 304 pp.

Socialization. Racism. Attitude Development. Self-esteem. Adolescent Girls.

The role of white racism in the processes by which low income black girls approach and become women is studied. It is contended that blacks are the sum of neocolonial brutalization and that their emerging socially defined deviant behavior patterns are creative adaptations to this condition. Data are provided from a study of an all black low income housing project in a slum area of St. Louis, Missouri. Life histories and questionnaire responses concerning attitudes and behavior that reflected approaching womanhood are included for a group of adolescent girls between the ages of 13 and 18. Topics include (1) discussion of black womanhood from a historical perspective, including its African background and the effects of slavery; (2) features of growing up as a minority group citizen where emphasis is placed on the significant role of the peer group and extended family in attitude development; (3) the problem of racial oppression and the personality and self-esteem of the black girl; (4) definitions of womanhood and images of black womanhood; (5) psychological and physiological aspects of maturation as reflected in the experiences of black girls. (133 references)

(from P. E. Cromwell, (Ed.). Women and Mental Health, A Bibliography Washington, D.C.: U. S. Government Printing Office, 1974.)

Laws, J.L. Work Aspirations in Women: False Leads and New Starts. Draft prepared for the Workshop Conference on Occupational Segregation, Wellesley, Mass., 1975, 84 pp.

Employment Statistics. Motivation. Women's Career Development Theories. Research.

This paper focuses on the theories and research about women in paid employment. The author hypothesizes that most theories emphasis on marriage and family introduce specific bias and proper evaluation of the literature requires identification of common fallacies if predictions and conceptionalizations are to prove useful. For background, a brief statistical review of women working is presented. The relationship between motivation and work behaviors is also discussed briefly. The bulk of the paper deals with major career development conceptualizations and their related research. The theories are classified under three models: Model I - Women are different than men; Model II - Women are the same as men; and Model III - Women are social animals. The underlying assumptions of each theory are critiqued for strong and weak concepts relative to working women. The research on women's work orientations and work experience relative to each model is classified according to a temporal dimension: prospective, retrospective and concurrent. The research is analyzed for strong and weak aspects and promising areas for future investigation are pointed out. The author hopes an adequate conceptualization of women and work can evolve so that women who are employed or wish to be employed can enjoy their competence without guilt or anxiety. (References not available in draft)

Levy, B. Sex-role socialization in school. In NEA's Sex Role Stereotyping in the Schools. Washington, D.C.: National Educational Association, 1973. Pp 1-7.

Socialization. Teacher Attitudes. Counselor Practices. Academic Achievement.

This paper discusses the hypothesis that the function of schools is not education but socialization and maintenance of the status quo thus helping to keep the dominant group dominant. While traditional sex-role expectations and school expectations for girls are the same, doubly reinforcing girls' obedience, docility and dependence, school expectation for boys often conflicts with traditional sex role expectations. As a result boys tend to act-out more and are more noticeable whereas girls are more completely socialized into being good and easily ignored. The author contends that masculine characteristics are related to intellectual development and self-actualization whereas to be "feminine" promotes characteristics that inhibit achievement. Studies focusing on female teachers relationships to boys indicate that while teachers yell more at boys, they also give boys more praise, instruction and encouragement to be creative than girls. Girls are either ignored or rewarded merely for following directions and doing assigned work. The differential patterns of reward, discipline and criticism subtly shape boys toward more independent achievement and girls toward dependence and nonsustained achievement. The authority structure in schools (male principals, female teachers) clearly teach students the differential status of men and women, as do segregated classes and activities. Some research findings indicate counselors tend to guide female students into "feminine" occupations and tend to assume girls desire marriage more than they in fact do. Another study showed most teachers differentiated ideal behaviors by sex. Such attitudes supplement and reinforce institutional sexism of high schools. (7 references)

Lewis, M. Parents and children: Sex-role development. The School Review, 1972, 80 (2), 229-240.

Socialization. Parent-Child Relations. Proximal and Distal Behaviors.

This inquiry examines socialization processes that produce observable sex differences in humans. The discussion of parental attitudes and behaviors as a function of the infant's sex and of some adult social patterns is based on several mother-infant studies.

Parental attachment behavior reflects an important socialization process and can be classified as either proximal (touching) or distal (actions, such as talking or looking, performed at a distance). Observational studies indicate that, after the age of 6 months, girl infants receive significantly more proximal behavior than boys. It appears that, in American culture, boys are socialized earlier and more emphatically from proximal to distal behavior. For males in adult society, touching is generally restricted to the opposite sex and is primarily sexual in its function. Observation of Jewish, Italian, and Greek subcultures supports the idea that proximal behavior toward boy infants is culture-specific. (12 references)

(from H. S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U. S. Government Printing Office, 1975.)

Lincoln, M.F. (Ed.) Teaching About Vocational Life. Scranton, PA: International Textbook Company, 1937. 617 pp.

Vocational Guidance. Vocational Information. Evaluation Methodology.

This book attempts to translate the principles and aims of guidance into working procedures. The author has attempted to make practical suggestions for teachers and guidance workers on how to teach and practice guidance. The contents are divided into twelve chapters. Chapter One: Formulating Objectives concentrates on presenting the vocational objectives of 75 guidance classes. The formats in which information may be presented are reviewed in a second chapter. Other guidance functions such as placement, counseling and teaching are explored in the following chapter. Chapter four surveys the resources available to students in educational and vocational information classes and indicates ways that they may obtain information. Curriculum planning for vocational information classes is presented in Chapter five. In the next chapter, are presented the preparation of the lesson plan and a variety of teaching techniques. Using other school subjects to introduce vocational information is the next topical area covered. Chapter eight presents the use of drama and radio in teaching. The evaluation of teaching and the measurement of objective attainment is discussed in Chapter nine while methodological issues in the evaluation of criteria are considered in the following chapter. Chapter eleven overviews the evaluation of guidance and describes techniques that may be utilized for this purpose. The final chapter suggests a number of problems in guidance that are awaiting solutions. (900+ references)

Maccoby, E.E. and Jacklin, C.N. The Psychology of Sex Differences. Stanford, CA: Stanford University Press, 1974. 627 pp.

Socialization. Sex-Typing. Role Modeling. Social Behavior. Temperament. Intellect. Achievement. Self-Concept.

This comprehensive review of reported research findings systematically analyzes and interprets the data on sex differences in the areas of perception, learning, memory, intellectual ability, congitive style, achievement motivation, self-concept, temperament, social approach-avoidance, power relationships, sex-typing, role modeling and socialization. The summary text is supported by an annotated bibliography of over 1400 research studies. In the conclusion the authors assess the validity of the most widely held beliefs about sex differences, propose a framework of similarities and differences between the sexes, and examine the social implications of their findings.

The unfounded beliefs about sex differences are that girls are more "social" and more "suggestible" than boys, that girls have lower self-esteems, that girls are better at rote learning and simple repetitive tasks and boys at tasks requiring higher level cognitive processing and inhibition of previously learned responses, that boys are more "analytic," that girls are more affected by heredity, boys by environment, that girls lack achievement motivation, that girls are auditory, boys visual. However, girls do rate themselves higher in social competence. Boys often see themselves as strong, powerful, dominant and "potent." During college (but not earlier or later) men have greater sense of control over their own fate and greater confidence in their probable performance on a variety of school related tasks. Boys' achievement motivation appears to be more responsive to competitive arousal than is girls', but this does not imply a generally higher level.

Some sex differences are fairly well-established. Girls have greater verbal ability than boys early in life and then after age 10. Boys excel in visual-spatial ability especially in adolescence and adulthood. Boys excel in mathematical ability especially after age 12. Males are more aggressive. Sex differences in tactile sensitivity, fear, timidity and anxiety, activity, competitiveness, dominance, compliance and nurturance are still open questions. Three kinds of factors have been discussed as affecting the development of sex differences: biological factors, "shaping" of boy-like and girl-like behavior by parents and other socializing agents, and the child's spontaneous learning of behavior appropriate for his/her sex through imitation. Social implications of these findings for schooling, dominance and leadership, vocational success, childbearing and rearing, and influence of heredity are discussed. (1400+ references)

Maccoby, E.E. and Jacklin, C.N. Achievement motivation and self-concept in The Psychology of Sex Differences. Stanford, CA: Stanford University Press, 1974. Pp. 134-163.

Achievement Motivation. Task versus Social Orientation. Self-Concept.

This chapter reviews current literature which supports or refutes six common hypotheses concerning differences between sexes in their motivations to achieve: (1) males have greater need for achievement and are more oriented to achievement for its own sake; (2) males have greater task involvement and persistence; (3) males have more curiosity and exhibit more exploratory behavior; (4) females are primarily motivated to achieve in the area of interpersonal relations whereas males are motivated to achieve in non-personal oriented areas including intellectual achievement; (5) females are motivated by the desire to please others, to gain praise and approval, and males are motivated by intrinsic interest of the task; (6) females have low self-confidence, a general lack of self-esteem.

The sexes are quite similar with respect to those aspects of achievement motivation for which evidence is available. They show similar degrees of task persistence. There is no evidence that one sex works more than the other because of intrinsic interest in the task rather than praise and approval. There is some evidence that boys' achievement motivation needs to be sustained or stimulated by competitive, ego-challenging conditions but girls throughout the school years seem to maintain their achievement motivation without such stimulation. In fact, at certain ages females may be motivated to avoid competition ("avoid success"). On most measures of self-esteem females show at least as much satisfaction with themselves as do males. During college some sex differentiation occurs. At this time women are less confident than men in their ability to perform well on a variety of tasks; have less sense of being able to control events that affect them and tend to define themselves more in social terms. But girls maintain a high level of achievement as evidenced by good grades whether they have a sense of personal potency or not.

What accounts for lack of non-domestic achievement by women during post-school years is still open to speculation. Achievement motivation differences may appear in post-college years. The traditional expectation for women may channel her energies into domestic duties. Many of the training opportunities which lead to high level achievement have until recently been closed to women.

Maccoby, E.E. and Jacklin, C.N. Differential socialization of boys and girls in The Psychology of Sex Differences. Stanford, CA: Stanford University Press, 1974. Pp 303-348.

Socialization. Parent-Child Relations. Dependency. Aggression. Sex-Typed Behavior and Perceptions. Sexuality. Achievement.

This chapter reviews the issue of differential socialization of boys and girls. Contrary to common belief the data reveals a remarkable degree of uniformity in the socialization of the two sexes. There does not emerge any clear trend that sons and daughters experience different amounts of parental warmth, or reinforcement of dependent or aggression behaviors. There is no consistent proof that mothers provide more verbal stimulation to daughters than sons. In general there is no positive evidence that parents engage in specific sexual socialization to prepare their children differentially for the adult "double standard." Girls are not reinforced more for modesty or punished more for sexual exploration. There are indications that parents are trying to socialize children of both sexes toward the same major goals but believe they are starting from different points with each sex because they have a different set of "natural" assets and liabilities.

There is evidence that parents encourage their children to develop sex-typed interests, providing them with sex-typed toys. More strongly, they discourage them, particularly sons from inappropriate sex-typed behaviors and activities. During preschool years there seems to be a trend toward somewhat greater restrictiveness of boys. Boys receive more punishment but also probably more praise and encouragement. Adults respond as if they find boys more interesting, or more attention provoking than girls. Boys seem to have a more intense socialization experience than girls. The different amounts of socialization pressures will surely have consequences for the development of their personalities.

Maccoby, E.E. and Jacklin, C.N. Sex-typing and the role of modeling in The Psychology of Sex Differences. Stanford, CA: Stanford University Press, 1974. Pp. 277-302.

Sex-Typed Preferences. Modeling. Parent-Child Relationship. Same-Sex Model.

This chapter represents a review of the literature that covers the current beliefs about the development of sex-typed behaviors and the role of modeling. Sex-typed behavior refers to "role behavior appropriate to a child's ascribed gender." In general, sex-typing deals with the establishment of a pattern of interests and activities by a child which are "feminine" or "masculine." There is considerable evidence showing that at nursery school age both sexes are sex-typed and starting at about four boys become increasingly more sex-typed than girls, more likely to avoid sex-inappropriate activities and accept (prefer) activities associated with their own sex.

Many sources emphasize the importance of the role of imitation and identification in the acquisition of sex-typed behavior. The fact that observational learning occurs and that children learn many items in their behavioral repertoire through imitation of their parents is clear.

However, there does not seem to be a consistent tendency for children or adolescents to resemble the same sex parent more than the opposite sex parent. Furthermore, when children are given a choice of models they do not consistently select same-sex models. The question is where do sex-typed behaviors come from.

The discrepancy between acquisition and performance is involved. A person comes to know (cognitive development) that certain actions are appropriate for persons of his/her sex and others are not. The modeling process is crucial in the acquisition of a wide repertoire of potential behaviors but this repertoire is not sex-typed to any important degree. Knowing what behavior is sex-appropriate is crucial in the selection of what items of the repetoire will be used in performance. The sex-typing of behavior and choices for performance have been alternately explained as the result of either reinforcement experienced and observed or growing understanding of one's own sexual identity and the content of that sex role as prescribed by the culture around him/her.

Mackeen, B.A., and Herman, A. Effects of group counseling on self-esteem. Journal of Counseling Psychology, 1974, 21 (3), 210-214.

Group Counseling. Self-esteem. Coping Skills. Adult Women.

This study investigates the influence of group-counseling on levels of self-esteem, anxiety, depression, and hostility. The sample is three groups of Canadian women: 1) 24 middle class women, mostly married, with 40 hours of treatment time; 2) nine separated, widowed, or divorced women receiving social assistance, with 126 hours of treatment time and; 3) 15 women who had been receiving social assistance less than three months, most separated from their husbands, with 108 hours of treatment.

The counseling program involved small self-exploration groups. Aptitude, interest, and reading tests were given to each subject. Participants were encouraged to set goals based upon increased self-knowledge gained from the tests and discussions. Counselors were to insure that realistic goals were set.

Self-esteem of the subjects was measured by the Tennessee Self-Concept Scale consisting of 100 self-discriptive statements. Anxiety, depression, and hostility were measured by the Multiple Effect Adjective Check List (Zuckerman and Lubin, 1965). Multivariate analyses of covariance was used.

Reduced levels of anxiety, depression, and hostility and higher self-esteem were shown by all groups. The changes are attributable to the variance in self-esteem. The second group displayed the greatest change in self-esteem. The authors state that because of this group's relatively stable marital and financial situations, the subjects were free to explore possibilities for success early in the treatment. Group three members had less stable marital and financial situations and possibly were spending time adjusting to that. Group one members had previously demonstrated coping ability in registering for the program and showed little change during the program.

The authors conclude that the needs of the groups varied. This particular program satisfied needs relating to self-concept. They suggest future programs in this area may need to ascertain client's readiness for a particular treatment, and may neeed to initially focus on the building of success experiences. (22 references)

Macleod, J.S. and Silverman, S.T. You Won't Do, Pittsburgh: KNOW, Inc., 1973, 109 pp.

Sex Role Stereotypes, Media (Textbooks), Secondary Schools

This study involved an intensive content analysis of eight currently popular textbooks on U.S. government to ascertain the degree and type of representation accorded women in these books. The results of the content analysis indicated that there is a misrepresentation or lack of representation of women in these texts. Women are virtually excluded as historical figures, and from descriptions and illustrations of normal civic activities. Moreover, the use of masculine terminolgy throughout many textbooks implies exlusion. There is inadequate coverage of the Women's Rights Movement from the Nineteenth Amendment to the present. The inclusion of women as objects of derision in cartoons or in stereotypic roles, occupationally, politically and domestically, as subordinate and supportive rather than as leaders reinforce in high school girls the idea that their destiny cannot and should not include political or governmental leadership.

The authors present a set of guidelines for revising U.S. government textbooks to incorporate in their content and style appropriate attention to the past, present and potential future role of women in political and governmental institutions and their leadership. A set of recommendations to teachers for designing and teaching non-sexist civics today is also included. Finally, there is an annotated source list of over 150 studies of sexism in textbooks and possible remedies. (105+ references)

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Maslin, A. and Davis, J.L. Sex-role stereotyping as a factor in mental health standards among counselors-in-training. Journal of Counseling Psychologist, 1975, 22 (2), 87-91.

Sex-Stereotyping. Sex Difference. Mental Health. Counselors-in-Training.

This study examines whether sex stereotyping exists among a sample of 45 males and 45 female counselors-in-training, specifically in their attributions of behavioral characteristics to healthy, competent adults, males or females, and whether male and female counselors-in-training differ in this respect. A shortened version of the Stereotype Questionnaire (Rosenkrantz et al, 1968) composed of 82 bipolar items with seven point scales was administered. Only 38 stereotypic items were scored and analyzed. Subjects were randomly assigned by sex to three sets of instructions which differed only in that one asked them to describe males, one females, and one adults (sex unspecified). The group mean scores which were the average total scores within each group were analyzed through planned and post hoc comparisons.

Male and female counselors-in-training agreed that healthy adults and healthy males were approximately the same in degree of stereotypic masculinity-femininity. Females expected a healthy female to be approximately the same as this samples' standard for healthy males and adults, whereas males expected a healthy female to be more stereotypically feminine than the sample's standard for healthy males. One possible explanation attributes these differences to historical change, i.e. the feminist movement. Differences in standard deviations suggest there is greater agreement regarding characteristics of healthy males and adults than for females. Further research is needed to substantiate and clarify these results. Research should focus on counselor behavior as manifestations of attitudes and on the effects of sex-biased counselor behaviors upon both male and female clients. (10 references)

McCandless, B.R. Childhood socialization. In D.A. Goslin (Ed.) Handbook of Socialization Theory and Research. Chicago: Rand McNally and Company, 1969. Pp. 791-819. 114

Socialization. Dependency. Power. Modeling. Parents. Peers. Environment. SES Differences. Media. Children.

This theoretical treatise examines broad trends in childhood socialization and development. Erickson's eight stages of man were used as the organizational model in which psychosocial crisis at each stage was discussed. It was pointed out that middle class society protects the child against mistakes at each stage, particularly at adolescence. Lower class society has few such safeguards. The dependency theory that a child is at first totally dependent, later increasingly independent as he/she successfully proceeds through the developmental stages, was discussed especially in reference to parental handling and parents' power over the child. The salutary nature of the development of independence as compared, say, to aggression and the desireability of cross-sex modeling and identification were discussed. It was suggested that boys modeled on their mother are likely to be more sympathetic with sisters and eventually wives and daughters and that girls cross-identified with their fathers will be more able to take their place in a competitive world and be more understanding of their husbands and sons.

The author finds that the more rewarding, consistent and bidirectional (both reward and punishment) the parent is the more likely he/she is to be an effective shaper of the child's behavior. The effects of birth order were discussed. In regard to the influence of peer group, school, religion and other formal organization, many of the sociometric "how's" are known but few of the "why's." It was shown that rural or small town environments are more permeable than larger cities, that is, children are freer to know about adult organizations. Social class variations stress the differences in language and control used with lower class children which is often violent and restrictive as compared to that used with middle class children. Brief references are made to the influence of the media. (44 references)

Mezzano, J. Concerns of students and preference for male and female counselors. Vocational Guidance Quarterly, 1971, 20 (1), 42-47.

Sex Differences. Age Difference. Sex of Counselors' Preferences. Areas of Concern.

This study attempts to discover whether clients seeking counseling do have preferences regarding the sex of the counselor and whether such preferences vary with client's age and presenting concern. The study population was 1,495 students (745 boys and 750 girls) in grades 7 through 12 enrolled in public schools in three midwest communities. The students completed a questionnaire (based on the Mooney Problem Check List) on which they ranked each area of concern in order of importance and indicated if they preferred a male or female counselor in each area.

Boys and girls in grades 9 through 12 are most concerned about their vocational and educational future while 7th and 8th grade boys are most concerned with home, family and school, and girls in grades 7 and 8 are most concerned about their health and physical development. Except in the areas of home and family, boys in every grade preferred male counselors. For home and family concerns boys shifted from male counselor preference in lower grades to preference for a female counselor in upper grades. Girls with the exception of health and physical development concerns show a steady shift toward a greater preference for male counselors as they move from 7th to 12th grade. The author concludes that the fact that both boys and girls increasingly prefer male counselors especially for vocational and educational concerns is an indication that the masculine role has greater prestige than the feminine role in our society.

Subsequently, a random sample of 159 students were drawn from the original population and asked two questions: 1) Who would you rather discuss important problems with?; 2) What are counselor's major duties. While most students are aware of the counselor's role in dealing with personal problems 84 percent of these students prefer to seek help from friends or parents. (9 references)

Mischel, W. Sex-typing and socialization. In P.H. Mussen (Ed.) Carmichael's Manual of Child Psychology, (Vol. 2), New York: John Wiley and Sons Inc., 1970. Pp. 3-72.

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Socialization. Personality. Behavioral Systems. Sex-Role Stereotypes.

This chapter introduces the area of socialization and raises some of the related fundamental points and problems of personality research. Simultaneously, it tries to illustrate the range and meaning of psychological sex differences in social behavior and the development of these differences. While biological antecedents and physical characteriestics play a role in the development of psychological characteristics, this treatise concentrates on socialization and, hence, on the social and psychological determinants of sex differences in a social context. Main psychological differences between the sexes based on directly observed differences in the frequency with which the sexes display particular behavior patterns are summarized. Sex-role stereotypes are also discussed. Dispositional or the trait approach to personality is used in an attempt to identify broad trait dimensions, such as, masculinity-femininity dimension. Various explanations for the acquisition and performance of sex-typed behaviors are presented. (312 references)

Mitch[illegible], J.S. I Can Be Anything: Careers and Colleges for Young Women. New York: College Entrance Examination Board, 1975. Pp. 251.

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Guidance Material. Career Choice. Educational Requirements. Women.

This book gives short descriptions of nearly 100 careers. The book is directed toward women and includes many non-traditional jobs for women. Emphasis is on choosing a satisfactory job, not a "female"job.

Included in the job descriptions are the education necessary for the job, the number and locations of women in the field, salaries, future in the profession, colleges which award many degrees in the field, and sources of further information. (no references)

Mowsesian, R. Educational and career aspirations of high school females. Journal of National Association of Women Deans and Counselors, 1972, 35 (2), 65-70.

Educational Aspirations. Career Aspirations. Counseling Implications. High School Females.

This study examines post-high school plans and career aspirations of high school girls in grades nine through twelve. The study samples 436 female students in an integrated, comprehensive high school in Texas. Demographic data and first occupational choice and post-high school plans were gathered from the basic information forms of these students. Five occupational categories ranging from Professional to Unskilled and seven post-high school plans' categories, including various levels of education, military service, work and marriage were used to summarize the data. A cross-tabulation of occupational preference by plans at each grade level was done.

Woman students do not tend to select unskilled occupations, very few choose semi-skilled occupations. Ninth and tenth graders tend to choose professional and semi-professional occupations while upperclass women choose more evenly across all occupational categories. Marriage plans for twelfth grade women are proportionately double those of ninth-grade girls. There is a decrease of emphasis on four-year college education and an increase toward two-year college education with increasing age. Aspirations toward business college education, military service and immediate entry into the world of work are relatively constant at all grade levels. Plans for technical education are not stable, possibly due to the lack of this type of training in the locale. Vocational aspirations are in significant agreement with post-high school plans at each grade level. High school females do not view high school as a terminal educational experience. The extent of post-high school educational and career plans among high school women imply the need for greater involvement in career counseling of women by high school counselors. (13 references)

National Institute of Education Career Education Staff. Guideline for assessment of sex bias and sex fairness in career interest inventories. In E.E. Diamond (Ed.) Issues of Sex Bias and Sex Fairness in Career Interest Measurement. Washington, D.C.: U.S. Department of Health, Education and Welfare 1975, xxiii-xxix. (Available from Educational Work, National Institute of Education, Washington, D.C. 20208).

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Sex Bias. Sex-Role Stereotypes. Vocational Interest Inventories. Racial Differences. Validity. Reliability. Gender-Neutral Language. Counseling.

This paper presents the guidelines for assessing sex bias in career interest inventories. The guidelines are the culmination of efforts by the NIE Career Education Staff, senior consultant and planning group to consider and resolve concerns for sex bias and fairness of inventory publishers, authors, users and respondents. The guidelines do not constitute legal requirements. They are intended as standards to guide developers and publishers in the content and process involved in the inventories and their technical and interpretative materials and as standards by which users can evaluate the sex fairness of existing inventories. They are in no way intended to replace or detract from concerns of fairness on racial or socio-economic grounds but are supplements to them. The guidelines cover the three areas of the inventory itself (5 guidelines), technical materials related to the inventory (7 guidelines), and publisher supplied interpretive information (14 guidelines.) (no references)

Osipow, S.H. Theories of Career Development. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1973. 328 pp. 120

Career Development. Theories. Research. Counseling Implications.

This book attempts to examine and evaluate current theoretical and empirical findings relevant to the vocational decision-making process. It begins by describing and assessing five major theories of career choice, Roe's Personality Theory, Holland's Career Typology Theory, The Ginzberg, Ginsburg, Axelrod and Herma Theory, Psychoanalytic Conceptions of Career Choice, and Super's Developmental Self-Concept Theory. The general nature and scope of each theory is presented and the results of its related research discussed and evaluated. Each theory is considered with respect to its implications for career counseling. Their adequacy as scientific theories is assessed and their potential contribution to future theoretical models evaluated.

In the latter part of the text the author examines several research areas which relate career choice to personality development. The five aspects evaluated include the role of personal values in career development, psychological needs structure in occupational choice, the interrelationship between psychopathology and careers choice, personality and trait-factor approaches to occupational behavior. Chapter 7 examines the role of social environment and cultural organization play in career development. Research demonstrating the impact of social class membership, sex, geographic, climatic, and economic factors, and environmental and institutional press are reviewed. This chapter contains a ten-page discussion of women's career development. In the final chapters the author compares the many theories and approaches and presents a number of suggestions for future theoretical development. (9 to 206 references per chapter)

Peoples, V.Y. and Dell, D.M. Black and white student preferences for counselor roles. Journal of Counseling Psychology, 1975, 22 (6), 529-534.

Racial Differences. Counselor Behavior. Counselor Characteristics. Female Students. Female Counselors.

This study examines the effect of counselor race and activity level on observers' ratings of these counselors. It was hypothesized that students would evaluate counselors of their own race more favorably, regardless of style and that black students would evaluate a counselor with an active interview style more highly regardless of race. A sample of 28 black and 28 white female students were randomly assigned to one of four groups defined by (a) two counselors (one black, one white) and (b) two counselor roles (active, passive). Each group viewed one of four 12-minute videotapes and completed an evaluation form rating the counselor's behavior, personality characteristics on seven semantic differential type items and overall counselor competence. A variety of statistical techniques were used for the analysis.

Counselors in both activity roles were perceived as essentially identical in their initial friendliness and attentiveness to the student but different in counselor behavior. The black counselor was rated more active (or less passive) than the white counselor by all observers. Both counselors were rated more active when they performed the active role than when they performed the passive role. However, race effect and interaction effects were nonsignificant.

Counselors in the active role are perceived as more helpful and competent and are attributed significantly more favorable personality characteristics than are counselors in the passive roles. Subjects who saw active counselors, significantly more frequently, are willing to talk with the observed counselor than those who saw a passive counselor. For all these variables, however, a significant counselor effect appeared. But whether this can be explained by subject's preference for counselors of their own race, by individual factor differences between counselors not controlled in this study or by differential counselor role performances can only be answered by further research. Also, the generalizability of these findings needs to be tested with other student subgroups. (32 references)

Perez, M.S. Counseling services at UCSC: Attitudes and perspective of Chicano students. Unpublished manuscript.

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Mental Health Attitudes. Sex Differences. Ethnic Differences.

This study explores the attitudes of Chicano students toward counseling and mental health assistance. The data for the study are responses of Chicano and non-minority students to the Attitudes Toward Psychotherapy Scale of Fisher and Turner (1970). The sample surveyed is 57 male and 43 female Chicano students and 39 male and 37 female Anglo students from the University of California, Santa Cruz.

The hypotheses proposed are: 1)Chicano students will have little or no experience with mental health services, 2) Chicano students will list "minority counselors" as the preferred counseling resource, 3) Chicano students will report the need for a male Chicano counselor, and will state the general need of the counselor to be the same sex, ethnic, and group, and age as the client, 4) Chicano students will list areas of stress concerning the University interaction with their ethnic and economic background, 5) Anglo students' attitudes toward psychotherapy will be more positive than Chicano students.

The hypotheses were generally supported by the study. Only 17 percent of Chicano students have ever utilized mental health facilities. Minority counselors were preferred, and students did mention the need for a male Chicano counselor. Students prefer counselors of the same sex and ethnic background, but not of the same age. Chicano students mentioned areas of stress relating to financial and academic demands by the University. Female students indicated more stress about "experiencing a sense of belonging; security". Chicano students are less positive about psychotherapy. They are less willing to recognize the need for therapy and have less confidence in mental health workers. The author postulates some reasons for the differing attitudes of Chicanos and non-minorities about mental health and counseling services and concludes by making four recommendations to the University based on the study. (45 references)

Plost, M. Career media center are shortchanging today's girls. Personnel and Guidance Journal, in press. 9 pp.

Career Aspirations. Role Models. Counseling Media. Eighth Grade Students.

This study examines the degree to which career aspirations of young girls are affected by the sex of career models depicted in counseling media. Theory and research were reviewed with respect to the impact of career models on the formation of career goals, including content studies of instructional and counseling media. An experimental study, in ehich 600 eighth grade students from a middle-class school were exposed to two unfamiliar occupations in a coordinated 10-minute slide-tape presentation (one occupation depicted by a female model and the other by a male), revealed that both boys and girls tend to prefer the occupation presented by the like-sex model. Implications for counselors are that the predominant use of male career models in instructional and counseling media limits the range of vocational options and aspirations for girls.

(from A.T. Phelps, H.S. Farmer, and T.E. Backer. Selected Annotated Bibliography on Women at Work. National Institute of Education contract # NIE-C-74-0100.)

Pressley, B.O. Survey of guidance and counseling divisions of State Departments of Education. The Commission for Women 1973-1974 Report Summary. Washington, D.C.: American Personnel and Guidance Association, 1974. p.3.

Counselor Characteristics. Sex Differences. Women's Counseling Courses.

This study investigates the distribution by sex of elementary and secondary school counselors and the prevalence of existing programs or courses geared to the counseling of girls and women, and the support such courses had at the State Department of Education level. Surveys were sent to all State Departments of Education in May, 1974. The return rate was 88 percent.

The results indicate that 35 percent of the elementary school counselors are men and 65 percent are women while 57 percent of the secondary school counselors are men and 43 percent of the women. While 70 percent of the respondents were unaware of any pre- or in-service counseling programs or courses geared to counseling girls and women, 75 percent recommended that such a course be offered. (No references)

Psathas, G. Toward a theory of occupational choice for women. Sociology and Social Research, 1968, 52 (2), 253-268.

Female Employment. Career Aspirations. Career Predictors.

Various approaches to a theory of occupational choice applicable to women are reviewed and analyzed in an effort to foster research on women's entry into occupations and the development of more general theories of occupational entry. The discussion does not attempt to develop a theory, but deals with factors which are particularly important for women and may not operate in the same fashion for men, as well as factors which are of importance for both sexes. Existing studies of occupational choice are also discussed. Various current theoretical formulations are reviewed. The one on which this study is based includes psychological, sociopsychological, historical, socioeconomic, and immediate situational factors. A major thesis of the discussion is that an understanding of the factors which influence the entry of women into occupational roles must begin with the relationship between sex role and occupational role. The explication of "settings" which engender predictable orientations to the occupational world is substituted for the concept of "choice."

Among the primary links between sex role and occupational entry are the intention to marry, time of marriage, reasons for marriage, and the husband's economic situation and attitude toward his wife's working. The pattern of occupational participation and the level at which the occupational system is entered are also strongly affected by the state of finances of the family of origin, since occupational roles vary in the length of expense involved in requisite training and in the immediacy of financial return to the trainee. The influence of social class on occupational entry is discussed in terms of education and occupation of parents; value-orientations shared by the family and members of their social class, including social-mobility aspirations; and the perceived relation between occupation and marital chances. (25 references)

(from H.S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U.S. Government Printing Office, 1975.)

Putnam, B. A. and Hansen, J. C. Relationship of self-concept and feminine role concept to vocational maturity in young women. Journal of Counseling Psychology, 1972, 19 (5), 436-440.

Adolescent Females. Self-concept. Sex-role Perceptions. Career Aspirations.

The relationship of feminine role concepts and self-concepts to vocational maturity was investigated. A socioeconomically stratified sample of 375 girls, primarily middle class, was drawn from all 16-year-old girls in urban, suburban, and rural-suburban schools in Buffalo, N.Y. Instruments used were a feminine role rating inventory of self-concept scale, a vocational development inventory, and a personal data form. Data were analyzed by stepwise multiple-regression and analysis of covariance techniques.

The self-concept was shown to be significantly associated with vocational maturity, in accordance with vocational development theory. Self-concept and feminine role concept of own self were useful in predicting vocational maturity, although accounting for only 10 percent of individual variation in vocational maturity. The more liberal a girl's view of her own feminine role concept, the higher her level of vocational maturity. Feminine role concepts of the ideal woman and of man's ideal woman were not useful predictors. Girls tended to be somewhat vocationally immature in comparison with boys and to have had a lower self-concept than the average individual. The feminine role concept which each girl selects appears to be consistent with her self-concept, and her occupational choice appears to implement her self-concept. (9 references)

(from H. S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U. S. Government Printing office, 1975.)

Resource Center on Sex Roles. Today's Changing Roles: An Approach to Non-Sexist Teaching. Washington, D.C.; National Education Association, 1974. 108 pp.

Sex-role Stereotypes. Values Clarification. Elementary School. Secondary School. Alternative Curriculum Materials.

This document presents supplemental instructional materials which can be used to assist students to explore and understand the ways that sex-role stereotypes have defined and limited male and female roles. There are three sections of resources, one for elementary school, one for intermediate grades and one for secondary school. The materials in each section are divided into four parts. The introduction is intended to open student's awareness of role stereotypes. In Lesson 1 these role stereotypes are to be explored by the students and the implications of societal expectations for them and others highlighted. Lesson 2 provides the opportunity to analyze stereotypes, their sources, purposes, restrictions and limitations. The emphasis is on individual value clarification. Finally, students are to examine how these stereotypes affect their lives and their futures and how they may wish to change future behavior. These materials may be integrated into language arts or social science or used as a mini-course. (62 references)

Riccio, A.C. and Zeran, F.R. Organization and Administration of Guidance Services. Chicago: Rand McNally and Company, 1962.

Guidance Program Handbook. Student Needs. Information. Evaluation. Personnel.

This book describes guidance from a functional standpoint. It provides a framework by which to organize a guidance program within the educational system. After describing approaches to dealing with individual students, the book goes on to describe the function of guidance information and techniques for disseminating this information. The authors next describe the counseling process which they define as a "learning process...by which one human being...helps another to come to a close realization of his total personality." They suggest how to set up and administer a counseling program. Other chapters deal with placement services, evaluation of guidance services, organizational structure, selection criteria for personnel and physical facilities. (62 references)

Rosenberg, B. G., and Sutton-Smith, B. Family interaction effects on masculinity-femininity. Journal of Personality and Social Psychology, 1968, 8 (2), 117-120.

Family Structure. Sex-role Development. Sibling Influence.

Masculinity-femininity responses of all members of two-child nuclear families were compared to explore the hypothesis that sex-role attributes are influenced by family interactional structures as well as by simple identification with the same-sex parent. The Gough Scale of Psychological Femininity was administered to 160 female college sophomores from two-child families, their siblings, and their mothers and fathers. Analysis of variance, multiple t tests, and correlational techniques were used in the analysis of results.

Sex of sibling was a significant influence of subjects' femininity scores: Girls with sisters scored significantly higher than girls with brothers. Fathers with a daughter and a son scored significantly higher on femininity than fathers with two daughters. Birth order was not a significant source of variance in subjects' scores. Families with two girls showed distinctly different patterns of intercorrelation among family members' scores than families with girl-boy dyads. In two-girl families, scores of all females (children and mother) tended to be intercorrelated, with the father's score isolated. In girl-boy families, the scores of mother, father, and boy tended to intercorrelate, and the girl's score was isolated except for some correlation with her mother's score. The conclusion is drawn that sex-role learning involves sibling-sibling and child-parent effects as well as parent-child effects. (25 references)

(from H. S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U. S. Government Printing Office, 1975.)

Rosenkrantz, P., Vogel, S., Bee, H., Broverman, D. M., and Broverman, I. Sex-role stereotypes and self-concepts in college students. Journal of Consulting and Clinical Psychology, 1968, 32 (3), 287-295.

College Students. Sex-role Perceptions. Stereotypes. Self-concept.

A questionnaire administered to college students probed the extent to which sex-role stereotypes, with their associated social values, influence the self-concepts of men and women. The 74 male and 80 female students were asked to characterize the behaviors, attitudes, and personality traits of typical adult males, adult females, and themselves, by means of 122 bipolar items.

In contrast to expected results, self-concepts did not differ from stereotypic concepts of masculinity and femininity as a function of the social desirability of the stereotype. Results indicated strong agreement between sexes about differences between men and women, corresponding differences between the self-concepts of the sexes, and more frequent high valuation of stereotypically masculine characteristics by both sexes. Women seemed to hold negative values of their worth relative to men, indicating the influence of the factors that create this sex stereotyped self-concept. A cultural lag may account for the persistence of sex-role stereotypes despite contemporary changes in the prescribed sex-role behavior in this society. It is also noted that older or married subjects or subjects of other educational and social class levels might produce different patterns of responses. (25 references)

(from H. S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U.S. Government Printing Office, 1975.)

Rosenthal, R. and Jacobson, L. Pygmalion in the Classroom. New York: Holt, Rinehart and Winston, Inc., 1968, 220 pp. 131

Academic Achievement. Teacher Expectations.

This study was undertaken to see if a person's or persons' expectations of another's behavior could come to serve as a self-fulfilling prophecy; that is the expectations of the group determine the outcome behavior or performance of its members. The hypothesis is that teachers' favorable or unfavorable expectations could result in a corresponding increase or decrease in pupil's intellectual competence. The school in the original experiment was a public elementary school in a lower-class community of a medium-size city. About one-sixth of students were Mexican children. Students were sorted into ability classes or tracks of high, medium, and low, with Mexican children overrepresented in the slow track. Track assignment was based primarily on reading achievement. All children were pretested with a standard nonverbal test of intelligence which purportedly would predict intellectual "blooming". At the beginning of the following school year, teachers were given the names of those children in their classrooms who would show dramatic intellectual growth; actually these "special" children had been chosen by means of a random number table. They were approximately 20% of the student population. All students were retested after one semester, after one academic year and after two full academic years.

After the first year, a significant expectancy advantage was found with 47% of the special children gaining 20 or more IQ points as compared to only 19% of the control children showing a similar gain. The expectancy advantage was especially great for first and second graders. During the subsequent follow-up year, younger children of the first two years lost their expectancy advantage while children in the upper grades showed increasing expectancy advantage. Differences between boys and girls were not dramatic. Favorable teacher expectations seemed to help each sex more in the sphere of intellectual functioning in which they had excelled on the pre-test. (Favorable teacher expectations of intellectual performance was of greatest benefit to children in the medium ability track.) Mexican children showed greater expectancy advantage than did non-Mexican children though not significantly so. Gains in IQ found from the experiment were found to be associated with gains in report card grades, especially reading. Objective achievement tests formed even greater expectancy advantages than the more subjective teacher evaluations. All teachers were asked to rate each of their pupils on variables related to intellectual curiosity, personal and social adjustment and need for social approval. These ratings showed that children who were expected to bloom intellectually were seen as intellectually more curious, happier and less in need of social approval. However, Mexican children were not considered intellectually more curious. When children's gains in IQ were correlated with teacher's perceptions of classroom behavior it was found that the more upper track children of the experimental group gained in IQ the more favorable they were rated by their teachers while

the more lower track children of the control group gained in IQ the less favorable they were viewed by their teachers. A number of alternative "theories" explaining the pattern of results of the study were discussed and found wanting. Some additional findings lend credence to the conclusion that a change in teacher expectations can lead to improved intellectual performance. A "blind" examiner obtained even more dramatic expectancy effects than did teachers. The results did not disappear after one year. The preliminary results of three replications show significant effects of teacher expectations. The magnitude and direction of effects of teacher expectations will probably be complicated and affected by a variety of pupil characteristics and situational variables in the students' life. (172 references)

Saario, T. N., Jacklin , C. N., and Tittle, C. K. Sex role stereotyping in the public schools. Harvard Educational Review, 1973, 43 (3), 386-416.

Sex-role Stereotyping. Elementary Readers. Achievement Tests. Curriculum Requirements.

This review of research and educational materials investigated sex-role stereotyping in three major areas: Elementary school basal readers, educational achievement tests, and differential curricular requirements for males and females. It was concluded that much of the structure and content of the American school system contributes to sex-role stereotyping, and discriminates against both male and female students. Local school districts, school boards, state educational agencies, and textbook and test publishers were urged to take action to eradicate elements of sex discrimination and not wait for the direct prod of federal legislation. (61 references)

(from A. Phelps, H. Farmer, and T. Backer. Selected Annotated Bibliography on Women at Work. New York: Human Science press, in press. 1976.)

Scher, M. Verbal activity, sex, counselor experience, and success in counseling. Journal of Counseling Psychology, 1975, 22 (2), 97-101. 134

Sex Differences. perience Levels. Counseling Success. Satisfaction.

This study was conducted to examine the relationship between verbal activity, sex of both counselor and client, counselor experience, and perceived success of the counseling interaction. At a university counseling center 23 counselors (18 males and five females, nine experienced, and 14 inexperienced) voluntarily participated in the project. Thirty-six students who were clients at the center also agreed to participate. Clients' and counselors' verbal activity during the first, second, fifth, and final counseling sessions was assessed from videotapes. Outcome measures of the interaction were obtained by asking students to complete the Counseling Services Assessment Blank and by having counselors complete the Counselor's Assessment Blank. Outcome measures which were analyzed included client-reported symptom relief, client-reported satisfaction with the therapeutic interaction, counselor report of client symptom relief and counselor-reported satisfaction with the therapeutic interaction.

Results indicate that only experience was significantly related to therapeutic outcome. Although female clients seemed to talk more than [illegible], neither sex of the client nor of the counselor affected the outcomes of counseling. The author concludes that while counselor and client sex were not significant in this study, this does not mean that certain kinds of problems might not benefit more from seeing same or opposite-sexed therapists. (16 references)

Schlossberg, N.K. Liberated counseling: A question mark. Journal of the National Association of Women Deans, Administrators, and Counselors, 1974. 38 (1), 3-10.

Sex-Role Stereotypes. Counselor Attitudes. Counseling Skills.

This article reviews the Carkhuff and Berenson model of helping and its potential for liberated counseling. Research which indicates that counselors often are not free of sex-role stereotypes is reviewed. The author concentrates on the counseling relationship. Each of the three behavioral objectives, self-exploration, client understanding and client action, of the Carkhuff and Berenson model of helping is examined for its potential for liberated counseling. Liberated counseling means full consideration for men and women for what they feel and helping to generate a range of alternatives irrespective of the counselors' value system. The author concludes that sex-role consciousness combined with good helping skill are necessary for liberated counseling. (12 references)

Schlossberg, N. K. and Goodman, J. A woman's place: Children's sex stereotyping of occupations. Vocational Guidance Quarterly, 1972a, 20 (4), 266-270.

Sex-role Stereotypes. Occupational Aspirations. Elementary School Children.

Studies of sex difference in socialization and child rearing practices were reviewed in this article, and an empirical study designed to explore occupational stereotyping by elementary school children was presented. Boys and girls in the kindergartens and sixth grades of two schools were asked to respond to 12 drawings representing the work settings of 6 traditionally-male occupations and 6 traditionally-female occupations. The data were analyzed in terms of number of stereotyped responses and indicated that: (a) the 6th graders at the model cities school held more stereotypes than those at the middle income school; (b) the children were more apt to exclude women from men's jobs than to exclude men from women's jobs; (c) the children chose jobs for themselves that fell within the usual stereotypes; and (d) there was no significant difference between the role stereotypes held by kindergartners and 6th graders. These findings imply the need for elementary school personnel to change children's notions of differential achievement for men and women, and to develop and maintain increased options for both boys and girls. (7 references)

(from A. Phelps, H. Farmer, and T. Backer. Selected Annotated Bibliography on Women at Work. New York: Human Science Press, in press. 1976.)

Schlossberg, Nancy K. and Goodman, Jane. Imperative for Change: Counselor Use of the Strong Vocational Interest Blanks. Impact, 1972b, 2 (1) 25-29.

Sex-Role Stereotypes. Sex Differences. Vocational Interests. Counseling Implications. SVIB. Career Development.

This position paper proposes that occupational opportunities for women and men are being limited by the vocational guidance available at high schools and colleges and by the structure and use of interest inventories. The SVIB men's form includes 33 occupations not listed for women and the women's form includes 37 occupations not listed for men. The authors contend that the women's occupations are of lower status than the men's and, therefore, of lower salary. While many counselors give both forms to women counselees, few have chosen to give both forms to men. This procedure which seems better than using a single form presents economic and methodological problems. In addition, stereotypic guidelines in manuals and handbooks used by counselors could be equally harmful. The author suggests active support of the new "unisex Strong." Counselors for whom the new Strong is not available should administer both forms to all clients and use the scores primarily to locate interest areas and related occupational groups for exploration. (3 references)

Schlossberg, N.K. and Pietrofesa, J.J. Perspectives on counselors bias: Implications for counselor education. The Counseling Psychologist, 1974, 4 (1), 44-54.

Sex Role Stereotyping. Counselor Attitudes. Counselor Behavior. Interest Inventories. Counselor Training.

This article discusses various aspects of counselor bias in the total process of sex-role stereotyping of women and proposes a model of counselor training aimed at reducing sex bias. Definitions of counselor bias and prejudice are given and research on counselor attitudes and behavior and on counseling materials is reviewed in this light. The implications of the research for counselor training are presented and a training model designed to enable counselors and teachers to deal with their counselees in an unbiased fashion is discussed in detail.

The research indicates that counselors and clinicians hold stereotypes no different from the general populations. Counselors regardless of sex, are biased against women entering masculine fields. Similar bias is reflected in major interest inventories that have been studied. Since counselors hold biases, it is imperative that counselor education programs attempt to bring such biases into the open. The proposed training model to reduce counselor bias has four components. 1) "expansion of cognitive understanding of the role of women in society through lectures and readings, 2) sex-role consciousness raising for trainers and trainees, 3) acquisition of helping skills through audio-vidco taping and role playing with emphasis on sex role issues, 4) development in program planning and implementations for women." (23 references)

Schneider, J. W., & Hacker, S. L. "Sex role imagery and use of the generic "man" in introductory texts: A case in the sociology of sociology. The American Sociologist, 1973, 8, 12-18.

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"Man" Sex Role Imagery Sexism in Texts

This study attempted to demonstrate how the generic term "man" is not interpreted to mean people or human beings, but cues students to think male. The authors suggest that "man" may be seen as a symbol of male dominance and its continued use could serve to perpetuate and reinforce that condition. A sample of 296 students from three colleges who were enrolled in introductory sociology classes were asked to select pictures that would represent 13 topic titles for a sociology textbook. Two forms were used. Eight of the titles were identical on both forms. Five of the 13 labels in one form contained "man" associated labels ("social man", "urban man", "political man", "industrial man", and "economic man"). The other form contained non-man labels ("society", "urban life", "political behavior", "industrial life", and "economic behavior").

Overall, the results showed that among the students in these samples the generic "man" led 64 percent of those students receiving "man"-linked labels to submit pictures containing men only, whereas only half of those receiving neutral terms submitted male only pictures. The strongest effects of the "man" associated labels are found for the urban and economic labels. Pictures of women showed up most under the population and family topics. The authors hope these findings might affect the sensitivity of colleagues and the publishers of sociology materials to reduce sex bias in sociology presentations. (24 references)

Sears, P.S., and Feldman, D.H. Teacher interactions with boys and with girls. The National Elementary Principal, 1966, 46 (2), 30-35.

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Sex Differences. Self-Esteem. Creativity. Achievement. Sex Roles.

This article reviews several of the studies done recently concerning the effect sex of the student has on teacher-student interactions. Specifically, the article details the questions "do teachers react differently to boys than they do to girls?" and "if they do, what effect does this have on the intellectual and social development of the individual girl and boy?"

The first set of studies examined involved teacher behavior. It was noted that teachers often spent more time and attention with boys than girls, and that this attention included more criticism for violation of rules, among other things, which was harshly voiced. The author suggests consequences of this differentiation may be cumulative increase in independent, autonomous behavior by boys as they are approved, praised, listened to, and taught more actively by the teacher. Alternately, girls may have lowered self-esteem as they receive less attention and are criticized for lack of knowledge.

In another set of studies indirect measure of teacher behavior, by student evaluation of teacher behavior was examined. Incidences where creative behavior of students was rewarded were three times as likely to involve boys as girls. And, the creative behavior of boys was considered by the students to be better than that of girls. However, boys were perceived to receive more disapproval. The self-image of the elementary age girls seems to be influenced by the image the student thinks the teacher holds of her.

The third set of studies examined grades and achievement of boys and girls. The authors concluded, from the limited evidence they had, that girls are given higher grades than boys despite the fact that boys achieve at least as well, or sometimes better, than girls. They suggested more complete studies which need to be done in the area. Also, it was suggested that more work needs to be done in the area of characteristics of male and female teachers.

Finally the authors conclude that parents, mainly unconsiously, start teaching "sex roles" and that teachers, also unaware, continue this teaching.
(23 references)

Seifer, N. Absent From the Majority: Working Class Women in America. New York: Institute of Human Relations, 1973. 85 pp.

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Socialization. Sex-Roles. Family Relations. Self-Esteem. Career Aspirations. Working-Class Women.

This booklet attempts to draw together the few existing studies and surveys on working class women, as well as some personal communications, to trace the development of their role in American society. Economic insecurity, manual labor and a life style based on scarcity characterize the condition of a majority of America's working class. Women in these communities are traditionally raised to view marriage and motherhood as their ultimate career. But the worsening economy has forced many of these women into the labor market where because of little education, no skills and low self-confidence, these women wind up on the bottom rung. There are increasing signs of dissatisfaction with traditional family and societal roles among working class women. Contraception and time-saving devices have increased the potential time for a career. Success in community activism has increased this woman's self-esteem and sense of potency but not without cost. These conflict with traditional values and beliefs making anxiety and insecurity key elements in the personal lives of working class women. Automation is causing the disappearance of many low skilled jobs. Disappearance of these jobs creates tremendous obstacles for women with little education and no other work experience and for girls with only a high school diploma.

Education is not valued for working class girls. However, young girls are increasingly obtaining education beyond the high school level. They do not tend to arrive at professional careers but attend community colleges to prepare for a higher skilled, better paying job. Nevertheless, low self-esteem, low expectation and relatively few options still impose limitations on their lives, much as they constricted their mothers' lives. The limited educational goals of many working class youths often lead to limited interests and low achievement. Low expectations are often reinforced by the school itself, routinely tracking lower middle income youth into vocational and commercial programs. Thwarting of higher aspirations by schools serves to reinforce the poor self-images of these girls. The colleges attended by a high proportion of these youths also fail to inspire their students with higher aims. The author concludes with a set of recommendations for needed changes in work, education, family and community relations and society to facilitate the development and effective functioning of working class women in America. (62 references)

Sharp, W.H. and Kirk, B.A. A longitudinal study of who seeks counseling when. Journal of Counseling Psychology, 1974, 21 (1), 43-50.

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Counselor Characteristics. SCAT. OPI. SVIB. Sex Differences. College Students.

This study endeavors to identify who the students are that seek counseling and when during a four-year period starting in their freshman year do they seek it. Scrupulous records of the exact date of first initiation of counseling were maintained by the counseling center of a large western university for the freshmen class of 1966 for four years. Preceding registration all 1966 incoming freshmen were asked to complete the School and College Ability Test (SCAT), Omnibus Personality Inventory (OPI) and Strong Vocational Interest Blanks, Forms M and F (SVIB). Males and females were treated separately in the analysis.

Counseling initiation was greatest just after the class arrives on campus and declines rather steeply over time. Fall quarter is the heaviest but no difference in student characteristics were identified for those initiating counseling in any particular quarter. "Women tend to initiate contacts earlier in the quarter, which perhaps indicates greater dependency and/or concern for getting on the right path quickly. Also in contrast to men, women increased initiation of counseling in the fourth year." Females initiating counseling during various parts of quarter do not differ on the basis of SCAT, OPI, or SVIB data. Men who seek counseling during final exams do differ on four OPI scales. They appeared most deviant and psychologically vulnerable. Women who sought counseling during the third year appeared less intellectually oriented, less personally integrated and less altruistically inclined. Possibly the junior year presented particular problems of identity in reference to the institution they were attending. Implications for counseling are briefly discussed. (9 references)

Shaw, M. C., and White, D. L. The relationship between child-parent identification and academic underachievement. Journal of Clinical Psychology, 1965, 21, 10-13.

Parental Models. Academic Achievement. High School Students.

This study investigated the relationship between child-parent identification and academic performance. The sample consisted of 66 male and 48 female 10th- and 11th-grade students and some of their parents (89 mothers and 73 fathers). These students came from a high school serving a large and economically varied area and had IQ's of at least 110 on the California Test of Mental Maturity. The subjects defined as achievers had 3.0 or higher grade point averages, and the underachievers had averages of 2.7 or below. The adjective Check List, administered to all subjects, measured degree of relationship (identification) between children and parents. Each parent completed checklists on self-perception and perception of his or her child. Each child completed checklists of self-perception, perception of mother, and perception of father.

For achieving males, significant correlations were found between self-perception and perception of father and between self-perception and perception of father's self-perception. Similarly, there was a significant correlation between self-ratings of female achievers and their mothers. A significant negative correlation was found between self-ratings of the mothers of underachievers and their ratings for their daughters. Male achievers identified much more closely with their fathers than with their mothers, but female achievers identified more closely with their mothers. No such distinctions could be made in underachiever groups of either sex. Overall, there was considerable agreement between members of achiever families in their self-perceptions and the perceptions of them reported by their parents. This agreement was lacking in underachiever families. Although agreement was found on ratings on their child by the mother and father of both achievement groups, more parents of achievers than underachievers ascribed the characteristics of success to their children. (7 references)

(from H. S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U.S. Government Printing Office, 1975.)

Shepard, W.O. and Hess, D.T. Attitudes in four age groups toward sex-role division in adult occupations and activities. Journal of Vocational Behavior, 1975, 6 (1), 27-39. 144

Sex-Role Attitudes. Occupations. Sex Differences. Age Differences. Stereotypes.

This study examines sex differences in attitudes toward sex-role division in adult occupations among kindergarten, eighth grade, college and adult subjects. Subjects were asked to indicate for each of 43 adult occupations whether they thought it should properly be undertaken by a male, a female or either. Liberality, defined in terms of "either" responses, increases from kindergarten to eighth grade through college and then decreases in the adult sample. In every group except kindergarten, females are significantly more liberal than males. The extreme conservatism of kindergarten children suggest parents are still sending children off to school imbued with traditional stereotypic conceptions. Analysis of individual roles indicate that while both sexes are increasingly willing to let women into prestigious occupations, females are more willing than men to have household and child-caring tasks performed by both sexes. (18 references)

Smith, C.M. and Roos, M.M. A Guide to Guidance. New York: Prentice-Hall, Inc., 1941. 440 pp.

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Counseling Text. Vocational Guidance Techniques. Occupational Structure and Attitudes.

This book is intended as a pratical guide to counseling personnel for organizing and operating a guidance service. The book presents guidance at work in today's (1941) school with emphasis upon (1)some results of psychological and occupational research which provide for effective counseling and (2)some tested techniques for establishing, integrating and operating a guidance program. It gleans from the field of measurement, psychology of attitudes, facts of the economy, and practical procedures pertinent data which are essential for guidance programs. Research possibilities pointing toward more effective guidance work are indicated throughout the book.

The focus is on guidance as it relates to vocational development. An overview of "Men at Work" is presented as an introduction to techniques for analyzing local occupational opportunities. Then, students' qualities which would effectively fit them for available work areas are considered. How to measure abilities, personality traits, and their relationship to occupation demands for optimal performance are reviewed. The relationship of guidance and curricula in the junior and senior high school and in cooperative education is highlighted. The mechanics of developing new materials on occupations, keeping a cumulative record, and supervising a student job search are presented in step-by-step fashion. Guidance techniques in dealing with loneliness and insecurity are reviewed. Finally the personal characteristics, training and achievement needed by counseling personnel are summarized. (105 references)

Smith, M.L. Influence of client sex and ethnic group on counselor judgments. Journal of Counseling Psychology, 1974, 21, 516-521.

Counselor Judgements. Counselor Attitudes. Counselor Expectations.

This study attempts to determine whether a counselor's estimates of the potential achievements of a client would be influenced by the sex or ethnic group, Anglo or Chicano, of that client. Whether sex and ethnic group affect the degree to which particular career goals are recommended as appropriate and whether the sex of the counselor affect these evaluations are explored. A sample of 198 counselors in public high schools and junior high schools in the five county area surrounding Denver, Colorado were asked to respond to case materials which differed only with respect to the designation of that client as boy or girl, Anglo or Chicano. Two criteria were employed: predicted academic potential and recommended vocational choice.

The results failed to identify any evidence that cues of sex or ethnic group have an effect on counselors' evaluations of the academic potential of any of the four cases studied. Cues of sex and ethnic group did not produce systematic variation in the vocations recommended as most or least appropriate for the clients. These findings were consistent for both male and female counselors. (17 references)

Stein, A.H.,and Bailey, M.M. The socialization of achievement orientation in females. Psychological Bulletin, 1973, 80 (5), 345-366.

Achievement Motivation. Methodological Issues.

This article reviews the literature on achievement motivation and achievement-related behavior in an attempt to describe the patterns of achievement-related behavior that characterize females and to explore some of the variables that influence these behavior patterns. The effect of sex role expectations on achievement striving in females and the ways in which conflict between achievement striving and the traditional feminine role can be reduced are examined. The hypothesis that female achievement behavior is instigated by affiliation motivation or need for social approval rather than by achievement motivation is considered and rejected. Variables postulated as determinants of achievement behavior (expectancy of success, level of aspiration, anxiety about failure, belief in personal responsibility, and achievement behavior in response to failure) are presented.

Developmental changes in achievement behavior are considered, with an emphasis on adolescence and the college years as a time of social pressure. Socialization by parents is examined and the authors conclude that child rearing patterns which lead to feminine sex-typing are often antagonistic to those that lead to achievement-oriented behavior.

The need for research on achievement-related behavior in the various social classes and ethnic groups other than the white middle class is stressed as is the importance of defining achievement motivation in a way that is appropriate to females. Longitudinal, developmental studies are needed as are investigations into the effect of fathers, socializing agents other than parents, and sex-role-related characteristics on achievement effort. (94 references)

Steinmann, A. Female-role perception as a factor in counseling. Journal of the National Association of Women Deans and Counselors, 1970, 34 (1), 27-32.

The "Ideal" Woman. Sex-Role Perceptions. Parental Influences. Eudcational Counseling.

The views of young women concerning work and family seem to reflect those of their parents. Most young women in this study felt they were capable of handling both work and family, which seems to derive from the mothers' unfulfilled wishes. On the other hand, most felt that working was not an important part of their lives, which may stem from the difficulties their mothers had in handling both family and work. The fact that most of the subjects stated that their "ideal woman" should be home-oriented indicates they were probably voicing their fathers' views. Most of the subjects felt children suffer if the mother works. Because most young women are unaware of the problems they will encounter in terms of work and family and the influences on their outlook, counselors need to help them make informed decisions and plans. In addition, counselors must promote the establishment of free day care, since this will enable women to choose freely. To obtain these findings, the author administered the 34-item Inventory of Feminine Values of 51 undergraduate women enrolled in sociology courses at a liberal arts college. The parents of the subjects were interviewed also.

(from H. S. Astin, N. Suniewick, and S. Dweck. Women: A Bibliography on their Education and Careers. New York: Behavioral Publications, 1974.)

Steinmann, A. A study of the concept of the feminine role of 51 middle-class American families. Genetic Psychology Monographs, 1963, 67, 275-352.

Female Role. Idealized Roles. Self-concept.

This study investigated the concepts of the feminine role held by middle-class father, mother, and college-age daughter and the degrees of agreement and disagreement of these concepts. Subjects were 51 female Hofstra College undergraduates and their parents. The students ranged in age from 17 to 22 and resided with their parents in New York City suburbs. All subjects completed a feminine role-rating inventory that measured degrees of traditional other-orientation and liberal self-orientation regarding the feminine role. Daughters responded to the inventory statements for own self, ideal self, average woman, men's ideal woman, and as they believed their mothers and fathers would prefer them to respond. Mothers responded for own self, ideal self, average woman, and men's ideal woman. Fathers responded for average woman and men's ideal woman. Eleven families, taken from the extremes and the middle of the inventory continuum of daughter's own-self scores, were interviewed to further explore the attitudes under investigation. All subjects completed personal data forms on background variables and attitudes on family relations.

Comparison of the concept of feminine role of daughters, mothers, and fathers indicated that the daughters' concept of the average woman was significantly more other-oriented than either their mothers' or fathers'. Mothers' concept of the average woman was significantly more other-oriented than was the fathers'. Daughters' concept of men's ideal woman was significantly more other-oriented than was the fathers' concept of their ideal woman. Daughters' concept of their mother's expectations for them was close to their mothers' own-self concept and ideal-self concept. Daughters', mothers', and fathers' concepts of the feminine role are also considered individually. Subjects' feminine-role concepts are additionally presented in terms of closeness of family relationships, daughters' perception of parental dominance, subjects' ordinal position in family of origin, religion, mothers' work status, and daughters' work aspirations. (105 references)

(from H. S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U.S. Government Printing Office, 1975.)

Steinmann, A. Women's attitudes towards careers. Vocational Guidance Quarterly, 1959, Autumn, 15-18.

Parental Attitudes. The Working Wife. Career Barriers. Sex-Role Perceptions.

An examination of young women's attitudes toward careers should take into consideration the attitudes of their parents toward careers for women. In this study, it appears that the daughters and mothers are inhibited in pursuit of work interests because they are convinced that men prefer women who are traditional homemakers. Interviews with the principal men in these women's lives (fathers and husbands) reveals acceptance of the working wife on an intellecutal level but apparent rejection on an emotional level. Such ambivalence hinders decisive action on the part of the women. To obtain these findings, the author administered inventories on attitudes toward the role of women in society to 51 middle-class women college students and their parents. Eleven families were also interviewed. All the students planned careers after college and almost all of them planned to leave their work upon marriage. All parents supported their plans.

(from H. S. Astin, N. Suniewick, and S. Dweck. Women: A Bibliography on their Education and Careers. New York: Behavioral Publications, 1974.)

Steinmann, A. and Fox, D. J. Male-female perceptions of the female role in the United States. Journal of Psychology, 1966, 64, 265-276.

Sex-role Perceptions. Female Role. Idealized Roles. Role Conflict. Self-concept.

This study tested the hypotheses that American women share a perceived conflict between the level of activity and independence they prefer and the much lower level of activity they believe men prefer them to have; that this shared perception prevails despite differences in socio-economic class, ethnic or racial background, level of education, or occupational status; and that American men, however, say that their desired level of activity for women is not different from that desired by women.

Data were gathered on 10 cluster samples totaling 837 women and 6 cluster samples totaling 423 men. Subjects were New York City residents, ranging in age from the late teens to the seventies, including college undergraduates, physicians, lawyers, artists, working women and their husbands, nurses, and Negro professional men and women. All subjects had at least a high school education. Female subjects responded to the Inventory of Feminine Values in terms of how they perceive themselves, how they perceive their ideal woman, and how they perceive men's ideal woman. Male subjects responded as their ideal woman would. Inventory items involved value judgments related to women's activities and satisfactions.

The average response pattern of the self-perceptions of the female samples was relatively balanced between strivings of self-realization and intrafamily nurturing. Women's ideal woman was also balanced between self-achieving and other-achieving striving, but was slightly more active than their self-perceptions. Women's view of men's ideal woman, however, was significantly more family-oriented and personally subordinate than their own self-perceptions. On the other hand, all six samples of men delineated an ideal woman as relatively balanced on the continuum between self- and other-oriented elements. Particularly, men responded positively to general items of a woman being active outside the home to fulfill herself. On more specific statements of marriage and children to the lives of women, men were less certain and often contradicted their more general opinions. Despite their general agreement to men's ideal women, women as a group gave bimodal responses on several items. It was suggested that women's uncertainty about what men want in women reflects in part the contradictory cues they receive from men. (2 references)

(from H. S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U.S. Government Printing Office, 1975.)

Suarez, C.R. Sexual stereotypes - Psychological and cultural survival. In NEA's Non-Sexist Education for Survival. Washington, D.C.: National Education Association, 1973, 18-20.

Sex-Stereotypes. Child Rearing. Family Structure. Academic Achievement. Chicanas.

This paper criticizes the "Cultural deprived" interpretation of research on lower class, especially Chicano, families. All low income families are seen as the same, disorganized, having low levels of expectations and disciplinary patterns characterized by force. One researcher "describes the middle class life as more likely to produce opportunities for normal growth of the child." Slum conditions are described as having a detrimental effect on the physical and mental development of the ghetto child. The lack of intellectual stimulation is reported to be the cause of the child's academic failure. Another researcher ascribes various attributes to the Chicano family which she contends contributes to the delinquency of Chicano youth and blocks their advancement into Anglo society. The home of the Chicano as described by the literature is deprived, linguistically, economically, and culturally.

The author strongly questions the conclusion that culturally different is the same as culturally inferior. In popularizing this theory, social scientists have used scientific evidence to shift the blame of low academic achievement of Chicanos from the guilty institutions to the Chicano family. Such evidence is based on faulty assumptions, poorly designed studies and insensitive researchers. The author argues that a Chicana mother with a large family needs to be well-organized to survive. She also points out that the Chicana woman's strength and influence is evidenced by the love and respect with which she is generally viewed within her family. More thorough research is needed to determine what the Chicana's child rearing practices are and how these influence her family, especially her daughter. The responsibility of other societal factors in limiting Chicana opportunities needs to be examined. In schools Chicanas are usually considered for vocational education. Because the majority of Chicanas work in the lowest paying jobs it should not be assumed they prefer such jobs. The Chicana is counseled as non-college material. She is not considered for occupations such as scientist, lawyer, historian. The author concludes that this is stereotyping and an illegal limitation of her opportunities.
(no references)

Sue, D.W. ; Kirk, B.A. Asian-Americans: Use of counseling and Psychiatric services on a college campus. Journal of Counseling Psychology, 1975, 22 (1), 84-86.

Counseling Use. Racial Differences. Sex Differences. Role Conflict.

This study is an attempt to provide demographic data on clients using the counseling center and psychiatric services at a large university. This paper compares Asian-American and non-Asian students' relative utilization of these services. While a significantly greater percentage of Asian-Americans use the counseling center, they underutilize the psychiatric services. Previous studies indicate that these students experience many special educational problems, such as, greater pressure to excel academically, language problems, restricted choice of vocations. Further, they may perceive the counseling center as a less threatening source of help and as having less social stigma attached. While Japanese-Americans and non-Asian females do not differ significantly from one another, Chinese-American females are significantly the highest users of combined mental health services. Nearly 50% of the Chinese-American females sought aid. Role conflict between the traditional, domestic Asian female's role and the college-career oriented role may explain this behavior. (8 references)

Sue, S. and Kitano, H.L. Stereotypes as a measure of success. The Journal of Social Issues, 1973, 29 (2), 83-98.

Racial Stereotypes. Validity of Stereotypes. Self-Image. Asian-Americans.

This article examines the evolution of Japanese and Chinese stereotypes. Early stereotypes were uniformly negative reflecting the social, economic and political climate in America. The favorability of these stereotypes has increased, except for some remission during World War II, so that currently, these Asian American groups are viewed as highly successful, model minorities. The image of Asian females appears to be even more favorable than that of the Asian male. Methodological and conceptual problems in the study of stereotypes make it difficult to determine the validity of these stereotypes in describing group characteristics. There is some evidence that negative stereotypes can have a detrimental effect on self-image. While the belief that Asians are quiet, unobtrusive, hard-working and intelligent can be viewed as positive it may have some negative side effects. Uniformly "positive" stereotypes make it difficult to realize that Asians may have problems. Many Asian-American youths are rejecting the "model minority" status as a trick of white racism. In any case, stereotypes, whether positive or negative, ignore the humanity and the uniqueness of the individual. (49 references)

Tanney, M. F. Face validity of interest measures: Sex-role stereotyping. In E.E. Diamond (Ed.) Issues of Sex Bias and Sex Fairness in Career Interest Measurement. Washington, D.C.: Department of Health, Education and Welfare, 1975. Pp. 89-99.

Career Interest Inventories. SCII. KOIS. SDS. Gender Dominance.

This paper explores the presence and potential impact of gender-linked terms (he, she, etc.) and gender-linked activities in career interest inventories on the responses of males and females. No empirical data on this issue appears in the occupational interest inventory literature. Investigations in other disciplines (sociology, applied sociclinguistics, social and clinical psychology) suggest this language variable may have an impact on the responses people make. Three frequently used interest inventories -- the Strong-Campbell Interest Inventory (SCII), the Kuder Occupational Interest Survey, Form DD (KOIS), and Holland's Self-Directed Search (SDS) are examined for gender dominance. Titles of activities and overall construction including administrators guide, test takers print-out, test takers directions, and other components are critically examined. These inventories were also evaluated according to American Psychological Association and National Vocational Guidance Association test standards. While these test standards also showed instances of gender dominance, they do provide guidelines for identifying areas of potential sex bias. The author suggests that a systematic examination of the impact of gender-dominant words and activities needs to be undertaken. (34 references)

Thomas, A.H. and Stewart, N.R. Counselor response to female clients with deviate and conforming career goals. Journal of Counseling Psychology, 1971, 18 (4), 352-357. 156

Counselor Perceptions. Career Aspirations. Sex-Role Stereotypes. Sex Differences. High School Females.

This study attempts to determine if high school counselors perceive female students with traditionally feminine (conforming) career goals differently than female students having traditionally masculine (deviate) career goals. A sample of 18 females and 44 males working as counselors listened to audiotapes of structured interviews with high school girls that elicited information about their home, school, self-descriptions and personal values. Each counselor heard two students with comparable backgrounds, one with conforming goals and the other with deviate goals. For each client the counselors completed the Gough Adjective Check List to determine counselor's acceptance of the client, an Appropriateness of Career Choice item with a six point scale, and a Need for Further Counseling score with a six point scale. In addition, counselors were to recommend two alternative career choices for each student. T-tests were used to analyze responses by sex and level of experience.

While female students with conforming and deviate career goals are accepted equally by counselors, counselors do not tend to approve of deviate goals as highly as conforming goals. Counselees who are perceived less positively or with more inappropriate career goals are seen as more in need of further counseling. Inexperienced female counselors have the highest acceptance scores. Experienced male and female counselors have approximately equal acceptance scores. Inexperienced males have the lowest. There are not significant differences between males and females or by experience level on the Appropriateness of Career Goal ratings. Counselors tended to define appropriateness in terms of realism, practicality, interests, and chances for personal satisfaction, definitions strongly related to cultural sterotypes. Students who are purported to hold deviate career goal receive significantly higher Need for Counseling ratings by female counselors than did conforming students. When experience is considered only inexperienced females assign significantly different rating to deviate and conforming clients. Suggested alternative career choices tend to be consistent with student's purported preference. Implications for determinants of effective counseling or perceptions interaction with the counseling process are not clear from this data. (9 references)

Tiedt, L.M. Realistic counseling for high school girls. The School Counselor, 1972, 19 (5), 354-356.

Employment Information. Counseling Techniques. High School Girls.

This paper outlines the status of women as part of the labor force and details the high probability that a woman will be employed for a significant part of her life. Surveys are mentioned which show that many high school girls, especially those of lower socio-economic background, are unaware of this probability of employment. The author provides ten suggestions for counseling activities which will help enlighten high school girls about the actual employment situation. (7 references.

Tittle, C.K., McCarthy, K. and Steckler, J.F. Women and Educational Testing. Princeton, N.J.: Educational Testing Service, 1974, 83 pages plus appendices.

Sex-Role Stereotypes. Discrimination. Achievement Tests. College Admissions Tests. Technical Materials. Measurement Texts. Vocational Interest Inventories.

This report selectively reviews the area of educational measurement and how it deals with women. The primary considerations involved are the reinforcement of sex-role stereotypes and restriction of individual choice. The results of an analysis of some achievement tests for the presence of sex-role stereotypes and language usage which displays content bias are reported. Content bias in user materials and subtest samples of college admissions tests are also discussed. Educational measurement texts and technical literature including Thorndike's Educational Measurement (1971) are reviewed for concepts in test development dealing with the issues of discrimination against women. Test bias in college prediction procedures are also examined. The use of two major vocational interest inventories in counseling women is examined and current research in this area reviewed.

The general sex bias in school materials is reflected in educational achievement tests. Language usage analysis indicates that references to males and their world are more frequent as opposed to a more balanced content equally appropriate for the two sexes. Similar results are found in analyzing users materials, admissions subtests and vocational inventories. The predictive validity of admission tests for college performance for various subgroups is strongly questioned and alternative techniques need to be explored. (The report is appended by a 90-item annotated bibliography.)

Turner, B.F., and McCaffery, J.H. Socialization and career orientation among black and white college women. Journal of Vocational Behavior, 1974, 5 (3), 307-319.

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Racial Differences. Occupational Expectations. Preferences. Internal vs. External Control. Socialization.

This study compares patterns of career preferences (CP) and career expectations (CE) among black and white college women and the developmental antecedents of career expectation among these women. A sample of 28 black and 45 white second-semester freshmen women at a large state university were individually interviewed. Information including demographic, developmental, and attitudinal items presumably related to educational and occupational achievement was gathered.

Black women are far more likely than whites to expect full-time paid employment. Comparison of career preferences (CP) and career expectations (CE) show that while 50% of the blacks preferred less career involvement that they realistically expected, 40% of the whites preferred more career involvement than expected. The few whites who expected full-time employment preferred exactly the level of employment expected. Black women are less likely to expect to achieve their desired employment goal. Variables expressive of external control predicted level of career expectations among blacks, whereas variables expressive of internal control predicted high career expectations among whites. Differences in socialization histories are suggested as a possible explanation of differences. The finding that there are no overlaps of demographic, developmental, and attitudinal variables that differentiated high and lower expectations among blacks and whites emphasizes the importance of analyzing the antecedents of career expectations separately for each race. (10 references)

Turner, B.F. and Turner, C. Race and Sex Differences in Evaluating Women. Paper presented at a meeting of the American Psychological Association, New Orleans, 1974. 11 pp.

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Sex Difference. Racial Differences. Female Stereotypes. Self-Esteem.

The study examines sex differences and within-race sex differences of evaluations of "most women." A random sample of state university freshmen (28 black and 45 white females and 31 black and 37 white males) from similar socioeconomic background (SES) were interviewed and completed a 15 item semantic differential scale. A principal component factor analysis with orthogonal varimax rotations was done for the 15 items yielding five independent social evaluation factors. These were summarized into two factors: emotionality (feminine) and instrumentality (masculine). Effects of race, sex and SES for each factor were analyzed by analysis of variance.

No significant main or interaction effects involving SES appear. Significant sex effect on "Effective, Efficient Female" scale is primarily a function of especially negative evaluations given by white males. The scores of black females, black males and white females did not differ significantly from one another. No differences between evaluations of "most women" appear between black males and black females. White males evaluate women in significantly more negative terms than did white females on instrumentality factors, but they are no different on emotionality factors. Implications for women's self-esteem and the self-esteem of blacks are discussed. (9 references)

University of California, Los Angeles, University Extension. Sounds of Change: A Report on Training in Counseling and Programming for Women's Career Opportunities. Los Angeles: UCLA Extension, 1974. 141 pp.

Women's Programs. Alternatives. Counseling Skills. Career Opportunities for Women

This report contains 22 summaries of presentations given at a 1973 conference sponsored by the University Extension of UCLA. The program was designed to provide professionals with direction in acquiring the knowledge, techniques, and awareness necessary to develop effective programs for women. The topics covered at the conference included: assessment of the needs of women; interpretation of social, economic, political, and educational trends; establishment of goals within the context of the objectives of various educational institutions; guidelines for determining the content of women's programs and alternative program formats; development of counseling and teaching skills for working with women; and methods of assessing programs for women. A compilation of suggested readings related to women's career opportunities is included.

(from A. Phelps, H. Farmer, and T. Backer. Selected Annotated Bibliography on Women at Work. New York: Human Science Press, in press. 1976.)

Vener, A. M., and Snyder, C. A. The preschool child's awareness and anticipation of adult sex-roles. Sociometry, 1966, 29 159-168.

Preschool Children. Sex-Role Perceptions. Sex-Role Perference.

This study examined the relationship between a child's age and sex and its awareness of and preference for clothes, household tools, and equipment linked with sex roles. These items were chosen by adults and were validated for appropriate sex linkage by 50 children ages 7 to 11. The subjects in the study were 60 girls and 60 boys between the ages of 2½ and 5, who were asked to identify the sex linkage of 44 items presented to them.

The total group of children was able to clearly distinguish the sex linkage of the items. Even the 30-to-40 month old subjects showed sex perception similar to that of the 7-to-11 year olds. Maternal influence on preschool children was evident, in that more female than male sex-linked articles were accurately identified by both boys and girls at all ages. Also, a majority of the girls' preferences were same-sex choices at all ages, whereas the boys did not choose a majority of same-sex items until the age of 51-to-60 months. The high consensus between the adult and preadolescent perceptions of sex-role linkages, plus the preschoolers' awareness of these linkages, indicated a high intergenerational stability of sex-role definition. (33 references)

(from H. S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U.S. Government Printing Office, 1975.)

Vetter, L. Career counseling for women. The Counseling Psychologist, 1973, 4 (1), 54-66.

Women's Career Choices. Vocational Development Theories. Employment Statistics.

This article reviewed theories and empirical data on counseling pertaining to the needs of women. The vocational development theories of D. Super, A. Roe, J. Gustad, R. Jessor, H. Parnes, R. Wilcox, G. Psathas, D. Zytowski, J. Holland, and P. Blau were considered. Research findings on factors affecting women's career choices were reviewed (e.g., the home-career dimension, male attitudes about women's vocational roles). Statistical data on women's employment revealed that the median wage of 32 million women currently employed is less than 60% of that received by men. Furthermore, 50% of employed women must work for economic reasons. It was concluded that counselors must accept the challenge of becoming involved in social action which will affect the status of women in education and employment. (65 references)

(from A. Phelps, H. Farmer, and T. Backer. Selected Annotated Bibliography on Women at Work. New York: Human Science Press, in press. 1976.)

Vetter, L. Sex Stereotyping in Illustrations in Career Materials. Paper presented at the meeting of the American Psychological Association, Chicago, September 1975, 9 pp.

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or

Vetter, L., Stockburger, D.W. and Brose, C. Career Guidance Materials: Implications for Women's Career Development. Columbus, Ohio: Center for Vocational Education, Ohio State University, 1974. 82 pp. (More detailed description)

Career Information. Sex Stereotyping. Racial Stereotyping.

This survey involves the analysis of 167 materials listed in the Vocational Guidance Quarterly (VGQ) "Current Career Literature" bibliographies published in 1970 through 1973, and 168 materials listed in two bibliographies prepared by the VT-ERIC Clearinghouse. The materials were analyzed for the content of their illustrations, on the basis of number of men and women; environmental setting (indoor-outdoor); observable interaction between people illustrated; minority groups; minority group by sex; occupations by sex; and occupations by minority group. The instrument used to assess the illustrations was developed for this study. The United States Bureau of the Census' occupational classifications were used to avoid over-representation of professional occupations, and to give a basis for comparison with actual occupational participation in the labor force.

The two sources of illustrations were analyzed separately. While some differences exist the results of the two illustration analyses are similar. Sixty-one percent of the pictures show men only, 21 percent show women only and 18 percent show both. Seventy-five percent of the illustrations showing only one sex are of men only. In both sets of materials the percentage of men shown outdoors is greater than both sexes pictured together, and women only. The ERIC sample has more illustrations of blacks than the VGQ, but black women are shown in both with greater relative frequency than black men. Professional occupations are over-represented to a greater extent for women than for men.

The authors conclude that the current status of women in the labor force is not adequately portrayed in career materials. Illustrations in career materials are not conveying accurate information to young people about their career alternatives. (12 references)

Vogel, S. R., Broverman, I. K., Broverman, D. M., Clarkson, F. E. and Rosenkrantz, P.S. Maternal employment and perception of sex roles among college students. Developmental Psychology, 1970, 3 (3), 384-391.

Sex-role Perceptions. College Students. Working Mothers.

Sex-role perceptions held by male and female college students were examined in relation to the employment history of the students' mothers. It was hypothesized that individuals whose mothers have been employed would perceive less difference between the masculine and feminine roles than those with homemaker mothers. A sample of 120 college students (59 males, 61 females) rated men in general, women in general, and themselves on an inventory of bipolar phrases describing characteristics relevant to sex roles.

Results indicated that both men and women with employed mothers perceive significantly fewer differences between masculine and feminine roles than men and women with homemaker mothers. Women's perceptions of sex roles were more strongly influenced by the mother's employment than were men's. Maternal employment also tended to raise the estimation of one's own sex with respect to characteristics that are seen as socially desirable for the opposite sex: male-valued competency items and female-valued warmth-expressiveness items. Additional conclusions drawn are the sex-role perceptions are affected by actual parental role behaviors and that the traditional conceptions of sex roles are not immutable. (15 references)

(from H.S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U.S. Government Printing Office, 1975.)

Watley, D.J. Bright black youth: Their educational plans and career aspirations. National Merit Scholarship Corporation Research Report, 1971, 7 (8), 20 pp. 165

Educational Aspirations. Career Aspirations. Sex Difference. Racial Differences. SES difference. Highly Able Students.

This study reports the career and educational major plans and degree aspirations of outstanding black high school students who had National Merit Scholarship Qualifying Test (NMSQT) selection scores in the top quartile of their own distribution or those who obtained B+ to A averages in high school. The stability of these plans from 11th grade to two and one-half years later is also investigated. While the most frequent career choices of blacks and non-blacks of both sexes are similar, a great deal of change takes place in the career plans of men and women of both races. Most notable are the increases in social science, education and business. Also the small percentage of blacks of either sex who aspired to professions in science, medicine or engineering is noted. Black males, in general, seek a higher level degree than did the nonblacks. Blacks from high income families more frequently plan for a doctorate than did blacks whose parents earn less. However, doctoral plans of black women who scored high on the NMSQT are not related to parent's income. Black women from families with high incomes appear more likely to plan for a doctorate if they had good grades in high school, but black women from low income families are more likely to plan for a doctorate if they have a high test score. Parental income level does seem to be related to educational degree aspirations and to career choice for these students. The high selectivity of this sample should be kept in mind when considering the applicability of these findings. (11 References.)

Weitzman, L. J., Eifler, D., Hokada, E., and Ross, C. Sex-role socialization in picture books for preschool children. American Journal of Sociology, 1972, 77 (6), 1125-1150.

Children's Books. Stereotypes.

The treatment of sex roles in illustrated children's books was examined on the premise that picture books play a large part in socializing the child at an early age, in teaching "appropriate" behavior. Portrayal of females in roughly half of the pictures would indicate a lack of bias in the books, since women comprise 51 percent of our population. The study focused on a content analysis of all Caldecott Medal-winning books since 1938 and a more intensive analysis of the 18 winners and runners-up for the past 5 years. Additional reading of several hundred picture books and an investigation of other types of children's books were undertaken to ensure the representativeness of the sample.

Results showed that women were greatly underrepresented in the titles, central roles, and illustrations. The sample of 18 prize-winning books illustrated 11 males for every one female. Where women did appear, their characterizations reinforced traditional sex role stereotypes: Boys are active, girls are passive; boys lead and rescue others, girls follow and serve others. Adult men and women were also sex typed: Men engage in a wide variety of occupations, but women are wives and mothers. Results of the large-scale investigation indicated that the average book for children is even more sex-stereotyped than the Caldecott winners. (41 references)

(from H. S. Astin, A. Parelman and A. Fisher. Sex Roles: A Research Bibliography, Washington, D.C.: U.S. Government Printing Office, 1975.)

Westervelt, E. M. A tide in the affairs of women: The psychological impact of feminism on educated women. The Counseling Psychologist, 1973, 4 (1), 3-26.

Sex Roles. Career Aspirations. Role Conflict and Integration. Feminism.

Feminist ideology is likely to have the greatest impact on educated women, according to this author. It was noted that the proportion of young single women is increasing, the average age at marriage is increasing, the divorce rate is increasing, and birth rates have fallen to the lowest levels ever. Career aspirations among college women are rising, and women's role perceptions and expectations are being modified, particularly in the realm of economic and achievement roles. The conflict of choosing between marriage or career may be diminishing, but young women today are confronted by a new set of psychological problems, namely, the successful integration of the two roles and coping with additional pressures which accompany the combined roles. Four means of resolving role integration problems were discussed: "cooperation," "compromise," "cop-out," and "conventional." (50 references)

(from A. Phelps, H. Farmer, and T. Backer. Selected Annotated Bibliography on Women at Work. New York: Human Science Press, in press. 1976.)

Whiteley, R. M. Women in groups. The Counseling Psychologist, 1973, 4 (1), 27-43.

Feminism. Consciousness Raising. Women's Self-esteem. Achievement Motivation. Role Conflict.

This article explored the impact of feminism on educated women, and illustrated the kinds of issues which arise in consciousness-raising groups. These issues may be grouped as follows: (a) defining self-worth in terms of a woman's own decisions, ideas, plans and values, or, in terms of the solicitation of men's approval (e.g., "checking it out with the man"); (b) acquiring beliefs about abilities and expectations of achievement; and (c) resolving role expectations for marriage. The author noted that personal power is denied to women by the legal and economic structure, and women's performance capabilities are often devalued (i.e., men are judged by their actions, women by their appearance). Conflicts experienced in marriage were reported to include: (a) acquiring a sense of identity apart from a woman's relationship with her husband; (b) redefining housework responsibilities; and (c) integrating both professional and traditional (wife-mother) roles. (10 references)

(from A. Phelps, H. Farmer, and T. Backer. Selected Annotated Bibliography on Women at Work. New York: Human Science Press, in press. 1976.)

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Whitfield, E.A., and Gustav, A. (Eds.) Counseling Girls and Women Over the Life Span. Washington, D.C.: National Vocational Guidance Association/APGA, 1972. 96 pp.

Sex Discrimination. ERA. CEW. Sex Differences. Counseling Implications.

This book primarily seeks to increase the awareness of counselors, counselor educators and others in helping profession of the human potential that is so direly needed but so often ignored. It intends to convey an understanding that the unique needs and individuality of the counselee varies with sex as well as with abilities, interests, maturity and other variables counselors deal with. Section 1 begins with a review of two bodies of knowledge: life stage theory and theories of the development of sex differences. Next each life stage, infancy and childhood, preadolescence, adolescence, young adulthood, mature adulthood and old age are described with particular emphasis upon girls and women. As each stage is considered, present conditions in our society are noted, changes for future directions suggested and implications for counseling are discussed. In Section 2, four authors address four important aspects of counseling women. The first looks at the need for value clarification by women to meet the challenge of their rapidly changing world. The next chapter highlights many of the factors which mitigate against women having or taking advantage of equal opportunities in education or employment and makes an impassioned plea for support of the Equal Rights Amendment (ERA). Then, the development and potentiality of Continuing Education for Women (CEW) is presented and the role of counselors highlighted. The final chapter deals with counseling in the year 2,000, the need for us to maximize all our human potential and what counselors can do to help girls and women meet that challenge. (47 references in Section 1; 0 to 40 references per chapter in section 2)

Whitton, M. C. Same-sex cross-sex reliability and concurrent validity of the Strong-Campbell Interest Inventory. Journal of Counseling Psychology, 1975, 22 (3), 204-290.

Vocational Interests. Educational Aspirations. Career Aspirations. SCII.

This study examines data on Strong-Campbell Interest Inventory (SCII) and on cross-sex scoring. The reliability and concurrent validity of the SCII scales are scored on same-sex scales, cross-sex scales, and all scales without respect to sex for 106 female and 76 male high school and college students ranging in age from 17 to 55 with a mean age of 18.9 years. Subjects took the SCII twice with approximately two weeks between administrations. Reliability is reported as the product moment correlation of the scores from the two administrations. Validity is reported as the percentage of good matches between the subjects preferred or actual college major and occupation and their high schores on the SCII.

The reliability coefficients for SCII for same-sex and cross-sex, as well as without respect to sex, fall into the range which has been accepted for use of the SVIB for years. Concurrent validities for all sets of SCII scales fall close to 44% good hits for men's SVIB occupational scales and 42% for women's form, SVIB T399. Cross-sex and same-sex scoring of the SCII Occupational Theme scales and Basic Interest scales yield concurrent validities of 41% good hits or higher. Highest validities occur when subjects are scored on the Occupational Themes and Basic Interests scales without the use of any norms. This reinforces the view that all subjects should receive scores on all Occupational scales.

The major weaknesses of this study are the small sample size and that they were volunteers and do not represent a systematic sample of persons normally taking the SCII. Use of self reported preferences of major and occupation as validity criteria is a weak point, also the timing of the collection of this information. (16 references)

Women on Words and Images. Channeling Children, Sex Stereotyping in Prime-Time TV. Princeton, N.J.: Women on Words and Images, 1975. 84 pp.

Sex-role stereotypes. Influence of Media. Role Modeling.

A statistical and descriptive analysis of 16 most widely-viewed prime-time television shows and their commercials was conducted by two-women trained teams. This study was concerned with sex stereotyping, the presentation of outmoded, incorrect or prejudicial messages of how men and women behave, as portrayed by real people, not animated figures, in "real life"situations on television. Data was gathered on male/female ratio, occupations, economic status, negative and competency behaviors.

Overall there are more men than women on television, six times as many in adventure shows. Men's occupations are more diverse, women's more traditional. Three-quarters of the males and one-third of the females contribute to family support. All adult characters showed more negative than positive characters, but women characters are more grim than men. Males showed more competent behavior, females more incompetent behavior.

The message on television is that there are more men than women around. Men are dominant, authoritative and competent. Women hold traditional jobs, are dependent, have more negative characters than men. In commercials stereotypes are more explicit. The implications of these findings are discussed in light of previous studies in this area. (14 references)

Women on Words and Images. Dick and Jane as Victims. Princeton, N.J.: Women on Words and Images, 1972. 57 pp.

Sex-role stereotypes. Racial Stereotypes. Role Models. Elementary School Readers.

This study examines the way in which girls are portrayed in elementary school readers as compared with the treatment of boys both contemporary and historically. It focuses on the activities in which they engage, the attitudes displayed, the way people treat them, the generalizations made about them and the directions for future life and work offered them. A content analysis of 2,760 stories in 134 books from 14 different publishers yielded the following results. Boys and men are present in readers in overwhelmingly larger numbers than are girls and women. There are 6 male biographies to each female biography. Men-in-stories participate in 147 different jobs, women in only 26 occupations and all of these are traditionally feminine jobs. The stories are not realistic. They fail to present instances of mutual appreciation and love among family members or non-romantic affection among people. They ignore alternative family structures, the poor and hungry and the old. Girls are given the message that boys are the doers and to remain feminine they must stand back passively. The readers seem to suggest that happiness for girls lies chiefly in giving happiness to boys and men. Boys are given a perfectionistic model of the multi-dimensional human being. A stronger taboo against boys being dependent at any age exists than they do against young girls being a bit tomboyish. Various ethnic and racial groups are also presented stereotypically and traditional sex-role stereotypes are preserved even among these groups. The authors suggest a number of implications such early learning may have for these children's future adjustment and make several recommendations for change. (10 references.)

The Women's Liberation Center of Nassau County. Women in Society. Hempstead, L.I. New York: The Women's Liberation Center of Nassau County, 1973, 50 pp.

Sex-Role Stereotypes. Women's Movement. High School Program.

This syllabus presents an outline of a four-day unit on Women's Roles in Society for high school students. The purpose of the curriculum is to raise the consciousness of students concerning sex-stereotyping and to inform them about the Women's Movement. A student assignment is presented for each day. The purpose of the assignment and various methods for exploring and discussing the student's work are also given. The assignments deal with students' perceptions of man's role and women's role in society, student's perceptions of feminists, major women's issues, and a review of the movement's history by a panel of feminist speakers. The appendices contain facts, myths, definitions and excerpts from articles to spur discussions. A summary of the Women's Movement and a bibliography on women provide background for teachers and students involved in the curriculum. (96 references)

Zigler, E. and Child, I.L. Socialization. In G. Lindzey and E. Aronson (Eds.) The Handbook of Social Psychology (Vol. III). Reading, Mass.: Addison-Wesley, 1968. Pp. 450-589.

Socialization. Class Differences. Cross-Cultural Differences. Behavioral Systems. Personality.

This chapter examines various disciplines' thoughts about socialization and evaluates each theory's usefulness in understanding this process. The current issues which question whether a person is an active or passive agent in his/her socialization and whether he/she is essentially positive or negative in nature are explored. The authors advocate neither position but take a broad approach to the issues. Intersocietal and intrasocietal variations in socialization are examined and the dangers of generalizing from cross-cultural and social-class studies are emphasized. A system-by-system review of much of the research on antecedent variables of socialization and the specific effects of those variables in relation to particular systems of behavior is presented. The systems covered include oral behavior, excretory behavior, sexual behavior, aggression, dependence, and achievement. (697 references)