

The McGill Action Planning System (MAPS): A Strategy for Building the Vision

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The McGill Action Planning System (MAPS) is a planning process that places primary emphasis on the integral involvement of learners with disabilities in the school community (i.e., regular classes and other typical school environments and activities). The seven key questions that comprise the MAPS process provide a structure that assists teams of adults and children to creatively dream, scheme, plan, and produce results that will further the inclusion of individual children with labels into the activities, routines, and environments of their same-age peers in their school community. This article provides a detailed description of the MAPS process, including the structure used, content covered, and the underlying assumptions of the process. An example of MAPS planning for an elementary age child with severe disabilities is provided, along with suggested modifications that have been used for secondary age students. The final discussion addresses practical considerations for using MAPS, including how it complements an ecological approach to curriculum development and areas requiring further development and evaluation.

DESCRIPTORS: friendship, integration, least restrictive environment, mainstreaming, nonhandicapped peers, peer relationships, teaming

The growing number of interpersonal relationships of people with disabilities and their peers who are not

labeled and increasing demonstrations of normalized life in the community have led to two major innovations in education and human services individualized planning processes for children, youth, and adults with disabilities. First, planning sessions are evolving to focus on creating visions of an integrated life and determining ways to realize the visions (Mount, 1987; O'Brien & Lyle, 1987). This is in direct contrast to old models of planning that were based on a deficit orientation (Hammill & Bartel, 1975; Salvia & Ysseldyke, 1985). Second, friends, neighbors, and family members are assuming key roles in the planning processes (Forest & Lusthaus, 1987; Mount & Zwernik, 1988; O'Brien, 1987). These are the individuals who can provide both continuity and support throughout an individual's life. Three formalized planning processes have emerged that embrace a futures and vision orientation and the integral involvement of friends, family members, and others who care about and are involved in the life of an individual with disabilities.

The "Lifestyle Planning" process was developed by O'Brien and Lyle (O'Brien & Lyle, 1987; O'Brien, 1987). Lifestyle planning moves service providers, family members, and friends of the individual for whom the planning is occurring through three planning activities: (a) describing a desirable future for the individual, (b) delineating a schedule of activities and supports necessary to move toward that desired outcome, and (c) accepting responsibility for using available resources and dealing with the reality of those resources and supports which are not available. The basic questions addressed by lifestyle planning center around five outcomes identified as essential for achieving an acceptable quality of life. These outcomes are referred to as accomplishments (O'Brien, 1987; Mount & Zwernik, 1988) and include community presence, choice, competence, respect, and community participation. Thus, the basic questions addressed with the lifestyle planning process are: "How can we identify constructive actions that will improve the quality of life experiences for a particular individual? How can we increase that individual's community presence, choice, competence, respect, and community participation?" (O'Brien, 1987, p. 178).

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The "Personal Futures Planning" model (Mount, 1987; Mount & Zwerinik, 1988) is a second futures-oriented process and is drawn directly from the lifestyle planning framework. Lifestyle planning and personal futures planning have been used most often for adults with disabilities and focus on their presence and participation at home, at work, and in the general community.

A third process, the McGill Action Planning System

(MAPS)¹, (Forest & Lusthaus, 1987) is a planning process that places primary emphasis on the inclusion, participation, and learning of students with disabilities in regular education classes and other integrated school settings. MAPS is a way to operationalize the assertion that all children belong in a school community and to promote the establishment of relationships with others in the school community. Communities are built upon relationships. Relationships develop through longitudinal interactions that occur when sharing common places and experiences over time. Relationships are not only one of the most valid markers for measuring a person's quality of life, they are also viewed as serving a function in social and cognitive development (Lewis, 1982). According to Hartup (1985), they are the context in which basic competencies emerge. Second, they are resources. Relationships are used to protect an individual from stress, as well as to assist in problem solving (Erickson, 1976; Goodnow, 1984). Supportive and interdependent relationships are essential for the community involvement of persons with disabilities (Edger-ton, 1967; McCord, 1983; Morreau, Novak, & Sigelman, 1980). Many persons with severe disabilities will never be able to function independently in the wide range of typical home, school, and community environments experienced daily. They will be dependent upon the willingness and skill of those who surround them to provide the support necessary for their maximum participation in much the same way that each of us is dependent on others in our home, work, and community endeavors (Strully & Strully, 1985). By having the opportunity to learn and grow up together, peers who do not have identified disabilities will establish the willingness and competencies to facilitate the participation of peers with disabilities (Johnson & Meyer, 1985; Meyer, McQuarrier, & Kishi, 1985).

Assumptions of the MAPS Process

The assumptions underlying and guiding the MAPS process include (a) integration, (b) individualization, (c)

The MAPS Process

The team includes the individual, family members, friends, and both regular and special education personnel. Given the current reality of learners with high needs being based in special education classrooms, the special education professionals are likely to know the child better than regular education personnel. The regular educators, however, are the experts on the goals, activities, and routines that occur in regular classes. Both are important participants. The inclusion of typical peers in the planning process is an essential and unique feature of MAPS. The children provide a necessary and a fresh perspective on the needs of their peer with a disability related to involvement in regular classes. They

teamwork and collaboration, and (d) flexibility. The first assumption asserts that all individuals, including those with identified disabilities, should be educated in typical school and community environments, including regular classes, and should be provided with the necessary adaptations and supports to make this possible. Ongoing interactions with and proximity to peers who do not have labels is essential and preparatory for both those students who are labeled and those who are not. Use of segregated places for instruction must be minimized. Instead, special supports should be provided in regular education environments used by all students. Second, the assumption of individualization recognizes that each learner has unique abilities, interests, and needs. The ultimate goal of the MAPS process is to develop a plan that will meet an individual student's needs in regular education settings. Strategies and adaptations for successful integration are individualized also. Third, teamwork is essential to plan and implement the inclusion of learners with high needs (i.e., those with labels of moderate to profound disabilities) in regular education environments. MAPS capitalizes on the creative problem-solving abilities of adults and children who know and care about the individual for whom the planning is to occur. Through collaborative teamwork, the benefits of group problem solving can be realized. Flexibility, the final assumption in the MAPS process, is necessary, as even the most thoughtfully designed strategies and plans sometimes are not successful and need revision. False starts should be anticipated and a commitment made to ongoing problem solving and change as needed. Initial objectives for student involvement in regular classes and the supports necessary to achieve individualized objectives may need to be modified after the students actually participate in regular classes. Changes may also need to be made as team members acquire more expertise in the area of regular class integration. The saying that "What is can be better and what is best is fluid" (Association for Retarded Citizens Suburban, 1988, p. 1), captures nicely the essence of flexibility.

¹ A video depicting the MAPS process, "With a Little Help From My Friends," is available for teams interested in learning more about the process. Write to the Centre for Integrated Education, Frontier College, 35 Jackes Avenue, Toronto, Ontario, Canada, M4T 1E2, or Expectations Unlimited, P.O. Box 655, Niwot, CO 80544.

also serve a key role in supporting their peer with high needs in regular activities and settings. Typical peers help other team members to realize that the vision and dream of being an accepted and valued member of the school community and the larger community can be a reality if children have the opportunity to grow and learn together.

Because the involvement of peers who know and care about the individual is an essential feature of the MAPS process, the planning should not occur until the student with disabilities has been a member of the regular education community, so that friends without disabilities can be identified and their involvement recruited. Peers typically are identified by the classroom teacher, based upon interest as demonstrated by the amount of interaction and time spent with the student. At least two, and preferably three to five classmates have been involved in the planning. In a MAPS session in which only one friend was involved, the friend was uncomfortable participating, given the size of the group and the disproportionate number of adults. For very young children (kindergarten and first grade), classmate involvement might be limited to certain questions or the planning broken down into smaller segments (e.g., three 1-hour sessions versus one 3-hour time block). The MAPS planning typically occurs in one or two sessions. A minimum of 3 hours should be allotted to work through the process. Addressing the questions that compose the MAPS process, however, will be an ongoing activity for the educational team. The seven key questions are not carved in stone, and the facilitator may choose to address the questions in a different order or eliminate a question if the information generated seems redundant.

The participants are arranged in a half circle, with the facilitator positioned at the open end of the circle. The information and ideas generated during the process are recorded on large chart paper, which serves as a communication check during the session and as a permanent record when the planning is finished. The facilitator can also serve the role of recorder, or an additional person can serve in that capacity. The facilitator needs to be a person who is committed to building an integrated school community in which the individual is valued and provided the support necessary to be a member of the class with same-age peers. The facilitator needs good listening skills and an ability to facilitate interaction among team members in such a way that they challenge one another to broaden their visions of community and also make practical suggestions regarding the support and adaptations necessary to meet the needs of the individual in regular class settings and other typical school and nonschool environments. The facilitator must be comfortable interacting with both the adults and the children and able to elicit input from all participants. The best planning will occur for the

individual with disabilities when input is gathered from all participants and conversation is not dominated by a select few. The importance of *each* person's contribution should be clearly communicated by the facilitator before the planning begins. The seven key questions and a final reflection which compose the MAPS process are delineated and discussed below.

What is the individual's history?

Aside from the individual for whom the planning is occurring, family members are the most important members of the circle because they typically know the individual better than anyone else. Because of this, family members, and the individual to the greatest extent possible, are asked to spend a few minutes talking about the individual's history, including some of the key milestones in the person's life.

What is your dream for the individual?

This question is intended to get people to think about their vision for the individual's future. They are encouraged to think about what they want and what they think the person would want for his or her future. This vision should not be based solely on current realities. Dreams can become reality if there is a shared vision and commitment to strive for that vision. In the realm of dreams, the only certainty is that if we can't dream it, we won't achieve it. The dream question forces the team to think about the direction in which the individual is heading. This allows concrete plans to be made for realizing the vision. This is not to say, however, that the vision or the plans for achieving the dream are set in concrete. The visions and resulting expectations will be challenged continually as more is learned about how to facilitate inclusion in the school community and as positive outcomes are realized. Depending upon the age of the individual, it may be difficult to think about the dream for the individual as an adult. If that is a problem, team members can be encouraged to think about the person 5 years from the present time or perhaps when the individual is of high school age. The important factor is not how far into the future the vision projects but simply that a dream exists for an integrated future, thereby providing direction and goals to strive toward.

What is your nightmare?

This is a very difficult question to ask the parents of any child, yet an extremely important one. Parents frequently relate the nightmare as a vision of their child being alone. The nightmare presents the situation that the members of the individual's team and others who care for him or her must work very hard to keep from happening.

Who is the individual?

Everyone in the circle participates in responding to this question. The participants are asked to think of words that describe the individual; that is, what comes

to mind when they think of the person? There are no right or wrong words. Participants take turns going around the circle until all thoughts have been expressed. Participants can pass if nothing comes to mind when it is their turn to supply a descriptor. When the list is complete, the facilitator asks certain people to identify the three words from the list that they feel best describe the individual. Frequently, family members and peers are asked to identify key descriptors.

What are the individual's strengths, gifts, and abilities?

So often when educational teams get together, they dwell upon the things that the individual cannot do, as opposed to identifying and building upon the strengths and abilities of the individual. The facilitator asks the participants to review the list describing the individual as a way to identify some of his or her strengths and unique gifts. In addition, they are instructed to think about what the individual can do, what he or she likes to do, and what he or she does well.

What are the individual's needs?

This question provides an opportunity for all the team members to identify needs from each of their unique perspectives. When the list of needs is complete, family, friends, and educators are asked to prioritize the identified needs.

What would the individual's ideal day at school look like and what must be done to make it happen?

MAPS is a process intended to assist teams to plan for the full integration of students with high needs into regular age-appropriate classes. Frequently, attention to this question begins by outlining a school day for same-age peers who do not have labels. Next, the team begins to develop strategies for meeting the needs identified in the previous question in the context of the regular education day. Finally, initial planning occurs for the supports needed to achieve successful integration. As learners reach middle and high school age, the ideal school day will include instruction in both regular education and a variety of community instruction sites (e.g., home, work sites, stores, and recreation settings).

MAPS . . . in a word

The last request by the facilitator provides an opportunity for feedback specifically related to the process itself and, as such, should always be included. The facilitator asks each person to describe, in one word, the MAPS process. The adjectives supplied by team members are usually very positive and affirming of the process and the time they have spent planning together. However, this is also an opportunity to share impressions or feelings that may not be completely positive. A regular class teacher once put forth the word "pressure" when asked to describe MAPS in a word and then went

on to explain that she considered herself a 'Type A' personality and, as a result, was feeling that all of the wonderful ideas generated during the process should be implemented right away. This provided the opportunity for other team members to assure the teacher that it was not their intent for everything to be in place by the end of the week. Together the team immediately prioritized actions to be initiated, identified persons responsible, and established reasonable timelines for implementation.

Catherine's MAPS

An example of the MAPS planning process is provided here in an attempt to clarify and enrich the previous description of the process. Catherine is a 9-year-old child who attends a regular elementary school in a metropolitan school district. Catherine has received the majority of her educational program in a self-contained special education class. As part of a school district mini-grant project designed to increase the integration of students with severe disabilities into their school community, Catherine increased the time she spent with her third grade same-age peers in typical school settings. For the most part, this was the result of what Biklen (1987) describes as the "teacher deals approach" to integration. This approach typically involves a special education teacher establishing informal relationships with regular educators as a basis for increasing the inclusion of students with disabilities in regular class settings. Toward the end of the school year, Catherine's educational team committed itself to participation in the MAPS process in an effort to plan more systematically how to further Catherine's integration with her third grade peers. The process described here represents the team's initial formal attention to include Catherine in regular third grade life. Since this initial planning and subsequent implementation, much more has been done as the team learned together and saw positive outcomes for Catherine and her peers. Specifically, the conclusion reached by the majority of Catherine's team was that her needs were *not* being met most appropriately with a model of "partial" membership in the regular classroom. As a result, Catherine's team is now in the process of planning for her full membership in the regular classroom with individually designed special education support services provided in regular education environments. The MAPS process has generally been used with children who are established and full-time members of a regular class, and that certainly is the most desirable circumstance.

For Catherine's MAPS, the team included Catherine, her mom (Diane) and 10-year-old brother (John), three third grade friends (Jessica, Julie, Amy), her third grade classroom teacher (Metta), special education teacher (Mary), speech and language teacher (Rebecca), teach-

ing assistant (Carol), and occupational therapist (Sharon). The third grade teacher and peers already knew Catherine because of her involvement in some of their class activities throughout the school year. The facilitator and the team met after school on each of two days and worked their way through the questions that compose the MAPS process. The first planning session began by having everyone in attendance introduce themselves and state their relationship with Catherine. Name tags were used to help the facilitator and team members remember names. Following is a summary of the discussion and information generated related to Catherine for each specific question in the MAPS process.

What is Catherine's history?

Catherine's mom, Diane, identified the members of Catherine's family and then continued by sharing major events in Catherine's history. Catherine experienced a normal delivery and birth. At approximately 15 months she began losing some skills and was later diagnosed as having Rett Syndrome. Catherine went to a developmental achievement center when she was 18 months old, and Diane recalled how strange it seemed to be sending someone so young off to "school." When the time came for Catherine's transition to the public school system, Diane was advised by a number of people to send Catherine to the special school for students with severe disabilities so that she could receive the services necessary to meet her intensive needs. From Diane's perspective, the problem with that option was that the school served only students with disabilities. Diane wanted Catherine to be around regular education students so that she could learn from them and have the opportunity to get to know them. As a result of her convictions, Diane pursued alternative settings, and Catherine was placed in a self-contained special education class within a regular elementary school in her local school district.

What is your dream for Catherine as an adult?

Diane's dream for Catherine as an adult was to see her live with friends that she cared about and who cared about her. Catherine's friend Julie saw her doing math in sixth grade, and another friend Jessica was hoping that maybe they could be the friends that live with Catherine when she grows up. Rebecca, the speech teacher, envisioned Catherine in high school having the opportunity to go out after school for pizza with friends, selecting a song on the juke box, and placing her own order. John's dream for Catherine included a cure for Rett Syndrome and the two of them going to concerts and movies together. A consistent theme throughout the dream discussion was Catherine's involvement with family and peers who do not have disabilities.

What is your nightmare?

Diane's nightmare was that Catherine would be alone.

Who is Catherine?

Catherine's team generated an extensive list of descriptors: giggly, funny, endearing, charming, wiggly, drools, loved, sister, enjoyable, book lover, likes people, likes outdoors, chair tipper, likes to touch things, likes vegetables, salad, McDLTs, baked potatoes, bran, and applesauce, smiles, nice, shining eyes, Anne Murray fan, messy, excited, likes to be held, loving, beautiful, likes to look at faces, likes bright colors, likes to be read to, likes new clothes, and a friend.

What are Catherine's strengths, gifts, and abilities?

Catherine's planning team identified the following strengths, gifts, and abilities: touches faces in books, plays bongo drums, can walk, very social, which endears her to others, cooperative attitude, great personality, lets you know what she wants and likes, likes to tease, recognizes and remembers people, love of music, "holds" the guitar (will place her hand on the neck when assisted), has good friends, really tries, interested in a lot of things around her, spending quality time with third grade. (One of the most valuable aspects of the MAPS process is evident in reviewing the responses to this question and the previous questions, which reveal a positive view of the person and highly valued unique characteristics. Such a positive orientation assists in designing a hopeful future.)

What are Catherine's needs?

Because this was the last question that could be covered during the first MAPS session, the discussion was opened up for general response from all of those present, instead of going person by person. The list generated was then rewritten on a large sheet of paper and served as the starting point for the second meeting. At the next meeting, family, friends, and educators were asked to identify the needs from the list that they considered priorities and to add any needs they thought were missing. Beginning the second session in this fashion helped the group to focus on Catherine's needs and have them clearly in mind before addressing the next and final question about what Catherine's ideal day would look like. Priority needs identified by family members, friends, and educators are listed in Table 1. Other needs which were identified but not listed as priorities by any group included: (a) help with basic needs such as dressing and eating, (b) an advocate, (c) to do "Mousercize" (the friends explained that Mousercize was an activity in physical education class that would be good for Catherine because of the movement and that she would like it because of the music), and (d) a strong support system outside the family.

Table 1
Catherine's Priority Needs Identified by Family, Friends, and Educators

Family	Friends	Educators
For others to know she is not helpless	More friends	More friends
Music and time to listen to it	Support to get more places and learn things there	Support to get more places and learn things there
Affection	A lot of opportunity to walk and use her hands	A lot of opportunity to walk and use her hands
To be with people	As an adult, to live in a small home with friends in a community where she is accepted	Opportunity to let people know what she wants and a way to communicate that with more people
To change environments and surroundings often	Teachers to accept her	To increase the opportunity and skill to make more choices
Healthy foods	To learn to hang onto the book when a friend is reading with her	Affection People to know how to: deal with her seizures, help her stand up, and accept and deal with her drooling

Table 2
Tuesday Morning Schedule for Catherine: Moving Toward the Ideal School Day

Time	Catherine's day (current)	3rd grade day (current)	Possibilities for change (proposed)
9:00-9:30	Take off coat Use restroom Adaptive P.E.	Pledge of Allegiance Seat work directions Spelling	Breakfast (could eat with nondisabled peers if school arrival coincided)
9:30-10:00	Breakfast Work on lip closure, holding the spoon, choosing objects she wants	Reading Group I Others do seat work, write stories, read silently	Switch center (in 3rd grade reading) Transition to center, reaching, touching picture, activating tape player
10:00-10:45	Switch center Transition to center, reaching, touching picture, activating tape player using microswitch (leisure activity)	Physical education (10:00-10:20) Mousercize, Exercise Express, Use restroom Reading Group II (10:25-10:45)	Physical education (with 3rd grade) Skills related to maintaining ambulation and mobility (weight shifting, balance reactions, strength exercise) Cooperation with peer partner
10:45-11:10	Reading Group III (with 3rd grade) Makes transition to floor, responds to greeting from peer, reaches for peer's hand, holds onto book, looks at book, closes book, makes transition to standing	Reading Group III	Rest time Maintain current activity with 3rd grade
11:10-11:30	Library (with 3rd grade) Return book, choose book, look at it, check it out, return to class	Library	Maintain current activity with 3rd grade

What would Catherine's ideal day at school look like and what must be done to make it happen?

Because the MAPS sessions for Catherine occurred in late March and early April, the planning was viewed as merely an initial opportunity to begin creatively planning to meet Catherine's needs in regular education settings with her third grade peers. As was noted earlier, the initial planning resulted in only partial inclusion into the third grade. After one year of partial integration, however, the team consensus was that partial integration was not meeting Catherine's needs. Plans for full inclusion are now underway.

The initial planning, which resulted in only partial

inclusion of Catherine with her third grade peers, was facilitated by delineating the activities engaged in by the third graders and those engaged in by Catherine during her school day. The two schedules of activities and the list of priority needs identified previously were displayed side by side. By doing so, brainstorming about how Catherine could have more of her needs met in the same settings as her third grade peers was facilitated. Table 2 presents a format for organizing the two schedules and developing a list of possible changes. Please note that time ran out for the second MAPS session before the entire school day could be addressed. With the activities of the third grade students during each

time period delineated, the team began to discuss ways for Catherine to participate in each activity, and initial goals and objectives were identified. After Catherine had a chance to participate in the third grade activities, the team was able to finalize priorities for instruction and develop instructional strategies. The instructional programs developed for Catherine in regular classes specified skills to be learned, antecedent instructional procedures, reinforcement and error correction procedures, and criteria for change in procedures. Data probes were carried out by the special education personnel on Catherine's team, including the speech and language teacher, occupational therapist, special education teacher, and teaching assistant. Adaptations in the form of personal assistance, materials adaptations, and changes in curricular goals for regular class activities were necessary for Catherine and are likely to be necessary to some extent for the inclusion and learning of each student with high needs in regular class settings.

The sheet of paper which depicted the priority needs for Catherine identified by her family, friends, and teachers was kept in view throughout the planning sessions. This provided a way for the group to validate suggested activities and to remember identified needs. In developing the day of possibilities for more inclusion with peers, identified needs were addressed:

1. for others to know that Catherine is not helpless
2. to be with people
3. for affection
4. to change environments and surroundings often
5. for more friends
6. for support to get more places and learn things there
7. to walk and use her hands
8. for teachers to accept her
9. to learn to hang onto a book when a friend is reading with her
10. to let people know what she wants and a way to communicate that with more people
11. to increase the opportunity and skill to make more choices
12. for others to learn how to deal with her seizures, help her stand up, and accept and deal with her drooling

The largest change made in Catherine's Tuesday morning schedule was a switch from physical education in an adaptive physical education class to attending a regular third grade physical education class in which the activity is movement to music. The third grade P.E. period is 20 min long and occurs 5 days a week. This class was considered a particularly good match for Catherine because she thoroughly enjoys music and needs to have a lot of opportunities to move. The occupational therapist agreed to make time in her

schedule to go to P.E. with Catherine 3 times each week to assist in the development of an exercise routine for Catherine that would meet her physical needs. It was also decided that a classroom assistant would learn the routine from the occupational therapist and be available to provide support on the other 2 days. The third grade teacher added P.E. Assistant to the list of classroom honors, so that there would be a peer partner for Catherine during P.E. who would act as a mentor for her during that time.

For reading class, the speech therapist agreed to assess the possibility of using a switch to activate music or a storybook tape in the third grade classroom while the first reading group is in session and the other children are doing seatwork, silent reading, or writing. Catherine and a peer could use headphones to listen to the tapes, and the peer could help Catherine to activate the switch to maintain the activity. In addition to the needs addressed by the activity of learning to activate a switch (music and time to listen to it, use of her hands, opportunity to let people know what she wants, opportunity and skill to make more choices), instruction on this activity in the third grade would address additional needs (i.e., the opportunity for Catherine to be with more people and to gain more friends, for others to learn that Catherine is not helpless, to learn how to deal with her seizures, help her stand up, and accept and deal with her drooling).

MAPS . . . in a word

The last request of the facilitator was to ask everyone to describe in a word what they thought of the MAPS process. The following list of descriptors was generated: fun, creative, exciting, radical, awesome, overwhelming, fantastic, joyful, great, helpful, enthusiastic, cooperative, enlightening, and hopeful. Use of the words radical and overwhelming in this context need clarification. Radical was the word supplied by Catherine's 10-year-old brother John. It was not intended to convey "revolutionary" or "extreme" as defined in the dictionary, but rather, "excellent," "terrific," "great." Overwhelming was the word supplied by Catherine's mom. Her intention was not to convey a sense of the dream being too large and unrealistic, but, rather, a sense of overpowering understanding, love, and commitment by all members of the team to Catherine and her right and ability to be an important member of her school community.

MAPS Modifications for a Secondary Age Student

There are both programmatic and logistical differences between elementary and secondary schooling which result in several modifications of the MAPS process. Programmatically, students with disabilities begin spending part of their school day in off-campus community instructional sites (e.g., stores, work sites).

Furthermore, increasing emphasis is placed on transition to adulthood. Logistical changes result from the regular education departmentalization by curricular areas instead of by grades. Students change classes and teachers every period of the day instead of remaining largely in one class with one teacher and a constant set of classmates. Two practical implications of these changes from elementary to secondary programs for MAPS are (a) determining which regular education teachers and classmates should be involved in the MAPS process and (b) planning for participation in both regular classes and community instructional sites, with an increasing focus on transition to adulthood.

The time of year during which MAPS occurs and the ways in which specific regular educators have been involved with the student will influence who participates. If MAPS planning occurs in the spring of the year, planning will focus in part on the next school year's educational program, as well as on developing a vision for transition to adulthood. To participate in the discussion regarding the student's gifts, strengths, talents, and needs, regular educators must have some history of interaction with the student. Teachers who have had the student in their classes, therefore, would be invited. To assist in selecting and planning for involvement in future regular classes, knowledge of regular education course offerings is required. The student's grade level dean, counselor, or assistant principal might be involved for this purpose. It is often difficult to schedule MAPS so all the regular educators involved with the student can participate. Scheduling must allow those who have taken a special interest in the student to be included.

For students with disabilities who have grown up and attended regular classes with classmates who do not have disabilities throughout their elementary years, determining which of the peers should be involved in MAPS is easy. By the time they reach secondary school, friendships already have been established. For students whose inclusion in regular classes and school life is just beginning at the secondary level, identifying peers to be involved is more difficult. The relationships established among elementary students that frequently are sustained through secondary years do not exist for students with disabilities who were not integrated during elementary years. Particularly in these situations, the MAPS process should be scheduled only after the student with disabilities has been a regular class member for at least several weeks. This will allow peers who take an interest in the student to be identified. Another consideration in determining peers for involvement, at both elementary and secondary levels, is to identify neighborhood peers.

Given the increased emphasis on community-based instruction at the secondary level and on transition planning to adulthood, the following question modifications based on the Personal Future's Planning model

have been used (Mount, 1987; Mount & Zwernik, 1988). In responding to the "dreams" question, part of the discussion can be directed at developing a vision of life in early adulthood by asking: At age 21, where will the individual live and work? What will these places be like? What will he or she do there? What community places will he or she use? Who will he or she spend time with? As students near age 18, the final question of the MAPS process can be modified to ask: What would the individual's ideal day look like? MAPS participants can outline a day in the life of the person after graduation. The purpose of these modifications is to structure the discussion to create a vision of an integrated life in adulthood which can serve as the basis for identifying priorities to address in the remaining years of public school education. The resulting plan for a secondary age student is a school day which includes instruction in both regular class and community environments. This is in contrast to planning for elementary students in which the result is typically a school day of full inclusion in regular classes with classmates without disabilities. The longitudinal proximity to a relatively constant group of classmates during the elementary years should facilitate the development of stable relationships in secondary years.

Portions of a MAPS session for Ed, a secondary age student, using the modifications described above, are provided in Table 3. Only the modified sections are included. Table 4 presents a projected day for Ed post-graduation. There were several interesting outcomes of this process. First, the initial discussion related to "Where will Ed live?" focused on remaining at home with his family. As the discussion progressed, the vision changed to focus on living in a supported apartment complex that has a variety of leisure facilities. Second, in brainstorming employment possibilities, the initial discussion centered on service industry options that were considered current realities and then shifted to a focus on work that capitalized on Ed's interests and strengths. As a result, jobs involving caring for animals or delivering mail in a large office building, which matched Ed's love of animals and his pleasant and social nature, were considered. Finally, after outlining a day in Ed's life postgraduation, team members remarked that priority instructional environments and activities could be identified easily from the outlined day and from other information generated during the MAPS session. They also felt hopeful and inspired about the "nice life" that Ed could continue to lead.

Although the MAPS process has resulted in many positive outcomes for children with disabilities and their friends, families, and educational team members, numerous questions have been raised related to the pragmatics of implementation and the need to empirically validate, socially and educationally, both short- and long-term outcomes.

Table 3
The Dream for Ed as an Adult

Where will Ed live? . . . What will it be like?
Living at home with his family
Thinking about alternative living arrangements
Spend weekends and summers away from family
Living at home—possibly having his own area within parents' home, maybe with a roommate (e.g., apartment in basement)
Living close to his family
Friends will visit and he will visit others
More independence
Close to shopping area
On a bus line
Close to recreation/leisure areas
Has a pet
Apartment with complete facilities: swimming, food service hobbies, recreation, etc.
Where will Ed work? . . . What will it be like?
Washing dishes—loading/unloading dishwasher
Zoo—take care of animals
Cleaning business (motels, apartments)
Lots of people around—lots of action, activity going on
Co-workers to assist . . . work as a member of a team
Close to bus line
Car pool member
Action job. Somewhere he can move around, possibly outside (e.g., deliver newspapers or deliver mail in office building)
Day care center
A job with routine
Large company
What community environments will Ed use?
YMCA recreation areas
Health club
Community education . . . after work activities
Church social groups
Public transportation
Pizza place
Dances
Cattle company
Kellogg club
Fast-food restaurants
Shopping areas
Laundromat
Sporting events—Twins games
State fair
Who will Ed be around?
Co-workers
Friends the same age
Family
Neighbors
Opportunities for dating
Support staff
Salespeople, waitresses, waiters
Club members/staff
Roommate
Sports team—co-ed league
Strangers
Supervisor

MAPS and IEPs

When considering use of the MAPS process, teams frequently ask: "How does MAPS relate to an environ-

mentally referenced approach to Individualized Educational Plan (IEP) development?" The MAPS process complements IEP development in at least two ways. First, in most instances, engaging in the process results in a clearer sense of mission and a greater sense of teamwork. Collaborative teamwork facilitates well designed and implemented IEPs. Second, the MAPS process is particularly useful in assisting teams to identify priority environments and activities and to identify student needs that can be addressed in those settings. An environmentally referenced curricular approach (Brown et al., 1979; Falvey, 1986; Nietupski & Hamre-Nietupski, 1987) is merely expanded to include referencing regular education environments and activities, in addition to domestic, recreation/leisure, community, and vocational environments. Traditionally, the community domain has been defined in terms of general community functioning such as participation in stores, restaurants, banks, post offices, and other service environments. If an individual is of school age, however, the primary community environment is the school. The community domain, therefore, might be better conceptualized as consisting of two principal divisions, the general community and the school community. Learner participation in both the general and school communities must receive attention in the IEP development and implementation process. Part of the MAPS process delineates regular school environments and activities. Specific IEP goals and objectives are derived from assessing the abilities of the student in regular classes and other typical school and community environments. See York and Vandercook (in press) for a strategy that can be used in designing an integrated education through the IEP process. Included are specific examples of skills targeted for instruction in regular classes and related IEP goals and objectives.

Another frequent inquiry is: How often do we do MAPS, especially since it takes so long? A logical time to use the MAPS process is as part of required 3-year re-evaluations or, at the very least, at crucial transition points in each learner's educational career (e.g., pre-school to elementary school, middle to high school, high school to adulthood).

Future Directions

The MAPS process has been used by the authors and their associates with over 200 school-age children with moderate to profound disabilities in 50 school communities. To date, the outcomes delineated with regard to MAPS planning has been anecdotal in nature. An empirical basis for the educational validity of the MAPS process has yet to be established. Factors that warrant study include (a) the utility of the process from the perspective of various team members (i.e., parents, administrators, classroom teachers, special education teachers, related services personnel, and classmates); (b)

Table 4
An Ideal Day in Ed's Life at Age 21

What will Ed's weekdays look like?
Ed lives in a high rise apartment building with a roommate and a pet bird. He has a job as a courier in a company. He has an overseer.

MONDAY			
6:30-7:00	Gets up to first alarm Showers/grooms, "mousses" his hair Dresses in the clothes he chose the night before Takes his medication	12:30-2:00	Back to work
		2:00-2:15	Break
7:00	Prepares breakfast for himself Eats, listens to radio (music) Cleans up kitchen, loads dishwasher Feeds the pet Brushes his teeth Gets ready for work Gets his money		Stops in restroom Joins co-workers Looks at magazine, newspapers (sports page)
		2:15-4:00	Back to work
		4:00-4:30	Gets ready to go home Goes to the restroom Goes to the bus stop
7:30	Takes the elevator to lobby Goes to bus stop Meets a friend to ride with	5:00-6:00	Arrives at home Prepares supper with roommate Does chores—vacuums, makes bed, and so on
		6:00-6:30	Eats supper
7:40	Boards bus	6:30	Cleans kitchen Watches TV, listens to radio
8:00	Starts work Makes rounds as courier (delivering mail) with co-worker Greet people	7:00-9:00	Plays in softball game with people from work Dad is the coach Family is there to watch and cheer
		9:00-9:30	Partakes of refreshments with team members (no coach)
10:00-10:15	Break "Talks" to people in break room Gets refreshments Uses bathroom	9:30-10:30	Rides home with a friend Calls mom ("checks in") Chooses clothes for next day Grooms Says his prayers Covers the bird cage Watches the news, listens for weather report
10:15-12:00	Back at work—same routine		
12:00-12:30	Lunch break Goes to restroom (cleans up for lunch) Goes to cafeteria to purchase his lunch Eats with a group of people (not the same everyday) Goes for a walk Makes plans for evenings with friends Stops in restroom	10:30	Goes to bed Sets alarm

"What a Nice Life"

short-term impact in the school and general community; and (c) long-term impact such as longitudinal relationships with peers and participation in typical school and community activities.

Summary

For integrated education to be successful, several aspects of current educational services will necessarily change. Special education personnel and resources will change the focus of their service from one of educating children in separate environments to one of providing support and instruction in regular classrooms and other typical school environments. Regular educators will begin to include all children in their classes. Administrators will provide leadership and support building personnel to build integrated school communities in which collaborative teamwork develops among all educators.

MAPS is an affirmative process that capitalizes on the resources of classmates without disabilities and on family members and educational service providers to

plan for the inclusion of children and youth with disabilities into regular school life. The process can assist regular and special educators to merge resources in the quest to build integrated school communities of benefit to all. MAPS is not intended to be beneficial only for those students with high needs. All children benefit by learning together. Learning to accept and value diversity is a lesson that all members of the school community must learn if we truly want our communities to be places where each individual is valued and belongs. We believe preliminary implementation of the process has yielded many positive outcomes. Continued use, refinement, and study of the process will yield valuable information regarding the pragmatics of implementation in educational systems and long-term outcomes for individuals with disabilities.

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