informa
healthcare

Presumed competence reflected in the educational programs of students with IDD before and after the Beyond Access professional development intervention

CHERYL M. JORGENSEN, MICHAEL McSHEEHAN & RAE M. SONNENMEIER

Institute on Disability/UCED, University of New Hampshire, Durham, USA

Abstract

Background Judgements about students' competence influence the goals of their individualised education programs (IEPs), the location of service delivery, and their placement in general education (GE) as opposed to special education (SE) classes. The purpose of this study was to describe how presumed competence to learn the GE curriculum was reflected in the IEPs of students with intellectual and developmental disabilities (IDD), and in the reported percentage of time that these students spent in GE classes prior to and following the Beyond Access professional development intervention.

Method Five educational teams of students with IDD participated in a professional development intervention that emphasised students' presumed competence to learn grade-level GE curriculum. Students' pre- and post-intervention IEPs were qualitatively analysed and team member reports of percentage time spent in GE classes were averaged.

Results Five categories of presumed competence were identified. Following intervention, emphasis on learning the GE curriculum, a shift in location of service delivery from outside to within the GE classroom, and increased time spent in GE classes were reported.

Conclusions The Beyond Access intervention shows promise for enhancing views of the competence of students with IDD to learn the GE curriculum and for increasing their inclusion in GE classrooms.

Keywords: *Competence, inclusion, general education, professional development, intervention, intellectual and developmental disabilities*

Introduction

[Jamie had the] opportunity to participate in a challenging and supportive academic environment in which [he was] understood to be an active participant and a competent and literate learner. [He] was provided with a text-based system of communication, presuming that he could and would become literate in reading and writing, [and with] rigorous, age-appropriate, academic curricula and literacy experiences, presuming that he could and would achieve academically. (Broderick & Kasa-Hendrickson, 2001, p. 23)

Jamie's story exemplifies the influence of assumptions about competence on the membership, participation, communication, and learning of a student with autism who had been judged to have an intellectual disability when he was very young. The error of that judgement became evident when Jamie was presumed competent, included in general education (GE) classes, taught the GE curriculum, and provided with

a means of communication and other effective instructional supports.

The following review establishes a context for the current study by describing: (i) challenges to traditional constructs of competence for people with intellectual and developmental disabilities (IDD); (ii) the influence of assumptions on students' individualised education programs (IEPs) and learning outcomes; (iii) evidence that teachers can learn to presume that their students with IDD are competent; (iv) how presumed competence can affect educational program design; (v) emerging views on ideas associated with presumed competence; and (vi) an operational definition of presumed competence and "the criterion of the least dangerous assumption."

(i) Challenges to traditional constructs of competence and intellectual disability

Traditionally, competence has been defined by people's intelligence – how smart they are and how

they use their intelligence – in other words, what they can do. Intelligence has been assumed, by some, to be a fixed characteristic of an individual that does not change over time. According to this view, intelligence refers to a general mental ability, and involves the ability to reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly, and learn from experience. Within the human service and education systems, the competence of children and adults with IDD has traditionally been measured by their performance on standardised intelligence (IQ) and adaptive behaviour scales.

IQ-based measures of competence, such as the *Wechsler Intelligence Scale for Children* (Wechsler, 2003) and the *Wechsler Intelligence Scale for Adults* (Wechsler, 1997), have been criticised because they may document an individual's poor performance on items that characterise the disability itself. They may also reflect the absence of high quality instruction and educational opportunities, and may be susceptible to threats to test validity (Donnellan & Leary, 1995; Gould, 1981; Smith, 1985).

Adaptive behaviour, as a measure of what people with IDD can do, is defined as the sum of the conceptual, social, and practical skills that people have learned, and the way they apply these skills to function in their everyday lives. The use of adaptive behaviour measures such as the *Vineland Adaptive Behavior Scales* (Sparrow, Balla, & Cicchetti, 2005) for people with IDD has been criticised because they do not take into account the interaction between the person and the quality of supports available to them. Ros Blackburn, a self-advocate with autism, has described how she cannot make a sandwich or dress herself, but is a highly competent public speaker with a particular aptitude for language (Blackburn, 2006).

In 2006 the largest professional organisation devoted to individuals with IDD – The American Association on Mental Retardation (AAMR) – changed its name to The American Association on Intellectual and Developmental Disabilities (AAIDD, 2007b). The organisation has also changed its definition of "intellectual disability" 10 times since 1908. The 2007 definition recognises that:

> …an understanding of mental retardation[1] requires a multidimensional and ecological approach that reflects the interaction of the individual with the environment, and the outcomes of that interaction with respect to independence, relationships, societal contributions, participation in school and community, and personal well being. (AAIDD, 2007a)

Another challenge to traditionally held beliefs about the capabilities of people with IDD is the 2004 "reauthorization" of the US Special Education law which requires that all students with disabilities have access to, participate in, and make progress in the GE curriculum; and that they pursue that curriculum, to the maximum extent appropriate, in (and with a clear preference for) the GE classroom (Individuals with Disabilities Education Improvement Act, 2004; Wehmeyer, 2003). This legal requirement is supported by a growing body of research showing that students with IDD are more engaged, develop better communication, social, and literacy skills, and perform better on standardised measures of reading and maths skills when they are included in GE classes (Baker, Wang, & Walberg, 1994/1995; Blackorby, Chorost, Garza, & Guzman, 2003; Downing, Morrison, & Berecin-Rascon, 1996; Erickson, Koppenhaver, Yoder, & Nance, 1997; McGregor & Vogelsberg, 1998; Ryndak, Morrison, & Sommerstein, 1999; Wehmeyer, Lattin, Lapp-Rincker, & Agran, 2003). Wehmeyer and Agran (2006) propose that: "The place where students with significant intellectual disabilities have access to the general curriculum is the general education classroom…" (p. 20).

There persists, however, a "limited consensus among educators and policymakers regarding appropriate achievement expectations for students with disabilities, particularly those with cognitive disabilities" (McGrew & Evans, 2004, p. 1). So although the law expressly requires holding all students to high expectations and providing them with access to the GE curriculum, and there is a growing body of research that supports the rationale behind this law, US policies still sanction modified academic standards for students with IDD (Individuals with Disabilities Education Improvement Act, 2004; No Child Left Behind Act, 2001). Thus these students experience the lowest percentages of time spent in GE classes (United States Department of Education, 2006), with both special education and related services often being provided in segregated environments.

(ii) The influence of assumptions on students' educational programs and learning outcomes

It has been theorised that teacher expectations about students' ability to learn – communicated in both explicit and subtle ways – can be more influential on learning outcomes than the students' inherent abilities or the teachers' instructional methods. This phenomenon is related to the construct of the "self-fulfilling prophesy" (Merton, 1948). In

Rosenthal and Jacobson's (1968) classic study, teachers were told that several of their students were expected to make extraordinary progress during the current school year. Unbeknownst to the teachers, the identified students comprised a stratified random sample from the class, and included some students who had performed well in the past as well as others who had not. At the end of the year, the identified students did, in fact, make greater gains than would have been expected based on student abilities alone. This "Pygmalion effect" suggests that when optimistic expectations are communicated from teachers to students, they may have a demonstrable impact on student motivation and learning.

Clark (1997) studied the influence of teacher attributions on predictions of future achievement in an experiment where teachers were given information about students' disability status, the amount of effort they put into their schoolwork, and their academic ability. The results suggested that teachers made causal attributions, and subsequently responded to students with learning disabilities, at least in part on the basis of the belief that these students will fail more often than their peers without disability. Rolison and Medway (1985) found similar results in a study of the effects of pre-performance information on classroom teachers' expectations and attributions. Teachers were found to have higher expectations of students labelled as "learning disabled" compared to students labelled as "mildly intellectually disabled".

(iii) Evidence that teachers can learn to presume their students with IDD are competent

Researchers have sought to understand the conditions under which positive attributions and predictions of performance might be held about individuals with IDD, affecting both their educational and life outcomes. These conditions include: (a) teacher self-efficacy, defined as teachers' belief in their ability to positively influence student achievement; (b) teachers' membership within a supportive team of educators that has shared understanding, commitment to similar goals, and adequate time for collaborative work; and (c) the availability of comprehensive professional development and coaching related to the adoption of new beliefs and practices. In a study on the attitudes of special education teachers towards the use of augmentative and alternative communication (AAC), Soto (1997) found that "teachers' perceptions of students' abilities appeared to be strongly affected by perceptions of their own skills and responsibilities to provide communication training in the classroom"

(p. 186). Giangreco, Dennis, Cloninger, Edelman, and Schattman (1993) found that when teachers were part of a collaborative team, received facilitative help from specialists, and possessed attributes such as willingness to learn and flexibility, they were more likely to experience a true transformation in their attitude towards their students with significant disabilities. Hunt, Soto, Maier, Muller, and Goetz (2002) also found that when teachers who were members of collaborative teams conscientiously implemented student support plans, they reported improvements in academic performance and increased participation in the GE core curriculum by students who required AAC. Ross (1994) sought to apply the principles of self-efficacy research to the design of a long-term in-service professional development program to promote cooperative learning. Although the in-service program was found to have had a positive impact on teachers' overall sense of teaching efficacy, their beliefs about their own ability to affect individual students' learning did not change. The authors hypothesised that the absence of a change in personal efficacy was related to the fact that the in-service training program did not include a hands-on, in-class support component.

(iv) How presumed competence can affect educational programming

Judgements about students' competence can have an impact on specific features of their IEPs, including: (i) the relative emphasis on academic versus life skills goals and instruction; and (ii) students' placement in GE as opposed to SE classes (Giangreco & Putnam, 1991). The location of service delivery – as a separate consideration from students' primary educational placement – may also be an indicator of educators' judgements about students' competence. Research into AAC has shown better outcomes with integrated delivery of communication services and supports (Hunt et al., 2002). Consistent with Calculator and Jorgensen's (1991) proposed set of best practices for AAC, York, Giangreco, Vandercook, and Macdonald (1992) noted that:

> Greater inclusion of students with diverse needs into general education classes and other integrated environments has created the need for support personnel to modify their traditional methods of service provision … this requires two major logistical changes: 1) flexible scheduling so that support personnel can spend time in general education classes and other integrated environments, and 2) scheduling opportunities for people to collaborate. (p. 111)

(v) Emerging views on ideas associated with presumed competence

Views about the presumed competence of people with IDD have been investigated primarily through qualitative studies. For example, Bogdan and Taylor (1989) investigated how some non-disabled people in caring relationships with people with severe disabilities constructed competence as a characteristic of simply being human. The authors found that these non-disabled people discounted the labels and professional judgements about their friend's abilities, and attributed to them the ability to think, reason, and communicate. They did so based on intuition, by observing small variations in behaviour and mood, and by taking the perspective of the person with a disability, imagining what they might be feeling or thinking. They held the view that "a person could have full thinking capacity, be 'intelligent' and reflective, but be locked in a body that is incapable of or severely limited in its capacity for communication" (p. 139).

Kasa-Hendrickson (2005) studied the way that four teachers who had non-verbal students with autism in their classes constructed their competence, and found that when the teachers were faced with messages from people in authority about their students' incompetence, they "held on to their optimistic outlooks" (p. 61) about the students' ability to learn. These teachers searched for situations in which their students demonstrated competence, even if it meant giving a broad interpretation to seemingly ambiguous behaviours. They provided access to the GE curriculum for their students with autism by choosing instructional activities that naturally accommodated student diversity, such as cooperative learning and hands-on projects.

Educators who view the label of "intellectual disability" as a social construct – created from a set of culturally bound assumptions – may be more likely to presume competence and support students' full membership, participation, and learning within the GE classroom (Biklen & Duchan, 1994; Kliewer, Biklen, & Kasa-Hendrickson, 2006; Rubin et al., 2001). They may look for and expect to find competence, in spite of the student's label (Biklen, 1999; Kasa-Hendrickson, 2005). Furthermore, they might understand that "in assessing the effectiveness of participation in academics, it is important to consider not only the student's skills, but also those of the people around him or her, of supportive people in the setting, and the impact of the setting itself" (Biklen, 1999, p. 51).

(vi) An operational definition of presumed competence and the "criterion of the least dangerous assumption"

A framework for resolving lingering uncertainties about students' abilities and the design of their educational program can be found in the *criterion of the least dangerous assumption.* Donnellan (1984) reflected upon this criterion in the following way:

> Given that the long-term goal of education is to ensure that students acquire the skills necessary to be able to live, work, and recreate as independently as possible as adults; and given that there are a variety of educational means or strategies currently available for instruction; and given that, through lack of conclusive data, we are currently forced to make assumptions about the relative impact of various strategies on the long-term goals, which assumptions will have the least dangerous effect on the likelihood that the goal will be attained? (p.148)

Donnellan answered this question by suggesting that the least dangerous assumption is to assume competence, and to provide opportunities consistent with high expectations, because to assume *incompetence* and not provide such opportunities could be more harmful, if one's assumptions were eventually to be proved wrong. Likewise, Biklen (1999) offered "Guiding Principles for creating contexts for communication and participation", and stressed that "difficulties with demonstrating ability not be taken as evidence of intellectual incompetence" (p. 50). Furthermore, he argued that "as a matter of basic sensitivity and good educational practice, educators must presume that the person is intelligent" (p. 50).

Striving to construct an operational definition of presumed competence, Jorgensen (2006) integrated Donnellan's "least dangerous assumption" principle with Biklen's recommendation to "presume competence", and produced a quantifiable benchmark for achievement. She proposed that "the least dangerous assumption is to presume a student is competent to learn general education curriculum and to design educational programs and supports based on that assumption" (Jorgensen, 2006). To date, no empirical studies have described the impact on students' educational programs of a professional development model, including both workshops and on-site coaching, using this presumed competence perspective for students with IDD.

Aim of this study

The aim of this study was to describe how Jorgensen's operational definition of presumed competence to

learn GE curriculum was reflected in the IEPs of students with IDD, and the reported percentage of time these students spent in GE classes before and after their educational teams participated in the Beyond Access professional development intervention.

Method

Informed consent

This research was approved by the University of New Hampshire's Institutional Review Board, which also assured participants' informed consent and confidentiality.

Participants

Students. During the 2005/2006 school year, five students from two elementary schools in south-eastern New Hampshire were selected for

participation in this study based on the following selection criteria: (a) they had been given the label of "IDD"; (b) they were eligible for the New Hampshire Alternate Assessment; (c) they could benefit from AAC and/or assistive technology (AT) to support their learning; and (d) they were placed in GE classes for at least 50% of the day in at least two core academic areas (e.g., language arts, maths, social studies). The students ranged in age from 7 years, 5 months to 8 years, 0 months, with a mean age of 7 years, 8 months (see Table 1). The students used a variety of unaided communication means, including facial expressions, natural gestures, sign language, and speech. Four of the five students had been introduced previously to AAC strategies, including the use of picture communication symbols, switches, and electronic communication devices.

Educational teams. The five educational teams (three from one school and two from the other) were

Table 1. Student characteristics at the commencement of the Beyond Access intervention

Student	Age	Gender	Grade	Special education label	Developmental level	Unaided communication repertoire	Aided communication and assistive technology
Anna	7 yrs, 10 mths	F	2	Multiple disabilities (mitochondrial disorder, seizures), visual impairment	1 yr, 6 mths to 2 yrs, 6 mths	Vocalisations, gestures, physical movement, facial expressions, a few signs, verbalises familiar 1–2 word phrases, word approximations	Single switch, photos, communication board
Nelson	7 yrs, 5 mths	M	2	Autism, speech and language impairment, behaviour concerns	Not available	Uses simple sentences to express basic needs, omits grammatical forms, MLU=5 words, struggles with asking questions, responds well to directions	Computer as tool for learning, picture schedules
Travis	7 yrs, 9 mths	M	2	Developmental delay (pervasive developmental disorder – not otherwise specified), speech and language impairment	1 yr, 8 mths	Primary means of communication is verbal; below age level receptive, expressive, and pragmatic language skills; difficulties with social understanding/ social skills	Visual supports, picture schedules, task cards
Susan	8 yrs, 0 mths	F	2	Multiple disabilities, other health impairment (spina bifida), speech and language impairment	IQ<50 Adaptive behaviour: 1 yr, 6 mths to 2 yrs	Body language, gestures, inconsistent use of a few signs, vocalisations, verbalises a few familiar single words and short phrases; follows 1-step directions	BIGmack® communicator, picture communication symbols, choice board
Peter	7 yrs, 11 mths	M	3	Autism	Not available	Gestures, some sign language, limited verbal abilities, difficulties with receptive and expressive language, and social interactions	Picture communication symbols, picture schedules, task cards, DynaMyte™ AAC device (introduced), computer for learning

Note. Pseudonyms have been used to protect the students' privacy.

comprised of the individual student's parents/ guardians, GE teacher, SE teacher, and paraprofessional (the term "paraprofessional" is used generally in the United States, and specifically in these schools, to refer to a teacher's aide who is assigned to assist and work with an individual student with IDD). Related service providers (i.e., speech-language pathologists, occupational therapists, physical therapists), the special education administrator, and the school principal were also part of the team.

The intervention: Beyond Access

Beyond Access (BA) is a model of professional development that supports educational teams to promote learning of the GE curriculum by students with IDD (for details regarding implementation of the BA model, see McSheehan, Sonnenmeier, Jorgensen, & Turner, 2006; Sonnenmeier, McSheehan, & Jorgensen, 2005). As part of the 10-month BA intervention, teams participated in a variety of professional development activities that emphasised students' presumed competence, including a 2-day orientation workshop, subsequent monthly workshops, and on-site technical assistance by BA project staff (MM and CJ).

Training in presumed competence. BA project staff presented the concept of presumed competence (Jorgensen, 2006) during a 2-day orientation workshop. The concept was revisited, reflected upon, and clarified during seven monthly 1-day workshops on topics including effective team collaboration, instructional planning, AAC and AT, and positive behaviour supports. Team members discussed various assumptions about student learning and the potential long-term impact of these assumptions on educational program design and student outcomes.

Operationalising presumed competence. Team members were asked not to make any judgements about student learning during two contact classes per day until they could be confident that the student was fully participating in learning activities with high quality supports. Presumed competence was operationalised by: (a) designing and providing the communication supports necessary to allow the student to ask the same questions, make the same comments, and give the same answers as his or her classmates; (b) designing and providing instructional materials so that the student had access to the same information as his or her classmates; (c) documenting the student's

membership and participation in the GE classroom; and (d) assessing the student's learning of the GE curriculum (McSheehan et al., 2006; Sonnenmeier et al., 2005).

Coaching in presumed competence. Team members were provided with on-site coaching by BA project staff during weekly 1-hour instructional planning and evaluation meetings. Prior to the intervention, team members would typically ask questions such as: "Can this student participate in this lesson?" and "Will this student ever learn this material?" when planning for a student's involvement in instruction. During the intervention, team members were encouraged to ask questions more aligned with presumed competence, such as: "What supports are needed so the student can participate in this lesson like his or her classmates?" and "What are alternate forms of communication or demonstration of learning that mirror those of classmates without disabilities?"

In-class modelling and coaching were provided by BA project staff for specific communication and instructional strategies consistent with presumed competence. For example, a BA project staff member supported a student to respond to questions asked by the teacher by supplying four choices of possible answers. In another example, a BA project staff member coached a paraprofessional to make sure the student was in physical proximity to classroom activities rather than remaining at a desk separate from the rest of the class. In yet another example, special educators, speech-language pathologists, and occupational therapists were encouraged to provide support to students within the classroom while the students were engaged in instructional activities led by the GE teacher.

Team members were coached to evaluate student work by first asking if and how effectively the required supports had been provided to the student before making judgements about student learning. They also reflected on how well the team was doing in applying the guiding principle of presumed competence during at least three formal review and reflection meetings, corresponding with periodic reporting on student progress (i.e., report cards and IEP progress notes).

Data collection: IEPs

The first data set for this study consisted of the five students' pre- and post-intervention IEPs. The IEP was chosen as a unit of analysis because it is a standard document completed for every student who receives special education services (Shriner & DeStefano, 2003). Two IEPs were collected for each student:

one that had been completed the year prior to the team's participation in the BA intervention, and a second that was developed 6–10 months after commencement of the intervention. IEP statements from each student's Program Overview, Annual Goals, Short-term Objectives, and Placement and Location of Services sections were included in the analysis. IEP statements from their Student Profile, Present Level of Performance, and Supports (including accommodations and modifications) sections were not specific enough to be coded and were eliminated from the analysis. Table 2 describes the sections of the IEPs that were included in the data analysis.

Data analysis: IEPs

An inductive analysis process, based in an interpretivist research philosophy and methods (Bogdan & Biklen, 2003; Merriam, 1998) was used to examine the IEPs.

Our investigation began with a search for examples of statements that were consistent or inconsistent with the guiding principle: *The least dangerous assumption is to presume a student is competent to learn GE curriculum and to design educational programs and supports based on that assumption* (Jorgensen, 2006). An iterative analysis process was applied in this investigation, including open coding, identifying potential paths of inquiry, applying and comparing promising coding frames, developing selective coding, redefining concepts, recoding the data, and further analysis (Agar, 1996; Charmaz, 2006;

Emerson, Fretz, & Shaw, 1995; Schram, 2007). The steps in this process were as follows:

1. Researcher A (CJ) and Researcher C (RS) conducted an initial review of all pre- and post-intervention IEPs to identify examples that were consistent or inconsistent with the guiding principle.
2. Researcher A conducted a comprehensive review of all pre- and post-intervention IEPs sorting consistent and inconsistent examples (dichotomous categories).
3. After training by Researcher A in the definitions and codes, Researcher B (MM) reviewed the pre-intervention IEPs and sorted the consistent and inconsistent examples.
4. Researchers A and B discussed their coding decisions and noted agreement, disagreement, and data that did not fit into the initial dichotomous coding categories. Differences in coding were discussed and the definitions of the dichotomous coding categories were revised until both researchers were in 100% agreement. These revisions included the specification that consistent examples of Annual Goals and Short-term Objectives needed to reflect the priority of learning grade-level or near grade-level GE curriculum, while inconsistent examples included learning of specialised curriculum, functional skills, and other non-academic skills.
5. Researcher B coded the post-intervention IEPs using the revised definitions of the

Table 2. Description of the sections of individualised education programs (IEPs) used for analysis

IEP section	Description
Program Overview	This section outlines some of the required Special Education services, such as: (a) behavioural and academic expectations (i.e., "follow school policy" or "modified"); (b) supplemental services/aide; (c) transportation; (d) physical education (regular or adapted); (e) the type of diploma the student will receive (regular or alternative); (f) whether the student has a transition plan (if 14 or older) or vocational component to his or her education; and (g) a description of the student's participation in large-scale assessments (i.e., regular, modified, or excluded).
Annual Goals	Annual goals reflect the broad priority learning outcomes that students are expected to achieve in a school year. They include: (a) the goal area (e.g., reading, occupational therapy, communication); (b) the specific skill or behaviour that the goal relates to (e.g., "Student will develop his sight word vocabulary"/"Student will continue to expand on his ability to initiate conversation and respond to a variety of communication partners using AAC"); (c) the benchmark or level of the expected measurable performance (e.g., "N will increase his maths skills to the grade 2.4 level"); and (d) the context in which the behaviour or skill will be demonstrated (e.g., "During silent reading..." or "When giving a book report...").
Short-term Objectives	"Short-term objectives provide a process by which to break down an annual goal into a sequence of smaller parts...to offer additional clarity to the priorities that have been [stated] as annual goals...one of the widely accepted formats is to include three distinct components [in Short-term Objectives]: (1) conditions, (2) behavior, and (3) criteria." (Giangreco, Cloninger, & Iverson, 1998, p. 137)
Placement and Location of Services	There are several references within the IEP to various aspects of students' educational placement and services, including: (a) the type, duration, and frequency of service; (b) who is providing it; and (c) the location in which the service will be provided.

Note. The Student Profile, Present Level of Performance, and Supports sections of the IEPs were eliminated from the final data analysis.

dichotomous coding categories (consistent or inconsistent).

6. Researchers A and B discussed their coding results again, noting that four themes were becoming apparent with respect to Annual Goals and Short-term Objectives, differentiated by their relationship to: (i) learning of grade-level GE curriculum; (ii) learning of lower level or specialised curriculum; (iii) classroom participation with a potential to learn curriculum; and (iv) acquiring functional skills.

7. Researchers A and B recoded the data from the post-intervention IEPs using this four-category framework. Program Overview statements were not specific enough to be coded using this framework, and were excluded from the rest of the analysis.

8. Researchers A and B discussed their coding results again, noting that the examples of Annual Goals and Short-term Objectives in the category of "learning of lower level or specialised curriculum" might be better represented in two distinct categories. Thus, a five-category framework of presumed competence in Annual Goals and Short-term Objectives was described, and definitions were revised again for each of the coding categories.

9. Researchers A and B recoded all of the Annual Goals and Short-term Objectives using the revised definitions of the coding categories, reaching 100% agreement for coding each into one of the five identified categories.

10. At the conclusion of the IEP analysis, definitions of the coding categories were established, and representative exemplars were chosen. Presence or absence of categories was noted in each of the IEPs.

Data analysis: Location of SE service delivery statements

A second analysis was completed on the service delivery statements in each student's pre- and post-intervention IEP. Using the same iterative analysis process described above, service delivery statements that were consistent or inconsistent with the guiding principle of presumed competence were identified. Consistent service delivery location statements reflected the student's learning within the GE classroom in the local school, and inconsistent examples reflected the student's learning in any other location. Following a second review of the statements, three themes became apparent with respect to Location of Service Delivery: (i) services provided in the GE classroom in the local school; (ii) services provided in an SE classroom or other SE

environment in the local school; or (iii) services provided outside the local school. The service delivery statements were coded according to these themes and tallied.

Data collection and analysis: Percentage of time in the GE classroom

The second data set consisted of team members' estimates of the percentage of the school day spent in the GE classroom by the students 10 months post-intervention (selected from one of the following possible options: 0–20%, 20–40%, 40–60%, 60–80%, 80–100%). The mean response was calculated for each student.

Results

Analysis of the ten IEPs revealed five categories of presumed competence reflected in Annual Goals and Short-term Objectives: (i) competence to learn grade-level GE curriculum; (ii) competence to learn lower than grade-level GE curriculum; (iii) competence to learn specialised or alternate[2] curricula; (iv) competence to participate, with the potential to learn the GE curriculum; and (v) competence to acquire non-academic skills. Analysis of the IEPs also revealed a pre- to post-intervention shift towards IEP goals and objectives that presumed competence to learn grade-level GE curriculum.

Presumed competence was suggested also in the IEP descriptions of the location of SE instruction and related service delivery. Comparisons of pre- and post-intervention IEPs revealed a shift towards providing more SE instruction and related services in the GE classroom rather than in SE environments.

Finally, presumed competence was suggested in team member estimates of the percentage of time students spent in the GE classroom, with a pre- to post-intervention shift toward more time in the GE classroom.

Definitions and exemplars of presumed competence

The five categories of presumed competence revealed by analysis of the Program Overview, Annual Goals, and Short-term Objectives sections of the IEPs each reflect a different emphasis and set of priorities for student learning and communication. Exemplars of each category are presented in Table 3.

Category A. Competence to learn grade-level GE curriculum. This category is defined by goals and other programmatic elements related to learning

Table 3. Exemplars of presumed competence categories reflected in students' individualised education programs (IEPs) pre- and post-intervention

Presumed competence category	Pre-intervention	Post-intervention
A. Learn grade-level GE curriculum	Travis will improve overall expressive and receptive language skills to an age-appropriate level.	For each social studies unit, Peter will demonstrate enduring understanding of three main curriculum concepts, people and events, vocabulary words, and relationship of unit to self.
B. Learn lower than grade-level GE curriculum	Susan will identify CVC words and lower than grade-level spelling words.	Nelson will increase his sight word vocabulary to 2.5 grade level of the GE curriculum reading series (while in 3rd grade).
C. Learn specialised or alternate curriculum	Peter will read and obey all safety/survival signs.	Susan will demonstrate 1:1 correspondence by pointing to each word as she reads.
D. Participate with the potential to learn GE curriculum	Nelson will continue to improve his ability to attend to and participate in age-appropriate activities with his peers within the context of the classroom.	After reading and listening to a selected passage, Anna will participate in answering questions by activating a VOCA (voice output communication aid) when several possible right answers are provided.
E. Acquire non-academic skills	Anna will use her Karaoke machine to imitate sounds.	Peter will demonstrate increased attention to tasks requiring use of his visual perceptual and motor skills.

and communicating about chronological, age-appropriate, grade-level GE curriculum. For any student not communicating using speech, writing, or sign language to meet these goals, aided and unaided AAC is utilised. The symbol set includes traditional orthography in whatever sensory representation is needed by the student (e.g., Braille, print, finger spelling).

Category B. Competence to learn lower than grade-level GE curriculum. This category is defined by goals and other programmatic elements related to learning and communicating about lower than grade-level GE curriculum. For any student not communicating using speech, writing, or sign language to meet these goals, aided and unaided AAC is utilised. The symbol set includes traditional orthography in whatever sensory representation is needed by the student.

Category C. Competence to learn specialised or alternate curriculum. This category emphasises goals and other programmatic elements related to learning and communicating about academic subjects, generally, but not explicitly associated with the student's chronological, grade-level GE curriculum. These were also related to specialised or alternate curricula. For any student not communicating using speech, writing, or sign language to meet these goals, aided and unaided AAC is utilised. The symbol set may or may not include traditional orthography.

Category D. Competence to participate with the potential to learn the GE curriculum. This category is defined as an emphasis on participating in chronological, age-appropriate, grade-level GE learning activities with a focus on developing access skills such as receptive and expressive communication. There is no expectation that the student will demonstrate learning of the GE curriculum. For any student not communicating using speech, writing, or sign language to meet these goals, aided and unaided AAC is utilised. The symbol set includes traditional orthography in whatever sensory representation is needed by the student.

Category E. Competence to acquire non-academic skills. This category is defined by educational goals and other programmatic elements related to learning basic skills and not related to learning academic subjects; for example, object permanence, eye contact, orientation to speaker, expressing wants and needs, activities of daily living, personal care, or foundational cognitive skills.

Comparison of annual goals and short-term objectives pre- and post-intervention

Annual Goals and Short-term Objectives statements were tallied in the pre- and post-intervention IEPs with respect to their correspondence with Categories A, B, C, D, or E. With the exception of two short-term objectives in maths (one for Susan and one for Peter) and one annual goal in communication (for Travis), Categories A and B (i.e., grade-level or

lower than grade-level) were not represented in the pre-intervention IEPs. In Anna's pre-intervention IEP, all of the annual goals and short-term objectives were classified as Category C, D, or E. In Susan's pre-intervention IEP, all of the annual goals and all but one of the short-term objectives were classified as Category C, D, or E.

Following the intervention, Category A and B annual goals and short-term objectives were represented in all five students' IEPs, and there were no Category E statements. Anna's post-intervention IEP statements primarily demonstrated Category D examples, with one annual goal in Category B. In Susan's post-intervention IEP, all statements were classified as Category A, with the exception of one short-term objective from Category C, and one annual goal and one short term-objective each from Category D.

Thus, for four of the five students, there was a shift towards annual goals and short-term objectives that focused on the students' learning grade-level curriculum, and for Anna, a shift from non-academic skills and alternate curricula to goals and objectives that reflected participation in GE standards-based activities.

Comparison of location of SE instruction and related services delivery pre- and post-intervention

Exemplars of pre- and post-intervention IEP statements regarding location of SE instruction and delivery of related services (OT, PT, speech-language therapy) are presented in Table 4. These statements were tallied by location: (i) in the GE classroom in the local school; (ii) in a SE classroom or other non-GE classroom environment in the local school; or (iii) outside the local school. Analysis of Anna's pre-intervention IEP identified that all SE and related services were provided in a home-based program or, on the rare occasions that she came to school, in a SE setting. Four out of 14 statements on the remaining students' pre-intervention IEPs indicated service delivery in the GE class and 10 out of

14 statements indicated service delivery in a SE environment.

Analysis of the post-intervention IEPs of all five students found that 14 out of 17 services were provided in the GE classroom in the local school, with no services being provided outside the school. There is a notation on several of the post-intervention IEPs: "With parent permission, services can be modified to in/out as teacher/service provider deems necessary".

Comparison between pre- and post-intervention service delivery shows a shift towards the provision of SE and related services delivery in the GE classroom.

Percentage of time students spent in the GE classroom

Team members were asked to estimate the percentage of the school day students spent in the GE classroom 10 months post-intervention. A review of baseline and mid-year measures of percentage of the day spent in the GE classroom for these five students is reported elsewhere (McSheehan et al., 2006), and reveals that students were spending less than 60% of their time in the GE classroom (and for Anna, only 0–20%). Comparison with the post-intervention data showed a trend during the year towards an increase in the percentage of time all five students spent in the GE classroom. Post-intervention, two students (Travis and Peter) were reported to be spending between 80% and 100% of the school day in the GE classroom and three students (Anna, Susan, and Nelson) were reported to be spending approximately 80% of the day in the GE classroom.

Discussion

The results of this study demonstrate that after participating in the Beyond Access professional development intervention, educational team members wrote IEPs that reflected a view of students as competent to learn grade-level GE curriculum at levels of achievement not usually associated with

Table 4. IEP statements regarding the location of SE instruction and delivery of related services pre- and post-intervention

Location of instruction and related services	Pre-intervention	Post-intervention
Within the local school and the GE classroom	Delivery of speech-language and occupational therapy services for Travis is specified as regular class.	Services to Susan will be provided by speech-language specialist and occupational therapist in regular class.
Within the local school, outside of the GE classroom	Related services to be provided outside the regular class when Anna is in school.	Occupational therapy will be provided to Anna in two 30-minute units per week in a pull-out setting.
Not within the local school	Anna will receive 30 hours home-based programming.	

students with IDD. Furthermore, following the intervention, changes also occurred in the location of SE instruction and related services and in the percentage of the day that team members reported students spent in GE classes.

Presumed competence reflected in annual goals and short-term objectives

Prior to the intervention, all five students had been described as having moderate to severe intellectual disabilities, and none had grade-level GE curriculum goals or objectives in their IEPs. The shift in the focus of students' annual goals and short-term objectives following the intervention to include more statements related to learning the GE curriculum may be due to a variety of factors. The BA professional development intervention workshops presented philosophical, historical, and research-based information about presumed competence; engaged team members in discussions about the risks and benefits of presuming competence or incompetence; and showed video-tapes of real-life scenarios where heightened expectations and enhanced supports in the GE classroom were related to improvements in learning of the GE curriculum by students with IDD. The BA project staff had asked team members at the outset to "just for now, presume that the student can learn and then design an educational program based on that assumption". The BA project staff emphasised that team members did not need to make a lasting change in their beliefs about the students' capabilities, and reminded team members that they would be given frequent opportunities to check their provisional assumptions against student performance data. Many examples of instructional and communication supports based on presumed competence were provided, and hands-on support was provided as team members redesigned their own instructional materials and plans. The intervention included weekly on-site modelling and coaching by BA project staff to assist team members to implement and evaluate their new skills and practices. The BA project staff also worked with school principals and special education administrators to ensure that teams had regularly scheduled instructional preparation time in which to plan for upcoming lessons, reflect on student performance, and discuss ways to improve their instruction.

The findings from this study are consistent with those of other studies which have demonstrated that educators make transformative changes in both beliefs and practices when they are involved in collaborative learning within day-to-day work structures (Giangreco et al., 1993; Hunt et al., 2002). It may not be enough to learn about presumed

competence by reading the literature or attending a one-day workshop; team members are likely to need ongoing support to make significant changes in their assumptions and, ultimately, in their practices. The intervention was delivered at the team level with all workshops and on-site coaching provided to all members of the team. This may have created a community of supportive learners within the team, so that if one team member experienced a lack of confidence in the presumed competence principle, he or she had other trusted team members and university-based "critical friends" to support problem-solving, risk-taking, in-depth reflection, and consideration of differing points of view.

Changes in team members' expectations for student learning may also reflect their own increased self-efficacy. As they tried out new instructional methods, and were provided with regular support to reflect on both their successes and challenges, they may have become more confident in their ability to teach students with IDD more rigorous academic content (Ross, 1994). Even if the team members did not change their fundamental beliefs about the students' capabilities, they may have internalised the principle of the "least dangerous assumption": that to be wrong about presuming a student's competence to learn the GE curriculum is less dangerous than to be wrong about presuming that a student *cannot* learn the GE curriculum. The approach of these educational teams may thus be comparable to that of the teachers described by Kasa-Hendrickson (2005), in that they put into practice the theory of presumed competence by providing access to the GE curriculum in the GE classroom for students who were not yet demonstrating their understanding of that curriculum.

Presumed competence reflected in location of service delivery

Following the intervention, the teams' decisions about where to deliver SE and related services appears to have shifted, reflecting less "pull out" and more "push in" services. Prior to the intervention, team members may have held the view that there was no disadvantage in removing students from GE classes, or that "pull out" instruction was necessary for learning critical communication or academic skills. Following the intervention, team members appear to have adopted the belief that there is a distinct advantage in keeping students in the GE classroom to benefit from instruction from the GE teacher and from learning models provided by their classmates. The BA project staff modelled new methods for integrating SE and related services

into typically occurring instructional and daily routines. When the team members tried new methods of service delivery and found that students were able to learn important target skills, they may have written the students' post-intervention IEPs to reflect their growing confidence in the efficacy of an integrated service delivery model. This finding is consistent with the findings and recommendations of previous research (Calculator & Jorgensen, 1991; Giangreco & Putnam, 1991; Hunt et al., 2002; York et al., 1992) regarding the provision of related services within instead of outside the GE classroom.

Presumed competence reflected in the reported percentage of time spent in the GE classroom

Changes in team members' estimates of the percentage of the school day that students spent as participating members of GE classes reflected another shift between pre-intervention and post-intervention reports. The percentage increased for all five students to 80% or more of the day. These findings may be related to a variety of factors. Given that an expressed goal of the BA intervention was to increase students' time in the GE classroom, team members may have been swayed by social desirability pressure to please the researchers. When team members' expectations for student learning increased and they observed students learning within the GE classroom, team members may have adopted the belief that students needed to spend more time in the GE classroom so that they could receive instruction from the most qualified content specialist – the GE classroom teacher. Thus team members may have adopted Wehmeyer and Agran's (2006) proposition that: "The place where students with significant intellectual disabilities have access to the general curriculum is the general education classroom..." (p. 20).

Risks of presuming or not presuming competence

Some might argue that there are risks in applying this study's definition of presumed competence to the educational programs of students with IDD. For example, focusing on GE curriculum might result in a lack of attention to teaching daily living skills, pre-symbolic communication skills, or perceived developmentally appropriate skills. Others might argue that an incorrect presumption of competence could negatively affect a student's self-esteem. There is also the risk that teachers who presume competence and strive to provide high quality instructional and communication supports might be frustrated by a lack of joint planning time with other team members, or of the administrative support necessary to engage in what is clearly a demanding process. Educators who presume competence, yet do not work under conditions supporting presumed competence, may experience limited success for themselves and their students. However in this study, when the presumptions of competence varied among team members, for example, skilled university-based "critical friends" were available to facilitate consensus-building.

On the other hand, there might also be risks inherent in not presuming competence. Teams might choose to prioritise educational goals that underestimate students' abilities, deny them access to challenging instructional content, and fail to provide them with a communication system that would enable them to converse with classmates and others about age-appropriate topics and ideas and to demonstrate what they do know. Until further research is undertaken to determine whether causal relationships exist among educational expectations, placement in GE classes, and student learning, what criterion might be used to judge which decision is right for a particular student? We would suggest that presuming competence to learn academic knowledge and skills is the least dangerous assumption, and will "first, do no harm" (Hilliard, 1992, p. 168). Applying this presumption does not imply that functional life skills are not an important educational goal, but rather, that these skills should be taught at a time and place that does not interfere with instruction in GE curriculum in the GE classroom.

Limitations

The limitations of this research should be taken into account when considering its implications. First, this was a descriptive study of five students' IEPs written by their educational teams, rather than an experimental study. Although team members gave anecdotal reports and many examples of these students learning more GE curriculum post-intervention (published previously in McSheehan et al., 2006), the methodology of this study did not permit us to conclude that the BA intervention was the sole reason for changes in team member behaviour or student achievement. Second, only a small number of students' IEPs were examined, and the small sample size limits the generalisability of the findings. Third, factors other than the BA intervention might have influenced the results. Such factors could include the "Hawthorne effect", which states that people will change simply as a result of being studied or participating in a new endeavour (Mayo, 1933),

or the fact that team members who made enhanced post-intervention judgements about student competence might have wished to please the researchers, who were providing them with a valued service. And finally, the definitions of the five categories reflect the authors' unique experiences in the field and their personal interpretation of the data provided in these IEPs. Another study which established at the outset a different construct of presumed competence and which examined a different set of IEPs might show different results.

Implications

Applying the principle of presumed competence could guide educational teams to write goals and objectives that are more closely aligned with grade-level GE curriculum standards, and that specify the context of instruction and service delivery as the GE classroom. The principle of presumed competence could also guide teams in: (i) reporting assessment results and describing present levels of performance information using language that reflects a strengths-based rather than a deficit perspective; and (ii) qualifying assessment results based on the validity and reliability of assessment tools and instruments used, the quality of instruction and supports provided to students, and the team's capacity to implement best practices.

In addition, there are implications for making decisions about students' educational placement and the location of service delivery. Placement in the GE classroom may be considered as a necessary condition and support for learning of the GE curriculum. Although making a priori decisions about placement may seem to be in conflict with the generally accepted guideline that a student's educational program must be determined before a placement decision is made, US Special Education law does permit simultaneous discussion of program and placement (Giangreco, 2003; Turnbull, personal communication, 29 June 2006). Given this fact, the findings of this study would support placing students with IDD in the GE classroom and providing them with the instructional and communication supports to learn the GE curriculum.

A better understanding of how presumed competence is demonstrated in students' educational programs also has implications for the content and process of professional development programs and technical assistance. Our findings confirm those reported elsewhere (Giangreco et al., 1993; Mc-Sheehan et al., 2006; Sonnenmeier et al., 2005): that integrating specific information about presumed competence into professional development workshops, as well as technical assistance (including on-site modelling and coaching) to support educational teams to apply these principles in their practice, could lead to higher expectations, enhanced supports, and perhaps, better educational outcomes for students with IDD.

If social desirability (defined in this study as team members wanting to please the researchers who were perceived as authority figures) was partly responsible for recommended increases in the amount of time students spent in the GE class, this may have implications for administrative leadership and accountability. Changes in student placement to reflect more time in GE may occur if administrators or policy-makers use their leadership positions to encourage this practice.

Further research is needed to examine how the categories of presumed competence identified in this study may change or remain constant across contexts. Researchers might utilise other methodologies to further investigate: (i) how educators and related service providers develop and change their assumptions about students' competence; (ii) which strategies are most effective in supporting teams to develop and apply the principle of presumed competence; and (iii) how presumed competence influences instruction, and student learning and communication outcomes. Since this investigation did not measure changes in teachers' ratings of their self-efficacy or educational practices, this is also an important area for future study. Additional research on student outcomes could endorse the Beyond Access intervention as a useful tool for improving educational outcomes for students with IDD.

Conclusion

In conclusion, this study provides a new understanding of some of the nuances associated with the principle of presumed competence, and provides preliminary data on an intervention for enhancing educators' judgements about the competence of students with IDD to learn the GE curriculum within the GE classroom.

Author note

agency with respect to disseminating these results. The opinions expressed by the project do not necessarily represent those of the US Department of Education or the University of New Hampshire.

Acknowledgements

Notes

1 In this paper, the term ''mental retardation'' is only used when quoting an original source.
2 In the US, the terms ''alternate'' and ''alternative'' have very different meanings with respect to students with IDD. The No Child Left Behind Act of 2001 allows schools to assess up to 1% of students based on ''alternate achievement standards''. Thus, the US has developed ''Alternate Assessments based on Alternate Achievement Standards''. The word ''alternative'' refers to ''alternative schools'', which are established by local school districts for ''at risk'' students, who often have labels of emotional disability.

References

Agar, M. (1996). *The professional stranger. An informal introduction to ethnography* (2nd ed.). San Diego: Academic Press.

American Association on Intellectual and Developmental Disabilities (AAIDD). (2007a). *Definition of mental retardation*. Retrieved March 1, 2007 from http://www.aaidd.org/Policies/faq_mental_retardation.shtml.

American Association on Intellectual and Developmental Disabilities (AAIDD). (2007b). *Mental retardation is no more – New name is Intellectual and Developmental Disabilities*. Retrieved March 1, 2007 from http://www.aaidd.org/About_AAIDD/MR_name_change.htm.

Baker, E. T., Wang, M. C., & Walberg, H. J. (1994/1995). Synthesis of research: The effects of inclusion on learning. *Educational Leadership*, *52*, 33–35.

Biklen, D. (1999). The metaphor of mental retardation: Rethinking ability and disability. In H. Bersani, Jr. (Ed.), *Responding to the challenge: Current trends and international issues in developmental disabilities. Essays in honor of Gunnar Dybwad* (pp. 35–52). Cambridge, MA: Brookline.

Biklen, D., & Duchan, J. (1994). ''I am intelligent'': The social construction of mental retardation. *The Journal of the Association for Persons with Severe Handicaps*, *19*(3), 173–184.

Blackburn, R. (2006, August). *Logically illogical: Information and insight into autism*. Keynote presentation at the 8th Annual Autism Summer Institute, University of New Hampshire, Durham, New Hampshire.

Blackorby, J., Chorost, M., Garza, N., & Guzman, A. (2003). The academic performance of secondary students with disabilities. In M. Wagner, C. Marder, J. Blackorby, R. Cameto, L. Newman, & P. Levine, et al. (2003), *The achievements of youth with disabilities during secondary school. A report from the National Longitudinal Transition Study – 2 (NLTS-2)*. Menlo Park, CA: SRI International.

Bogdan, R., & Biklen, S. (2003). *Qualitative research for education: An introduction to theories and methods* (4th ed.). Boston: Pearson Education Group, Inc.

Bogdan, R., & Taylor, S. J. (1989). Relationships with severely disabled people: The social construction of humanness. *Social Problems*, *36*(2), 135–148.

Broderick, A., & Kasa-Hendrickson, C. (2001). ''Say just one word at first'': The emergence of reliable speech in a student labeled with autism. *Journal of the Association for Persons with Severe Handicaps*, *26*(1), 13–24.

Calculator, S. N., & Jorgensen, C. M. (1991). Integrating AAC instruction into regular education settings: Expounding on best practices. *Augmentative and Alternative Communication*, *7*, 204–212.

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Thousand Oaks, CA: Sage.

Clark, M. D. (1997). Teacher response to learning disability: A test of attributional principles. *Journal of Learning Disabilities*, *30*(1), 69–79.

Donnellan, A. (1984). The criterion of the least dangerous assumption. *Behavioral Disorders*, *9*, 141–150.

Donnellan, A. M., & Leary, M. R. (1995). *Movement differences and diversity in autism/mental retardation. Appreciating and accommodating people with communication and behavior challenges*. Madison, WI: DRI Press.

Downing, J. E., Morrison, A. P., & Berecin-Rascon, M. A. (1996). Including elementary school students with autism and intellectual impairments in their typical classrooms: Process and outcomes. *Developmental Disabilities Bulletin*, *24*, 20–45.

Emerson, R. M., Fretz, R. I., & Shaw, L. L. (1995). *Writing ethnographic fieldnotes*. Chicago: The University of Chicago Press.

Erickson, K., Koppenhaver, D., Yoder, D., & Nance, J. (1997). Integrated communication and literacy instruction for a child with multiple disabilities. *Focus on Autism and Other Developmental Disabilities*, *12*(3), 142–150.

Giangreco, M. (2003). Interactions among program, placement, and services in educational planning for students with disabilities. *Mental Retardation*, *39*(5), 341–350.

Giangreco, M. F., Dennis, R., Cloninger, C., Edelman, S., & Schattman, R. (1993). ''I've counted Jon'': Transformational experiences of teachers educating students with disabilities. *Exceptional Children*, *59*(4), 359–372.

Giangreco, M. F., Cloninger, C., & Iverson, V. S. (1998). *Choosing outcomes and accommodations for children (COACH): A guide to educational planning for students with disabilities* (2nd ed.). Baltimore: Paul H. Brookes.

Giangreco, M. F., & Putnam, J. W. (1991). Supporting the education of students with severe disabilities in regular education environments. In L. H. Meyer, C. A. Peck, & L. Brown (Eds.), *Critical issues in the lives of people with severe disabilities* (pp. 245–270). Baltimore: Paul H. Brookes.

Gould, S. J. (1981). *The mismeasure of man*. New York: W.W. Norton.

Hilliard, A. G. (1992). The pitfalls and promises of special education practice. *Exceptional Children*, *59*(2), 168–172.

Hunt, P., Soto, G., Maier, J., Muller, E., & Goetz, L. (2002). Collaborative teaming to support students with augmentative and alternative communication needs in general education

classrooms. *Augmentative and Alternative Communication, 18,* 20–35.

Individuals with Disabilities Education Improvement Act, PL 108-446, 20 U.S.C. §§1400 *et seq.* (2004).

Jorgensen, C. (2006, August). *The least dangerous assumption: A challenge to create a new paradigm.* Keynote presentation at the 8th Annual Autism Summer Institute, University of New Hampshire, Durham, New Hampshire.

Kasa-Hendrickson, C. (2005). ''There's no way this kid's retarded'': Teachers' optimistic constructions of students' ability. *International Journal of Inclusive Education, 9*(1), 55–69.

Kliewer, C., Biklen, D., & Kasa-Hendrickson, C. (2006). Who may be literate? Disability and resistance to the cultural denial of competence. *American Educational Research Journal, 43*(2), 163–192.

Mayo, E. (1933). *The human problems of an industrial civilization.* New York: MacMillan.

McGregor, G., & Vogelsberg, R. T. (1998). *Inclusive schooling practices: Pedagogical and research foundations. A synthesis of the literature that informs best practices about inclusive schooling.* Baltimore: Paul H. Brookes.

McGrew, K., & Evans, J. (2004). *Expectations for students with cognitive disabilities: Is the cup half empty or half full? Can the cup flow over?* (Synthesis Report 55). Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes.

McSheehan, M., Sonnenmeier, R., Jorgensen, C. M., & Turner, K. (2006). Promoting learning of the general education curriculum by students with significant disabilities. *Topics in Language Disorders, 26*(3), 266–290.

Merriam, S. (1998). *Qualitative research and case study applications in education.* San Francisco: Jossey-Bass Publishers.

Merton, R. K. (1948). The self-fulfilling prophecy. *Antioch Review, 8,* 193–210.

No Child Left Behind Act, PL 107-110, 115 Stat. 1425, 20 U.S.C. 6301 *et seq.* (2001).

Rolison, M. A., & Medway, F. J. (1985). Teachers' expectations and attributions for student achievement: Effects of label, performance pattern, and special education intervention. *American Educational Research Journal, 22*(4), 561–573.

Rosenthal, R., & Jacobson, L. (1968). *Pygmalion in the classroom.* New York: Holt, Rinehart, and Winston.

Ross, J. A. (1994). The impact of an inservice to promote cooperative learning on the stability of teacher efficacy. *Teaching and Teacher Education, 10,* 381–394.

Rubin, S., Biklen, D., Kasa-Hendrickson, C., Kluth, P., Cardinal, D., & Broderick, A. (2001). Independence, participation, and the meaning of intellectual ability. *Disability and Society, 16,* 415–429.

Ryndak, D., Morrison, A., & Sommerstein, L. (1999). Literacy before and after inclusion in general education settings: A case study. *Journal of the Association for Persons with Severe Handicaps, 24*(1), 5–22.

Schram, T. (2007). *Fieldwork: Engaging and interpreting social action.* Unpublished manuscript.

Shriner, J., & DeStefano, L. (2003). Participation and accommodation in state assessment: The role of individualized education programs. *Exceptional Children, 69*(2), 147–161.

Smith, D. J. (1985). *Minds made feeble.* Rockville, MD: Aspen.

Sonnenmeier, R., McSheehan, M., & Jorgensen, C. (2005). A case study of team supports for a student with autism's communication and engagement within the general education curriculum: Preliminary report of the Beyond Access Model. *Augmentative and Alternative Communication, 21*(2), 101–115.

Soto, G. (1997). Special education teacher attitudes towards AAC: Preliminary survey. *Augmentative and Alternative Communication, 13,* 186–197.

Sparrow, S. S., Balla, D., & Cicchetti, D. (2005). *Vineland Adaptive Behavior Scales* (2nd ed.). Circle Pines, MN: American Guidance Service.

United States Department of Education. (2006). *Twenty-sixth annual report to Congress on the implementation of the Individuals with Disabilities Education Improvement Act, 2004.* Washington, DC: United States Department of Education.

Wechsler, D. (1997). *Wechsler Intelligence Scale for Adults* (3rd ed.). San Antonio, TX: Harcourt Assessment.

Wechsler, D. (2003). *Wechsler Intelligence Scale for Children* (4th ed.). San Antonio, TX: Harcourt Assessment.

Wehmeyer, M. (2003). Defining mental retardation and ensuring access to the general curriculum. *Education and Training in Developmental Disabilities, 38*(3), 271–282.

Wehmeyer, M., & Agran, M. (2006). Promoting access to the general curriculum for students with significant cognitive disabilities. In D. Browder, & F. Spooner (Eds.), *Teaching language, arts, math, & science to students with significant cognitive disabilities* (pp. 15–37). Baltimore: Paul H. Brookes.

Wehmeyer, M., Lattin, D., Lapp-Rincker, G., & Agran, M. (2003). Access to the general curriculum of middle school students with mental retardation: An observational study. *Remedial and Special Education, 24*(5), 262–272.

York, J., Giangreco, M. F., Vandercook, T., & Macdonald, C. (1992). Integrating support personnel in the inclusive classroom. In S. Stainback, & W. Stainback (Eds.), *Curriculum considerations in inclusive classrooms: Facilitating learning for all students* (pp. 101–116). Baltimore: Paul H. Brookes.