

A Strategy for Developing Chronological Age Appropriate
and Functional Curricular Content for
Adolescents and Young Adults with Significant Disabilities

Lou Brown, Mary Beth McLean, Susan Hamre Nietupski,
Ian Pumpian, Nick Certo and Lee Gruenewald

University of Wisconsin - Madison and Milwaukee
Madison Metropolitan School District

The MA-CA Discrepancy Hypothesis

For years parents have been told by professionals, "Yes Mr. Jones, your child is twenty years old and will complete school in ten months, but he has a MENTAL AGE OF FOUR. That is why we are teaching him to sing, "When you're happy and you know it clap your hands. That is why we are teaching him to touch long as opposed to short straws, to touch big as opposed to little blocks and to touch a card with four pennies taped to it."

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The Earlier Stage Hypothesis

For years parents have been told by professionals, “Yes Mrs. Smith, your child is eighteen years old and will finish our training program shortly. However, you must realize that DEVELOPMENTALLY she is only functioning at the tertiary-phallic-near receptor-olfactory channel-early preoperational level. That is why we are teaching her to imitate foot stomping, to match plastic spoons to pictures of plastic spoons, to open and close the world's largest artificial and nonfunctional zipper and to pass a bean bag to the person next to her in a circle.”

The “Not Ready For” Hypothesis

For years parents have been told by professionals, “Yes Mrs. Johnson, your child will be completing school in a year or so and we agree with you in theory that she should be taught to perform chronological age appropriate and functional skills in natural environments. However, the result of our multidisciplinary evaluation clearly indicates that your child IS NOT READY socially, emotionally, intellectually, physically, economically, cognitively, politically, religiously, ethically, linguistically and conceptually to learn to perform the skills you are requesting. However, when she progresses through the successive, vertical, linear, developmentally sound, ontogenetically determined, yet possibly invalid, sequences that we have arranged, maybe then she will be ready to learn to perform chronological age appropriate functional skills in natural environments.”

The Artificial Approximation Hypothesis

For years parents have been told by professionals, “Certainly Mrs. White, we could attempt to teach your child to perform chronological age appropriate and functional skills in natural environments. However, such a totally functional orientation would result in only spotty development; would be treating the symptom and not the cause; would be very short sighted, antiintellectual and antiacademic; would be teaching splinter skills; and would be extremely cumbersome to many administrators, teachers and unions. You will just have to trust us in that we are teaching APPROXIMATIONS of those skills.”

These vignettes are intended to illustrate a variety of concerns related to the curricular content typically presented to adolescents and young adults with significant disabilities. There are few curricular materials designed specifically for this population. Most curricula utilized are referenced to theories or models of normal human development which track the progressive refinement and elaboration of basic motor, social and cognitive skills into the complex and competent performances characteristic of normal adults. These theories or models typically divide development into relatively discrete stages through which all children proceed en route to becoming independently functioning adults. The curricular sequences derived from such stage theories can be described as “bottom-up.” That is, they begin by teaching those skills which presumably occur first in a “normal” developmental sequence and then proceed to those which occur at progressively advanced stages. Since students with significant disabilities manifest pronounced progression deficits, they frequently receive instruction only on curricular objectives characteristically offered to and mastered by infants or very young children. Thus, as they become adolescents and young adults, such curricular strategies too often result in the delivery of instruction that is nonfunctional, artificial and inappropriate for their chronological ages. Though students with significant disabilities may in fact evidence progress through “bottom-up” curricular sequences, the performance discrepancies between them and their nondisabled chronological age mates actually increase over time. A very real question confronting educators is, given the limited years remaining in school programs, can the student possibly progress fast or far enough to acquire the skills needed for the most independent functioning possible in a reasonable array of integrated and-or respected postschool environments and activities?

It is often argued that curricular content for chronologically young children that is based upon the hypothetical constructs central to one or more of the currently popular hierarchical stage theories of normal development can be adapted to generate curricular content for older students with significant disabilities. However, until such adaptations result in empirical demonstrations of the performance of chronological age appropriate and functional skills in natural environments, it seems that more intermediate alternatives are at least worthy of consideration.

Functional skills

The following is a quotation from the 1996 version of Brown et al. (1984). Readers interested in a more detailed discussion of “functional” are referred to that manuscript.

A functional skill, for purposes here, is an action that will be

performed by someone else if a person with disabilities does not perform it. Jessica is seven years old and responsible for feeding her dog every morning. Since her dog will be given food by someone else if not by Jessica, the necessary skills are considered functional.

The more functional skills individuals with disabilities have in their repertoires, the more they can do for themselves, the more privacy, choices and dignity they have and the fewer social, emotional, financial and other pressures they place upon others.

At first glance it may appear that washing hands and clothes, making a sandwich, putting on gloves, opening a door, removing snow from a walkway, bringing mail from a mailbox to a kitchen table, etc. are functional. Be careful. Remember the definition. In this context, you cannot claim an action is “functional” until you answer “Yes” to the question, “If she does not do it, will someone else?”

Natural environments

Natural environments refer to the variety of integrated and-or respected settings in which a student with significant disabilities is being prepared to function. They are important as locations for instruction and as sources of curricular content. There are many students with significant disabilities who are being taught important skills, but only in artificial or simulated environments. Included are those who are being taught to use a telephone that functions between the classroom and the hallway; to tell time only on clocks made from paper plates; to “ride” a cardboard bus in the school cafeteria; and to “grocery shop” in boxes in the classroom store. One major assumption underlying such training is that if a student learns to perform a skill in a simulated environment (e.g., a public school) he/she then will be able to perform the same skill in a natural environment. When students with significant disabilities are of concern, one can have little confidence in such an inference (Stokes & Baer, 1977). If we are to arrange for students with significant disabilities to perform functional skills in natural environments, it is necessary either to directly teach those skills in those natural environments or to empirically verify that they are, in fact, being performed therein (Brown, Nietupski, & Hamre Nietupski, 1976).

Educational programs for adolescent and young adults with significant disabilities should be focused on preparation to ultimately function as independently and as productively as possible in a natural array of integrated and respected nonschool and postschool environments. Thus, it is suggested that the teaching of skills that are only, or primarily, appropriate in school environments should be minimized and the teaching of skills that are appropriate in a normal array of nonschool and

postschool environments should be maximized. If a student with significant disabilities is three years old and enrolled in an early education program, some of the environments for which he should be prepared include his natural home, a regular public school, a day care center containing nondisabled peers and public recreation facilities. That is, it is crucial that the young student be taught both the skills required in subsequent school environments and those necessary to function as well as possible in his home and community. However, for adolescents and young adults with significant disabilities, educational services should focus minimally upon the requirements of future educational settings and maximally on preparation for functioning in a variety of integrated and-or respected nonschool domestic, recreation-leisure, vocational and general community environments and activities.

Certainly there are crucial skill clusters that can be taught most efficiently in school settings. For example, it would be difficult to teach many chronological age appropriate social skills to students with significant disabilities during school hours in nonschool settings because their nondisabled peers are in school. However, teaching nondisabled students and those with significant disabilities to interact socially has at least two major purposes: a) so that acceptable social interactions might occur in school environments; and b) so that acceptable social interactions might transfer to nonschool and postschool environments. Therefore, for selected purposes, schools may be viewed as natural environments for some students with significant disabilities. However, the older such students become, the more important is functioning in integrated and respected nonschool environments. Thus, in a preparatory context, at some point natural environments for adolescent and young adult students with significant disabilities should not include schools because they are not the environments in which they are being prepared to function.

The identification of future least restrictive environments has direct implications for the prioritization of skills within curriculum domains. For example, if an adolescent's projected home and vocational training site are connected by public bus route, her school experience should develop the skills required to use that transit system. On the other hand, if her home and future vocational placement are not mutually accessible by bus, the community mobility objectives should emphasize walking, street crossing, carpooling, using cabs, etc. Stated another way, the particular skills taught to any adolescent or young adult with significant disabilities should be determined in large part by the actual performance demands of the most respected and integrated current and future environments.

Chronological age appropriate skills

Initially the assertion that adolescents and young adults with significant disabilities should be taught chronological age appropriate skills using chronological age appropriate materials may seem absurd. Even the most

optimistic professionals agree that there are a substantial number of skills that students with significant disabilities will never acquire. Translating from Spanish to English, selling life insurance and driving a bus are but a few. Nevertheless, there are many chronological age appropriate skills that students with significant disabilities can indeed acquire. Eating, communicating and turning on a television are but a few. If one goal of education is to minimize the discrepancies between students with significant disabilities and their nondisabled peers, it is our obligation to teach them meaningful actions characteristic of their chronological age using materials that do not highlight deficiencies or demean. For example, since young children typically play with simple wooden puzzles as a recreational activity, it is quite appropriate to teach young children with significant disabilities to play with such puzzles. However, since nondisabled nineteen year olds rarely spend recreational time assembling a four piece puzzle of Big Bird, it is stigmatizing to teach an adolescent with significant disabilities to engage in that particular activity. Since nondisabled adolescents and young adults frequently make purchases at grocery, department and drug stores, shopping skills should receive considerable attention in a curriculum for adolescents and young adults with significant disabilities.

The remainder of this paper presents a strategy for generating curricular content for adolescents and young adults with significant disabilities that emphasizes the teaching of functional and chronological age appropriate skills in natural environments.

Assumptions of the Curriculum Development Strategy

The curriculum development strategy delineated below is based on three major assumptions. First, adolescents and young adults with significant disabilities should be prepared to function as productively as possible in a wide variety of "least restrictive community environments" (Brown, Wilcox, Sontag, Vincent, Dodd & Gruenewald, 1977). Second, it cannot be inferred that because adolescents and young adults with significant disabilities have been taught to perform skills in schools and in other simulated settings they will express them in other environments. Thus, it is necessary to teach many skills in the actual nonschool environments that will be used (Brown, Nietupski, & Hamre Nietupski, 1976). Third, the phrase "significantly disabled" represents students with a wide variety of performance characteristics and capabilities. Thus, curriculum development strategies should be sufficiently flexible so that a reasonable range of students can receive appropriate, localized and individualized educational services. Figure 1 contains an overview of the phases of the proposed curriculum development strategy. Each phase will be discussed in more detail below.

Figure 1. A strategy for developing chronological age appropriate and functional curricular content for adolescents and young adults with significant disabilities

<u>PHASES</u>	<u>STRATEGIES</u>
I	Delineate <u>Curriculum Domain</u>
II	Delineate the Variety of Natural <u>Environments</u> in Which a Student Functions or Should Function
III	Delineate the <u>Subenvironments</u> in Which the Student Functions Or Should Function
IV	Delineate the <u>Activities</u> Appropriate for The Subenvironments
V	Delineate the <u>Skills</u> Needed in Order to Engage in the Activities
VI	Design and Implement the <u>Instructional Programs</u> Necessary to Insure the Performance of the Delineated Skills

Phase 1: Delineate Curriculum Domains

The first step in the curriculum development strategy is to delineate topics of major instructional concern. The phrase "curriculum domain" is used here to describe the first of several steps that can be made toward dividing the life space of a student into nonmutually exclusive, admittedly arbitrary, but manageable units. Obviously, there are as many possible curriculum domains as there are domainmakers. For nondisabled students, curricular content is often partitioned into courses or subjects such as science, reading, math, health, art, language arts, social studies and physical education. For students with significant disabilities curricula are usually organized in clusters such as communicative, cognitive, social, gross and fine motor and self-help. Both reflect bottom-up approaches to skill building.

Consistent with the view that the education of adolescents and young adults with significant disabilities should be referenced against the requirements of meaningful postschool functioning, it is proposed here that curricular content be organized into domains or subjects such as Domestic, Vocational, Recreation-Leisure and General Community. This organization is designed to emphasize a "top-down" rather than a "bottom-up" orientation.

All students with significant disabilities will function in some type of postschool domestic environment. Similarly, all students with significant disabilities have the right to a longitudinal, systematic and comprehensive vocational training program that is designed to maximize the probability that they will be able to engage in remunerative work. All students with significant disabilities should be taught to engage in a variety of individual and group recreation-leisure activities in a normal array of environments. All students with significant disabilities should function in a reasonable array of other community environments. These four curriculum domains reflect major life demands of nondisabled adults and therefore can be used to organize instructional objectives for adolescent and young adults with significant disabilities.

Phase 2: Delineate the Variety of Natural Environments in Which a Student Functions or Should Function

The purpose of this phase of the curriculum development strategy is to delineate the environments in which students with significant disabilities are currently functioning and the integrated and respected settings in which they should or will likely function in the future. The term "environment" refers to the places in which students live, work, play, etc. Using the Domestic domain as an example, an adolescent with significant disabilities might be living at home with his parents. However, it is a reasonable educational objective to attempt to plan with and prepare the parents, the student and others in the community for the day when

she will reside elsewhere. Therefore, an apartment might be selected for instructional purposes.

Every effort should be made to identify all reasonable environments where domestic, vocational, general community and recreation-leisure functioning is appropriate. Unfortunately, many students with significant disabilities are unduly confined to a very circumscribed range of environments. To increase the number of natural environments in which they function is certainly a reasonable educational objective.

Phase 3: Delineate the Subenvironments in Which the Student Functions or Should Function

Each environment in which a student functions or those in which she-he will likely or should function in the future can be divided into subenvironments. A home can be divided into a bathroom, a bedroom, a dining room, a living room, etc. A vocational environment can be divided into a work space, an eating area, a break room, a restroom, etc. The purpose of this phase of the curriculum development strategy is to delineate all the subenvironments in which the student should function. Again, efforts should be made to identify all those in which nondisabled adults typically operate.

Phase 4: Delineate the Activities Appropriate for the Subenvironments

For every subenvironment in which a student with significant disabilities currently functions or is likely to or should function in the future, there are a variety of appropriate associated activities. For example, some of the activities that are appropriate for a bathroom are toileting, cleaning the sink, folding towels, shaving, showering and tooth brushing. In a community drug store appropriate activities might include picking up a prescription or purchasing grooming items. The purpose of this phase of the curriculum development strategy is to delineate the many different activities that are appropriate for each subenvironment identified in Phase 3.

Phase 5: Delineate the Skills Needed in Order to Engage in the Activities

Once activities appropriate for various subenvironments have been delineated, a major issue then becomes: "Can a particular student perform the specific skills necessary to engage in part or in all of an activity?" The objective of this phase of the curriculum development strategy is to delineate the skills needed by both students with significant disabilities and others who function in the subenvironments so that all participate to some degree in some of the activities identified. It should be emphasized that even if a student with significant

disabilities is not capable of engaging in a particular activity independently, he/she should not be denied the opportunity for partial participation. For example, if a student cannot acquire the skills necessary to assemble a particular item in a hospital laundry, that task might be divided into components so that she can complete at least some successfully. Additionally, even though a specific student may not be able to develop the skills necessary to use a public restroom independently, the activity could be adapted so that skills necessary to participate in at least some parts of the process can be acquired and performed. Efforts should be made here to precisely describe the language, reading, math, communication, motor, social, etc. skills needed to at least partially participate in each delineated activity.

Phase 6: Design and Implement the Instructional Programs Necessary to Insure the Performance of the Delineated Skills

Once the skills that are necessary for involvement in a particular activity are determined, the student must then be taught to perform them. The purpose of this phase of the curriculum development strategy is to design and implement the instructional programs necessary to teach students with significant disabilities to perform as many of the skills delineated in as many natural environments as possible.

Discussion

If this curriculum development strategy is implemented, it will become apparent that the closer students with disabilities come to the end of their school careers, the less time they should spend on school grounds and the more time they should spend in the variety of nonschool environments in which they will likely or should function upon completion of school. For example, while younger students might secure basic skills in a Home Economics classroom at school, this simulation strategy for many adolescents and young adults will be inappropriate. Attempts should be made instead to provide direct instruction in real homes, in real apartments or in other real domestic settings. Additionally, while some part of a vocational training experience might consist of performing simulated tasks at school, the older the student becomes the greater is the need to provide direct instruction in the actual vocational environments in which she might function; e.g., in real dishwashing settings, real hospitals and real banks.

Finally, the implementation of this curriculum development strategy will require substantial changes in educational programs serving adolescents and young adults with significant disabilities. Obviously, traditional curricular content and service delivery models will have to be scrutinized carefully and changed as the need for teaching chronological age appropriate and functional skills in natural environments is recognized.

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