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ABSTRACT

This executive summary of a research synthesis on critical aspects of curricular tools for successful transition from school to work for students with disabilities provides a brief discussion of the topics addressed in the full report, including: (1) the foundation for transition, including the goals and target populations; (2) a review of transition-related curricular issues (general curricular models, a proposed model and supporting literature, selected curricular offerings, and practices which impact on the effectiveness of transition services); (3) areas of need for curricular tools; (4) guidelines for the development of quality curricular tools; and (5) barriers to quality curricular tool use and development. The proposed model focuses on individualized skill building in the academic, social, vocational, and independent living areas, with skills characterized as either first-order (core) skills, higher-order skills, or goal-specific skills. The conclusion urges focusing on self-determination as the main educational goal. (Contains approximately 130 references.) (DB)

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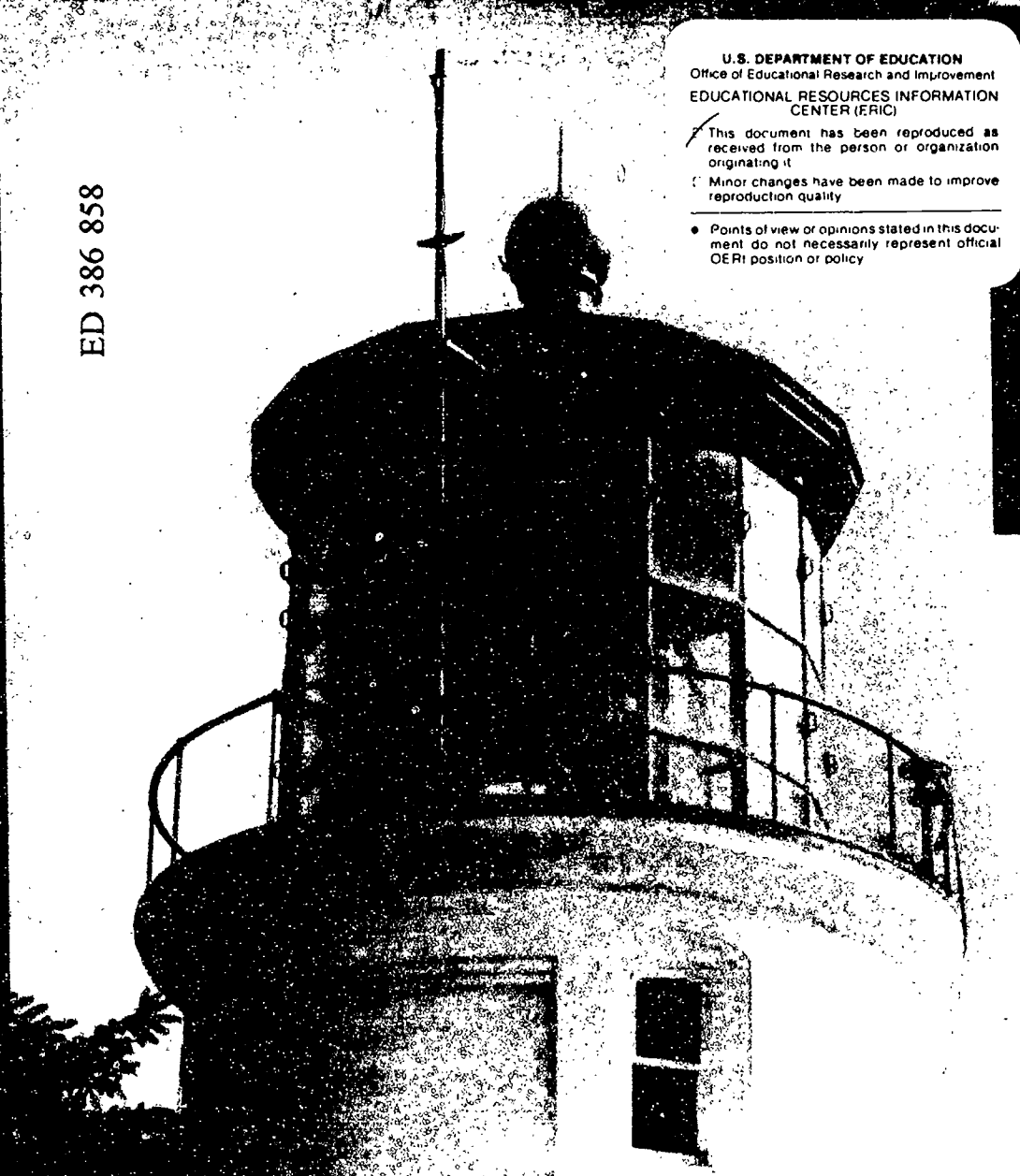

Executive Summary of Research Synthesis on Design of Effective Curricular Practices in Transition from School to the Community

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Executive Summary of Research Synthesis on Design of Effective Curricular Practices in Transition from School to the Community

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January 3, 1995

National Center to Improve the
Tools of Educators (NCITE)

DESIGN OF EFFECTIVE CURRICULAR PRACTICES IN TRANSITION FROM SCHOOL TO THE COMMUNITY

Executive Summary

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January 3, 1995

In 1986, Madeline Will articulated the school-to-work or transition priority of the Office of Special Education Programs (Will 1986a, 1986b). Since that time the concept of transition has become a national priority for all students (America 2000) and has expanded in the scope of its focus, whole-life rather than narrowly defined as work related (Halpern, 1993). The need to teach extra-vocational skills (i.e., the skills needed to succeed in jobs, live independently, maintain health, live as a family, engage in leisure activities a· d participate in civic activities) is becoming increasingly apparent (Boyer-Stephens & Kearns, . 988; Gajar, Goodman, & McAffe, 1993) .

As defined in federal education statutes, transition is:

> A coordinated set of activities for a student, designed within an outcome-oriented process, which promotes movement from school to post-school activities, including post-secondary education, vocational training, integrated employment (including supported employment), continuing education, adult services, independent living, or community participation. The coordinated set of activities shall be based upon the individual student's needs, taking into account the student's preferences and interests, and shall include instruction, community experiences, the development of employment and other post-school adult living objectives, and, when appropriate, acquisition of daily living skills and functional vocational evaluation. (Individuals with Disabilities Education Act Amendments, 1990, Section 602 [A], 20 U.S.C. 1401 [A])

The definition of transition found in Individuals with Disabilities Education Act Amendments (IDEA) provides clear direction to the development of special education programs and their content. If the overall goal of transition activities is to prepare students to move into adult lives, then ALL curriculum and ALL instructional tools are transition related. Current research and practice identify critical aspects of curricular tools that must be considered when successful transition is the focus of an individual student's school career. This executive summary provides a brief discussion of the topics addressed in the full research synthesis prepared for

NCITE. The sections included herein are: the foundation for transition, including the goals and target populations; a review of transition-related curricular issues (general curricular models, a proposed a model and supporting literature, selected curricular offerings, and practices which impact on the effectiveness of transition services); areas of need; guidelines for the development of quality curricular tools; and barriers to quality curricular tool use and development.

Foundations

The goal of transition activities is to assist the student in developing the behaviors necessary to meet the needs and demands of self, family and community during adult life. As such, transition is both a process of and a framework for education. As a process there are specific steps to be accomplished that are intended to enhance students' success in post-school outcomes. As a framework, transition provides the structure to evaluate and synthesize curriculum content needs for each child. It provides the focus for developing individualized curriculum while keeping the overall goals of schooling in mind. The framework and process of transition are discussed first in the synthesis. This discussion is followed by a description of the students who are targeted for transition services.

Framework and Process

A variety of authors in both regular and special education have attempted to define what are the goals of schooling, and thus the goals of transition. Ysseldyke, Thurlow and Gilman (1993) identified six domains that must be addressed in preparing students for the adult world. These domains are part of those that also form the core of outcomes that are reflected in Quality of Life (QOL) models. It is important to remember that QOL is determined by and intertwined with the culture and context of the individual's life (Goode cited in Dennis, Williams, Giangreco,

& Cloninger, 1993). However, there appears to be some consensus that to have a high quality of life, minimal standards need to be met in specific areas (Edgar, 1987). Writers outside of special education echo these same beliefs.

IDEA reacquaints us with the fundamental framework for developing individually determined quality curriculum for students with disabilities, the IEP. In fact, successful or unsuccessful transition outcomes can be seen as a direct result of the cumulative IEP process. In all probability, success will be enhanced if the first IEP written is considered as important in the transition process as the last IEP written before school leaving (Michaels, 1994).

IDEA requirements for the IEP are specific to both the content and process when transition planning is involved. All students with disabilities must have transition from school to adult life addressed within the context of their IEP by at least age 16. As stated in the definition of transition, the content of these IEPS must include: instruction, community experiences, objectives and activities related to employment and adult outcomes, and when necessary include daily living skills and a functional vocational evaluation. IEPS that do not include services in any of these areas must document the committee's decision not to include the area, and the basis from which that decision was made. Beyond attempting to ensure that the content of instructional programs facilitate successful outcomes for students with disabilities, IDEA mandates processes related to transition planning.

For students receiving special education services, professionals have the IEP process to ensure that instructional experiences are useful to students in current and future environments. IDEA requires that transition activities be implemented through the IEP process and must include:

> A statement of the needed transition services for students beginning no later than age 16 and annually thereafter (and, when determined appropriate for the

> individual, beginning at age 14 or younger), including when appropriate, a statement of the interagency responsibilities or linkages (or both) before the student leaves the school setting. (Individuals with Disabilities Education Act Amendments, 1990, Section 602 [A], 20 U.S.C. 1401 [A])

Formal planning activities are conducted by a team of individuals that includes school and post-school professionals, parents/guardians, students, and related community members (e.g., employers) (Everson & Moon, 1986; Hanley-Maxwell & Chadsey-Rusch, 1986). Planning considers: (a) student goals and objectives (reflecting job, home, community skills); (b) specific services needed to accomplish those goals; and (c) referral to appropriate agencies, specific placements, and specific follow-up procedures/services (Wehman, 1986; Wehman, Moon, Everson, Wood, & Barcus, 1988).

A general transition process can be described as a composite sketch derived from critical aspects identified through study results or author opinion in the extant literature. This general process includes: (a) identify students (D'Alonzo et al., 1985); (b) assess (Brown & Kayser, 1982); (c) intervene (D'Alonzo et al., 1985; Brolin, 1982, 1983; Kokaska & Brolin, 1985; Wehman et al., 1985); (d) evaluate interventions (Brown & Kayser, 1985; D'Alonzo, 1985); (e) plan (Wehman et al., 1985); (f) identify and secure needed resources (Brolin, 1982, 1983; Kokaska & Brolin, 1985); (g) place (Brolin, 1982, 1983; Kokaska & Brolin, 1985; D'Alonzo et al., 1985; Wehman et al., 1985); and (h) follow (Brolin, 1982, 1983; Kokaska & Brolin, 1985; D'Alonzo et al., 1985).

Much of the current conception of transition and related best-practices appears to focus on the secondary and post-secondary years. However, understanding the basic premises of transition provides a guide for evaluating decisions related to what, why, when, where and how teachers assess, plan and teach (Stodden & Leake, 1994) throughout the educational process

Targeted Students

When school personnel ponder the question of who should receive transition services, the answer should be ALL students (Wehman, 1992). The issue of smoothly moving students from their childhood roles and responsibilities to those of their adulthood is a significant problem for all students, including those with disabilities. Federal law currently mandates transition planning and services for students who have an IEP and thus, are receiving special education services.

The IDEA emphasis on the provision of transition services is the result of data which consistently indicate that students with disabilities have poor post-school outcomes (Affleck, Edgar, Levine, & Kortering, 1990; Brolin, Durand, Kromer, & Muller, 1975; Edgar, 1987; Hasazi, Gordon, & Roe, 1985; Wagner et al., 1991). Longitudinal studies indicate that simply getting the student to the point of graduation may be difficult (Benz & Halpern, 1987; Edgar, 1987; Wagner, 1989; 1993). Students who drop out of school have dismal post-school outcomes (Edgar, 1987). More worrisome is the data that indicate poor post-school outcomes for students with disabilities who do graduate. While follow-up studies vary in their exact percentage of graduates who begin working immediately after graduation, post-school employment data consistently reflects poor outcomes for a large portion of all former students with disabilities (Edgar, 1987; Mithaug, Horiuchi, & Fanning, 1985; Hasazi et al., 1985; Hasazi, Gordon, Roe, Hull, Fink, & Salembier, 1985; Kortering & Edgar, 1988; Neel, Meadows, Levine, & Edgar, 1988; Bruininks, Lewis, & Thurlow, 1988; Sitlington & Frank, 1990, Scuccimarra & Speece, 1990). Post school outcomes also indicate difficulties in other areas of life, such as: establishing social relationships, living independently, and staying out of criminal activity (Benz & Halpern, 1987; Chadsey-Rusch, DeStefano, O'Reilly, Gonzalez, & Collet-Klingenberg, 1992; Chesler,

1992; Fafard & Haubrich, 1981; Gertzel & Gugerty, 1992; Sitlington, Frank,& Carson, 1992; Wagner, 1989, 1993; Zigmund & Thorton, 1985) .

Transition Curriculum

The synthesis provides a discussion of general curricular models. Within this discussion questions related to functional versus academic curricular selections are raised and discussed. Following this discussion, a proposed individualized skill building model for organizing content from various sources is presented, as well as a summary of the literature from which this model was drawn.

General Curricular Models

While there are several suggested curricular models, no single model exists that incorporates all known aspects thought to be critical for transition success. Gajar et al. (1993) identify basic models of curriculum currently found in secondary schools. These are the functional skill models (i.e., vocational/employment preparation and independent adult living skills); the process model (i.e., learning strategies, effective learning/problem solving); and the academic skills models (i.e., tutorial, completing regular education requirements; compensatory, continuation of academic progress; and basic skills, basic academic and functional literacy). The curricular decision should be made by considering the purpose of each type of curriculum and then matching this purpose to learner traits. While Gajar et al. (1993) and Schloss and Sedlak (1986) support the use of learner traits to select between functional and academic curricula, Halpern (1992) and Clark (1994) present different views. Clark (1994), in answer to the question, "Who needs a functional curriculum?", responds by saying: "All children and youth in public schools today should be provided an education that is specific enough to provide them with

the knowledge and skills they need to perform age-appropriate roles while in school and to meet the demands of being family members, citizens, and workers as adults " (p. 38).

Each of the curricular models discussed above takes the perspective that there is a set of individually determined skills that each student must learn. Each of these curricular models attend to the skills themselves, rather than the processes of learning and problem solving (i.e., generalization and maintenance). Michaels (1994) calls this the "basic skills approach" (p. 135) and expresses concern that too little attention is given to "higher level skill areas" (p. 135). He proposes an expanded basic skills approach that includes process skills of task approach and problem solving, self-efficacy skills (e.g., self-monitoring), and social skills as critical fundamental skills for all students (Michaels, 1994).

Model for Individualized Skill Building

The curricular structure developed in this synthesis builds on the model proposed by Udvari-Solner, Jorgensen, and Courchane (1992). Like the longitudinal vocational model (Udvari-Solner et al., 1992), it organizes skills to be taught from the primary grades on up. It differs in that it does not incorporate skills by traditional domains. The number and exact nature of instructional domains varies across the current literature (Jackson cited in Michaels, 1994). However, there are four generally accepted skill domains. These domains cover the academic, social, vocational, and independent living areas. This model moves away from these domains and proposes a different way of identifying and organizing critical skills. In addition, it is designed to be used with skill lists such as those reviewed in this synthesis, as well as with curricula that are already in place in the classroom.

The proposed structure is intended as a working model to make identification of and

incorporation into the classroom curriculum of targeted skills more manageable and thus more successful. In this model, the skills that make up the areas or domains typically listed fall into three categories: (a) first-order or core skills (e.g., personal and community survival skills); (b) higher-order skills (e.g., time-management, social skills, problem solving, negotiation, social skills; self-directed learning strategies; decision making; self-advocacy and assertion; and the cognitive behavior management techniques of self-instruction, self-monitoring/evaluation, and self-reinforcement/correction); and (c) goal-specific skills or those skills that are needed by an individual for specific reasons having to do with the community he or she lives in, the job he or she desires, or his or her abilities and limitations. These categories are introduced in a semi-sequential manner beginning in preschool and elementary school and continuing through high school and into adult services.

Supporting Literature

The model was developed from a compendium of sources related to transition. The need for such a model is based on a review of the scope and content of the extant literature on transition: the skills identified as important, the instructional procedures said to be most effective, and the issues brought up time and again as problematic to the successful transition of students with disabilities from school to adult life. The framework from which the model grew is provided through a review of the literature in the area of theory and philosophy related to transition (including a brief review of the history of transition and a discussion of longitudinal planning and quality of life), a review of some examples of popular tools in the area of transition. and a discussion research related to skill needs identified in the examination of the post-school outcomes of education for people with disabilities.

While the curricula reviewed (and many others not reviewed) offer comprehensive listings of skill domains, skill clusters and specific skills needed for independent community living, none of them are all inclusive, nor could they ever be. The identified domains and skill clusters are listed in a Table. It is clear that there are common areas (i.e., domains) in many of the curricula: (a) communication skills, (b) community access/mobility skills, (c) employment skills, (d) academic skills, (e) health and grooming skills, (g) independent living skills, (h) social skills, and (i) leisure skills.

What happens to individuals with disabilities once they exit school is of prime importance to what happens to them while they are in school. Recent work regarding post-school outcomes and activities identified as promoting successful post-school outcomes are reviewed in the synthesis. There is evidence that students are not succeeding in post-school settings (Edgar, 1987, Wagner, 1989). There is also evidence that students are not satisfied with what they learned in school (Shapiro & Lentz, 1991). There is obvious support for longitudinal planning and implementation of transition services related to work experience, training of functional skills, individualized assessment, inclusive education and training, and collaboration among service providers(Rusch et al., 1994; Kohler, 1993). In addition, there are the beginnings of empirical support for the success of some of these procedures in promoting post-school employment (D'Amico, 1992).

The need for additional follow-up and longitudinal studies regarding post-school outcomes of individuals with disabilities has been stated by the authors cited above (e.g., Rusch et al., 1994; Kohler, 1993) and by others in the field (e.g., DeStefano & Wagner, 1993; Darrow & Clark, 1992; Halpern, 1990). We agree with the growing list of professionals who feel that we

can better prepare current students if we know what is happening to past students in special education. However, we also caution that we need to move away from traditional outcome measures (e.g., number of hours worked, percent living independently) and target measures that relate more to the quality of life (e.g., satisfaction, happiness, fulfillment) of the graduate or school-leaver (Halpern, 1993). Additionally, future research must clearly identify those instructional and assessment practices that are highly correlated with long term success of students with disabilities (as opposed to just successful acquisition of skills).

Effective Transition Practices

Many factors related to the content and application of curricula may inhibit or facilitate transition (Hanley-Maxwell, 1986; Wehman, 1986). Content selection is based on all aspects of adult life. Selected aspects are carefully matched to potential needs and possible outcomes for each individual. Content changes are based on continual assessment and reassessment of the individual and the related settings. Target skills should have value in multiple life settings and reflect the needs identified in a functional assessment of the individual student and the communities in which he/she is expected to live and work. It is important to note specifically that because of the varied entry skill levels of each student, the varied interests of each student and his/her family and community, the varied outcomes desired by the student and his/her family, the varied family perspectives, and the varied community demands, there is no curriculum that can meet the transition needs of all students. The synthesis has a section that focuses on practices which enhance the effectiveness of curricula which target transition. The importance of thorough and on-going assessment, effective instruction and continuous/collaborative transition planning is discussed. This synthesis DOES NOT cover adaptation and accommodation. The reader is

referred to the synthesis that deals with these topics. However, it is important to note that the active use of adaptation and accommodation is inherent in all instructional practices. These considerations are a critical part of the process of individualization.

Assessment

Individualized curriculum that facilitates transition is determined through ecological assessment (Browder & King, 1987). Ecological assessment involves (a) assessment of potential skill needs, (b) individual assessment, and (c) assessment of support systems. Thorough and ongoing assessment (i.e., longitudinal and varied in skills, settings and materials) helps to identify and revise curricular content which is individualized and focuses on preparing students for adult life. However, appropriate curriculum is not sufficient for ensuring adequate transition preparation. Current research indicates that when considering long-term outcomes for students, how students are taught is as important as what students are taught.

Instruction

Education for adult life (transition) should be based on a solid K-12 educational foundation. Components of a solid foundation for students with disabilities should include: (a) integrated educational programs (Gartner & Lipsky, 1989; Wehman, 1986); (b) community-based training (Stainback, Stainback, Nietupski, & Hamre-Nietupski, 1986); and (c) empirically proven instructional practices (Renzaglia & Hutchins, 1988; Berg, Wacker, & Flynn, 1990), e.g., the selecting real not simulated materials, using of general case strategies for selection and presentation of examples (Horner, Sprague, & Wilcox, 1982), using natural cues and consequences, teaching problem solving, encouraging initiation, self-assertion, self-generated cues and reinforcers, and using specific instructional procedures to enhance maintenance and

generalization of learned skills (Stokes & Baer, 1977). These components are briefly explained and then summarized in the synthesis.

Planning

Planning for transition appears to be the most frequently considered aspect of transition. Three aspects of transition planning are discussed in the synthesis: the four "Cs" of transition planning (i.e., communication, collaboration, continuity and control), utilizing personal futures planning tools to enhance transition success (i.e., the McGill Action Planning System or MAPS, Forest & Lusthaus, 1987; Lifestyles Planning Process, O'Brien & Lyle, 1987; Personal Futures Planning, O'Brien, 1987; the family-centered approach to early intervention, Dunst, Trivette, & Deal, 1988; and Choosing Options and Accommodations for Children or COACH, Giangreco, Cloninger, & Iverson, 1993), and a review of IEP features that are critical to the transition planning process (e.g., using the IEP as a tool that can be used to assist students in learning planning, self-advocacy, and responsibility skills).

Areas of Need

Because transition to adult life is an area of special education that has received a great deal of recent focus, attention has been turned toward developing effective transitional tools. One of those tools IS NOT the development of A COMPREHENSIVE TRANSITION CURRICULUM. Instead, the most critical needs in the area of curricular tools related transition are the active inclusion of underrepresented areas in existing curricular options, a reorientation of professional practices related to the transition process, and the development of an organizing structure that assists teachers, parents and students in considering essential information when making curricular decision for each student.

Under-represented Skill Areas

There are curricular areas across the literature that are under-represented or poorly developed. One main area that is infrequently addressed is the skill area related to sexual relationships, marriage and families. Curricula in this area need to address such issues as reproduction, rape, abuse, prostitution, appropriate sexual relationships, dating, and sharing feelings. Another area that is rarely included in school curriculum for learners with disabilities is that of civic rights and responsibilities Content of this area should go beyond voting and obeying the law to include lessons on avoiding victimization and contributing to society. Civic responsibilities usually requires some degree of self-management, problem solving and other self-efficacious skills. These skills are notably lacking from existing curricula related to transition. Additionally, assertiveness and self-management are two related areas that are also not included as integral parts of the transition curriculum. Indeed, while there are entire curricula devoted to assertiveness training, rarely are such skills focused on as part of transition curricula. Likewise, while self-management (i.e., self-efficacy, self-determination) skills are given much lip-service, rarely are they included as encompassing parts of adult preparedness curricula. Curricular offerings must be expanded in adolescence to include skills in: (a) the identification of personal needs, physical and psychological; (b) self-planning and gathering resources to meet the needs; and (c) acting to meet those needs (Wehmeyer, 1992). The IEP process is one of the most appropriate places to learn how to perform these self-determination skills

Reorientation of Professional Roles

In creating and implementing curricula that facilitate transition, many choices have to be made concerning the priority of certain skills over others Students and parents should be

considered and treated as active and important members of the multi-disciplinary team, not as passive participants there to okay a plan of action decided in advance by school staff (Ford et al., 1989; Schnorr, Ford, Savern, Park-Lee, & Meyer, 1989). Home-school collaboration and active parent involvement are discussed and strategies are provided in a number of sources (e.g., Ford et al., 1989; Wehman et al., 1988). Additionally, utilizing the QOL planning strategies described above (McGill Action Planning System, Forest & Lusthaus, 1987; Lifestyles Planning Process, O'Brien & Lyle, 1987; Personal Futures Planning, O'Brien, 1987; the family-centered approach to early intervention, Dunst, Trivette, & Deal, 1988; and Choosing Options and Accommodations for Children or COACH, Giangreco, Cloninger, & Iverson, 1993) will enhance the involvement and direction of the planning process by students and their families. These processes are designed to help parents and students "vision" for the future. This ensures that planning takes a life-long perspective and students are provided with the vehicle to take charge of their own lives.

In addition to considering family and student wishes in curricular decisions, curriculum individualization should be based on student and community factors. It is critical to the success of transition planning to individualize the curriculum to the needs of the student and to the community in which that student will live and work (e.g., Ford et al., 1989; Wehman et al., 1988; Rusch et al., 1982; Sowers, 1991; Carlson, Scott, & Eklund, 1980).

Finally, teachers must carefully consider the impact of the choice of instructional strategies on the long-term performance of students in post-school settings. While current best practices are described, many are based on short-term research results and speculation/extrapolation from these studies. Future research is needed to clearly identify those instructional and assessment practices that are highly correlated with long term success of students with disabilities (as opposed to just

successful acquisition of skills).

Organizing Structures

It is clear that to be most successful, transition needs to include a planned, longitudinal process that is directed by parents and students. This planning process needs to attend to the development of process and self-efficacious skills and provide a life-long emphasis on career development. Achieving these goals will require the development of an organizational process and tool to assist in vision building/planning. Transition professionals will then need to acquire the skills to help parents, students, and teachers build and implement visions. Implications related to using the transition information provided to make curricular choices or to assist in the development of organizational tools are presented.

Summary of Needs

Listed below is a summary and specification of the most critical needs. Areas of critical need include:

1. how to help families and students do vision building,
2. how to plan educational programs based on those visions,
3. how to integrate skills/content from diverse sources into a meaningful whole,
4. how to use the concept of transition as a process and an organizing structure - not a curricular content area,
5. to recognize that we DO NOT NEED MORE SKILL LISTINGS -- THEY CAN NEVER BE EXHAUSTIVE ENOUGH,
6. how to use existing curriculum for transition planning (see West (1989) or Cronin and Patton (1993) for a discussion on how to "functionalize" existing curricula),

7. how to incorporate the community context, and

8. further research into what are transition facilitating teaching practices.

Guidelines for Development of Tools

Guidelines for the development of quality tools related to transition include examination of the areas of: content, application, and philosophy (implied and expressed). These areas are covered in the following section.

Content

Content must be longitudinal and individualized. Curricular tools focused on transition must include critical survival skills, now and in the future. This means that the curricular tool needs to reflect a longitudinal life-span focus (Szymanski, 1994). As such, it must be designed for use during the early childhood, elementary, and secondary years. A longitudinal focus will require that specific attention be given to career development.

1. reflect a longitudinal life-span focus (Szymanski, 1994), must be designed for use during the early childhood, elementary, and secondary years
2. give specific attention to career development
3. include skills needed at various chronological ages of a child's life as well as skills needed to survive in the adult world
4. be flexible in design and require individualization in terms of specific content, method of instructional delivery, speed of movement through the curriculum, and mix of activities and materials
5. be based on the results of ecological analyses, assessment of both the learner and the current and future environments of the learner

6. reflect community and familial cultural expectations, reflecting the life-space (Szymanski, 1994) of the student

7. include functional student assessment strategies in processes to determine specific content needs (West, 1989) and target skills acquisition needs (Vernon et al., cited in West, 1989). Include processes for: (a) identification of skills needed in current and future settings, (b) assessment of student in relation to identified skills, (c) analysis of student performance, and (d) prioritization of skills for instruction (functionality, age appropriateness)

8. include continuous reassessment of student and community environments as part of ongoing curricular quality assessment and provide suggestions for different teaching activities when learning is not occurring, including adaptation suggestions for difficult activities

9. emphasize family and learner involvement in identifying needed skills, content should accommodate (Vernon et al. cited in West, 1989) and enhance learning characteristics of the student

10. select content to build on real life experiences of each student (West, 1989; Wimmer, 1981)

11. include critical content areas: skills to enhance learner flexibility and self-learning; skills based on adult life skill needs, personal, vocational, residential, community; skills that promote social competence; and cognitive processing skills, problem solving, self-management, self-determination (Mithaug et al., 1987; West, 1989; Wimmer, 1981); weave cognitive process and social skills throughout all other

content and activities

12. include training in situations, not just discrete skills (Vernon et al. cited in West, 1989), especially how, when, where and why to use the knowledge/skill (Glasser, 1992).

Application

Application of curricular tools raises other critical issues. These issues include instructional methods, instructional activities, and instructional materials and locations.

1. provide information about best instructional practices, incorporating methodology found to be most effective (Vernon et al. cited in West, 1989)
2. include methods for measuring student progress (Vernon et al. cited in West, 1989)
3. reflect the active role of the teacher in guiding the student's learning (West, 1989; Wimmer, 1981)
4. ensure instructional activities are student, not content centered (West, 1989; Wimmer, 1981)
5. focus instructional activities on small groups and individuals (West, 1989; Wimmer, 1981)
6. include active student participation in learning new skills (West, 1989; Wimmer, 1981)
7. provide instruction where the skill/task will be performed (Gajar et al., 1993), use community-based instruction
8. involve professionals from various disciplines in instructional activities and

planning (West, 1989; Wimmer, 1981).

9. enhance generalization and maintenance of skills and knowledge
10. use only age appropriate instructional activities
11. include variations of activities to accommodate individual student differences
12. include integrating discrete skills into larger application activities
13. make recommendations for materials and settings (include how recommended settings and materials impact to enhance learner independence, generalization and maintenance)

General Philosophy

All curricula have underlying implicit and explicit philosophies. When developing quality transition curricular tools, these philosophies play a critical role in the success for students in post-school environments.

1. ensure normalization (Gajar et al., 1993)
2. promote maintenance and adaptability (Gajar et al., 1993)
3. emphasize school-community-family partnerships in the educational process of each child (Dewey, 1929)

Barriers

There are many barriers to use and design of quality tools for transition. These are listed below. These barriers have not been derived from the literature reviewed, but have evolved from impressions of the literature and research conducted by the authors in relation to transition curriculum. .

Barriers to Use

1. the belief that transition does not have to be actively planned for students with mild disabilities or no disabilities
2. families and individuals can't determine educational needs and goals
3. currently practicing educators are not taught to think in systems and total life perspectives
4. system prevents total individualization - time, transportation, access to needed settings and materials, established general bench-marks (e.g., minimal competency testing), conflicting initiatives
5. current educational systems appear to foster value of only certain types of knowledge/skills (i.e., academic versus applied skills)
6. certain kinds of knowledge skills mean access to future opportunities (e.g., high SAT or ACT scores means college)
7. inertia of systems when faced with change

Barriers to Development

1. the spoken need for the creation of cookbooks that do it all rather than guidelines for how to individualize and pick from existing curricula
2. the meaning of transition, as a process and organizational structure is still evolving
3. no research exists identifying specific skills which are critical for ALL students (with the exception of social skills)
4. adult life is too complex and individualized to reduce to a specific set of skills
5. the system of education is too disconnected from non-education and post-education settings and services to allow for effective understanding each other

6. current curricular content selection practices are frequently done in absence of empirical or theoretical basis

7. transition forces a redefinition of the purpose of education, from elitism to parochialism

8. educators do not need a new "transition curriculum"

The last question, "Will educators use commercial curricular materials related to transition?" has the most impact on the development of new curricular tools. Study results indicate that while slightly more than 63% of the responding special educators in the state of Wisconsin do not use commercial curricula, 24% of these respondents use a combination of commercial curriculum and teacher made curriculum. In fact, less than one percent of the respondents indicated that they would use a commercial transition curriculum as is (without revision or adaptation). More importantly, only 63.4% indicated any interest in using a commercial curriculum on transition. Finally, 87.9% of respondents indicated that their student receive instruction in the regular education curriculum and 55% of all respondents reported that all instruction took place within the school setting (Hanley-Maxwell & Collet-Klingenberg, 1994). These statistics raise serious doubts as to whether or not a specific "transition curriculum" is needed. They tend to support the contention that what is needed most is an organizing structure for the selection of individualized curricular content.

Conclusion

The goal of curriculum focused on transition for students with disabilities is to prepare them for life after graduation. More specifically, the desired outcome is for students to leave high school prepared to deal with the rights and responsibilities of adult life, which may include (but is

not limited to): employment or post-secondary education, independent or semi-independent residence, participation in chosen community events or activities, and civic responsibilities.

A problem inherent in identifying goals for students with disabilities is the imposition of the values of caregivers, teachers, parents and society onto the individual. Early goals of the transition movement articulated by Madeline Will (1984) were limited to employment outcomes. Later the term transition was expanded to include other post-school environments that an individual would likely encounter. In both definitions of transition the setting of goals were typically limited to a societal or systems-level perspective. More recent work in preparing students with disabilities for life after school has focused increasingly on the community in which the individual will work and reside as an adult (Wehman, 1992). While this has broadened the systems-level perspective somewhat, it has not changed the perspective. That is, the emphasis of transition planning and instruction continues to be based on pre-determined choices, rather than actively including the individual and the family in making decisions regarding goals and instruction.

Not only does the systems-level perspective ignore the importance of family and individual contributions, it results in lists of skills to be acquired in order to meet goals set by society and professionals. By including the perspective of the individual and the family directly in planning and implementing transition services, an emphasis can be placed on self-determination. Once self-determination becomes the main educational goal, the basic skills and processes needed to make independent post-school choices will become the essential goals of all instruction (not being limited to the transition component of the IEP) Therefore, a less value laden goal of transition (read education) for individuals with disabilities is to prepare them to make autonomous decisions

in order that they may achieve meaningful adult roles.

References Used in the Synthesis

Affleck, J., Edgar, E., Levine, P., & Kortering, L. (1990). Post-school status of students classified as mildly mentally retarded, learning disabled, or non-handicapped: Does it get better with time? Education and Training in Mental Retardation, 25, 315-324.

Agran, M., & Martin, J.E. (1987). Applying a technology of self-control in community environments for individuals who are mentally retarded. In M. Hersen, R.M. Eisler, & P. M. Miller (Eds.), Progress in behavior modification (Vol. 21., pp. 108-155). Newbury Park, CA: Sage Publications.

America 2000: The President's Education Strategy (U.S. Department of Education, 1991).

Apple, M. (1982). Education and power. London: Routledge & Kegan Paul.

Baumeister, M., & Morris, R.K. (1992). Rural delivery model for vocational education. Teaching Exceptional Children, 24(4), 40-43.

Benz, M.R., & Halpern, A.S. (1986). Vocational preparation for high school students with mild disabilities: A statewide study of administrator, teacher, and parent perceptions. Career Development for Exceptional Individuals, 9, 3-15

Benz, M.R., & Halpern, A.S. (1987). Transition services for secondary students with mild disabilities: A statewide perspective. Exceptional Children, 53(6), 507-514.

Berg, W. K., Wacker, D. P., & Flynn, T.H. (1990). Teaching generalization and maintenance of work behavior. In F.R. Rusch (Ed.), Supported employment: Models, methods, and issues (pp. 145-160). Sycamore, IL: Sycamore Publishing.

Blankenship, C. (1985). Using curriculum-based assessment data to make instructional

decisions. Exceptional Children, 52, 233-238.

Boyer-Stephens, A., & Kearns, D. (1988). Functional curriculum for transition. Journal of Vocational Special Needs Education, 11(1), 13-18.

Brolin, D.E. (1982). Vocational preparation of persons with handicaps (2nd ed.). New York: Merrill/Macmillan.

Brolin, D.E. (1983). Life centered career education: A competency based approach (rev. ed.). Reston, VA: Council for Exceptional Children.

Brolin, D.E. (1991). Life centered career education: A competency based approach (3rd ed.). Reston, VA: The Council for Exceptional Children.

Brolin, D., Durand, R., Kromer, K., & Muller, P. (1975). Postschool adjustment of educable retarded students. Educational and Training of the Mentally Retarded, 10, 144-149.

Brown, L., Branston, M.B., Hamre-Nietupski, S., Pumpian, I, Certo, N, & Greunwald, L. (1979). A strategy for developing chronological, age-appropriate and functional curricular content for severely handicapped adolescents and young adults. Journal of Special Education, 13, 81-90.

Brown, L., Certo, N., Belmore, K., & Crowner, T. (1976). Madison's alternative for zero exclusion: Papers and programs related to public school services for secondary age severely handicapped students (Vol VI: part I). Madison, WI: Madison Public Schools.

Brown, J.M., & Kayser, T.F. (1982). The transition of special needs learners into post-secondary vocational education. Minneapolis, MN: University of Minnesota, Department of Vocational and Technical Education, Minnesota Research and Development Center for Vocational Education.

Bruininks, R., Lewis, D., & Thurlow, M. (1989). Assessing outcomes, cost and benefits of special education programs. Minneapolis, MN: University of Minnesota.

Chadsey-Rusch, J. (1986). Identifying and teaching valued social behaviors. In F.R. Rusch (Ed.), Competitive employment: Issues and strategies (pp. 273-287). Baltimore: Paul H. Brookes.

Chadsey-Rusch, J., DeStefano, L., O'Reilly, M., Gonzalez, P., & Collet-Klingenberg, L. (1992). Assessing the loneliness of workers with mental retardation. Mental Retardation, 30(2), 85-92 .

Chadsey-Rusch, J., & Gonzalez, P. (1988). Social ecology of the workplace: Employers perceptions versus direct observation. Research in Developmental Disabilities, 9, 229-245.

Chesler, B. (1982, July-August). ACLD committee survey on LD adults. ACLD Newsbrief, 145, 1, 5.

Clark, G. (1994). Is a functional curriculum approach compatible with an inclusive education model? Teaching Exceptional Children, 26(2), 36-39.

Clark, G.M., Carlson, B., Fisher, S., Cook, I.D., & D'Alonzo, B. (1991). Career development for students with disabilities in elementary schools: A position statement of the Division on Career Development. Career Development for Exceptional Individuals, 14, 109-120.

Copa, G. H., & Pease, V. H. (1992). A new vision for the comprehensive high school: Preparing students for a changing world. New designs for the comprehensive high school. Executive Summary Report from NCRVE, University of Minnesota Site, College of Education, Department of Vocational and Technical Education, St. Paul, Minnesota.

Cronin, M.E., & Patton, J. R. (1993). Life skills instruction for all students with special

needs: A practical guide for integrating real-life content into the curriculum. Austin, TX: Pro-Ed.

D'Alonzo, B.J., Owen, S.D., & Hartwell, L.K. (1985) .School to work: Transition models for persons with disabilities. Unpublished manuscript. (Available from the Secondary Transition Intervention Effectiveness Institute, University of Illinois, 110 Education Building, 1310 S. Sixth Street, Champaign, IL 61820).

D'Amico, R. (1992). The working world awaits: Employment experiences during and shortly after secondary school. In M. Wagner, L. Newman, R. D'Amico, E.D. Jay, P. Butler-Nalin, C. Marder, & R. Cox (Eds.), Youth with disabilities: How are they doing (pp. 8-1 to 8-55). Stanford, CA: SRI International.

Darrow, M.A., & Clark, G.M. (1992). Cross-state comparisons of former special education students: Evaluation of a follow-along model. Career Development for Exceptional Individuals, 15, 83-100.

Dennis, R.E., Williams, W., Giangreco, M.F., & Cloninger, C.J. (1993). Quality of life as a context for planning and evaluation of services for people with disabilities. Exceptional Children, 59, 499-512.

DeStefano, L. , & Wagner, M. (1993). Outcome assessment in special education: Lessons learned. Unpublished manuscript.

Dewey, J. (1929). The sources of a science of education. New York: Horace Liveright.

Dunst, C., Trivette, C.,& Deal, A. (1988). Enabling and empowering families: Principles and guidelines for practice. Cambridge, MA: Brookline Books.

Edgar, E. (1987). Secondary programs in special education: Are many of them

justifiable? Exceptional Children, 53(6), 555-561.

Elrod, G.F. (1987). Academic and social skills pre-requisite to success in vocational training. Journal for Vocational Special Needs Education, 10, 17-21.

Everson, J. M., & Moon, S. (1986). Transition services for young adults with severe disabilities: Professional roles and implication for inservice training. In C. Hanley-Maxwell & J. Chadsey-Rusch (Eds.), Enhancing transition from school to the workplace for handicapped youth: The role of vocational rehabilitation. Champaign: University of Illinois.

Fafard, M.B., & Haubrich, P.A. (1981). Vocational and social adjustment of learning disabled young adults: A follow-up study. Rehabilitation Counseling Bulletin, 4, 122-130.

Ferguson, P.M., Ferguson, D.L., & Jones, D. (1988). Generations of hope: Parental perspectives on the transitions of their children with severe retardation from school to adult life. Journal of the Association for Persons with Severe Handicaps, 13(3), 177-187.

Ford, A., Schnorr, R., Meyer, L., Davern, L., Black, J., & Dempsey, P. (1989). The Syracuse community-referenced curriculum guide for students with moderate and severe disabilities. Baltimore, MD: Brookes

Forest, M., & Lusthaus, E. (1987). The kaleidoscope: Challenge to the cascade. In M. Forest (Ed.), More education/integration (pp. 1-16). Downsville, Ontario: Allam Roeher Institute.

Gajar, A., Goodman, L., & McAfee, J. (1993). Secondary schools and beyond: Transition of Individuals with mild disabilities. New York: Macmillan Publishing Company.

Gartner, A. (1988). Parents no longer excluded, just ignored: Some ways to do it nicely. Exceptional Parent, 18(8), 40-41.

Gartner, A., & Lipsky, D. K. (1989). Beyond separate education: Quality education for all. Baltimore, MD: Paul H. Brookes.

Gertzel, E.E., & Gugerty, J.J. (1992). Applications for youth with learning disabilities. In P. Wehman (Ed.), Life beyond the classroom: Transition strategies for young people with disabilities. Baltimore, MD: Paul H. Brookes Publishing Company.

Giangreco, M., Cloninger, C., & Iverson, V. (1993). Choosing options and accommodations for children (COACH): A guide for planning inclusive education. Baltimore: Paul H. Brookes.

Glasser, W. (1992). The quality school curriculum. Phi Delta Kappan, , 690-694.

Greenspan, S. & Shoultz, B. (1981). Why mentally retarded adults lose their jobs: Social competence as a factor in work adjustment. Applied Research in Mental Retardation, 2, 23-38.

Halloran, D. (1993). Transition services requirement: Issues, implications, challenge. In R. C. Eaves & P.J. McLaughlin (Eds.), Recent Advances in Special Education and Rehabilitation (pp. 210-244). Boston: Andover Medical Publishers.

Halpern, A. (1973). General unemployment and vocational opportunities for EMR individuals. American Journal of Mental Deficiency, 80, 81-89.

Halpern, A. (1974) Work-study programs for the mentally retarded: An overview. In P. Browning (Ed.), Mental retardation: Rehabilitation and counseling (pp. 120-137). Springfield, IL: Charles C. Thomas.

Halpern, A. (1990). A methodological review of follow-up and follow-along studies tracking school leaver in special education. Career Development for Exceptional Individuals, 13(1), 13-27.

Halpern, A.S. (1992). Transition: Old wine in new bottles. Exceptional Children, 58(3), 202-211.

Halpern, A.S. (1993). Quality of life as a conceptual framework for evaluating transition outcomes. Exceptional Children, 59(6), 486-498.

Halpern, A., Irvin, L.,& Landman, J. (1979). Test for everyday living. Monterey, CA: CTB/McGraw-Hill

Hanley-Maxwell, C. (1986). Curriculum development. In F. R. Rusch (Ed.), Competitive employment: Issues and strategies (pp. 187-197). Baltimore: Paul H. Brookes.

Hanley-Maxwell, C., & Bordieri, J. (1989). Purchasing supported employment: Evaluating the service. Journal of Applied Rehabilitation Counseling, 20(3), 4-11.

Hanley-Maxwell, C., & Chadsey-Rusch, J. (Eds.) (1986). Enhancing transition from school to the workplace for handicapped youth: The role of vocational rehabilitation. Champaign: University of Illinois.

Hanley-Maxwell, C., & Collet-Klingenberg, L (1994). Curricular practices in special education: A preliminary study. Unpublished manuscript. Madison: University of Wisconsin, Department of Rehabilitation Psychology and Special Education.

Hanley-Maxwell, C., Rusch, F.R., Chadsey-Rusch, J & Renzaglia, A. (1986). Reported factors contributing to job terminations of individuals with severe disabilities. Journal of the Association for Persons with Severe Handicaps, 11(1), 45-52.

Hanley-Maxwell, C., Whitney-Thomas, J., & Pogoloff, S. (in press). The second shock: A qualitative study of parents perspectives and needs during their child's transition from school to adult life Journal of the Association for Persons with Severe Handicaps.

Hasazi, S.B., Gordon, L.R., & Roe, C.A. (1985). Factors associated with the employment status of handicapped youth exiting high school from 1979 to 1983. Exceptional Children, 51, 455-469.

Hasazi, S., Gordon, L., Roe, C., Hull, M., Fink, R., & Salembier, G. (1985). A statewide follow-up on he post high school employment and residential status of students labeled "mentally retarded." Education and Training of the Mentally Retarded, 20, 222-234.

Henderson, A.T., Marburger, C.L., & Ooms, T. (1986). Beyond the bake sale: An educators guide to working with parents. Washington, D.C.: National Committee for Citizens in Education.

Henley, M., Ramsey, R., & Algozzine, R. (1993). Characteristics of and strategies for teaching students with mild disabilities. Needham Heights, MA: Allyn & Bacon.

Hershenson, D.B. (1981). Work adjustment, disability, and the three r's of vocational rehabilitation: A conceptual model. Rehabilitation Counseling Bulletin, 25, 91-97.

Hershenson, D.B. (1984). Vocational counseling with learning disabled adults. Journal of Rehabilitation, 50, 40-44.

Hill, J.W., Seyfarth, J., Banks, P.D., Wehman, P., & Orelove, F. (1987). Parent attitudes about working conditions of their adult mentally retarded sons and daughters. Exceptional Children, 54(1), 9-23.

Horner, R., Sprague, J., & Wilcox, B. (1982). General case programming for community activities. In B. Wilcox & G.T. Bellamy (Eds.), Design of high school programs for severely handicapped students (pp. 61-89). Baltimore: Paul H. Brookes.

Individuals with Disabilities Education Act Amendments of 1990. 20 U.S.C., 1400.

(Formerly titled the Education of the Handicapped Act Amendments of 1990 [PL 101-476]).

Johnson, J., & Rusch, F.R. (1993). Secondary special education and transition services: Identification and recommendations for future research and demonstration. Career Development for Exceptional Individuals, 16, 1-18.

Kohler, P.D. (1993). Best practices in transition: Substantiated or implied? Career Development for Exceptional Individuals, 16, 107-121.

Kokaska, C.J., & Brolin, D.E. (1985). Career education for handicapped individuals (2nd ed.). New York: Merrill/Macmillan.

Kortering, L., & Edgar, E. (1988). Special education and rehabilitation: A need for cooperation. Rehabilitation Counseling Bulletin, 31, 178-184.

Lichtenstein, S., & Michaelides, N. (1993). Transition from school to young adulthood: Four case studies of young adults labeled mentally retarded. Career Development for Exceptional Individuals, 16, 183-196.

Linkenhoker, D., & McCarron, L. (1980). Street survival skills questionnaire. Dallas, TX: McCarron-Dial Systems.

Martin, J.E., Marshall, L.H., & Maxson, L.L. (1991). Transition policy: Infusing self-determination and self-advocacy into transition programs. Career Development of Exceptional Individuals, 16(1), 53-61.

Meyen, E.L., & Skritic, T.M. (1995). Special education and student disability. Colorado: Love Publishing.

Michaels, C. A. (1994). Transition strategies for persons with learning disabilities. San Diego, CA: Singular.

Mithuag, D.E., Horiuchi, C., & Fanning, P. (1985). A report on the Colorado statewide follow-up survey of special education students. Exceptional Children, 51, 397-404.

Mithaug, D.E., Martin, J.E., & Agran, M. (1987). Adaptability instruction: The goal of transition programming. Exceptional Children, 53, 500-505.

Mithaug, D.E., Martin, J.E., Agran, M., & Rusch, F.R. (1988). When will persons in supported employment need less support? Colorado Springs, CO: Ascent Publications.

Neel, R., Meadows, N., Levine, P., & Edgar, E. (1988). What happens after special education: A statewide follow-up study. Behavior Disorders, 13, 209-216.

O'Brien, J. (1987). A guide to lifestyle planning. In T. Bellamy & B. Wilcox (Eds.), The activity catalogue: A programming guide for youth and adults with severe disability (pp. 75-189). Baltimore: Paul H. Brookes.

O'Brien, J., & Lyle, C. (1987). Framework for accomplishment. Decatur, GA: Responsive Systems Associates.

Pancsofar, E. (1986). Assessing work behavior. In F.R. Rusch (Ed.), Competitive employment: Issues and strategies (pp. 93-102). Baltimore: Paul H. Brookes.

Parker, R. M., Szymanski, E. M., & Hanley-Maxwell, C. (1989). Ecological assessment in supported employment. Journal of Applied Rehabilitation Counseling, 20(3), 26-33.

Pedhauzeur, E. J., & Schmelkin, L.P. (1991). Measurement, design, and analysis: An integrated approach. Hillsdale, NJ: Lawrence Erlbaum Associates, Publisher.

Renzaglia, A., & Hutchins, M. (1988). A community-referenced approach to preparing persons with disabilities for employment. In P. Wehman & M.S. Moon (Eds.), Vocational rehabilitation and supported employment (pp. 91-110). Baltimore: Paul H. Brookes.

Rusch, F.R. (1986). On integrated work: An interview with Lou Brown. In F.R. Rusch (Ed.), Competitive employment issues and strategies. Baltimore, MD: Paul H. Brookes Publishing Company.

Rusch, F.R., Enchelmaier, J. F., & Kohler, P. D. (1994). Employment outcomes and activities for youth in transition. Career Development for Exceptional Individuals, 17(1), 1-16.

Rusch, F.R., Rusch, J.C., Menchetti, B.M., & Schutz, R.P. (1980). Survey-train-place: Developing a school-aged vocational curriculum for severely handicapped students. Unpublished manuscript, University of Illinois, Department of Special Education, Urbana.

Rusch, F.R., Schutz, R.P., & Agran, M. (1982). Validating entry-level survival skills for service occupations: Implications for curriculum development. Journal of the Association for Persons with Severe Handicaps, 7, 32-41.

Sale, P., Metzier, H.M.D., Everson, J.M., & Moon, S.M. (1991). Quality indicators of successful vocational transition programs. Journal of Vocational Rehabilitation, 1(4), 47-63.

Sands, D.J., Woolsey, T., & Dunlap, W.R. (1985) National Independent Living Skills Screening Instrument. Tuscaloosa: The University of Alabama.

Schloss, P., J., Alper, S., & Jayne, D. (1993). Self-determination for persons with disabilities: Choice, risk, and dignity. Exceptional Children, 60, 215-225.

Schloss, P. J., & Sedlak, R.A. (1986). Instructional methods for students with learning and behavior problems. Boston, MA: Allyn & Bacon.

Schnorr, R., Ford, A., Savern, L., Park-Lee, S., & Meyer, L. (1989). The Syracuse curriculum revision manual: A group process for developing a community referenced curriculum guide. Baltimore, MD: Brookes.

Schriner, K.F., & Bellini, J.L. (1994). Analyzing transition policy implementation: A conceptual framework. Career Development for Exceptional Individuals, 17, 17-27.

Scuccimarra, D., & Speece, D. (1990). Employment outcomes and social integration of students with mild disabilities: The quality of life two years after high school. The Journal of Learning Disabilities, 23, 213-219.

Shapiro, E.S., & Lentz, F.E. (1991). Vocational-technical programs: Follow-up of students with learning disabilities. Exceptional Children, 58, 47-59.

Siegel, S. & Sleeter, C.E. (1991). Transforming transition: Next stages for the school-to-work transition movement. Career Development for Exceptional Individuals, 14, 27-41.

Sitlington, P., & Frank, A. (1990). Are adolescents with learning disabilities successfully crossing the bridge into adult life? Learning Disability Quarterly, 13, 97-111.

Sitlington, P., Frank, A., & Carson, R. (1992). Adult adjustment among graduates with mild disabilities. Exceptional Children, 59, 221-233.

Snell, M. E. (1987). Systematic instruction of persons with severe handicaps, 3rd Edition. New York: Macmillan Publishing Company.

Sowers, J. (1991). Transitioning students with physical and multiple disabilities to supported employment. The Journal of Vocational Rehabilitation, 1(4), 25-37.

Stainback, W., Stainback, S., & Bunch, G. (1989). Introduction and historical background. In S. Stainback, W. Stainback, & M. Forest (Eds.), Educating all students in the mainstream of regular education (pp. 3-14). Baltimore: Paul H. Brookes.

Stainback, W., Stainback, S., Nietupski, J., & Hamre-Nietupski, S. (1986). Establishing effective community-based training stations. In F.R Rusch (Eds.), Competitive employment:

Issues and strategies (pp. 103-114). Baltimore: Paul H. Brookes.

Steere, D. E., Wood, R., Pancsofar, E. L., & Butterworth, J. J. (1990). Outcome-based school-to-work transition planning for students with severe disabilities. Career Development for Exceptional Individuals, 13, 57-69.

Stodden, R.A., & Leake, D.W. (1994). Getting to the core of transition: A re-assessment of old wine in new bottles. Career Development for Exceptional Individuals, 17, 65-76.

Stokes, T., & Baer, D. (1977). An implicit technology of generalization. Journal of Applied Behavior Analysis, 17, 273-278.

Szymanski, E.M., & Danek, M.M. (1985). School to work transition for students with disabilities: Historical, current, and conceptual issues. Rehabilitation Counseling Bulletin, 29(2), 81-88.

Szymanski, E. (1994). Transition: Life-span and life-space considerations for empowerment. Exceptional Children, 60 (5), 402-410.

Turnbull, A. P., & Turnbull, H. R. III. (1986). Families, professionals and exceptionality: A special partnership. Columbus, OH: Merrill Publishing Company.

Udvari-Solner, A., Jorgensen, J., & Courchane, G. (1992). Longitudinal vocational curriculum: The foundation for effective transition. In F.R. Rusch (Ed.), Transition from school to adult life: Models, linkages and policy. Sycamore, IL: Sycamore Publishing Co.

Wagner, M. (1989). Youth with disabilities during transition: An overview of descriptive findings from the national longitudinal transition study. Stanford, CA: SRI International.

Wagner, M. (1993). Trends in postsecondary youth with disabilities: Findings from the National Longitudinal Transition Study of special education students. Paper presented at the meeting of the Transition Research Institute at Illinois Project Director's Eighth Annual Meeting. Washington, DC.

Wagner, M., Newman, L., D'Amico, R., Jay, E.D., Butler-Nalin, P., Marder, C., & Cox, R. (1991). Youth with disabilities: How are they doing? Menlo Park, CA: SRI.

Wehman, P. (1986). Competitive employment in Virginia. In F.R. Rusch (Eds.), Competitive employment: Issues and strategies (pp. 23-34). Baltimore: Paul H. Brookes.

Wehman, P. (1992). Life beyond the classroom: Transition strategies for young people with disabilities. Baltimore: Brookes.

Wehman, P., Kregel, J., & Barcus, J. M. (1985). From school to work: A vocational transition model for handicapped students. Exceptional Children, 52(1), 25-37.

Wehman, P., Moon, S.M., Everson, J.M., Wood, W., & Barcus, J.M. (1988). Transition from school to work: New challenges for youth with severe disabilities. Baltimore, MD: Paul H. Brookes Publishing Company.

Wehman, P., Wood, W., Everson, J.M., Goodwyn, R., & Conley, S. (1988). Vocational education for multihandicapped youth with cerebral palsy. Baltimore: Brookes.

Wehmeyer, M.L. (1994). Self-determination and the education of students with mental retardation. Education and Training in Mental Retardation, 27, 303-314.

West, L. (Ed.). (1989). Functional curriculum for transition: A resource guide. Columbia: University of Missouri, College of Education, Missouri Linc.

Will, M. (1984). Supported employment services: An OSERS position paper.

Washington, D.C.: U.S. Department of Education.

Will, M.C. (1986a). Educating children with learning problems: A shared responsibility. Exceptional Children, 52(5), 411-416.

Will, M.C. (1986b). Educating children with learning problems: A shared responsibility. A report to the secretary. Washington, DC: U.S. Department of Education.

Wimmer, D. (1981). Functional learning curricula in the secondary schools. Exceptional Children, 47(8), 610-616.

Wircenski, J.L. (1992). Employability skills for the special needs learner: An integrated program of reading, math, and daily living. Rockville, MD: Aspen Publications.

Ysseldyke, J.E., Algozzine, B., & Thurlow, M. (1992). Critical issues in special education. Boston: Houghton Mifflin.

Ysseldyke, J.E., Thurlow, M.L., & Gilman, R. (1993). Educational outcomes and indicators for students completing school. Available from: NCEO, 350 Elliott Hall, 75 East River Road, University of Minnesota, Minneapolis, MN 55455.

Zigmund, N., & Thornton, H. (1985). Follow-up of post secondary age learning disabled graduates and dropouts Learning Disabilities Research, 1, 50-55.