This study investigated the quality of programming for students (aged 3-20) with severe multiple disabilities. The study sought to determine whether physical disabilities that prevent voluntary movement are a discriminating factor affecting whether active or passive programming is provided. The Individualized Education Programs of 35 students with severe multiple disabilities were evaluated to determine the number of age-inappropriate and nonfunctional objectives, criterion-referenced objectives, and passive versus active objectives. Students were divided into two groups based on their ability or inability to use at least one hand to manipulate objects. Both groups of students engaged in a considerable number of age-inappropriate and nonfunctional objectives, suggesting that programming efforts for all students need to be more critically evaluated. The students with physical disabilities that prevented voluntary movement were more often engaged in passive forms of interaction with their physical and social environments than the other student group; their percentage of active objectives and criterion-referenced objectives decreased. (Author/JDD)
Active vs Passive Programming:
A Critique of IEP Objectives
for Students with the Most Severe Disabilities

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Active Programming

Abstract

Students who have severe to profound mental retardation, sensory impairments, medical problems, and severe physical disabilities are often the recipients of passive programming and instruction. These students are typically individuals who have difficulty manipulating their physical and social environments, and communicating their intent. This study investigated the programming for students with the most severe disabilities to determine if physical disabilities that prevent voluntary movement is a discriminating factor affecting the type of programming whether active or passive. The IEPs of 35 students with severe multiple disabilities from 6 states were evaluated to determine the number of age-inappropriate and nonfunctional objectives, criterion-referenced objectives, and passive vs active objectives. Students were grouped according to their ability to manipulate their physical environment and those unable to do so. Findings from this preliminary investigation suggest that both groups of students engage in a considerable number of age-inappropriate and nonfunctional objectives, while students with very little voluntary movement did receive more passive instruction than students who were more physically able.
Active Programming

Active vs Passive Programming: A Critique of IEP Objectives for Students with the Most Severe Disabilities

Accepted best educational practices for students with severe handicaps depict the student in functional, chronologically age-appropriate activities that teach the individual to participate actively in home, school, and community environments (Falvey, 1986; Meyer, 1985; Orelove & Sobsey, 1987). For many students who had previously received instruction solely within classrooms, and whose instruction had concentrated on isolated skills based on a strict developmental model, the shift to a functional approach has dramatically improved their ability to become competent members of their communities (Bates, Morrow, Pancsofar, & Sedlak, 1984; Green, Canipe, Way & Reid, 1986). However, a number of students with severe handicaps still do not receive proven means of effective instruction, even though their peers in the same classroom might. These students are typically individuals who have the most severe physical disabilities that seriously impair their ability to manipulate objects, communicate their intent, or change body position. These students also have concomitant severe to profound mental retardation, sensory impairments, and usually severe medical problems as well. Programming for these students is challenging, requiring considerable teacher creativity and attention.

Quality of educational programming for the target population has been the focus of other investigations that examined individualized educational programs (IEPs) to determine if certain factors affected quality (Billingsley, 1984; Hunt, Goetz,
Active Programming

& Anderson, 1986). Indicators of quality as ascertained from these studies included age-appropriateness of activities (to include materials and interaction with nonhandicapped peers), and the ability to generalize learned skills to a variety of environments. Quality programming, besides being functional for the individual, chronologically age-appropriate and community-based must also be systematically taught, with specific responses required from the student (Snell & Zirpoli, 1987; Sweigert, 1987). Ideally, critical skills should be targeted that will lead to greater competence in a variety of meaningful and frequently accessed environments (Brown et al, 1979). For the purpose of this study, such programming is considered active, since the student's behavior can be specifically identified and targeted for change. Passive "instruction" refers to interactions with students that target sensory information and other activities provided for, and done to the student. Students may be typically engaged in passive sensory and/or tactile stimulation activities, passive range of motion and relaxation exercises, and positioned in a variety of adaptive equipment. Passive programming specifies what staff will do to the student, and provides structure for teacher behavior. This programming typically is described in non-quantifiable terms for the student. Students receiving this type of instruction may be made to feel more physically comfortable, but will probably not acquire skills that ensure their active participation in functional activities.
The purpose of this study was to evaluate individual educational plans of students labelled severely and profoundly handicapped to determine if physical disabilities that prevent voluntary movement is a discriminating factor affecting the quality of programming for these students.

Method

Target Population

IEPs of 35 students were examined for this study. Students, who were all labelled severely or profoundly handicapped, ranged in age from 3 to 20 years, (a mean of 10.8), with 19 students (54%) in elementary grades (kindergarten through 5th grade). These students (20 male and 15 female) all were identified as having severe to profound mental retardation, as determined by scores on the WISC-R and WAIS-R, and 32 (91%) had concomitant physical and/or sensory disabilities.

Students were divided into one of two groups for the study. The first group was comprised of students with severe multiple disabilities, but the ability to make use of at least one hand to manipulate objects. The age range in this group was from 4-20, with a mean of 11.4 years. The second group had the same characteristics as the first group, but were further limited by their inability to grasp objects. The age range in this group was 3-20, with a mean of 10.9 years. Selection for each group was determined by classroom observation and discussion with the primary teacher.

Students lived in rural and urban areas of New Mexico, Arizona, Utah, Illinois, Ohio, and Louisiana, and attended a variety of
regular public schools and segregated facilities (both residential and day programs). Students were served in self-contained classrooms in regular public schools, in special day schools for children with handicaps, or in residential programs (See Table 1). All educational programs had requested state or national technical assistance to improve their programs, and students were selected by teacher and parent nomination as part of this assistance.

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Table 1 About Here
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Procedure

An informal survey instrument was developed to evaluate the quality of students' Individualized Educational Plans (IEPs). The instrument was used to determine demographic information: age, sex, student disabilities, date of IEP, type of educational program (whether segregated or integrated), and number of IEP objectives. Each student was observed for a minimum of one hour to determine level of functioning, ability to manipulate the social and physical environment (with and without switch adaptations), methods of communication, and types of interaction with staff. Daily schedules were also examined to determine if they adequately reflected IEP objectives, and to gain a clearer understanding of a particular student's program. The author then reviewed each IEP objective to determine the number of criterion referenced objectives (specific criterion given with which to measure objective attainment), the number of age-inappropriate and nonfunctional objectives (based on the age
the student, materials being used, and the parameters of the activity), and the number of passive objectives (objectives stated in such a way that no specific behavior was required of the student to meet the expectations of the objective).

Definition of Terms

**Students with Severe Multiple Disabilities Who Have Functional Voluntary Movement:** Students have severe to profound mental retardation, with concomitant physical disabilities, and/or sensory impairments, and/or health problems, and extreme difficulty with communication and behavioral control. Students may or may not be ambulatory, but do have functional use of at least one arm and hand. These students are able to grasp and manipulate objects and physically explore their environment.

**Students with Severe Multiple Disabilities Who Have Little if Any Voluntary Movement:** Students share the same characteristics as above, but have little if any voluntary control of any limb, their trunk, or head. For the most part, switch adaptations were not used with this group based on teacher belief that students were either too mentally and/or physically handicapped for such cause/effect activities.

**Active IEP Objectives:** Objectives that specify behaviors/skills the student is expected to acquire upon completion of instruction (i.e. Steve will indicate the need to use the toilet before having an accident everytime the need arises.)
Active Programming

**Passive IEP Objectives:** Objectives that state what staff will do to student (usually written in the passive voice), and/or provide general information on what activities will be provided (i.e., Steve will be positioned in a standing table for 30 minutes OR Steve will participate in leisure activities).

**Age-Appropriate and Functional Objectives:** Objectives that describe behavior, materials, and activities that would be appropriate for a chronological same-age peer and lead to increased competency in a variety of age-appropriate activities and environments (i.e., Kari—age 12—will choose between two musical tapes of rock and roll or pop and activate the cassette recorder with an adaptive switch during leisure time).

**Age-Inappropriate and Nonfunctional Objectives:** Objectives that describe behavior, materials, or activities that would not normally be performed, used or engaged in by the student's chronological age peers, and will not lead to increased competency in a variety of age-appropriate activities and environments (i.e., John—age 20—will jingle bells strapped to his wrist during music therapy class).

**Criterion-Referenced Objectives:** Objectives that specify how performance by the student will be measured to indicate successful attainment (i.e., following art class, Susan will independently decide if her smock needs cleaning or not, and place the smock in the appropriate place—hamper or locker—depending on the cleanliness of the smock for five consecutive times).
Reliability

A graduate student having experience with the target population, but no awareness of the present study was trained to rate IEP objectives as age-appropriate and functional vs age-inappropriate and nonfunctional. IEP objectives of students having severe handicaps (but not used as subjects in this study) were used for training purposes until at least an 80% accuracy rate was obtained. The student rater obtained 90% accuracy determining if objectives were passive vs active and criterion-referenced.

This graduate student (used for interrator reliability) rated 26% or 9 of the 35 IEPs (randomly selected). Interrator reliability was determined by counting the number of agreements and dividing by the number of agreements and disagreements and multiplying by 100. Reliability ratings for the separate categories was as follows: inappropriate and nonfunctional--64%, criterion-referenced--89%, and passive--83%. An overall reliability rating for the three categories was 80%, with a range from 70% to 82% for individual subjects.

Results

Table 2 provides comparative information on the characteristics of IEP objectives for students with and without functional voluntary movement. During the rating procedure, if it was questionable whether an objective was nonfunctional or age-inappropriate, or passive, the objective was counted in the opposite categories. As a result, the number of age-inappropriate and nonfunctional, and passive objectives are all
conservative figures.

The average number of IEP objectives per student was 26 for students with voluntary movement (able to manipulate objects) and 13.7 for students with very little voluntary movement (unable to grasp objects). Of the 443 objectives analyzed for the 17 students who could manipulate objects, 68% (302) were criterion-referenced. For the 18 students unable to physically manipulate objects, 34% (83) of the 246 objectives were criterion-referenced. Passive objectives for students able to manipulate objects were 19 of the total 443 objectives or 4% compared to 24% or 59 passive objectives for students unable to physically manipulate their environment. Of the 19 objectives that were rated as passive for students in the first group, 11 or 58% involved functional activities and materials, and 5 or 26% were related to physical therapy. (All physical therapy objectives were considered functional for the individual.) For students in the second group (unable to manipulate objects), 43 of the 59 objectives (73%) rated as passive involved functional activities and materials, and 24 (41%) were related to physical therapy.

For both groups, a considerable number of objectives were rated nonfunctional and age-inappropriate (32% for the students able to manipulate objects, and 39% for students demonstrating little voluntary movement). These IEP objectives for both groups typically depicted activities and involved materials that were characteristic of much younger students.

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Table 2 About Here
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Discussion

Findings from this preliminary study suggest that students with extremely severe physical disabilities, preventing voluntary movement by the individual, are more often engaged in passive forms of interactions with their physical and social environments than peers that have similar disabilities, but who retain the ability to manipulate their environment. When students were unable to physically manipulate their environment, the number of active objectives decreased, while the percentage of passive objectives increased. The percentage of criterion-referenced objectives also decreased, possibly as a function of this process, since objectives that are more passive in design are less likely to have specified criteria for student attainment. For both groups of students, a relatively large percentage of objectives (32% for students able to manipulate objects and 39% for their more physically disabled peers) were age inappropriate and nonfunctional, suggesting that programming efforts for all students needs to be more critically evaluated. This finding is consistent with the results from Billingsley's (1984) study involving the critical examination of instructional objectives. Perhaps a smaller number of objectives per student that specifically reflect individual and family needs, would be of greater value than large numbers of objectives having vague relevance to any present or future needs.

This study is limited by the fact that only students' IEP objectives were examined and not activities that occurred during a typical day. However, observations in the classroom of each
subject informally confirmed the finding that students with
greater physical limitations were often involved in passive
interactions with teaching staff. Consequently, teachers as case
managers, may wish to identify behaviors that each student
(regardless of disability) is capable of doing and target these
behaviors for the development of functional skills. Students
must learn that actions provided by educational staff (i.e.,
changing diapers, feeding, rubbing lotion, etc.) are contingent
on some discrete behavior that they are able to control (i.e.,
charge in respiration, body tone, eye blink, vocalization, body
movement, switch activation, etc.). For students who have little
if any control over their own movements, activities throughout
each day must emphasize decision-making, choice, switch
activation of inanimate objects, and communicating (by
signalling) what that person would like done to or for himself
(Guess, Benson, & Siegel-Causey, 1985; Shavin & Klein, 1984). To
promote such activities, teaching staff may wish to write IEP
objectives that state specifically what behavior the student is
to master (incorporating passive therapy into these objectives,
as needed). Functional activities should be the focus of these
IEP objectives, with the specific skills that the student is to
perform within these activities used as a measurement of progress
(i.e., student indicates the desire to continue or stop an
activity of feeding or going for a walk).

All students, regardless of the severity of their
disabilities, should be able to exert some control over their
lives, and assume more than a passive role in activities enjoyed
by family and friends. Frequent opportunities for responsen-
contingent behavior places some control of the physical and social environment in the hands of those who are typically relegated to a role of extreme dependency and helplessness. Continued research on the effectiveness of teaching strategies for promoting active involvement of this special population is needed.
References


Table 1
Demographic Information on Students

<table>
<thead>
<tr>
<th>Type of Functional Disability</th>
<th>Sex</th>
<th>Age Range &amp; Mean</th>
<th>Metropolitan</th>
<th>Rural</th>
<th>Public School</th>
<th>Separate Facility</th>
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<tbody>
<tr>
<td>Students able to manipulate objects</td>
<td>9 M &amp; 8 F</td>
<td>4-20</td>
<td>59%(N=10)</td>
<td>41%(N=7)</td>
<td>35%(N=6)</td>
<td>65%(N=11)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>X=11.4</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Students unable to manipulate objects</td>
<td>11 M &amp; 7 F</td>
<td>3-20</td>
<td>33%(N=6)</td>
<td>67%(N=12)</td>
<td>33%(N=6)</td>
<td>67%(N=12)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>X=10.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>20 M &amp; 15 F</td>
<td>X=11.1</td>
<td>46%(N=16)</td>
<td>54%(N=19)</td>
<td>34%(N=12)</td>
<td>66%(N=23)</td>
</tr>
</tbody>
</table>
Table 2
Analysis of IEP Objectives

<table>
<thead>
<tr>
<th>Type of Functional Disability</th>
<th># of IEP Objectives</th>
<th>Average # of Objectives per Student</th>
<th># and % of Objectives per Criterion-Referenced</th>
<th># and % of Objectives per Passive &amp; Nonfunctional</th>
<th># and % of Objectives per Active &amp; Functional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students able to manipulate objects (17)</td>
<td>443</td>
<td>26</td>
<td>68% (N=302)</td>
<td>4% (N=19)</td>
<td>32% (N=143)</td>
</tr>
<tr>
<td>Students unable to manipulate objects (18)</td>
<td>246</td>
<td>13.7</td>
<td>34% (N=83)</td>
<td>24% (N=59)</td>
<td>39% (N=97)</td>
</tr>
<tr>
<td>Total</td>
<td>689</td>
<td>19.7</td>
<td>56% (N=385)</td>
<td>11% (N=78)</td>
<td>35% (N=240)</td>
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