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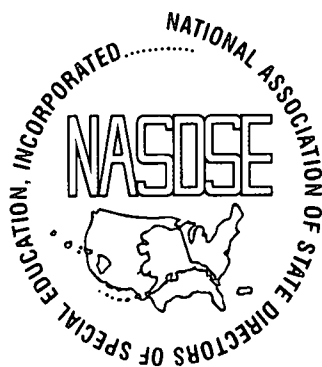
## ABSTRACT

This document is a synthesis of literature from 1997-2002 on the individualized education program (IEP), a core component of federal and state laws on the education of students with disabilities. The first section identifies the significant changes related to the IEP in the Individuals with Disabilities Education Act Amendments of 1997. The following sections address parent involvement; assessment/accountability and accommodations (including perceptions and decision making on use of accommodations and specific accommodations); access to the general curriculum; teacher satisfaction; professional development; post-secondary transition; and special considerations such as behavior, limited English proficiency, visual and hearing impairments, and assistive technology. The paper concludes with a list of 10 related areas in which further research is recommended. (Contains approximately 200 references.) (DB)

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# The IEP: A Synthesis of Current Literature Since 1997



February 2003

by

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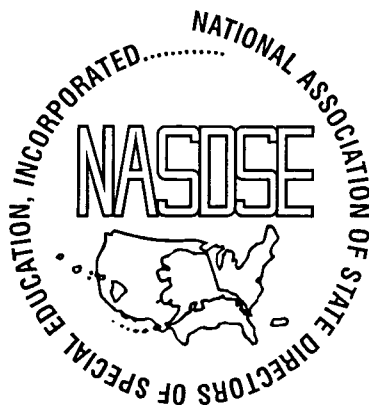
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February 2003



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# The IEP: A Synthesis of Current Literature Since 1997

## Introduction

This document is a synthesis of literature from 1997-2002 on the individualized education program (IEP), a core component of federal and state laws on the education of students with disabilities. The document provides an update of available literature since the National Association of State Directors of Special Education (NASDSE) publication, *The IEP: Benefits, Challenges, and Future Directions*, authored by Judy Schrag in 1996. Traditional search strategies were used to acquire reference materials from professional books, journals and the popular press. The Internet also was searched for additional published and unpublished literature including, but not limited to, government agency publications and educational association newsletters, articles, briefs and informational pages.

In 1975, Congress passed Public Law 94-142, the Education of the Handicapped Act (EHA), to ensure that eligible children with disabilities receive a free appropriate public education designed to meet their educational needs. The IEP, required for each eligible child, serves as a legal document that describes the plan for providing educational services to that child based on his or her needs. This requirement is the backbone of the law. The EHA has been amended several times, with the most recent reauthorization in 1997. The law is currently known as P.L. 105-17, the Individuals with Disabilities Education Act (IDEA). Significant modifications were made to IDEA in 1997 to enhance opportunities for children with disabilities while ensuring a free and appropriate public education.

The reauthorization of IDEA was passed by Congress and ultimately signed into law by the President on June 4, 1997. The final regulations were released on Friday, March 12, 1999, almost two years after the bill was signed into law. Since that time, a variety of IEP guides and handbooks have been published; however, there is a paucity of empirical research on the IEP. The available literature focuses on the implementation process rather than the extent of implementation and its impact on students. This synthesis will identify the significant changes related to the IEP and discuss literature addressing these areas: parent involvement; assessment/accountability and accommodations; access to the general curriculum; transition; and special considerations, including behavior. Significant changes in the law and available literature relevant to each area are discussed in each subsection.

## The Individualized Education Program

The IEP is a document of vital importance for students with disabilities. The 1997 reauthorization of IDEA emphasized its importance by moving all provisions related to the IEP to one place in the law, Section 614(d), rather than leaving them scattered throughout different areas. The 1997 law retained specific components of the IEP—statements regarding the student's present level of educational performance, annual goals, special education and related services to be provided, projected dates for beginning and end of services, and transition services—but required greater emphasis on access to the general curriculum and participation in the general education classroom. There was a specific intent to strengthen the connections between special

education and general education curricula and to involve parents in the planning for, and development of, the IEP. The reauthorized IDEA requires:

- (i) a statement of the child's present levels of educational performance including --
  - (I) how the child's disability affects the child's involvement and progress in the general curriculum; or
  - (II) for preschool children, as appropriate, how the disability affects the child's participation in appropriate activities;[20 U.S.C. §1414(d)(1)(A)].

The statement of goals and services must also include information specific to access to, and participation in, the general curriculum. As stated in the law, the IEP must include:

- (ii) a statement of measurable annual goals, including benchmarks or short-term objectives related to --
  - (I) meeting the child's needs that result from the child's disability to enable the child to be involved in and progress in the general curriculum; and
  - (II) meeting each of the child's other educational needs that result from the child's disability;
- (iii) a statement of the special education and related services and supplementary aids and services to be provided to the child, or on behalf of the child, and a statement of the program modifications or supports for school personnel that will be provided for the child --
  - (I) to advance appropriately toward attaining the annual goals;
  - (II) to be involved and progress in the general curriculum in accordance with clause (i) and to participate in extracurricular and other nonacademic activities; and
  - (III) to be educated and participate with other children with disabilities and nondisabled children in the activities described in this paragraph; [20 U.S.C. §1414(d)(1)(A)].

The reauthorized law seeks to include students with disabilities in state and district assessments and requires that the IEP include:

- (I) a statement of any individual modifications in the administration of State or districtwide assessments of student achievement that are needed in order for the child to participate in such an assessment; and
- (II) if the IEP Team determines that the child will not participate in a particular State or districtwide assessment of student achievement (or part of such an assessment), a statement of --
  - (aa) why that assessment is not appropriate for the child; and
  - (bb) how the child will be assessed;[20 U.S.C. §1414(d)(1)(A)(v)].



Another significant change is the requirement for IEP Teams to discuss and consider several special factors. As stated in the law:

CONSIDERATIONS OF SPECIAL FACTORS- The IEP Team shall --  
(i) in the case of a child whose behavior impedes his or her learning or that of others, consider, when appropriate, strategies, including positive behavioral interventions, strategies, and supports to address that behavior; (ii) in the case of a child with limited English proficiency, consider the language needs of the child as such needs relate to the child's IEP;  
(iii) in the case of a child who is blind or visually impaired, provide for instruction in Braille and the use of Braille unless the IEP Team determines, after an evaluation of the child's reading and writing skills, needs, and appropriate reading and writing media (including an evaluation of the child's future needs for instruction in Braille or the use of Braille), that instruction in Braille or the use of Braille is not appropriate for the child;  
(iv) consider the communication needs of the child, and in the case of a child who is deaf or hard of hearing, consider the child's language and communication needs, opportunities for direct communications with peers and professional personnel in the child's language and communication mode, academic level, and full range of needs, including opportunities for direct instruction in the child's language and communication mode; and (v) consider whether the child requires assistive technology devices and services. [20 U.S.C. §1414(d)(3)(B)].

In the past two decades, research has shown that IEPs often lacked all mandated components, focused on non-functional skills, contained little information on how goals will be generalized and applied to real life skills, and sometimes included goals that did not address a child's area of identified delay (Pretti-Fontczak & Bricker, 2000). The IEP meeting was often viewed as a "meaningless ritual in which teachers dictate the prescribed education curriculum and then pass the ceremonial pen to parents to secure their signatures" (Rock, 2000, p. 32). The reauthorized IDEA intended to change these practices by specifying that the IEP should be a "dynamic planning document that clearly shows how to develop a specially designed program for each child with a disability that can be reviewed and revised to promote regular curriculum participation" (Burns, 2001, p. viii).

As required by law, the IEP is to be developed by a team that includes the parents of the child with a disability; at least one regular education teacher if the child is, or may be, participating in the regular education environment; at least one of the child's special education teachers or providers; a representative of the local educational agency who is qualified to provide, or supervise the provision of, special education, and is knowledgeable about the general curriculum and available resources of the local educational agency; an individual who can interpret instructional implications of evaluation results; other individuals with knowledge or expertise regarding the child with a disability, including related service personnel; and the child with a disability, as appropriate [20 U.S.C. §1414(d)(1)(B)].

Through the team meeting process, the IEP document is developed or revised to ensure that the student with a disability receives a free appropriate public education alongside his or her peers to

the maximum extent possible. The IEP meeting provides opportunity for the student, his or her parents and a variety of professionals to discuss, plan, evaluate and review the individual student's strengths, needs and education intervention strategies. An IEP meeting can be held at any point in time since the IEP is a fluid document that must be adjusted according to a student's needs. Individuals bring different perspectives to the IEP meeting (Altmueller, 2001), but all have important information to contribute, especially the student. Research showed that students are better able to contribute if they receive training on active participation and goal development prior to their IEP meeting (Snyder, 2000). In addition, some teachers believe that they and their students should receive training to facilitate student participation during IEP meetings and that the IDEA should clearly define participation of students, as well as define teachers' roles in facilitating student participation (Piaastro, 2000).

## **Parent Involvement**

Prior to 1997, research indicated that parents often felt uninvolved in IEP development and viewed the teachers as educational decision makers and themselves as consent givers (Rock, 2000). Parents struggled with issues such as time to attend meetings, transportation to meetings, child-care during meetings, language barriers and cultural insensitivity. A significant change in the reauthorized law is that parents are to be included in all components of educational planning for their child—assessment prior to IEP development and planning; and developing, implementing, evaluating and reviewing the IEP. The reauthorized law supports the viewpoint that parents are equal partners in the educational process and must be involved. In conducting the evaluation, the local educational agency shall include information provided by the parent [20 U.S.C. §1414(b)(2)(A)], and parents must also be included in the decision-making process for eligibility [20 U.S.C. §1414(b)(4)(A)] and educational placement [20 U.S.C. §1414(f)].

Recent survey data obtained through the Special Education Elementary Longitudinal Study (SEELS), funded by the U.S. Department of Education's Office of Special Education Programs (OSEP) and reported in the 23<sup>rd</sup> Annual Report to Congress (U.S. Department of Education, 2001), showed that a high percentage of parents agreed that their child's IEP goals were appropriate and challenging in accordance with access to the general curriculum (91 percent); believed their child's special education services were "somewhat" (48 percent) or "very" individualized (45 percent); and felt they had the "right amount" of involvement in IEP decision making (66 percent) (U.S. Department of Education, 2001). In a different study of an urban southwest school district, 24 parents of students with disabilities were interviewed about their satisfaction with IEP meetings. These parents were satisfied with professional etiquette and procedures during meetings and reported that effective communication led to greater satisfaction. However, parents were not always satisfied with the disability category assigned to their children. Parents of students with physical or health impairments were generally least satisfied and lack of proper personnel at IEP meetings led to dissatisfaction with the disability category assignment (Miles-Bonart, 2001).

Another national study, the Study of State and Local Implementation and Impact of the Individuals with Disabilities Education Act (SLIIDEA), determined through survey data that 27 states regularly evaluate parent satisfaction with special education services and 14 states report the results by district (Schiller et al., 2001). This same survey showed that 50 states offer

workshops on IDEA regulations as they pertain to parent involvement, 47 states offer workshops on ways to involve parents in the IEP process and 16 states provide funds for transportation and child care to encourage parent participation in IEP meetings. These data suggest that states are investing time, energy and funding to increase parent involvement. Additional research that examines family experiences and satisfaction is currently being conducted through the National Early Intervention Longitudinal Study (NEILS) and the National Longitudinal Transition Study-2 (NLTS-2).

There is a variety of literature that describes the benefits of parent involvement, offers strategies to facilitate meaningful participation of parents in IEP meetings, and identifies barriers to parent participation. Through involvement in meetings and educational services, parents increase their knowledge about the child's educational setting, teachers acquire information about the child's home environment, parents and teachers improve communication and the student is more likely to achieve the goals developed collaboratively by the parents and teachers (Smith, 2001; Zhang & Bennet, 2001). Available IEP guides and articles suggest strategies to improve and increase meaningful parent participation in IEP meetings (Bennett et al., 1998; Burns, 2001; Clark, 2000; Conderman & Nelson, 1999; Duncan, 1997; FAPE, 2001; Fielding, 1998; Fouse, 1999; Frey, 1998; Lytle & Bordin, 2001; Muhlenhaupt, 2002; National Organization of Parents of Blind Children, 1998; Pretti-Fontczak & Bricker, 2000; Quiroz, Greenfield, & Alchech, 1999; Rock, 2000; Smith, 2001; Tracy & Maroney, 2000; Zhang & Bennett, 2001; Zullo, Gibson, & Fister, 1997).

Guidebooks recommend that teachers develop relationships, communicate regularly and build trust with the parents (Lytle & Bordin, 2001; Rock, 2000). During an IEP meeting, it is important to:

- greet the parents;
- introduce all IEP meeting participants and explain their roles;
- state the purpose of the meeting;
- share strengths and positive observations about the child;
- emphasize the helpful information parents share about their child;
- provide enough time for a complete discussion during the meeting; and
- be flexible throughout the meeting (Kroeger, Leibold, & Ryan, 1999; Lytle & Bordin, 2001; Rock, 2000; Smith, 2001).

One strategy to strengthen participation by all IEP Team members discussed by Kroeger and colleagues (1999) was using a chalkboard as a tool to facilitate discussion, prioritize learning needs and engage in collaborative problem solving. Identified barriers to participation include: the use of educational jargon and acronyms; parents' lack of understanding of the school system; parents' uncertainty about how to help their child; parents' feelings of inferiority; and logistical problems, such as time for, and transportation to, IEP meetings (Rock, 2000; Smith, 2001). They concluded that parents and professionals must work together collaboratively and respect, trust and equally value each other to benefit the child as the IEP is developed and effective interventions are designed.

In regard to cultural diversity and the IEP, SEELS data included in the 23<sup>rd</sup> Annual Report to Congress (U.S. Department of Education, 2001) indicated that African-American, Hispanic, and Asian and Pacific Islander families, and families with low income were more commonly dissatisfied with their level of participation in the IEP development process than other racial/ethnic or economic groups. While there are a variety of informational guides to address issues of cultural diversity and family differences (Bennett et al., 1998; Fletcher-Carter & Paez, 1997; Quiroz et al., 1999; Zhang & Bennett, 2001), there was no current research regarding the effects of cultural diversity on the IEP process and IEP implementation.

### **Assessment/Accountability and Accommodations**

There has been increasing demand for accountability in the field of education over the last decade, with increased focus on student progress as measured by standardized assessments. The reauthorized IDEA requires that an IEP include statements related to assessment and accommodations. As stated in the reauthorized IDEA, the IEP must include:

- (I) a statement of any individual modifications in the administration of State or districtwide assessments of student achievement that are needed in order for the child to participate in such an assessment; and
- (II) if the IEP Team determines that the child will not participate in a particular State or districtwide assessment of student achievement (or part of such an assessment), a statement of --
  - (aa) why that assessment is not appropriate for the child; and
  - (bb) how the child will be assessed;[20 U.S.C. §1414(d)(1)(A)(v)].

In addition, the IEP must include a statement about how the parents will be informed of their child's progress at least as often as parents of a child without disabilities are informed of educational progress [20 U.S.C. §1414(d)(1)(A)(viii)(II)].

The No Child Left Behind Act of 2001 (NCLB) reauthorized the Elementary and Secondary Education Act (ESEA), including Title I, and was signed into law by President Bush in January 2002. NCLB puts increased emphasis on accountability, including students with disabilities. Research specific to implementation of NCLB is not yet available, but in regard to accountability, the law states:

(A) IN GENERAL-Each State plan shall demonstrate that the State has developed and is implementing a single, statewide State accountability system that will be effective in ensuring that all local educational agencies, public elementary schools, and public secondary schools make adequate yearly progress as defined under this paragraph....

(B) ADEQUATE YEARLY PROGRESS- Each State plan shall demonstrate, based on academic assessments described in paragraph (3), and in accordance with this paragraph, what constitutes adequate yearly progress of the State, and of all public elementary schools, secondary schools, and local educational agencies in the State, toward enabling all public elementary school and secondary school students to meet the State's student

academic achievement standards, while working toward the goal of narrowing the achievement gaps in the State, local educational agencies, and schools.

(C) DEFINITION-Adequate yearly progress shall be defined by the State in a manner that--...

(v) includes separate measurable annual objectives for continuous and substantial improvement for each of the following:

(I) The achievement of all public elementary school and secondary school students.

(II) The achievement of--...

(cc) students with disabilities; and

[ P.L.107-110, Sec. 1111(b)(2)].

In regard to academic assessments, NCLB states:

(A) IN GENERAL-Each State plan shall demonstrate that the State educational agency, in consultation with local educational agencies, has implemented a set of high-quality, yearly student academic assessments....

(B) USE OF ASSESSMENTS- Each State educational agency may incorporate the data from the assessments under this paragraph into a State-developed longitudinal data system that links student test scores, length of enrollment, and graduation records over time.

(C) REQUIREMENTS-Such assessment shall--

(i) be the same academic assessments used to measure the achievement of all children;...

(ix) provide for --

(I) the participation in such assessment of all students;

(II) the reasonable adaptations and accommodations for students with disabilities (as defined under section 602(3) of the Individuals with Disabilities Education Act) necessary to measure the academic achievement of such students relative to State academic content and State student academic achievement standards; and

[ P.L.107-110, Sec. 1111(b)(3)].

In a review of IEP forms from 41 states, Thompson, Thurlow, Quenemon, Esler, and Whetsone (2001) found that 30 states had some indication on the form of three or more options for participation in assessments, including standard participation in state and district assessments, participation with accommodations or participation with an alternate assessment. Eight states documented participation in assessments, but did not identify an alternate assessment option.

The IEP Team is required to select appropriate accommodations for a student with disabilities to allow the student to participate effectively in state and districtwide assessments. A number of authors indicate that there is limited empirical research available to provide a clear understanding of the effects or consequences of testing accommodations (Fuchs, Fuchs, Eaton, Hamlett, & Karns, 2000; Thurlow, 2002; Thurlow & Bolt, 2001; Thurlow, McGrew, Tindal, Thompson, Ysseldyke, & Elliot, 2000; Tindal & Fuchs, 1999; Tindal, Heath, Hollenbeck, Almond, & Harniss, 1998).

In a review and analysis of state policy on assessment accommodations, Thurlow, House, Boys, Scott, and Ysseldyke (2000) identified most frequently allowed accommodations by 48 states. Table 1 lists the specific accommodations and the number of states that allow the accommodation, allow the accommodation with limitations or prohibit it in some situations, or prohibit the accommodation.

Table 1  
State Assessment Accommodations (N= 48)

Accommodation	Number of states that allow	Number of states that allow with limitations or prohibit in some situations	Number of states that prohibit
Braille	33	5	--
Computer/Machine Response	28	6	--
Dictate Response	32	11	--
Extended Time	32	5	2
Interpreter for Instructions	34	2	1
Large Print Edition of Test	38	2	--
Mark Answers in Test Booklet	28	5	--
Read Aloud Test Items	4	30	1
Test Directions Clarifications	31	4	1
Test Breaks	28	5	--

*Note:* This table was developed based on data reported by Thurlow, House, et al. (2000).

In September 2001, the National Center for Educational Outcomes (NCEO) created a searchable database of research on accommodations and plans to update the database quarterly. Thurlow & Bolt (2001) published a synthesis report of the research available on the database categorized by accommodations most often allowed by state policies—Braille editions, computer/machine response, dictate response to scribe, extended time, interpreter for instructions, large print edition, mark answers in test booklet, read aloud, test direction clarifications and test breaks. This synthesis provided an explanation of each accommodation, identified state use of each accommodation, summarized survey and empirical research, discussed controversy around the specific accommodation and offered recommendations. These authors, like others, emphasized that while some research exists, it does not provide conclusive results about the effects of specific accommodations.

### *Perceptions And Decision Making On Use Of Accommodations*

There has been little research about the use of accommodations, and researchers report that teachers have different perceptions about accommodations and their use (Thurlow, 2002). In a 1998 survey with 166 regular and special educators as respondents, Hollenbeck, Tindal, & Almond (1998) showed variation in teachers' knowledge and use of different accommodations. Table 2 displays the percentage of respondents who had correct knowledge about an accommodation and the percentage of respondents who had used the accommodation.

Table 2  
Correct Knowledge and Use of Accommodation (N=166)

Accommodation	Have correct knowledge about accommodation	Have used accommodation
Dictate response to scribe	85%	71%
Extended time	59%	13%
Read-aloud math text	56%	21%
Clarify directions	51%	16%
Test breaks	45%	18%

*Note:* This table was developed based on data reported by Hollenbeck, Tindal, & Almond (1998).

Some researchers investigated differences in recommended accommodations. Schulte, Elliott, & Kratchowill (2000) found that the level of severity of a student's disability did not result in a significant difference in the number of accommodations. These researchers also found more recommendations for complex and written assessment tasks than multiple-choice tasks. In contrast, a similar study of teachers of students with autism showed that these 133 teachers recommended that students with autism participate in assessments with necessary individually appropriate accommodations, but the percentage of teachers who recommended participation in assessments varied based on the severity of autism—the less severe the autism, the greater the recommended participation. Research showed that recommended accommodations increased the math and science test scores for more than 75 percent of the students with disabilities (Elliot, Kratchowill, & McKeivitt, 2000). Research also showed that educators made different recommendations after receiving specific training about accommodations (DeStefano, Shriner, & Lloyd, 2001). After training, educators were likely to recommend more individually appropriate accommodations and use alternate assessments to measure other student goals for statewide assessments.

### *Specific Accommodations*

Researchers are beginning to address some of the issues around assessment accommodations and how they impact accurate measurement of students' abilities. Much of the research on accommodations since the IDEA was reauthorized in 1997 focuses on a single accommodation or package of accommodations, rather than on individual student need (Elliot, 2000). Most students with disabilities receive more than one accommodation (Schulte et al., 2000). Extra time, assistance with directions and reading support are the most frequently used accommodations (Elliot et al., 2001). Researchers typically have not found a significant increase in test scores for students with disabilities who used the extended time accommodation or multiple-day test accommodation when compared to similar students who did not use accommodations, although students reportedly prefer extended time (Fuchs, Fuchs, Eaton, Hamlett, Binkley, & Crouch, 2000; Marquart, 2000; Walz, Albus, Thompson, & Thurlow, 2000).

A few studies suggest that dictation or videotape presentation of testing items resulted in higher student performance for students with disabilities (Calhoon, Fuchs, & Hamlett, 2000; Fuchs, Fuchs, Eaton, Hamlett, & Karns, 2000; Koretz, 1997; Tindal, Heath, et al., 1998; Tindal,

Glasgow, Helwig, Hollenbeck, & Heath, 1998; Westin, 1999), although there is concern that dictation or “read-aloud” as an accommodation alters the validity of the test and alters the construct being measured by the test (Bielinkski, Thurlow, Ysseldyke, Freidebach, & Freidebach, 2001; Meloy, Deville, & Frisbie, 2000). Researchers generally support the use of dictation or “read-aloud” accommodations for math assessments, but express concern about the validity of the test when these accommodations are used for reading assessments (Thurlow & Bolt, 2001). There are a variety of factors that could influence test scores, such as: inadvertent cues in the reader’s voice when correct answers are read; availability of copies of test booklets for individual students; large group, small group or individual test administration; and allowance of repetition (Burns, 1998; Thurlow & Bolt, 2001).

Studies on computer or machine use for responses showed varying results. When comparing computer use and handwritten mode for a statewide writing test, there were no significant test score differences (Hollenbeck, Tindal, Harniss, & Almond, 1999), but the paper and pencil test format resulted in lower test scores if students were accustomed to completing their work using a computer (Russell, 1999; Russell & Plati, 2001). In addition, Russell (1999) found that middle school students scored lower on computer-based math assessments than on paper-pencil assessments and suggested that the lack of scratch paper for math problems may have resulted in the lower scores. Although there have been a limited number of empirical studies regarding accommodations, research trends suggest that using accommodations specific to individual student needs results in better performance on standardized assessments.

NCEO published a technical report in December 2000 emphasizing the need for effective research on accommodations and offering several recommendations for research (Thurlow, McGrew, et al., 2000). Particular areas of needed research identified in the report included the effects of accommodations on test validity, score comparability, usefulness of accommodations and the decision-making process relevant to accommodations. The report concluded with a strong recommendation for a planned and coordinated research agenda rather than isolated studies to answer the many questions about accommodations.

### **Access to the General Curriculum**

The IDEA also strongly emphasizes participation of students with disabilities in the general curriculum and general education classroom. As noted on page 2 of this document, the law states that the IEP must address access to the general curriculum by including a statement of how the child’s disability affects the child’s involvement and progress in the general curriculum; a statement of measurable annual goals related to progress in the general curriculum; a statement of the special education and related services for the child; and a statement of supplementary aids, services, program modifications or supports for school personnel so that the child will be involved and make progress in the general curriculum and participate in extracurricular and other nonacademic activities [20 U.S.C. §1414(d)(1)(A)(i-iii)]. In addition, the IEP must contain an explanation of the extent, if any, to which the child will not participate with nondisabled children in the regular class and activities [20 U.S.C. §1414(d)(1)(A)(iv)].

To ensure access to general education and increased likelihood of success, the general educator must participate in the development of an IEP to ensure children with disabilities receive the



services they need in order to be involved in, and progress in, the general curriculum. The law specifically states that:

The regular education teacher of the child, as a member of the IEP Team, shall, to the extent appropriate, participate in the development of the IEP of the child, including the determination of appropriate positive behavioral interventions and strategies and the determination of supplementary aids and services, program modifications, and support for school personnel consistent with paragraph (1)(A)(iii). [20 U.S.C. §1414(d)(3)(C)].

Additionally, the general educator must participate, to the extent appropriate, in the review and revision of the IEP [20 U.S.C. §1414(d)(4)(B)]. Several authors provide informational guides to support general educators' participation in IEP development, with general information about responsibilities and collaborative practices (Burns, 2001; Clark, 2000; Houston-Wilson & Lieberman, 1999; Huefner, 2000; Lytle & Bordin, 2001; Menlove, Hudson, & Suter, 2001; OSEP, 1999d; Pretti-Frontczak & Bricker, 2000; Weishaar, 1997; Yun, Shapiro, & Kennedy, 2000).

Although no empirical research was found in the literature linking the IEP to the general curriculum, a few survey-based studies provided information about IEP forms, teacher satisfaction and training effects. In a review of IEP forms from 41 states, Thompson, Thurlow, Quenemoen and colleagues (2001) reported that 13 states addressed the general education curriculum in both the present level of performance and goal sections, 18 states addressed it in the present level of performance section or goal section and five states had no specific reference to the general curriculum on their IEP forms. An open-ended survey of 33 states revealed at least five policy and implementation issues related to IEP linkages with the general education curriculum (NASDSE, 1999a). Respondents indicated that the opportunity to develop a common vocabulary, greater collaboration between general and special education teachers and continuity between programs are benefits of this mandate in IDEA.

States are trying to connect IEP goals and objectives with state standards for the general curriculum and vary in their efforts. One state directly linked its online IEP forms with state standards so that IEP Teams could easily access state standards to include in the IEP development discussion (Thompson, Thurlow, Quenemoen, et al., 2001).

To support access to the general curriculum for students with disabilities and their participation in the regular educational environment, standards and assessments, a National Center on Accessing the General Curriculum (NCAC) was funded by OSEP in 1999. This center is currently investigating and making recommendations for policy and legal issues, curriculum design, teacher preparation and training and building consensus among stakeholders to use the Universal Design for Learning (UDL) framework to increase access to the general curriculum by students with disabilities. The UDL framework is a conceptual shift in curriculum that includes a range of options for accessing, using, and engaging with learning materials (Rose & Meyer, 2002) and providing multiple means for representation, engagement, and expression (Jackson, Harper, & Jackson, 2001). The conceptual shift is away from a "one size fits all" approach to "each learner needs his or her own size" (Hitchcock, Meyer, Rose, & Jackson, 2002) that enables

equivalent learning opportunities and increases access to the general curriculum for students with disabilities.

A recent literature review by NCAC identified barriers to accessing the general curriculum as:

- teacher lack of time, skills and training;
- different perceptions about curriculum adaptability;
- different interpretations of inclusion;
- increased educator responsibility;
- challenges in meeting every student's needs; and
- attitudes toward shifting roles and expectations (Jackson, Harper, et al., 2001).

These researchers offered recommendations to overcome these barriers that included:

- supporting teachers through professional development;
- restructuring educational systems;
- providing administrative support;
- ensuring equal opportunity and clear instructional goals;
- incorporating effective teaching practices;
- managing a self-directed learning environment;
- strengthening peer support structures;
- increasing parent involvement;
- enhancing collaboration among stakeholders; and
- using authentic assessments.

Other researchers from NCAC are investigating current teaching practices and intend to synthesize survey information regarding curricular accommodations, management decisions, assessment, instructional methodology and other pedagogical aspects that facilitate access to the general curriculum (Jackson, Koziol, & Rudowitz, 2001).

### **Teacher Satisfaction**

Menlove and colleagues (2001) reported that when general education teachers meaningfully contribute to the IEP process, they are generally satisfied with the process. However, their 1999 survey of over 100 general education teachers indicated that elementary teachers have slightly higher rates of satisfaction with the IEP development process than high school teachers. These survey respondents also discussed reasons for not attending IEP meetings that included: not feeling valued as a team member; not having enough time to attend many meetings; not feeling prepared; not knowing what to expect in meetings; not feeling trained in the IEP process; and uncertainty about the relevance of the IEP to instruction and student learning.

Menlove and colleagues (2001) offered strategies to improve attendance and participation of general education teachers in IEP meetings that included:

- effectively collaborating and communicating regularly with general educators;

- hiring substitutes to provide release time;
- sharing blank IEP forms prior to IEP meetings;
- using an agenda to preview what will happen during the meeting;
- providing training specific to the IEP process; and
- providing training on the connection between IEPs and instruction.

## Professional Development

Open-ended survey respondents indicated a need for professional development to ensure that general and special educators know about the mandate for access to the general curriculum, understand the connection between general curriculum standards and IEP goals and objectives, learn and use instructional strategies to improve student participation in the general curriculum and develop co-teaching and collaboration skills (NASDSE, 1999a). Research has shown that training teachers on writing IEP goals and using curriculum-based assessment and evaluation measures makes a significant difference in the quality of goals and objectives written for a student (Pretti-Fontczak & Bricker, 2000).

A variety of training efforts were reported by states and localities based on the specific needs of the educators and many states have guides for developing the IEP and ensuring access to the general curriculum (e.g., Duncan, 1997; Frey, 1998; Illinois State Board of Education, 1999; Levay, 1998; Louisiana Department of Education, 2000; North Dakota Department of Public Instruction, 1998; Ryan, 2000; University of the State of New York & Office of Vocational and Educational Services for Individuals with Disabilities, 1998; Walsh, 2001). For example, one school district initiated a staff development program for general educators and created an “alignment binder” that provides information about content standards, defines and clarifies accommodations and modifications, provides a matrix chart to assist in instructional decision making and demonstrates how to incorporate all of these components into lesson planning guidelines (Walsh, 2001). In addition, the Western Regional Resource Center developed a website<sup>1</sup> that provides resources on instructional strategies to support access to, and participation in, the general curriculum. This website offers research-validated methods, math and science resources, supports for teachers and examples of school district sites that provide specific information based on the needs of the teachers in that district.

Physical education classes often provide access to the regular educational environment and the literature includes specific information for physical education teachers to effectively include students with disabilities. In recent years, physical education journals have published articles that provide guidance for working with IEP Teams and achieving IEP goals in physical education classes (Block, Lieberman, & Connor-Kuntz, 1998; Houston-Wilson & Lieberman, 1999; Kozub, 1998; Yun et al., 2000). Similar to other guides for regular educators, those for physical education teachers strongly recommend sharing information with special education teachers, understanding how IEP goals can be addressed in the regular curriculum and communicating regularly with all educators and therapists working with the child.

<sup>1</sup> <http://interact.uoregon.edu/wrrc/InstStrat.htm>

## Post-Secondary Transition

Related to transition, the IDEA requires that the IEP includes:

- (I) beginning at age 14, and updated annually, a statement of the transition service needs of the child under the applicable components of the child's IEP that focuses on the child's courses of study (such as participation in advanced-placement courses or a vocational education program);
- (II) beginning at age 16 (or younger, if determined appropriate by the IEP Team), a statement of needed transition services for the child, including when appropriate, a statement of the interagency responsibilities or any needed linkages, and
- (III) beginning at least one year before the child reaches the age of majority under State law, a statement that the child has been informed of his or her rights under this title, if any, that will transfer to the child on reaching the age of majority under section 615(m); and  
[20 U.S.C. §1414(d)(1)(A)(vii)].

A goal of the 1997 law is to prepare students with disabilities to participate in and contribute to society. Therefore, transition services must be planned, coordinated and documented in the IEP for each student and be based on the student's needs, taking into account the student's preferences and interests. Transition services include instruction, related services, community experiences, the development of employment and other post-school adult living objectives and when appropriate, acquisition of daily living skills and functional vocational skills. The IEP Team should focus on both the present and future needs of the student to design a functional instructional program that reflects the student's interests and needs for life as an adult. Effective transition services should enable students to manage their future and become active, contributing members of society. Students with disabilities should be included in transition planning and empowered to contribute to decisions about their future.

In the 21<sup>st</sup> Annual Report to Congress (U.S. Department of Education, 1999), several themes for implementing transition services were identified that included:

- creating an environment conducive to implementation of transition policies and practices;
- using policy to promote systems change;
- sharing leadership;
- collaborating;
- building capacity;
- linking transition to other restructuring efforts; and
- using research and evaluation results to enhance policy and practice.

Since the 21<sup>st</sup> Annual Report to Congress, minimal research has been published specific to IEP transition components. However, there is a variety of research focused on access, participation and success in postsecondary education and employment for students with disabilities—outcomes that should be documented on an IEP. The National Center for Secondary Education

and Transition (NCSET) and the National Center for the Study of Postsecondary Educational Supports (NCSPEs) continue to conduct research, analyze policy and share information to strengthen all aspects of transition for students with disabilities. An ongoing study, the National Longitudinal Transition Study-2 (NLTS-2), is surveying more than 11,000 students with disabilities served under IDEA to describe their characteristics, achievements and experiences. NLTS-2 will also identify factors that contribute to positive outcomes for these students (NCSET, 2002, January). This study will focus on high school coursework and placement, academic performance, extracurricular activities, postsecondary education and training, adult services, employment, independent living and community participation. It is anticipated that this study will provide information to direct policy and practices, just as the original National Longitudinal Transition Study (1984-1993) did prior to the reauthorization of IDEA in 1997.

Research reported in the 23<sup>rd</sup> Annual Report to Congress (U.S. Department of Education, 2001) indicated that states have not achieved minimal compliance with transition components of the IEP because the appropriate participants are not at IEP meetings to discuss transition services, participants are not provided adequate notice of the meetings and the IEP Team does not include a statement of needed transition services on students' IEPs (Hasazi, Furney, & DeStefano, 1999; Johnson & Sharpe, 2000). Since states are not yet fully compliant with transition components, a chapter discussing challenges in providing transition services and strategies to address challenges was included in the 23<sup>rd</sup> Annual Report to Congress (U.S. Department of Education, 2001, p. I-19). This chapter highlighted the following: the necessity of ensuring that students with disabilities have access to the full range of general education curricular options and learning experiences; making data-based decisions using meaningful indicators of students' learning and skills to plan transition services; collaborating and linking with community organizations and services to ensure that students with disabilities have access to employment, postsecondary education and independent living opportunities; and supporting student and family participation in planning for transition services.

## Special Considerations

The IDEA is designed to ensure that a student's individual needs—identified through an evaluation process and with input from the student's parents—are addressed to allow the student to participate in the general curriculum and general classroom to the maximum extent possible. As noted on page 3 of this document, the law includes the following special factors the IEP Team must consider when developing a student's IEP to ensure educational services are tailored to the student:

- behavior strategies and supports if a student's behavior impedes his or her learning or learning of others;
- the student's language needs (as they relate to the IEP) if a student has limited English proficiency;
- provision for instruction in Braille and the use of Braille as appropriate if a student is blind or visually impaired;
- provision for communication needs if a student is deaf or hard of hearing; and
- determination of assistive technology devices and services needed by a student [20 U.S.C. §1414(d)(3)(B)].

## *Behavior*

The law includes concepts important to the education of children with disabilities whose behaviors violate school codes of conduct and/or are outside the norms of socially acceptable behavior. If a student's behavior impedes his learning or that of others, the IEP Team must consider strategies, including positive behavioral interventions, strategies and supports to address that behavior [20 U.S.C. §1414(d)(3)(B)(i)].

The OSEP Technical Assistance Center for Positive Behavioral Interventions and Supports<sup>2</sup> (PBIS) indicated that PBIS is a recommended form of intervention for addressing challenging behaviors of students with disabilities. This center is providing capacity building information and technical assistance to schools to effectively and successfully address challenging behaviors within the schools through research-validated practices. One component of positive behavioral intervention and support is a functional behavioral assessment (FBA). The FBA is a strategy to analyze inappropriate behavior to determine its function or purpose and devise interventions to teach acceptable alternative behaviors (Clark, 1999). Research prior to 1997 provided evidence that FBA is an effective approach to plan intervention and reduce problem behaviors for students with developmental disabilities (Drasgow, Yell, & Robinson, 1999). However, researchers caution that there is limited research regarding the use of FBA with students with mild disabilities or emotional disorders in general education classrooms and everyday settings (Drasgow, Yell, & Robinson, 1999).

The law identifies when a school should conduct a functional behavioral assessment and develop a behavioral intervention plan, but does not explain how to do them. As a result, many "how-to" guides have emerged in the literature on functional behavioral assessment since 1997. These guides are provided as written documents (e.g., Deveres, 1999; Educational Resources Information Center, 1998; Gable, Quinn, Rutherford, Howell, & Hoffman, 1998 & 2000; Heil, 1998; Levay & Tilly, 1998; Fad, Patton, & Polloway, 2000; McConnell, Cox, Thomas, & Hilvitz, 2001; Sugai et al., 2000; Tilly, Knoster, Kovaleski, Bambara, Dunlap, & Kincaid, 1998), as well as videocassettes and teleconferences (e.g., Gable & Quinn, 1998-99; Hakela, 1998; McLaughlin, 2000-01). Computer programs to assist educators through the functional behavioral assessment are also available. In addition, a national center committed to improving services for students with emotional and behavioral problems, the Center for Effective Collaborative Practice<sup>3</sup> (CECP), developed and distributed information about collaboration and effective practices, including information about functional behavioral assessment and positive behavioral interventions. The OSEP Technical Assistance Center for Positive Behavioral Interventions and Supports recently released two brochures on incorporating Positive Behavioral Supports into the Individualized Education Plan—one for educators (Riffell & Turnbull, 2002a) and one for parents (Riffell & Turnbull, 2002b). However, there is no empirical research related to the use of functional behavioral assessment and behavioral intervention plans in regard to the IEP.

While many researchers support the use of functional behavioral assessment and behavior intervention plans to meet requirements in the law, they express concerns regarding teachers' knowledge about and effective use of these strategies. Specific pre-service courses, ongoing in-

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<sup>2</sup> <http://www.pbis.org>

<sup>3</sup> <http://cecp.air.org>

service activities, and a new certification area for behavior support specialists are recommended to ensure effectiveness in the use of these strategies (Drasgow, Yell, & Robinson, 1999; Ward, 1998). In addition, researchers recommend that policy makers provide guidance for FBA, define FBA as an integrated set of practices with general parameters rather than specific procedures and integrate its use throughout the special education decision-making process (Tilly et al., 1998).

### *Limited English Proficiency*

No empirical research was found in this literature review regarding limited English proficiency and IEPs. A few guides were available that highlighted cultural diversity issues (Bennett et al., 1998; Fletcher-Carter & Paez, 1997; Quiroz et al., 1999; Zhang & Bennett, 2001), including language differences. There is an increased interest in this population of students and ongoing debate in the field about whether students with limited English proficiency, especially preschool-age students, need or qualify for special education services. This is an important consideration that can affect a student's successful participation in the general curriculum and the regular educational environment. A student's English proficiency must be discussed at the IEP meeting to ensure the student's educational needs are met appropriately.

### *Visual and Hearing Impairments*

A survey of states in early 2000 revealed that 11 states have existing policies, procedures or guidelines to evaluate a student's need for Braille instruction and seven more states were developing these policies, procedures or guidelines (Markowitz, 2000). In addition, some guides for parents include recommendations for designing effective instructional services through the IEP process for specific disability areas such as deaf-blindness, hearing impairment, deafness, visual impairment and autism (Davis, 2001; Duncan, 1997; Fletcher-Carter & Paez, 1997; Frey, 1998; National Organization of Parents of Blind Children, 1998; Todis, Sohlberg, & Glang, 1999). There is increasing information for the education of students with visual and hearing impairments, but additional research is needed to support these efforts.

### *Assistive Technology*

Surveys regarding teachers' use of assistive technology revealed that teachers in one state typically received 24 hours of training in the use of assistive technology and approximately 75 percent of special education teachers use it in their classrooms (York, 1999). However, in another state, teachers felt inadequately prepared and lacked competency to use assistive technology, and 54.7 percent of teachers never received training in the use of assistive technology (Bauder, 1999). These surveys revealed that teachers require training in the use of assistive technology and prefer direct, hands-on training in addition to support from administration and collaboration with other team members to effectively use assistive technology in their classrooms.

Several states have developed information guides about assistive technology for families and educators that identify the legal requirements for consideration of assistive technology, discuss the role of assistive technology in education and describe specific types of assistive technology (Blair, et al., 1999; Golden, 1998; Lee, 1998; North Dakota Department of Public Instruction,

1999; Oestman, Oswald, & Noha, 1997; Watts & Shahan, 1997). A few other guides discuss integrating assistive technology into the general curriculum (Warger, 1998), share guidelines for using assistive technology (Adams, 1999; Daly, 2001) and describe assistive technology services (Margolis & Goodman, 1999). Additional research is needed to examine the use of assistive technology to implement the IEP.

## Summary

The 1997 amendments to the IDEA incorporated some vital changes into the IEP components of the law to enhance opportunities for students with disabilities to gain increased access to the general curriculum and participate more in the regular educational environment. The significant changes that address more specific individual needs and increased involvement of parents in education strengthen the view of students with disabilities as able, competent individuals who are integral contributing members of society.

There has been scattered and limited research about the IEP since the IDEA was reauthorized in 1997 and the final regulations released in 1999. Since the movement for higher standards and increased accountability began before IDEA reauthorization, more research was evident in assessment/accountability and accommodations. The literature reviewed for this document included mostly informational guides and “how-to” manuals and articles to support the understanding and implementation of the new law and regulations.

A number of federally-funded projects and research centers are currently conducting research related to the IEP: the National Center for Access to the General Curriculum (NCAC);<sup>4</sup> the National Center for Educational Outcomes (NCEO);<sup>5</sup> the National Center for Secondary Education and Transition (NCSET);<sup>6</sup> the National Center for the Study of Postsecondary Educational Supports;<sup>7</sup> and the OSEP Technical Assistance Center for Positive Behavioral Interventions and Supports (PBIS).<sup>8</sup> In addition, there are OSEP-sponsored longitudinal studies: the Special Education Elementary Longitudinal Study (SEELS);<sup>9</sup> the National Early Intervention Longitudinal Study (NEILS);<sup>10</sup> the Pre-Elementary Education Longitudinal Study (PEELS);<sup>11</sup> the National Longitudinal Transition Study-2 (NLTS2);<sup>12</sup> and the Study of State and Local Implementation and Impact of the Individuals with Disabilities Education Act (SLIIDEA).<sup>13</sup> OSEP continues to support research efforts that identify promising practices related to the IEP process to strengthen effective teaching and learning, and improve outcomes for students with disabilities.

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<sup>4</sup> <http://www.cast.org/ncac>

<sup>5</sup> <http://www.coled.umn.edu/nceo>

<sup>6</sup> <http://ici.umn.edu/ncset>

<sup>7</sup> <http://www.rrtc.hawaii.edu>

<sup>8</sup> <http://www.pbis.org>

<sup>9</sup> <http://www.seels.net>

<sup>10</sup> <http://www.sri.com/neils>

<sup>11</sup> <http://www.sri.com/peels>

<sup>12</sup> <http://www.sri.com/nlts2>

<sup>13</sup> <http://www.abt.sliidea.org>



## Suggestions for Future Research

Research is critical to assess both the implementation and impact of IDEA and NCLB as it relates to students with disabilities. This literature review suggests research is needed in the following areas:

- the decision-making process for all components of the IEP and how the required components of the IEP document influence the decision-making process;
- the effect of professional development on the decision-making process in IEP development and on educational services and outcomes for students with disabilities;
- the effect of parent involvement on educational services and outcomes for students with disabilities;
- the effect of accommodations on test validity and score comparability;
- the effect of accommodations on test scores;
- instructional accommodations in addition to assessment accommodations;
- the effect of general educators' involvement in IEP development on educational services and outcomes for students with disabilities;
- the effectiveness of both documenting and implementing transition services on the IEP;
- the effectiveness of functional behavioral assessments and positive behavioral interventions in decreasing disruptive behaviors that impede the learning of students with disabilities and others; and
- the effectiveness of supports and accommodations documented on the IEP for special factors such as limited English proficiency, Braille instruction, communication needs for deaf or hard of hearing students and the use of assistive technology in supporting the educational needs of students with disabilities and providing appropriate opportunities for learning and participating in the general curriculum and general education classroom.

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