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AUTHOR Sweet, Mark; And Others
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ABSTRACT

Issues involved in domestic living skills training with severely handicapped students are examined. The importance of verifying subenvironments within the student's home (e.g., to teach operation of a gas stove to a student with a gas stove at home) is emphasized. Instructional emphases are delineated for early childhood, elementary school, middle school, high school, and transitional training levels. The paper concludes with an analysis of ways to make determinations about educational priorities in domestic training. Four aspects of such a determination procedure are covered: (1) an inventory of skills required for specific tasks to be completed by nonhandicapped persons; (2) an observation of the student while he or she is engaging in the activity in the actual environment; (3) an analysis of the performance discrepancies; and (4) an analysis of skills for which there are performance discrepancies. (CL)

# STRATEGIES FOR DEVELOPING AND IMPLEMENTING LONGITUDINAL AND COMPREHENSIVE CURRICULAR CONTENT IN THE DOMESTIC LIVING DOMAIN[1]

Mark Sweet, Betsy Shiraga, Jennifer York,
Kathy Zanella, Stacy Graff, & Ruth Loomis [2]

University of Wisconsin - Madison
and
Madison Metropolitan School District

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Many teachers are using the Curricular Domain Strategy presented by Brown et al. (1978) to organize and develop Individualized Education Programs (IEP's) for their severely handicapped students. Four domains were recommended for organizational reasons to account for the total life space of an individual severely handicapped student. These were: the General Community Domain; the Recreation/Leisure Domain; the Vocational Domain; and the Domestic Living Domain. This organizational strategy was a departure from most orientations to curriculum development. The recommendation was to delineate these domains of nonhandicapped adult functioning and then to individualize curricular content by identifying the specific environments and subenvironments in which a student currently functions or might subsequently function. This "top-down" strategy is in contrast to "bottom-up" orientations to curriculum development, whereby the skills targeted for instructional attention are delineated before individually relevant environments, subenvironments, and activities are identified. Environments must be determined first, and then the activities and the skills needed to engage in these activities can be delineated.

Consider the Domestic Living Domain. Use of a top-down approach to develop individualized curricular content within this domain would require the identification of the environment in which the student of concern lives and then the subenvironments. For example, Jack, a severely handicapped student, lives in a three-story apartment building. Within this environment, there are many subenvironments in which Jack must learn to function. The mailbox area in the lobby, the stairwell, the laundry room, the kitchen, the bedroom, the bathroom, and the living room are all examples of subenvironments within Jack's domestic environment. The development of a preparatory domestic living curriculum for Jack requires knowledge of these subenvironments. Attempting to develop domestic living curricular content for Jack without first delineating specific subenvironments would most likely result in an incomplete and/or inappropriate curriculum. One significant reason for organizing curricular content under domain headings and then delineating environments and subenvironments first is to avoid random instruction of skills that are presumed rather than verified to be individually relevant.

Domestic living curricula are too often developed without verified information. The tendency, even among teachers using the Curricular Domain Strategy, is to delineate categories of domestic functioning, e.g., self-care, clothing-care, and food preparation, before verifying the subenvironments within the student's home. One problem that may result from use of this method is that the student is not likely to receive individually relevant and preparatory domestic living skills instruction. For example, a student may be taught to operate an electric stove even though there is a gas stove in his home. If comprehensive, individually relevant and preparatory domestic living skills curricula are to be developed, first, the domestic living environment must be identified, second, the subenvironments must be delineated, and only then can the activities that occur and the specific skills that are required be specified. Conducting ecological inventories within each subenvironment to determine the specific activities and skill sequences in which a student must engage to function comprehensively within his/her own home is one of

the most accurate methods of ensuring a comprehensive domestic living skills curriculum. The inherent risks in using skill categories without verifying subenvironments within the home, are that: a) students may not be prepared to engage in individually relevant activities throughout their homes; and b) students might receive specific instruction to engage in activities that are not preparatory for the environments in which they actually live. Verification about the actual domestic environment and subenvironments of a student is a most effective method for developing an individualized domestic skills curriculum.

In Section I of this paper instructional emphases at each school level will be recommended. Some of the day to day concerns regarding the implementation of domestic living skills training will be addressed in Section II.

## I. DELINEATING INSTRUCTIONAL EMPHASES: A LONGITUDINAL AND CUMULATIVE FRAMEWORK

Educational intervention that starts at an early age and continues throughout adulthood is critical for the development of acceptable domestic functioning by severely handicapped persons. Young severely handicapped children are more likely than their nonhandicapped peers to experience a phenomenon described by Seligman (1975) as "learned helplessness." This may occur because such children are frequently either not expected to make active responses or they are expected to make responses that are not within their repertoires and therefore often experience failure. Caregivers and teachers may leave them to their own resources while meals are prepared, clothes are arranged for changing, toys are put away, etc. Whereas most nonhandicapped children can be expected to occupy this time in a constructive manner, this may be an unfair expectation for severely handicapped children. When left on their own, many acquire passive or self-involved behavior patterns (Allen, 1976). Once a person develops a helpless pattern of nonactive, nonresponsive behavior, he/she is more difficult to motivate and therefore to teach. White (1975) found that the first three years of life were crucial to later development in both handicapped and nonhandicapped children; and Bricker and Iacino (1977) reported that developmental problems associated with handicapped children were the least complex to address when the children were young. In consideration of these findings, it is logical that efforts be made to intervene early. Given that young children spend a substantial amount of time in and around their homes, it is essential that active patterns of responding and participating across a variety of domestic and related routines be established during these early years.

Although early intervention is essential for domestic and related functioning, severely handicapped students will continue to manifest learning and performance characteristics that will make ongoing educational intervention necessary. Brown et al. (1982) delineated six such characteristics. These are presented below in a comparative format and provide the basic rationale for a longitudinal orientation to education.

When compared to nonhandicapped chronological age peers, it is highly probable that severely handicapped students will:

acquire fewer skills in the same amount of time;

require more instructional time and trials to acquire the same skills;

frequently not transfer the performance of skills acquired in one environment to a second environment without direct instruction in the second;

acquire fewer complex skills;

have more difficulty remembering skills that are not required on a regular basis and will require more time to relearn them; and

rarely take skills learned in separate contexts and synthesize them for practical use.

These characteristics continue to affect learning and performance into adulthood. Philip Roos (1975), of the National Association for Retarded Citizens, wrote "Education should begin as early in life as possible and continuing education services should be available throughout life to retarded adults (p. 81)." Given this need for continuous education, it seems reasonable that public schools should assume responsibility for providing at least:

Early Childhood Domestic Training from approximately 0-4 years;
Elementary School Domestic Training from approximately 5-10 years;
Middle School Domestic Training from approximately 11-14 years;
High School Domestic Training from approximately 15-18 years; and
Transition Level Domestic Training from approximately 19-21 years.

The major instructional emphases recommended at each school level will be delineated and explained in the sections that follow. Please note that while specific emphases are attributed to each school level, they are intended to be cumulative as the chronological age of the students of concern increase.

A. Early Childhood Domestic Training.

There is an old story about a 10-year-old who had never spoken a word. One night as the family came together for dinner her father carried her to the table and placed a plate of food in front of her. The girl looked at the food and then at her father and said, "I'm not eating this!" Her family members all looked at each other feeling both thrilled and confused by her speech. Her mother said, "You can talk! Why did you wait so long?" to which the child replied, "Until now, everything has been fine."

The life of sitting and waiting while others do everything for and to a severely handicapped child is perhaps well-intentioned, but nevertheless

counterproductive. The direction to "sit and wait" is frequently the deliberate or implied message given by adults to young handicapped children. Orientations to child rearing and early childhood special education that extoll the virtues of "in-seat behavior" and "compliance" are likely to result in a child learning not only to sit and wait momentarily but to sit and wait as the primary mode of functioning. Children may lose, or not be stimulated to acquire, interest in exhibiting control on their environments. Some of the reasons offered by teachers for placing such importance on children sitting still and only engaging in actions sanctioned by adults, are that:

It is faster for teachers to complete many tasks without student involvement;

It is not worth the time or effort to engage students in activities that they cannot do independently;

It is important for teachers to be in control of their classes (which for many means that students must sit still);

Students will make a mess of themselves and the environment if allowed to help or initiate activities on their own;

When students make errors they provide poor role models for their peers; and

It is too dangerous to allow students to initiate or engage in many activities.

Certainly, there is a need to consider each of the rationales listed above, but none of them should be used to exclude a student from needed instructional experiences. One solution is to plan instruction that targets the active involvement of students and teaches them to participate safely. It must be remembered that enrollment in an early childhood education program is for the purpose of motivating students, even at very young ages, to want to manipulate their environments and to actively participate in the activities that occur around them. Clearly, one goal for a teacher is to find a reasonable balance between establishing rules that account for safety, while motivating, teaching, and rewarding the active involvement of students.

The emphases at these young ages should be on initiation and active responding with two main focuses. First, all domestic and related activities that require an adult to act upon a child should include responses that the child is taught and expected to make. Dressing, bathing, eating, moving in and out of a wheelchair, toileting, and grooming are but a few examples of activities that must occur. Given that an activity will occur, the issue should not be whether to include the student, but in what way he/she will be taught to participate. Assume that a severely handicapped student is nonambulatory and is being moved about in a wheelchair. Several

times throughout the day it is necessary that she transfer in and out of her wheelchair. This student could be lifted and set down, i.e., her body acted upon; or the skills needed to transfer in and out of a wheelchair could be delineated and some of them targeted for instruction, i.e., teach the student to be an active participant when transferring. While she might be taught to unfasten her seat belt, to give directions to the person pushing her chair, or to lift her arms around a helper's neck, another student may be taught to lift her arms a few inches because currently that is the most she can do. Second, when a child attempts to help an adult or to do something independently, e.g., to get a drink or to make the bed, instructional practices that encourage this initiative by providing direction or assistance must be employed. While nonhandicapped young children often maintain their enthusiasm and desire to participate even after years of being told to wait, severely handicapped students are more likely to become involved in nonconstructive or self-involved activities as outcomes of not being included or of being discouraged. In order to avoid the orientation of teaching severely handicapped students to wait, strategies that purposely and systematically teach them how to initiate safely and to respond actively across a variety of domestic and other activities are essential.

B. Elementary School Domestic Training

A primary concern often reported by teachers of elementary school age students is related to setting priorities among the many activities that could receive specific instructional attention. Use of a current and subsequent orientation to the generation of curricular content (Brown, Branston et al., 1979) would suggest looking at nonhandicapped middle school age students as one point of reference. In other words, the domestic and related activities in which young teenagers engage are those for which severely handicapped elementary age students should be prepared.

One purpose for basing elementary school age domestic living skills curricula for severely handicapped students on the activities of nonhandicapped middle school age students is to build participation in such activities into their repertoires. The purpose is not to push students through childhood and into the responsibilities of adolescence or adulthood, but to instructionally compensate for the fact that most severely handicapped students will require more time and trials to learn. Providing intervention early will increase the likelihood that they will acquire the skills needed to function maximally. Whereas many nonhandicapped elementary school students may be given only a few domestic responsibilities, most are at least cognizant of the fact that laundry is done, food is prepared, rooms are cleaned, etc., and that eventually they will acquire the skills to engage in these activities and be expected to do so. Severely handicapped students are usually not aware of such activities unless directly involved. Early involvement with a long term plan to increase the level of involvement as the student becomes chronologically older and more skilled serves to reinforce major educational goals in at least three ways:

a) It provides opportunities for students to associate and assume specific responsibilities related to domestic living routines;

b) It provides a meaningful opportunity to teach students to "feel good" about their actions, i.e., to develop positive attitudes about domestic living skills, as evidenced by the students' initiation of, or willingness to participate in, the targeted activities; and

c) Such involvement provides a base from which appropriate responses can be shaped and reinforced.

Consider the activity of making a bed. Few nonhandicapped 6-year-olds are expected to make their own beds; however, such an expectation is reasonable for an 11-year-old. Instruction in such an activity might begin for a severely handicapped student upon entering elementary school. The goal is not necessarily that the student acquire all the skills needed to make the bed, but that he/she initially learns to associate getting out of bed with some required action, e.g., placing all blankets on the bed, or covering the pillows. These incomplete actions constitute the base from which more sophisticated bedmaking skills will be developed. The goal at this time is to build into the child's repertoire many responses to naturally occurring cues (Falvey et al., 1978) that signal the need to initiate specific domestic related skills. At the same time, the child receives reinforcement for participation in such activities. Another example of early domestic skill training might involve "doing" the laundry. This activity, for a severely handicapped 6-year-old, might involve regularly putting clothes into a washer or dryer, taking some clean dry clothes out of a dryer, matching his/her own clean socks, or putting folded clothes into the appropriate drawers.

In addition to determining what skills to teach, teachers are also concerned with where instruction should be provided. Given the choices between instruction in a school environment only or in both school and nonschool domestic training environments, the latter would seem the most reasonably defensible. A nonschool domestic training environment might be a student's home, or the home of a teacher, aide, therapist, etc. Ideally, a teacher would rotate sites during the course of a school year and provide at least some direct instruction for each student in his/her own home.

One reason for such a strong endorsement of this concurrent instructional model (Brown et al., 1982) i.e., instruction in both school and nonschool environments, is the vocational follow-up study conducted by Shiraga (1983). The functioning of severely handicapped graduates of the Madison Metropolitan School District between 1971-1978 (Van Deventer et al., 1981) was compared to that of students who graduated between 1979-83 (Shiraga, 1983). It was reported that between 1971-78, of 53 graduates, 1 was in a nonsheltered vocational environment, 49 were in sheltered environments, and 3 remained at home. Although many changes

occurred in the public school service delivery system in Madison for severely handicapped students during the years between 1971 and 1983, foremost was the increase in the number of nonschool environments in which students received direct vocational instruction. Between 1979 and 1983, of 50 graduates, 36 were in nonsheltered vocational environments, 10 were in sheltered vocational environments, and 4 were at home. It seems reasonable that to improve the general and specific domestic living skills of severely handicapped students, a similar model of providing instruction in many nonschool domestic training environments over a long period of time is needed.

In sum, the recommendation for elementary school domestic training includes:

a) introducing the range of domestic living skills in which nonhandicapped elementary and middle school age students engage;

b) teaching positive attitudes related to the performance of domestic and related skills;

c) providing direct instruction in both school and nonschool environments; and

d) increasing the expectations for involvement in activities as skills are acquired and as chronological age increases.

C. Middle School Domestic Training

When students enter middle schools, at approximately age 11, they will have been engaged in a variety of domestic living activities as elementary school students and will have acquired the skills to at least participate in some part(s) of individually relevant skill sequences. Refinement of these skills should be a major emphasis for middle school age students. Many years will have been used to encourage and reinforce active involvement, i.e., the major emphasis has been on "doing" and "trying" rather than specifically on the correctness of the outcomes. Now, at these ages, students should learn to evaluate their efforts, recognize errors, and correct them. With these issues in mind, nonschool instruction should certainly continue. In addition to specific "inhouse" activities, domestic living instruction that enhances general community, leisure, and vocational functioning should be provided. Grocery shopping, traveling to the home of a neighborhood friend, and utilizing public transportation to commute to work are examples of such activities.

D. High School Domestic Training

High school training should emphasize more independent performance and expanded routines of skill sequences performed consecutively, e.g., showering, dressing, making a bed, and preparing breakfast. During these

years, parents, teachers, students, and significant others should be anticipating the nature of the desired future domestic living environment and planning for such a move. The individualized education plan must then include reasonable domestic and related goals that pertain to functioning in such an environment, and the amount of time and kind of training and supervision necessary to realize those goals should be scheduled.

Ideally, during high school training, students should spend one month, at least twice a year in a supervised apartment or house. The purposes of this training would be: to provide students with the opportunity to be away from home; to provide families with the experience of having their handicapped member out of the home; to assess the domestic skills and attitudes of the student across a wide variety of daily routines that occur during nonschool hours; to delineate the skills for which subsequent instruction is still needed; and to provide such instruction.

### E. Transition Training

Transition training refers to the instruction provided during the last year or two during which a severely handicapped student receives public school education. While still enrolled in public school, the educational team should provide training whenever possible in the actual domestic environment in which a student will function upon graduation. If the specific environment is not known, a nonschool training site that most closely approximates the type of domestic environment sought should be utilized. During this time, cooperative arrangements should be made with those persons and agencies who will be responsible for an individual upon graduation and an individualized domestic transition plan should be outlined (Brown et al., 1980). This plan is intended primarily to ensure that there is a smooth shift in service delivery from public school personnel to the adult service providers who will assume responsibility.

## II. DETERMINING THE SKILLS THAT CAN MOST REASONABLY BE TAUGHT IN DOMESTIC TRAINING ENVIRONMENTS

In recent years, many teachers have recognized the benefits of, and the necessity for, allocating at least some portion of the total time spent providing domestic and related skills and attitudes instruction, in nonschool environments. This represents the concurrent instructional location strategy described by Brown et al. (1982). That is, instruction is provided in both school and nonschool environments within a relatively short period of time, such as within a school day or an instructional week. When instruction is provided in school or nonschool environments that are not the actual environments in which a student currently lives or might live in the near future, determinations must be made as to which skills should be set as educational priorities in training as compared to actual domestic living environments. In this section, strategies will be delineated and described, that when utilized, result in the accumulation of the information needed to make such determinations.

A. A Nonhandicapped Person Inventory Strategy

Many teachers find that one of the more confusing aspects of teaching severely handicapped students is the collection of accurate assessment data. That is, within any given activity, what specific skills require instructional emphasis? There are many commercially prepared curricula and assessment guides that advertise a "functional skills approach" or a "domestic skills sequence." These packages lack individualization, but because they are labeled functional, teachers who use them frequently operate under the false assumption that they are providing individually relevant and preparatory domestic living training. It must be acknowledged that it is unlikely that use of a commercially produced curriculum or assessment tool will result in individualized programming. Therefore, Brown, Falvey et al. (1979) proposed use of a Nonhandicapped Person Inventory Strategy as a more precise way to develop individualized curricula and assess student performance.

In order to individualize a domestic living skills curriculum it is essential that accurate information is secured about the environment(s) and activities in which a student is expected to engage. Conducting a Nonhandicapped Person Inventory involves going to the actual environment in which a particular student is being prepared to function and delineating the skills that a nonhandicapped person performs while engaging in the activity of concern. The information secured in this manner results in an individualized assessment tool that uses as its point of reference, the performance of a nonhandicapped person in the actual environment for which the student is being prepared. For example, if information is required in order to assess a student's dishwashing skills because washing dishes in the kitchen of his home is an educational goal, it is necessary to determine the skills needed to do so in his kitchen under the conditions that are operative in that subenvironment of his home. There are many environment specific variables, such as the type of water control device and drain stopper, or the location of the dishwashing soap in relation to the sink, that a prepackaged "dishwashing curriculum" cannot address. Completion of a Nonhandicapped Person Inventory will result in the delineation of a skill sequence to wash dishes in the actual kitchen in which the student is being prepared to function. This is an extremely precise and simple method of compiling an individualized assessment tool.

B. A Student Repertoire Inventory Strategy: Assessment

Conducting a Student Repertoire Inventory, or assessment, involves observing the student while engaging in the activity of concern in the actual environment in which he/she is being prepared to function, under the conditions that are operative there. The completed Nonhandicapped Person Inventory is the individualized assessment tool. For each skill, or action, delineated on that tool, the student must perform an acceptable action that yields the same outcome achieved by the nonhandicapped person. The person conducting the assessment records a plus (+) if the student performs the correct action and a minus (-) if he/she does not.

A completed Student Repertoire Inventory, referenced to a Nonhandicapped Person Inventory, results in a delineation of performance discrepancies. That is, a list of the skills that were not performed by the student or that were performed unacceptably. These discrepancies represent the specific skills for which instructional attention will be directed.

C. An Analysis of the Nature of Performance Discrepancies

Thus far, the teacher has developed and utilized a precise individualized assessment strategy and delineated specific performance discrepancies. Hypothesizing the nature of these discrepancies is crucial to the determination of a reasonable educational intervention. Such hypotheses must surely be made before intervention strategies are selected and implemented. There are at least five categories into which performance discrepancies can be organized.

1. A Performance Discrepancy Resulting from an Instructional Deficit

Certainly, there are discrepancies that occur quite simply because the student has not received the necessary instruction. That is, the student needs systematic training pertaining to when, where, and how the skill is to be performed. For example, a student may not perform the skills needed to open a window that is locked. This performance discrepancy may simply occur because the student has never been taught to unlock the window.

2. A Performance Discrepancy Resulting from a Memory Deficit

When conducting a Student Repertoire Inventory, it might be found that the student does not initiate the next response in a sequence or performs a skill out of order. In such a case, the student may have the skill in his/her repertoire but does not remember when it is necessary or appropriate to perform it. In fact, there might be past data verifying that the student has acquired the skill(s) of concern; or that when reminded of what he/she is to do, the student is able to make the correct response. The nature of such a discrepancy could be a memory deficit. For example, if a student who is learning to make his bed puts the spread on before the sheet, that may be a discrepancy related to not remembering to put the sheet on first.

3. A Performance Discrepancy Resulting from a Sensory Deficit

Some discrepancies may be the result of a student not discriminating the naturally available cues that signal the need for a specific response due to visual, auditory, or other sensorial deficits. For example, a student who is learning to utilize an audio cassette tape player may always turn the volume up to the maximum because of a hearing impairment.

4. A Performance Discrepancy Resulting from a Behavioral Deficit

Another possible reason for a performance discrepancy is that the student engages in other actions at a time when he/she should be performing the specific skill of concern. That is, the student is engaging in actions that interfere with the acquisition or performance of needed skills. For example, a student who is watching the picture on the television set rather than looking at how the table is being dusted may exhibit performance discrepancies when engaged in that activity.

5. A Performance Discrepancy Resulting from a Physical or Motoric Deficit

Some discrepancies may be due to a temporary or permanent physical or motoric deficit. That is, the student may know what skill is supposed to be performed and may even attempt to do so, but cannot because of an environmental arrangement that is not within his/her physical control. For example, a student learning to set the table from her wheelchair may recognize the need for napkins but may not be able to obtain them and then place them on the table because they are stored out of her reach.

Analyzing the nature of performance discrepancies to hypothesize possible reasons for incorrect student responses can greatly assist the teacher when selecting instructional intervention strategies and/or designing individualized adaptations (Baumgart et al., 1980). Certainly, a discrepancy resulting from a memory deficit should be addressed differently than a discrepancy resulting from an instructional deficit.

D. An Analysis of the Skills for Which There are Performance Discrepancies

After careful decisions have been made pertaining to how instruction will be provided, based on the nature of performance discrepancies, it is necessary to delineate where specific skill instruction should be provided. In consideration of the generalization difficulties experienced by most severely handicapped learners, it would be educationally unsound to teach a student to function only in a training environment. On the other hand, providing all instruction in the actual current or future domestic environments of each student is not usually possible. Consequently, given that skill instruction will occur in both training environments and the student's actual domestic environment, a strategy must be used to ensure that instructional time is maximized in each. An analysis of the skills for which instruction is to be provided offers information that can lead to decisions about which skills might be taught in a training environment and which skills are best taught in the actual domestic environment of a particular student.

After such an analysis, skills can be organized into at least three categories for instructional purposes.

1. Object Specific Skills are actions that are performed on tangible items. Lifting a mug to take a drink, squeezing toothpaste onto a toothbrush, and dialing a telephone are all examples of skills that require a person to act on an item. The primary skills required to perform the necessary actions are essentially the same from one environment to another, given that the item is the same or very similar.

2. Environment Specific Skills are actions that are performed in response to naturally available cues that are embedded in, or specific to, a particular place. Locating an electrical outlet in the living room of a house, returning clean dishes to the appropriate cabinets, and gathering the needed food and cooking items for meal preparation are all examples of skills that require a person to learn to respond to the cues specific to and embedded in a particular place.

3. Routine Specific Skills are those actions performed in response to naturally available cues embedded in the sequence of activities. Putting food in the dog's bowl after the breakfast dishes have been placed in the sink, vacuuming the living room rug after the furniture has been dusted, and selecting clean clothes after taking a shower are all examples of activities that are initiated in response to the completion of a preceding activity. In these examples, completion of one activity is the natural cue to initiate the first step of another activity.

This simple analysis of a skill can be used to make decisions regarding the use of instructional time in training environments. The strategies that have been used to this point have yielded precise information pertaining to:

The specific skills for which instruction is needed;

The nature of the performance discrepancies; and

Whether the discrepant skills are object specific, environment specific, or routine specific.

Certainly, for all skills, initial assessment and subsequent verification of performance must occur in the actual environment in which the skill is intended to be performed. At this point, it is necessary to determine which skills can reasonably be set as priorities for instruction in training as compared to actual domestic environments.

Max is a 14-year-old severely handicapped student. During an Individualized Education Program planning meeting, his parents asked that he be taught to vacuum the living room rug at home. A Nonhandicapped Person Inventory was conducted by watching his father actually perform the skills necessary "to vacuum the living room rug." Because it was a new activity for Max, the teacher spent several instructional sessions performing the skill sequence with him. Subsequently, he was assessed in his home while engaging in this activity. The specific skills for which Max exhibited performance discrepancies, included:

initiates the skill sequence after breakfast;

moves in the appropriate direction toward the hall closet;

closes the closet door (after taking the vacuum cleaner out);

unwinds the electrical cord;

grasps the plug by the rubber (rather than the prong);

moves in the direction of the electrical outlet; and

inserts the plug into the electrical outlet.

Three of the performance discrepancies listed above are Object Specific Skills: unwinds the electrical cord; grasps the plug by the rubber; and inserts the plug into the electrical outlet. Three of the skills are Environment Specific Skills: moves in the direction of the hall closet; closes the closet door; and moves in the direction of the electrical outlet. One of the skills is a Routine Specific Skill: initiates the skill sequence after breakfast. The fact that some of the discrepant skills were determined to be object specific, others environment specific; and yet another routine specific, does not mean that the activity of vacuuming the living room rug cannot be taught in a training environment. It does mean that in order to set training priorities that maximize instructional time, and provide instruction that is preparatory for functioning in a particular domestic environment some careful planning must be done. Certainly, the Object Specific Skills can be targeted for instruction in the training environment because these actions will be essentially the same from the training to the actual environment. Verification of performance in the actual environment will still be required to ensure that the skills can be performed under conditions operative in the actual environment, e.g., the parakeet chirping, the telephone ringing, and other sights, sounds, and smells that might be present. Environment Specific Skills require specific actions in response to environmental stimuli. When in the training environment, these are the skills that teachers might simply decide to perform with students instead of targeting them for initial instructional emphasis. It would be a questionable educational practice to invest instructional time teaching a student to locate an electrical outlet in a training environment, when the naturally available cues to locate it in the actual environment are different. Certainly, some students might benefit from acquiring search strategies in several environments. When this is the case, such skills might be targeted for instruction after the acquisition of those that are more likely to transfer. As a general rule, when setting instructional priorities for teaching in training environments, Object Specific Skills should be selected first.

There are ways to teach Environment Specific Skills in training sites that are more reasonable than others. Most notably would be to introduce the cues that are naturally available in the actual environment into the training environment (Stokes & Baer, 1977). For example, if in the student's house, the vacuum cleaner is stored in a hall closet, but in the training environment it is kept in the basement, perhaps on

training days it could be moved to a hall closet prior to the instructional session and returned to the basement before leaving the site.

Routine Specific Skills, too, can be taught in training environments when student responses are carefully specified. Such skills are most often the initiation responses that signal the start of an activity upon completion of another. Therefore, movement in a particular direction or toward a specific object might be the response expected in order to verify that a student has learned the "routine." This is not the same as starting the activity, but indicates that the student knows what comes next.

## SUMMARY

The necessity for longitudinal and comprehensive domestic and related skill instruction for students with severe handicaps has been emphasized. Domestic instruction must begin prior to school age and continue throughout the lifetime of a severely handicapped individual. The earliest domestic skill instruction must emphasize the facilitation and reinforcement of active initiation and participation. As chronological age increases, the number of domestic activities a student learns to perform and the degree of responsibility they are expected to assume should also increase. Certainly, chronological age must be the main factor, rather than the handicapping condition(s) that may effect performance. To ensure that domestic skills targeted for instruction are individually relevant and preparatory in nature, the top-down Curricular Domain Strategy for generating curricular content is essential.

Finally, once specific skills have been targeted for individual students, the location of instruction and the emphasis for teaching in various school and nonschool domestic environments must be determined. Analyzing skills as object specific, environment specific, or routine specific has been determined to be an important basis for deciding which skills can reasonably be taught in specific environments.

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