

FOCUS ON EXCEPTIONAL CHILDREN

SEX EDUCATION FOR THE MENTALLY RETARDED

Considerable research and speculation appear in the literature regarding the advisability of marriage among the mentally retarded while little attention is given to sex education for the retarded. For the most part, the emphasis tends to be on research findings regarding the retardate's capabilities for child rearing, and discussions pertaining to sterilization. There seems to be agreement that for the moderately and severely retarded, marriage with or without children is ill advised. The question of sterilization of the mentally retarded becomes an issue with significant social implications when the mildly mentally retarded are considered.

In reviewing the issues relative to the mentally retarded and the complexity of human sexuality, marriage, and parenthood, it is apparent that the focus tends to be on the ramifications of mental retardation during adulthood. Only recently has attention shifted to incorporating sex education as an integral aspect of curriculum for the mentally retarded. This issue deals with sex education for the mentally retarded. Attention is given to the role of teachers as well as to research.

SEX EDUCATION FOR THE MENTALLY RETARDED: IMPLICATIONS FOR PROGRAMMING AND TEACHER TRAINING

Edward L. Meyen¹

It does not take a skilled observer to note that sex education or family life education is a controversial topic that evokes a wide range of responses from the patrons of most school districts. Few programs escape the scrutiny of lay committees, which are motivated more by anticipation of what might occur than what will actually take place. Because curriculum development for the mentally retarded, unfortunately tends to be less systematic and less visible to the community, the public response to family life education for the mentally retarded tends to be primarily restricted to parents. However, the concern still exists. In both situations the concern, for the most part, centers on the subject matter of what is going to be taught. Examples of materials and instructional tasks taken out of context become evidence that the program is judgmental on morals, too provocative, or exceeds the amount of information a child needs on human sexuality. To me the concern, in reality, may be aimed in the wrong direction. Instructional materials and curriculum guidelines are subject to review. The work of curriculum specialists, psychologists, and educators can be monitored and refined until the instructional guidelines are educationally sound.

However, the teacher variable is not as easily controlled. Her own sexuality, feelings about teaching family life education, and interpersonal relationships with

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her pupils become the determining factors in her role in the instructional program. The influence of teacher characteristics assumes a major dimension in family life education, in contrast to their importance in other aspects of the curriculum. For example, a teacher might dislike teaching particular math concepts. However, if she follows the instructional guidelines and adheres to the suggested methods, her students will probably develop proficiency in the particular math skills. The situation is quite different in terms of family life education, where we are dealing with emotions, attitudes, and understanding of oneself. The subject matter is not limited to factual content. The nature of the subject matter calls for teacher behavior which is supportive of pupil participation and which acknowledges variances in backgrounds of pupils. In planning family life education for regular classes, school districts have the advantage of offering the instruction through a cadre of teachers which they can carefully select and then give special training. This is not generally feasible in the case of sex education for the mentally retarded. Except in large school districts, special classes for the retarded are small in number, which precludes employment of teachers for the specific task of sex education. The teacher responsible for sex education in the regular class is not experienced in working with retarded children. This means that if sex education is to be offered to the mentally retarded it will probably be done by the regularly assigned special class teacher. The obvious result of this practice is that little selectivity is exercised in decisions on who teaches sex education to the mentally retarded.

If the special class teacher is to be delegated the responsibility for incorporating sex education into her overall instructional program, then it becomes incumbent

on the part of teacher trainers and in-service educators to focus their efforts on changing the behavior of teachers as well as the behavior of the retarded pupils.

Two systematic attempts that were made to influence the attitudes of teachers toward the provision of sex education for the educable mentally retarded and to ascertain their perspective on developing instructional programs on sex education for their pupils will be discussed. Both approaches were in the form of in-service training and involved group interaction. Information on the subject matter of sex education was part of the input in both approaches. However, the procedures varied considerably.

CONSULTING TEACHER APPROACH

The first approach was incorporated into a statewide in-service training program for teachers of the educable mentally retarded in Iowa. Twenty experienced special class teachers were utilized as consulting teachers who conducted monthly in-service training sessions for their colleagues locally. Approximately 600 teachers attended these meetings regularly. The input for the session was in the form of curriculum publications prepared by the Special Education Curriculum Development Center staff at the University of Iowa. For the program on sex education a curriculum guide entitled "A Social Attitude Approach to Sex Education for the Educable Mentally Retarded" was developed. The purpose of the guide was to generate interest in offering sex education for the mentally retarded and to offer teachers some curriculum guidelines. It included background information, an outline of curriculum content, and sample teaching strategies at four levels of instruction ranging from pre-primary through advanced. The content emphasis was on self concept, understanding feelings and body changes, awareness of rules, reproduction, conception, personal relationships, dating, and marital responsibilities. The twenty consulting teachers were oriented to the use of the guide through a two-day training session. Suggestions were also provided on how they might present the implications of the guide to teachers attending their local training session. Their role was to distribute the guide, disseminate ideas on how the guide was to be used, and to moderate discussion among the teachers. In subsequent monthly sessions the consulting teachers were to solicit feedback on the teachers' reaction to the guide. Incorporated into the guide were tear-out evaluation forms which teachers were to use in evaluating the suggested lessons.

The response to the material was quite positive. This may partially be due to the scarcity of materials appli-

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6 cable to the mentally retarded and the appreciation of teachers for whatever references were made available to them. However, the reactions of teachers to their *role* varied considerably. The responses of the twenty consulting teachers reflected a concern for their presentation to their colleagues in the field sessions. They were generally enthused about incorporating sex education into the curriculum, but several felt inhibited in terms of conducting discussions on the subject with teachers in their field sessions. One consulting teacher reported that she spent several hours repeating the vocabulary so that she would feel at ease in her presentation. The teachers in the field, however, related their reactions to their relationship with the pupils in the classroom. Evaluation reports from the initial group sessions revealed a great deal of caution on the part of teachers. Their responses also focused on problems they anticipated, e.g.:

Whose permission do I get to teach this?
What do I tell parents?
Wouldn't it be better to have the boys and girls separated?

During subsequent discussion sessions following use of the materials by several teachers, the responses began to shift to concerns observed on the part of their pupils. The biggest question of the evening was: "What do you tell those kids whose parents are separated or who battle all of the time?" Others were:

How do you handle discussion on premarital sex when a sister of one of your pupils has an illegitimate child?

I have one boy who will not be able to support a family, but he continues to talk about marriage—his parents don't seem interested but I am concerned—any suggestions?

The suggested content on family roles was helpful, but my intention is made difficult by the number of pupils whose families are without fathers at home.

No empirical study has been made as yet of the growth in sex education programs for the mentally retarded generated by this project. However, based on feedback from the consulting teachers, there has been a significant increase in the prevalence of study committees, purchase of materials, and in the number of teachers who are including the materials in their teaching, whereas prior to the project, little consideration was given to sex education for the mentally retarded even

when the regular classes were receiving it. There has been sufficient feedback to warrant revision of the material.

WORKSHOP APPROACH

A second approach to changing the behavior of teachers was in the form of a two-week workshop. The participants included forty-two persons from thirteen states. The mean age was 41 years. Ninety percent of the participants were female. The total group worked with the mentally retarded in some capacity. However, only 38 percent were special class teachers. An additional 38 percent were home economics teachers who taught educable mentally retarded children in their regular classes. Ten percent were school nurses and 10 percent served in some administrative capacity. The remaining participants were graduate students or physical education teachers.

The objectives of the workshop were as follows:

1. To help teachers realize the need for teaching sex education to the mentally retarded.
2. To help teachers formulate an understanding of what is relevant subject matter in the area of sex education of the mentally retarded.
3. To provide maximum opportunity for teachers to view materials on a wide range of topics related to sex education and to be provided experience in modifying materials to meet the needs of the mentally retarded.
4. To allow more sufficient interaction among participants and staff so that the personal concerns of the participants on the part of teaching sex education to the mentally retarded could be fully explored. Inherent in the objective relative to interaction was a concern that teachers be afforded an opportunity to relate to people participating in situations similar to theirs in order to gain from the other participants' experience.

The first two days of the workshop were devoted to awareness preparation. This took the form of employing a number of activities such as listening triads in order to establish a relationship among the participants which was conducive to free exchange of ideas and to facilitate interaction on the subject of sex education for the mentally retarded. At the same time it served as a beginning for setting the pace of the workshop. No attempt was made to evaluate the awareness preparation sessions immediately following the first two days of the workshop. However, at the completion of the workshop two weeks later, a questionnaire was administered to the

total group. The awareness preparation ranked first in terms of value to the participants. Most individuals thought that it not only helped them to better understand their own feelings but it also made them better listeners, and for this reason probably enhanced their participation in the workshop. They obviously felt it influenced the value they gained from the two-week session. In an attempt to assess the change in attitudes on the part of the participants in this workshop, a dating scale by Bardis² was administered prior to the workshop and following the workshop. The participants were asked to respond to the dating scale. This scale included items such as:

Every person should be allowed to choose his or her dating partner independently.

It is all right for dating partners to talk about sex.

It is all right for a girl to invite a boy to her home when no one is there.

The participants were asked to assume that the scale applied to the educable mentally retarded, and to respond in terms of their views of the various items as they related to the educable mentally retarded. They were asked to rate each item on a five-point scale, indicating: strongly disagree, disagree, undecided, agree, and strongly agree.

Dating was defined as the casual association between the male and female who were not seriously contemplating marriage. The purpose of dating was to have a pleasant time with a member of the opposite sex.

It was assumed that age would be a factor in the response of teachers to the dating scale. However, in analyzing the results, age did not prove to be a determining factor. The pretest mean was 31.26 and the posttest was 28.68. This represented a substantial change on the part of the participants. It should be pointed out that the lower the score the more conservative the response. The observed change between the pretest and posttest was in the direction of being more conservative. While it is difficult to speculate on the factors which influenced this change to a more cautious perspective, it was observed that as the teachers became more knowledgeable of the materials and responded to the lectures, the discussions began to center around the amount of responsibility placed on the teacher. It could be that developing increased awareness of her role in providing sex education for the mentally retarded made her more cautious, while at the same time heightened her concern

for the need for such progress. Similar results were observed in the project previously discussed.

These two experiences involving groups of special class teachers in the study of sex education for the mentally retarded are mentioned because they have potential for implementing programs for the mentally retarded in the schools as well as for teacher training. The following considerations resulted from observations made of both approaches.

1. The high incidence of broken homes, low socioeconomic status, and general lack of understanding among the children enrolled in classes for the educable mentally retarded results in teachers placing high priority on the need for sex education instruction for their pupils. Teachers in general support a broadly based family life education plan rather than a narrowly defined sex education program.
2. While special class teachers tend to question their own ability in handling this aspect of the curriculum, they were very reluctant to concede the responsibility to someone less knowledgeable about the mentally retarded. They feel that there is less risk involved if they assume the responsibility than if the school nurse, health educator, or specially-trained family life education teacher were to teach sex education to their retarded pupils.
3. It was observed that a significant number of teachers have personal characteristics which would inhibit their effectiveness in teaching sex education. These same characteristics, however, would not necessarily affect their teaching of academic subject matter. While some of the observed characteristics related to the teacher's own adjustment, the particular characteristics in question centered around teaching style. Some teachers are too domineering in the teaching situation. Because the mentally retarded are not equipped to independently search for answers through reading, and because they encounter difficulties in formulating questions, discussion is dependent on the teacher's skill. When you add to these characteristics of the retarded learner a teacher who is not capable of evoking responses from them, you do not have a favorable teaching climate for sex education. Some teachers also lack sufficient warmth to establish close relationships with their pupils. In view of these observations, it was felt that a team-teaching situation might have some major advantages in those areas in which it was necessary for the special class teacher to carry out the sex education program.

2. Bardis, P. D., "A Dating Scale." *Social Science*, Vol. 37, No. 1, January, 1962.

4. It was also observed that a gap between the teachers and special class pupils existed in terms of social mores. Many educable mentally retarded kids come from environments in which the attitudes toward sex are foreign to the middle-class teacher.
5. There appears to be considerable concern on the part of special class teachers regarding their role in deciding whether or not sex education should be included for the mentally retarded. This seems to stem from their precarious position of answering to a director of special education and also to a building principal. The director might support the idea, but the principal views special classes as part of the total school program, and unless sex education is part of the regular class curriculum he is often a little reluctant to endorse such a program.
6. Most teachers feel confident that while parents of their pupils might have some reservations about the program, they would support it if it were properly explained to them. Frequently, teachers cited examples of mothers who indicated appreciation for help in this area.
7. The paucity of instructional materials applicable for use by the mentally retarded is very evident. The intellectual limitations of the retarded make the materials designed for regular class pupils minimally effective without modification. The narrative on most films is too advanced for the retarded viewer. The reading vocabulary accompanying many illustrated materials is also too difficult. Frequently, the number of concepts as well as the complexity of the concepts presented in the written materials exceeds the ability of the mentally retarded learner. Socially, however, the interests and concerns of the educable mentally retarded youth do not differ substantially from their normal peers.
8. There seems to be general agreement that instruction in family life education for the retarded should be incorporated into the social learning aspect of the curriculum and not stressed as special subject matter. At the same time, however, the lack of systematically developed curriculum locally, in special education programs for the mentally retarded, was conceded to be a major problem.
9. Very few teachers had received any training at all in sex education in their undergraduate preparation. In fact, most indicated that they had given little thought to this responsibility until they encountered the problems posed by their pupils in the classroom.

Considering the emphasis placed by special educators on social development for the mentally retarded, one would expect that family life education would be the center of much attention in the development of instructional materials for the mentally retarded. One would also assume that teacher training programs would stress such information in their programs. Neither seems to be the case. At least a review of existing material indicates that much remains to be done if teachers are to be provided the help they need in this area.

Assuming that newly trained teachers utilize the knowledge and skills acquired in college, the inclusion of family life education in special classes will be somewhat dependent on the attention given to it in teacher training programs. It would be interesting to find out what emphasis is currently being given to family life education in the training of teachers for the mentally retarded.

WHO ARE THE PARENTS OF THE RETARDED CHILDREN?

Sheldon C. Reed, Ph.D. and Elizabeth W. Reed, Ph.D.¹

One of the numerous myths of our society is that any couple is just as likely as any other couple to have a retarded child. This myth is false. It is true that the geneticist cannot give a 100 percent absolute guarantee that a particular couple will *not* have a retarded child, but he can distinguish between couples as to their relative risks of producing one or more retarded children.

This report is based on a large study of over 80,000 white persons who were members of 289 kinships which started with a mentally retarded index case. Many people contributed to this large project. Dr. Elizabeth Reed and I published a book entitled *Mental Retardation: A Family Study*, presenting the data in detail in 1965. These data are relevant to the *prevention* of mental retardation.

The goal of preventing mental retardation has been given very superficial consideration because it is a long-term proposition demanding courage and conviction on

1. Sheldon C. Reed is the Director of the Dight Institute for Human Genetics at the University of Minnesota. Dr. Elizabeth Reed is on the staff of the Institute.

the part of all those involved. It is much easier and simpler to wait for the retarded to be born and then struggle to raise their IQ than it is to try to convince people that the retarded children represent a tragedy which could be avoided in many cases. A program for the prevention of the birth of the mentally retarded will not be popular, because the beneficial results are slow to appear and people distrust the motives of social action groups. However, a little progress is being made.

We will present our research data in two ways: (1.) We will look at the percentages of retarded children produced by parents with different mental abilities; (2.) We will look at our population of retarded children and ascertain the proportions of their parents with different mental abilities.

1. The following table presents our material according to the first statement in the preceding paragraph:

Type of Union	Number of Children	Number of Retarded Children	Percent Retarded Children
Both parents retarded	215	85	39.5
One parent retarded, the other normal	1736	195	11.2
Both parents normal	7035	64	0.9
Totals	8986	344	3.8

It is clear from the above that all couples do *not* have the same risk of becoming the parents of retarded children. For instance, the risk of a retarded child is about 40 times as great if both parents are retarded as it is if both parents are normal. It is also clear that the risk of having retarded children, if both parents are retarded, is too high for society to accept with equanimity. The marriage of mentally retarded persons might be beneficial but their reproduction is clearly undesirable from all points of view. Permanent contraception must become uniformly available for those couples where one or both members of the couple are mentally retarded. It is clear to us that retarded persons will usually be glad to accept permanent contraception if it is offered to them.

2. We found that from one third to one half of our retarded children, depending upon how they were selected, had one or both parents retarded. *Had these retarded parents failed to reproduce, the number of retarded children born in a particular generation would have been reduced by one third to one half.* This would

be a highly successful means of prevention of mental retardation and demands no medical miracles at all. It does ask for the rejection of old illogical attitudes and the acceptance of modern ideas about permanent contraception. When this intellectual change has come about, the prevention of a significant fraction of the total load of mental retardation will occur. No one expects to be *completely* successful in persuading the mentally retarded to refrain from reproduction, but the effort will be greatly worthwhile to whatever extent it does succeed.

The observation that from about one third to one half of the mentally retarded children have one or both parents ascertained as retarded is an especially important one, and we will present the data here. We had a sample of 1450 unselected retardates of whom 700, or 48.3 percent, had one or both parents turn out on investigation to be likewise mentally retarded. The percentage of our original selected mentally retarded probands who had one or both parents retarded was 49.8 percent, a surprisingly close agreement with the figure of 48.3 percent for the 1450 unselected retardates. We took another sample of mentally retarded children all of whom were third degree or more distant relatives of the original probands. In this last sample we found that 36.1 percent of the retarded children had one or both parents retarded.

These data, and the absence of any good studies with conflicting results, lead us to conclude that from one third to one half of the mental retardation expected in the next generation could be prevented if the retarded persons of this generation refrained from reproduction. This conclusion comes directly from the data and is *not* related to any hypothesis as to the relative importance of genetics and environment in the causation of mental retardation. This concept is important because the largest total preventative effect occurs in the first generation with considerably smaller reductions in the total number of the retarded each generation thereafter.

Our study is not the only project in which the great potential usefulness of permanent contraception in the prevention of mental retardation in the next generation has been demonstrated. Kemp (1957) provided most interesting data for retarded women who accepted voluntary sterilization after having had several children. Of their 352 live children there were 112, or 31.8 percent, with IQ values of less than 75; that is, about one third of the offspring were retarded. Another third had IQ values between 75 and 90. A substantial proportion of the children had mental disorders and only five of the 352 children on follow-up were both free of mental problems and had an IQ above 100. This grisly record may

give a biased picture of who the parents of the retarded children are, but it is clear that in Kemp's sample the sterilization operations came much too late. The welfare of the retarded mothers had been seriously neglected for much too long, as is usually the case.

The Swedish study of Akesson (1961) stated that "more than 53 percent of the brothers and sisters of the high-grade defective probands were mentally retarded or defective." We also found that there is a greater risk of mental retardation in families with high grade mental retardation than in those where the children are more seriously retarded. There is a logical reason for this difference but we won't go into it here. The important point is that once again we have a way of predicting which families with a retarded child have the highest risks of producing more retarded children. None of these high risk families will want to have more children if they are aware of their risks. They will have to be informed as to what their risks are by social welfare personnel, physicians, nurses, genetic counselors, and others. The fact that one or more of these parents are themselves retarded makes the educational problem much more difficult, and an important challenge to our abilities as teachers and a test of our commitment to the prevention of mental retardation by voluntary means. It is hard to imagine a more humane endeavor than that of preventing the birth of retarded children.

SUMMARY

Our extensive study shows that from one third to one half of the retarded children in it had one or both parents who were likewise mentally retarded. It follows that if the present generation of retarded persons could be persuaded to refrain from reproduction there would be a decrease from one third to one half in the number of mentally retarded in the next generation. This suggests a very striking potential advance in the prevention of mental retardation and should not be ignored as it has been in the past. No one would expect complete success from efforts to persuade the present-day retarded to refrain from reproduction, but partial success can be achieved, and that will be a great credit to humanity.

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BASIC GUIDELINES FOR DEVELOPING SEX EDUCATION PROGRAMS FOR THE MENTALLY RETARDED

The guidelines are quoted with permission from *A Resource Guide in Sex Education for the Mentally Retarded* published by the Project on Recreation and Fitness for the Mentally Retarded. This was published in cooperation with the School Health Division of the American Association for Health, Physical Education and Recreation, 1201 Sixteenth Street, N.W., Washington, D.C., and the Sex Information and Education Council of the United States, 1855 Broadway, New York, New York.

The following suggested steps for the establishment of a sex education program can be adapted to both residential and day school programs. There are no shortcuts in developing sound and effective sex education courses for children and youth. Detailed and careful planning is essential. This is particularly true in structuring programs for the mentally retarded.

1. *Selection of an advisory or ad hoc committee.* The composition of such a committee should include parents, teachers, community leaders, and if possible, persons with experience in sex education. It will be particularly helpful if a representative of the administration is also a member. The latter person should be administratively close to the school program and to the major decision-making level of the administrative structure. In an institution this might be the director of education or social services. In a school situation it might be a principal or the director of special education. It should be kept in mind that staff cooperation in addition to the support of parents and the community is important.
2. *Establishment of curriculum objectives.* Major decisions will need to be made regarding the objectives of the program. The task of determining what the program should do for the students will require considerable study. The desired outcomes will not be the same for the severely retarded and the mildly retarded. It is not enough merely to discuss objectives within the membership of the committee. The objectives should be written down in explicit terms easily understood by all persons involved in the program.
3. *Specifications of curriculum content.* The scope and sequence of the curriculum should be determined by representatives of the instructional staff. Resource persons should be made available to the group as

signed responsibility for this phase of the program. The content should be sequentially outlined on a continuum so that persons working with advanced students have access to the experiences provided students at the lower levels. The planning of curriculum content can be incorporated into the in-service activities discussed in step 4.

4. *In-service education.* Because the teaching of sex education may be a new experience for the teachers participating in the program, in-service education becomes essential. The focus of the in-service education should be aimed at influencing the attitudes and the teaching skills of the teacher. Following an orientation to sex education, the in-service training can be structured into a curriculum development exercise. In this arrangement the teachers, with the help of consultants, can develop the curriculum, design teaching activities, and identify appropriate resources.
5. *Relevance.* Unlike the "normal" child, the mentally retarded child encounters difficulty in generalizing what he learns today to situations in the distant future. It becomes necessary in teaching the mentally retarded to make all learning experiences as relevant and meaningful as possible. This precludes the teaching of sex education as a separate course apart from the general instructional program. Every attempt should be made to integrate the teaching of sex-related information into the overall curriculum. It is also important that sex education be oriented toward social development. This is not to suggest that reference to the biological aspects of sex education should be excluded in teaching the mentally retarded. Rather, this recommendation is made in acknowledgement of the social limitations of the mentally retarded and the inability of the mentally retarded to comprehend technical biological information. Sex education taught in a social context will be much more meaningful for the mentally retarded.
6. *Obtain administrative endorsement.* The support of the administration is essential to a good program of sex education. If the administration has been represented in the preliminary planning, gaining endorsement will be less difficult. The support of the administration should be of such magnitude that it is evident to the teachers and others responsible for the actual instruction.
7. *Experiment with program.* Before committing exten-

sive resources to the implementation of the program, conduct pilot classes for a semester. This will allow selected teachers to gain experience and to test out the curriculum. Following the experimentation period, the pilot teachers can serve as consultants to the other teachers when the program is made operational.

8. *Establish an ongoing public relations program for parents.* An ongoing program of public relations which keeps parents informed and allows them to review program materials will make parents "partners" rather than objectors. Discussion classes for parents may be offered as part of this effort.

ISSUES & TRENDS

There are those who claim that sex education for the mentally retarded would reopen the "fecundity" indictment. Others indicate that through sex education we can educate retardates to limit the number of children they have. Some see sex education as a panacea to solve the population explosion while others see it from the perspective of activating inactive desires. There are even those who feel that sex education for the mentally retarded offers an opportunity to encourage voluntary sterilization.

It seems to me that the basic elements of family life education are closely related to curriculum goals generally espoused for the educable mentally retarded. If family life education is to be effectively incorporated into the curriculum, an examination of content and teaching methods is warranted.

Sex education should not be used merely as a way of resolving social problems, nor should it result in one imposing his code of ethics on another. Its purpose is to give human beings a chance to understand themselves and their interactions with others.

For the mentally retarded, especially the educable, understanding of their own sexual roles as well as society's overt expectations of them are necessary. The school, teacher, and retardate's peers become synthesizers and intermediaries between what the educable mentally retarded child's environment requires and what schools expect.

In his own environment, the educable student who very likely comes from a "disadvantaged" home may see sexual behaviors and use language that the school neither understands, is aware of, nor condones. It becomes the school's job to understand the different environments and become aware of the pressures generated by the school on students as an influence to interact in prescribed ways. With this as a frame of reference, the role of sex education becomes a little clearer. The program should not be designed to convert a group to a new social order, but rather to first start with an understanding of what is expected of the student in his own environment and prepare the student to acclimate himself to the larger society. Sex education is more than identification of the parts of the body and the do's and don'ts between sexes. It becomes *Family Life Education* and *Sexual Orientation to Society*.

In special education classes, the goal is to prepare our students for the realities of life beyond their school years. We have read over and over that the problems educable mentally retarded adults experience is not with the skills required for a job, but rather interacting with their fellow workers. *Family Life Education* is then used to help with these problems. The theory is not that the school "correct" the student's morals, but rather increase his knowledge of interpersonal relationships and the outcomes of his actions.

Sex education for the mentally retarded is established by the very philosophical base of the curriculum. Special classes exist as an avenue to help students be successful in society. Sex education, understanding of social situations, marriage, family, etc., are very important parts of living in society. It is the school's responsibility, along with the home and church, to help the student as much as possible to adequately handle his adult life. We must assist the retarded student in learning the responses he is capable of making to social situations, but what actions he will actually take only the student himself can decide.

Paul M. Retish
University of Iowa

The Issues column is intended to serve as a forum for discussion of current concerns as they relate to programming for the mentally retarded and the emotionally disturbed. Persons wishing to contribute to this column are encouraged to do so. The statement should not exceed 800 words. Response to issues are also welcome. Both should be submitted to the editor.

PROGRAM INNOVATIONS

COMPUTER-ASSISTED PLANNING FOR SPECIAL EDUCATORS

By Elizabeth L. Ayre and Kenneth Cross¹

Recognizing the need for a dynamic curriculum to accommodate individual differences and social changes, the Regional Special Education Materials Center at State University College at Buffalo is placing major emphasis on the development and evaluation of Computer-Based Resource Units.

The Buffalo Center is one of three regional SEIMC's in a New York network that includes thirty local associate and affiliate centers, all designed to help improve education of special children. These and other SEIMC's have been established throughout the country to alert teachers to new methods and materials and help them evaluate their effectiveness in reaching instructional objectives. One model for suggesting and investigating the effectiveness of instructional strategies was developed for regular education by Harnack at the State University of New York at Buffalo, extended to special education at the Buffalo RSEIMC, and is being researched at Associate Centers in New York State.

The project suggests, among other possible research applications, the assignment to specific instructional approaches of an indicator of probability that such approaches will lead to the accomplishment of specific instructional objectives for learners with specific characteristics. Briefly, teachers are asked to provide the computer with the objectives (e.g., to identify warning sounds, to use both arms simultaneously) and pupil characteristics (e.g., general interests, occupational interests, sex, reading level, mental age, chronological age) thought relevant to the specific instructional approach, content item, instructional material or instructional activity. Classroom teachers, when they indicate an interest in teaching one of the units available to date (e.g., sex education, going to and from school, job interviewing) are asked to provide the computer with a list of objectives they would like to achieve and a list of student

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characteristics for each of the learners in the class. The machine then retrieves instructional activities and materials based on these two indicators. Table I gives an example of activities and materials.

TABLE I

ACTIVITIES AND MATERIALS SUGGESTED FOR ONE OBJECTIVE

Unit Title: GOING TO AND FROM SCHOOL

Requestor Name: Laura Copey

Objective: 58

58. Uses acceptable behavior on the bus.

Large Group Activities

21. Have a contest for the Best Bus Rider of the week. Ask bus driver to report to the teacher especially good behavior of the children. Child who wins gets to wear an official "Best Bus Rider" badge for the week following his selection.
63. Use doll and toy bus, cars, trucks to show what happens when children break safety rules such as putting arms out of windows, running in front of cars, etc.
75. Make each child a card with his bus number printed on it, exactly as it appears on the bus. Let him take the card with him, so that he can match numbers as he is en route to school and home each day.
87. Teacher rides on bus with children, identifying those problems that need to be solved to affect safe, appropriate bus riding. Teacher plans classroom discussions and activities in keeping with problems identified.
92. Give bus driver a bottle of candy pills. Tell children bus driver has some special pills that will help them sit quietly and be good bus riders. Bus driver can give "pills" each morning for a week or so until children become good riders.
99. Have a slogan contest for the best safety slogan for school bus riders.

Instructional Materials:

doll
toy bus
truck
candy "pills"
drawing paper

If carefully kept, computer record is available of the suggestions made to teachers. If a record is kept of the results of the measurement of objectives at the end of the unit, it should then be possible to make statements about the probability that a given approach will help to achieve a given objective. Such statements might be of the following type: for students with an IQ of 90, a chronological age of ten, from a middle-class background, with a fourth grade reading level, there is 90% probability that reading a book entitled "blank" and visiting "blank" will achieve the instructional objective of "blank." Such a statement of probabilities seems much more reasonable than attempting to contrast one methodology to another in any given situation, as this type of contrast is constantly taking place. Presumably the effectiveness of any methodology will depend more on the relationship to objectives and student variables than it will upon the relationship between one methodology and the other. For example, the question of whether or not instructional television used in a science class will result in greater learning—a question very similar to those often posed for curriculum research—is all but undeterminable. The assignment of probabilities to instructional approaches, on the other hand, has the value of permitting statements about considerably more restricted context.

The computer has the advantage of holding an infinite variety of information on students, e.g., the variables referred to previously, achievement scores, etc., and can sort quickly in these terms. After determining the need, the difficult task of considering even relatively simple objectives is facilitated by the computer's capacity to store a far greater variety of objectives than the teacher. What he or she uses is determined by the need and by the objective set, but also takes into account the efficiency of a particular strategy and correlation with other objectives.² Not only are devices suggested to measure pupil progress, but the total process is evaluated. Thus an instructional model can be used which permits diag-

2. Examples might be those found in Bloom and Krathwohl's *Taxonomy of Educational Objectives*: Volume I: *Cognitive Domain*; Volume II: *Affective Domain*.

nostic procedures and provides an evaluation of the effectiveness of such procedures.

In a recent article Hottleman (1969), criticizing the lack in our schools of analysis of curriculum design for needed changes and updating, complained that while industry spends from 20% to 30% of its income in research and development with highly paid teams of men to analyze, evaluate, and modify their products and to pilot them before mass producing, in education we spend less than 1% of our budget in research and development—so that much of our curriculum is the same as it was more than a generation ago.

Curriculum, broadly interpreted, is a plan to select, organize and present subject matter. The selection should be based on contemporary values and the demands and needs of the actual as well as the ideal individual and his society. Curriculum planning is an effort to create conditions that will improve learning, and should be based on a functional educational philosophy. To improve curriculum requires decision and change as well as in-process evaluation.

The educator must contribute those aspects of the decision which are based on reasoned opinion, professional experience, and value judgments. Otherwise, he is faced with the difficult task of selecting from countless possibilities, many of which are unknown to him, without a systematic basis for evaluation or improvement.

Education must be made relevant to characteristics of the individual and to the changing demands of the society in which he lives. The notion of determining an index of probability that a specific method with suggested activities and materials will achieve a desired objective for a child with certain characteristics may seem a somewhat Utopian hypothesis. Nevertheless, given methods have proven effective in specific situations, and the project is intent upon facilitating similar and other instructional problems of the special educator.

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RESOURCE MATERIALS

The current controversy over sex education reflects the increased interest in providing this content area in the public schools. The proliferation of special education programs geared toward returning the child to the regular classroom and functional independence upon graduation further heightens the importance of this curriculum area with the handicapped. The consequent demand for appropriate instructional materials has been responded to by educational publishers, private manufacturers, and public service organizations, providing teaching aids at all grade levels.

SOCIETY FOR VISUAL EDUCATION, INC.

The Society for Visual Education (SVE), a subsidiary of the Singer Company, offers a complete safety education program aimed at combating child molesters. Tailored to kindergarten, primary, and intermediate pupils, *The Patch the Pony Classroom Kit* stimulates an awareness of the danger of strangers. The cost of all materials necessary for a class of 36 students is \$24.50. SVE also produces two series of full-color film-strips on responsible attitudes and behaviors in regard to sex and love. Developed for junior and senior high school students, these filmstrips are accompanied by teacher guides and correlated recordings. Prices range from \$3.50 for an individual record to \$34.50 for a set of 4 filmstrips, 2 records, and 4 teacher's guides. To receive a free illustrated brochure, write: Society for Visual Education; 1345 Diversey Parkway; Chicago, Illinois 60614.

EYE GATE HOUSE, INC.

Life Begins is an introductory filmstrip series complete with recordings and charts teaching the basic facts about reproduction. Eye Gate House introduced this series for students in the primary and intermediate grades. The color filmstrips with recorded narrations sequentially

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develop the various stages of reproduction in fish, animals, and man. The complete set of 4 filmstrips, 2 records, 12 charts, and a teacher's manual is available for \$40.00. For further information, contact: Eye Gate House, Inc.; 148-01 Archer Avenue; Jamaica, New York 11435.

CREATIVE SCOPE, INC.

The program entitled *How Babies Are Made* was created to teach children between the ages of five and twelve the basic physical aspects of reproduction. It was developed with the assistance of the Sex Information and Education Council of the United States and the Child Study Association of America. These full-color captioned slides depict the reproductive processes in flowers, animals and humans. A free hand slide viewer is included with each kit, as well as a pamphlet which outlines helpful information and suggestions for use. The total cost of the program is \$12.00. Orders may be submitted to: Creative Scope Inc.; 509 Fifth Avenue; New York, New York 10017.

KIMBERLY-CLARK CORPORATION

The Life Cycle Center of the Kimberly-Clark Corporation disseminates information in the field of feminine hygiene education. *How to Tell the Retarded Girl About Menstruation* is an effort to promote a healthy identification of self as a female. The Center reports that this is the first booklet designed specifically to help explain menstruation and the physical and emotional changes of adolescence to the retarded girl. Other pertinent booklets—a 16 mm. sound film, a periodical newsletter, and a complete family life education program—may also be requested. Address inquiries to: Kimberly-Clark Corporation; Life Cycle Center; Box 551-CK; Meenah, Wisconsin 54956.

HARRIS COUNTY CENTER FOR THE RETARDED

The Harris County Center for the Retarded has prepared a set of 35 mm. filmstrips entitled *Teaching Good Conduct and Personal Hygiene to Retarded Teenagers*. The six filmstrips designated specifically for girls concern the personal hygiene subjects of menstruation, bathing, care of hair, washing face and hands, proper clothing, and acceptable behavior. A similar set of filmstrips directed toward adolescent boys covers such topics as shaving, taking a shower, and the acquisition of agreeable social behavior. Two thorough teacher's guides incorporating scripts for each filmstrip are included. The complete set of 10 filmstrips with accompanying teacher's guides may be purchased for \$85.00 from: Harris

County Center for the Retarded; P.O. Box 13403; Houston, Texas 77019.

WASHINGTON REPORT

The Regional Resource Center is a rather new approach to the problems of educating handicapped children. Funding for twelve projects was appropriated last spring when Public Law 90-247, which amended Title VI of the Elementary and Secondary Education Act of 1965, articulated the Regional Resource Center concept.

There are three premises underlying the concept of the Regional Resource Center: (1.) that special education teachers can become more efficient, better educators of the handicapped; (2.) that all children can learn, regardless of handicap, if procedures appropriate to their needs can be identified and implemented; and (3.) that the profession of education can develop the resources to solve most educational problems.

The Regional Resource Center will serve as a bank of advice and technical services upon which educators can draw. Professionals at the Center and educators in the region will work together to identify and implement the procedures which best serve each child.

As envisioned each of the twelve Centers will provide testing and educational evaluation of handicapped children referred to it in order to determine individual educational needs. It will develop educational programs appropriate to those needs and will assist schools and other agencies concerned with the child in providing these programs. Each Center will follow through in the development of the individual educational programs, periodically re-examining and as necessary modifying them to make them fully responsive to the needs of each child.

Four such Centers have been established in the following locations: Eugene, Oregon; Iowa City, Iowa; Las Cruces, New Mexico; and Harlem, New York City. Four of the eight projected Centers will be established during fiscal year 1970 and the remaining four during fiscal year 1971. The Centers will be funded approximately \$100,000 for the developmental phase and \$400,000 to \$500,000 after they become fully operational.

Applications for the grants should be made by an institution of higher learning or a state educational agency and should be submitted to the Division of Research, Bureau of Education for the Handicapped, United States Office of Education, Washington, D.C. 20202.