

Beyond Communication Access

Promoting Learning of the General Education Curriculum by Students With Significant Disabilities

*Michael McSheehan, BS; Rae M. Sonnenmeier, PhD;
Cheryl M. Jorgensen, PhD; Karen Turner, MA*

Some in the field of special education hold that students with significant disabilities should pursue the same learner outcomes as students without disabilities. However, educational teams often lack the knowledge and skills necessary to support a student's membership and participation in general education classrooms and learning of the general education curriculum. The Beyond Access (BA) model encourages team members to think about how to move beyond creating opportunities for access to a broader focus on membership, participation, and learning. The authors describe the Comprehensive Assessment of Student and Team Supports (CASTS). This article reports the perceptions of 35 participants from 5 educational teams working with 5 students with significant disabilities regarding impact from the assessment after 6 months of model activities. Qualitative analysis of survey question responses, along with analysis of Likert-scale ratings, revealed perceived improvements in teaming practices, expectations for student learning, and student performance when using the model. The results are discussed for their educational, professional development, and research implications. **Key words:** *assessment, augmentative and alternative communication (AAC), collaborative teaming, general education curriculum, inclusive education, systems change*

Something radically different is happening in educational services for students with severe disabilities. Students are not only present in typical classrooms; they also are expected to make progress on state academic content standards... Access to the general curriculum... means more than being exposed to content such as reading and

mathematics—access means academic progress. (Browder & Spooner, 2006, p. 1)

Many changes have occurred over past decades in the field of education for students with significant disabilities¹ regarding the best environment in which to learn, the appropriate curriculum to learn, and the extent to which these students can learn and communicate. When students with significant disabilities first became eligible for a free and appropriate public education in the United States (1975), they were typically educated in special schools or self-contained classrooms for students with disabilities. In the 1990s, an increased focus on high educational standards for all students, combined

From the University of New Hampshire, Institute on Disability/UCED, Durham.

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Corresponding author: Michael McSheehan, BS, University of New Hampshire, Institute on Disability/UCED, 10 West Edge Dr, Durham, NH 03824 (e-mail: Michael.McSheehan@unh.edu).

¹Students with significant disabilities are those who have traditionally been labeled as having mental retardation, autism, developmental disabilities, traumatic brain injury, and multiple disabilities.

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with a growing body of evidence showing that students with significant disabilities were capable of learning at least some general education (GE) curriculum content (McGregor & Vogelsberg, 1998; Ryndak, Morrison, & Sommerstein, 1999), influenced a movement toward requiring schools to include students with disabilities in local and state accountability systems through their participation in large-scale assessments. Access to and progress in the GE curriculum became education policy at the century's end (Individuals with Disabilities Education Act, 1997, 2004; No Child Left Behind Act, 2001).

Perspectives about what and how students communicate have also shifted. Through the 1970s and into the 1980s it was thought that some people were *not ready for augmentative and alternative communication (AAC)* (Shane & Bashir, 1980). "Since the mid-1980s, 'candidacy' guidelines for AAC intervention [were] gradually replaced by guidelines based on communication needs" (Beukelman & Mirenda, 2005, p. 135). Best practices in AAC stated that assessment and evaluation should be based on the daily communication needs of a child, determined through observations, interviews, and ecological inventories within age-appropriate settings such as the GE classroom (Beukelman & Mirenda, 1992; Calculator & Jorgensen, 1991; Mirenda & Calculator, 1993). However, if the setting demanded limited communication about academics, educators were satisfied if students with significant disabilities communicated about activities of daily living and personal assistance (e.g., "eat," "drink," "bathroom," "I need a break"). Beukelman and Mirenda (1992) broadened the Communication Needs Model in an effort to address this limitation. Their Participation Model for AAC was designed to "provide a systematic process for conducting AAC assessments and designing interventions based on the functional participation requirements of peers without disabilities of the same chronological age as the person who may communicate through AAC" (Beukelman & Mirenda, 2005, p. 136).

Communication access has come to be seen not as the goal but the means by which students are able to engage socially and academically at school.

Over the past 30 years, placement, learning, and communication access goals have gradually evolved toward the GE classroom, the GE curriculum, and AAC systems that support full social and academic participation. The extent or degree to which each of these goals is realized varies. Access is too often operationalized as being in the GE classroom for part of the day, learning some of the GE curriculum, and communicating (socially and academically) in only basic ways. Limited access results in limited student outcomes (Wehmeyer & Agran, 2006). What would happen if each of the three goals were pursued to the fullest extent? What would happen if "the place in which students with severe disabilities had access to the general curriculum was in the GE classroom" (Wehmeyer & Agran, 2006, p. 18); if students with significant disabilities pursued "the same learner outcomes as students without disabilities" (Kleinert & Kearns, 2001, p. 21); and if AAC supports were developed, monitored, and expanded until students could communicate the same messages—and to the same extent socially and academically—as students without disabilities?

The Beyond Access (BA) model (McSheehan, Sonnenmeier, & Jorgensen, 2002) was created to narrow the gap between these goals and current practice. The BA model promotes learning of GE curriculum by students with significant disabilities in the context of GE classrooms through a student and team planning process grounded in high-quality professional development. The BA model organizes best practices for students and their teams into a coherent, reiterative, and manageable process of assessment, implementation, evaluation, reflection, and revision, promoting continuous program improvement. The BA model redefines the standards for access to the GE classroom, the GE curriculum, and communication supports based on the application of the criterion of the least

dangerous assumption (Donnellan, 1984), with the result of presumed competence (Biklen, 1999).

The criterion of the least dangerous assumption (LDA) requires that educators ask the question:

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? (Donnellan, 1984, p. 148)

Biklen (1999) offered similar "guiding principles for creating contexts for communication and participation" (p. 50). Stressing the importance "that difficulties with demonstrating ability not be taken as evidence of intellectual incompetence," Biklen argued "as a matter of basic sensitivity and good educational practice, educators must presume that the person is intelligent" (1999, p. 50). (For more on this argument, see Jorgensen, 2005b.)

With the expectation that all students can learn GE curriculum content, the BA model is designed to facilitate progress toward full membership, participation, and demonstration of learning. *Membership* in the GE class represents students having access to valued social roles and the symbols of belonging, such as having a desk, being given class jobs, going on field trips, and having one's name called during attendance. *Participation* is defined as students actively accessing the social, communication, and instructional life of the classroom. Participation means that students with significant disabilities take part in the same conversations, activities, and instructional routines as their typical classmates. Ex-

amples include participating in the pledge of allegiance, being called on in class for an answer, going up to the board, having a role during cooperative group activities, manipulating equipment during a science lab, and having an active part during reading group. Membership and participation are necessary parts of learning. *Demonstration of learning* is defined as showing what one knows in an observable way, perhaps with the use of assistive technology (AT) and/or AAC. Examples include giving answers when called on, completing homework, taking tests, completing projects, doing group presentations, and completing worksheets. These expectations for student membership, participation, and learning, along with supports for collaborative teaming, are essential elements of the professional development approach of the BA model.

From 2002 through 2006, the BA model was designed and evaluated as part of a federally funded grant from the Office of Special Education Programs, U.S. Department of Education. The BA model consists of four iterative phases: (1) Assess student and team supports in a comprehensive manner; (2) Explore and describe new student and team supports; (3) Implement and document student and team supports; (4) Review, revise, and sustain student and team supports. During years 1 through 3 of the project, the model was field tested in 2 elementary schools and 1 high school, in 2 school districts (see, e.g., Sonnenmeier, McSheehan, & Jorgensen, 2005). During year 4 of the project, the model was redesigned and replicated with 5 students in 2 different school districts.

This article summarizes data on team members' perceptions of impact resulting from 6 months of implementing the initial phase of the redesigned BA model. Data include perceptions of (a) impact on teaming practices, (b) impact on presumed competence, (c) impact on student performance, and (4) reasons for impact on educational practices and student performance. Implications for practice, professional development, and future research are also discussed.

METHODS

Participants

Schools

Schools were recruited using a multistep process. An invitation to attend a 1-day information workshop was sent to all special education directors in New Hampshire. Educators and school administrators from 8 school districts attended the information workshop to learn about the BA model and expectations for participation as a replication site. Six of these 8 school districts submitted a written application stating why they wanted to be a replication site, their philosophy regarding inclusive education, and nominations of students for the project. Two elementary schools were selected because they showed commitment (a) to educating students with the most significant disabilities in GE classrooms; (b) to provide administrative support for staff to implement the BA model, attend monthly professional development workshops and weekly team meetings, and complete data collection protocols; and (c) to form an administrative team that would monitor the implementation of the BA model and work on systems for sustainability. School district A, population of approximately 12,000 residents, had included students with significant disabilities at least part-time in GE classrooms for more than 10 years. Professional development for the staff and strong administrative support for inclusive education practices were already in existence. School district B, with a population of close to 10,000 residents, also had strong administrative support but only recently had begun to include students with significant disabilities in GE classrooms. District B had a history of due process and mediation brought by parents. Both school districts had been labeled "schools in need of improvement" because of their inadequate yearly progress on statewide assessments.

Students

Five students (2 from school A and 3 from school B) were selected for participation

based on selection criteria showing that they (a) were eligible for the New Hampshire Alternate Assessment; (b) had the label of significant disabilities, such as mental retardation, autism, cerebral palsy, Down syndrome, etc.; (c) could benefit from AAC and/or AT to support learning; and (d) were in GE classes for at least 50% of the day in at least two core academic areas (e.g., language arts, math, social studies, and science).

Table 1 presents a summary of student characteristics upon entry to the BA project. The students ranged in age from 7 years 5 months to 8 years 0 months, with a mean age of 7 years 8 months. All the students were described by their teams as having moderate to severe cognitive impairments. The students used a variety of unaided communication means, including facial expressions and natural gestures, sign language, and speech. Four of the 5 students had been introduced to AAC strategies, including the use of picture communication symbols, switches, and electronic communication devices.

Educational teams

A total of 35 team members participated in implementing the BA model. Teams comprised parents/guardians, general educators, special educators, related service providers, and administrators with a range of experience in education and AAC, as shown in Table 2. Any reference to *team members* includes the parents/guardians as members of their respective teams.

BA model implementation

The first 6 months of implementation of the BA model included an orientation, comprehensive assessment of student and team supports, and three best practices workshops. Two BA faculty members (Jorgensen and McSheehan) were present 1 day a week at each school.

Orientation

Members of each educational team participated in a 2-day orientation that addressed the underlying assumptions and practices of the

Table 1. Student characteristics at the initiation of the Beyond Access project

Student	Age	Gender	Grade	Educational code(s)	Developmental level	Unaided communication repertoire	Aided communication and assistive technology
C	7 years 10 months	F	2	Multiple disabilities (mitochondrial disorder, seizures), visual impairment	1 year 6 months to 2 years 6 months	Vocalizations, gestures, physical movement, facial expressions, a few signs, verbalizes familiar 1-2-word phrases, word approximations	Single switch, photos, communication board
N	7 years 5 months	M	2	Autism, speech and language impaired, behavior concerns	Not available	Uses simple sentences to express basic needs; omits grammatical forms; mean length of utterance = 5 words; struggles with asking questions; responds well to directions	Computer as tool for learning; picture schedule
P	7 years 9 months	M	2	Developmental delay (pervasive developmental disorder—not otherwise specified), speech and language impairment	1 year 8 months	Primary means of communication is verbal. Below age-level receptive and expressive language skills, pragmatic language skills, social understanding/social skills	Visual supports, picture schedules, task cards

(continues)

Table 1. Student characteristics at the initiation of the Beyond Access project (Continued)

Student	Age	Gender	Grade	Educational code(s)	Developmental level	Unaided communication repertoire	Aided communication and assistive technology
S	8 years 0 months	F	2	Multiple disabilities, other health impaired (spina bifida), speech and language impaired	IQ < 50 Adaptive behavior: 1 year 6 months to 2 years	Body language, gestures, inconsistent use of a few signs, vocalizations, verbalizes a few familiar single words and short phrases; follows 1-step directions	BIGmack [®] communicator, ^a picture communication symbols, choice board
T	7 years 11 months	M	3	Autism	Not available	Gestures, some sign language, limited verbal abilities, difficulties with receptive and expressive language, social interactions	Picture communication symbols, picture schedules, task cards, DynaMyte [™] augmentative and alternative communication device ^b (introduced), computer for learning

^aThe BIGmack[®] communicator is a single message tool with a large activation surface using recorded speech for messages. The BIGmack[®] communicator is manufactured by AbleNet, Inc., 2808 Fairview Avenue North, Roseville, MN 55113, USA. Telephone: 1-800-322-0956. Web site: <http://www.ablenetinc.com/>

^bThe DynaMyte[™] is a dedicated voice output communication system with dynamic display and synthesized speech. It weighs approximately 3 lb. It may be accessed via direct selection or scanning. The DynaMyte[™] is manufactured by DynaVox Systems LLC, 2100 Wharton St., Suite 400, Pittsburgh, PA 15203, USA. Telephone: 1-800-344-1778. Web site: <http://www.dynavoxsys.com/>

Table 2. Team member characteristics

Group	n	Gender	Age (year)				Educational experience (year)			Augmentative and alternative communication experience (self-rated)		
			20-34	35-44	45-64	0-1	2-5	>5	None	Some	More	Expert
Parents/guardians	5	Female	3	1	1	NA	NA	NA	4			1
	1	Male	1						1			
General education teachers	5	Female	2		3		1	4	4		1	
Instructional assistants	5	Female	1	1	3		1	4	4		3	2
Special education teachers	2	Female			2			2			2	
Speech-language therapists	3	Female	2		1		2	1			2	1
Occupational therapists	4	Female	1		3		2	2	1		2	1
Physical therapist	1	Female			1			1				1
Student interns	3	Female	3				3				3	
General education administrators	2	Female			2			2				2
	1	Male		1				1				1
Special education administrators	2	Female	1	1			1	1	1		1	1
	1	Male			1			1				1
Total	35											

Note. NA = not applicable.

Table 3. Beyond Access orientation and best practices workshops conducted from August 2005 to January 2006

Description	Month	Time
Orientation <ul style="list-style-type: none"> • Historical perspectives on practices for educating students with significant disabilities • Beyond Access model overview • Understanding what constitutes access to, participation in, and learning of the general education curriculum • Least dangerous assumption of presumed competence (Jorgensen, 2005b) • Collaborative teaming practices • Instructional planning based on instructional routines (Jorgensen, 2005a) 	August	2 days
Best practices workshops <ul style="list-style-type: none"> • Structures and processes for effective meetings, such as defining the purpose of a meeting, effective use of an agenda, processes to support team discussions, and accountability 	September	1 day
<ul style="list-style-type: none"> • Planning for the use of augmentative and alternative communication and assistive technology for participation and learning within instructional routines (Jorgensen, Schuh, & Nisbet, 2006) 	December	1 day
<ul style="list-style-type: none"> • Literacy assessment and instruction for guided reading, silent reading, word study, and writing using augmentative and alternative communication and assistive technology (Sturm et al., 2006) 	January	1 day

BA model (Table 3). Project management was also discussed, establishing weekly meetings for each educational team, monthly administration meetings with BA faculty and school administrators for each school, and monthly workshops for all participants.

The assessment process

The Comprehensive Assessment of Student and Team Supports (CASTS) is a process for gathering information about the perspectives of each of the team members that serves as a basis for implementing the BA model (Table 4). It differs from other assessments used to identify the capabilities of students with significant disabilities in that it takes stock of student performance in the context of current school and team practices, and how these practices align with a preestablished set of best practices associated with the model (Appendix A).

Using the CASTS tools and activities, a variety of types of information about each stu-

dent, his or her educational team, and the school was collected. The BA faculty synthesized the information, summarized themes and discrepancies, and identified representative examples of student and team performance. The BA faculty compared and contrasted the team's current practices with BA best practices (Appendix A). The BA faculty then summarized and reported the findings to the team and the team members together reviewed and confirmed the CASTS findings. That is, team members were asked to confirm the degree to which the BA faculty had captured in the report the team's current situation, opinions, and practices. As categories of Summary Findings from the CASTS activities were reported (e.g., school context, the student, and the team), team members engaged in a consensus building process in which they (a) added any missing and highly relevant information, (b) sought clarification or proposed revisions on any inaccurate information, and finally (c) stated their level of

Table 4. Activities for completing a CASTS with one student's educational team

Activity	Personnel	Time
1. Initial interview to identify set of questions and concerns regarding the student and team	BA faculty Key team members	Up to 2 hr
2. Review of the student's educational records: individualized educational programs (IEPs) (current and past) and evaluation reports (e.g., achievement, communication, occupational and physical therapy, psychology, and medical)	BA faculty	2-4 hr
3. Complete questionnaire addressing strengths/weaknesses in the student's educational program and the team's practices	Team members School administrators	30 min per team member
4. Collect and review questionnaires from all team members to identify common themes and discrepancies	BA faculty	4-5 hr
5. Collect and review team and school artifacts (e.g., team meeting minutes, school's professional development model, building-wide behavior procedures, school newsletter, mission statement)	BA faculty	2 hr
6. Observe at school and write a description of <i>a day in the life</i> of the student from the student's perspective (Jorgensen et al., 2006)	BA faculty	1-2 days
7. Based on school observation, write a description of <i>a day in the life</i> of the team from the team members' perspectives	BA faculty	2-3 hr
8. Collect and review student work samples, current augmentative communication devices and strategies, and instructional supports such as adapted materials	BA faculty	2-3 hr
9. Visit the student's home and interview the student's parents/guardians and siblings	BA faculty	3-4 hr
10. Interview each team member to expand on information gathered from questionnaires and observations	BA faculty Team members	1-2 hr per team member
11. Observe team meeting	BA faculty	30-60 min
12. Conduct follow-up interviews and observations as needed	BA faculty Team members	2-4 hr
13. Analyze all information gathered to identify common themes and discrepancies	BA faculty	3-5 hr
14. Identify the alignment between the student's educational program and <i>Best Practices that Promote the Learning of the General Education Curriculum in the General Education Classroom by Students with Significant Disabilities</i>	BA faculty	1-2 hr
15. Identify the alignment between current teaming practices and <i>Best Practices that Promote the Learning of the General Education Curriculum in the General Education Classroom by Students with Significant Disabilities</i>	BA faculty	1-2 hr

(continues)

Table 4. Activities for completing a CASTS with one student's educational team (*Continued*)

Activity	Personnel	Time
16. Prepare summary of findings	BA faculty	2-3 hr
17. Meet with team to review CASTS findings and obtain agreement with findings	BA faculty Team members School administrators	2 hr
18. Meet with team to review, obtain agreement, and prioritize recommendations	BA faculty Team members School administrators	1-2 hr
Total time needed:		42-65 hr per CASTS ^a

Note. Reference to team members includes parents/guardians. BA = Beyond Access; CASTS = Comprehensive Assessment of Student and Team Supports.

^a Typically, the CASTS process is completed over the course of 2-3 weeks. Given the constraints of scheduling for the replication sites, the CASTS with the 5 students were completed over the course of 3-4 months.

agreement with the accuracy of each category of information using six levels of agreement (adapted from Kaner, 1996). Any finding not getting full team agreement was discussed, clarified, and edited until agreement was reached.

Once the CASTS Summary Findings were approved by the team, a second meeting was convened for the team to review publicly the CASTS recommendations and reach consensus regarding them. BA faculty prepared recommendations in three categories: student supports, team supports, and professional development. These recommendations were intended to build team capacity aligned with BA best practices. (See McSheehan et al., 2002, and Sonnenmeier et al., 2005, for more details on subsequent phases of the BA model.)

Best practices workshops

Team members participated in three workshops during which they learned about (a) effective team meeting structures, (b) using AAC and AT to promote participation and learning, (c) and literacy (see Table 3). The emphasis of these workshops was on increasing team collaboration and students' participation in the GE classroom rather than on evaluation of student learning per se. Teams were supported to move away from asking, "What can this student do in this lesson?" to asking,

"What supports are needed so this student can participate in this lesson like his or her classmates?" The BA model supported teams in an ongoing, dynamic assessment where confidence in measures of student performance increased over time. Assessing what the student knows is addressed in the latter phases of the model. Clarification of content from the workshops was occasionally provided during on-site visits by BA faculty in the first 6 months of implementation.

Data collection

BA Impact Survey

The BA Impact Survey was designed to evaluate each team member's perceptions of what may or may not have changed as a result of participating in the BA orientation, CASTS process, and workshops, as well as reasons why changes may have occurred (see Appendix B for the complete survey). Team members rated their degree of agreement (based on a 7-point Likert scale) with statements about the impact that the process had on the team's practices related to (a) student membership and participation in the GE classroom; (b) presumed competence when planning for the student's participation and learning; (c) student's learning of core academics (i.e., GE curriculum content); (d) student's

communication, (e) team collaboration, (f) school-family relationships, and (g) effective and efficient team meetings. Team members were asked to list two examples of improvements observed for each area addressed, and to describe why they thought these changes had occurred.

The BA Impact Survey was distributed by BA faculty and completed by team members during the February workshop. Each participant completed one survey for each student team on which he or she was a member. A total of 38 surveys were completed by 30 team members since some individual team members served on more than one student's educational team.

Data analysis

The team members' agreement ratings for the BA Impact Survey questions were entered into a Microsoft Access database. The mean, mode, and standard deviation for each Likert-scale item on the impact survey were calculated. The content of the responses to the open-ended survey questions also was analyzed to identify themes using an iterative process for coding the examples based on inductive analysis methods (Bogdan & Biklen, 2003; Merriam, 1998). Two researchers (Sonnenmeier and McSheehan) independently reviewed the examples for each question and assigned preliminary coding labels that described a broader category or theme that each example addressed. These preliminary codes were compiled, and specific coding labels and coding definitions were agreed upon. The two researchers independently recoded the examples. Each code was then verified for agreement. Any disagreement about the assigned codes was discussed until agreement was reached. The coding definitions were revised as needed.

A third researcher (Jorgensen) was trained on the coding definitions and independently coded all of the data. Each code was then verified for agreement between the third independent researcher's codes and the codes agreed upon by the first two researchers. Again, any disagreement about the assigned codes was discussed until agreement was reached.

The coding definitions were revised one final time.

The first two researchers then independently recoded all of the data using the final coding definitions. Reliability of coding between the two researchers ranged from 96% to 100% agreement. Data that were reliably coded by these two researchers were included in the final data set.

RESULTS AND DISCUSSION

The BA Impact Survey questions were grouped into three categories for the purposes of reporting the findings: (a) teaming practices (efficient and effective meetings, team collaboration, and school-family relationships); (b) presumed competence; and (c) student performance (classroom membership and participation, communication, and learning of GE curriculum content).

Likert scale ratings of impact

The results of the Likert scale analysis, which are presented in Table 5, illustrate that, with two exceptions, team members agreed that there had been some improvement during the first 6 months of the BA model in the categories of (a) efficient and effective team meetings, (b) team collaboration, (c) school-family relationships, (d) presumed competence of students to learn GE curriculum, (e) student membership and participation, (f) students' communication skills, and (g) students' demonstration of learning. The average ratings by team members ranged from a mean of 4.5 to a mean of 6.7. One exception was P's team rating for school-family relationships, mean 3.2, with a large range from 1 to 5. Another exception was the mean rating of 3.9 reported by C's team members regarding her demonstration of learning.

Examples of impact

The team members listed a total of 358 examples of changes that occurred as a result of the first 6 months of implementing the BA model. Codes were assigned to 342 (96%) of the examples of changes. The remaining items consisted of ambiguous responses, unrelated answers, or items that did not fit with agreed

Table 5. Levels of agreement^a with statements about improvements in teaming practices, presumed competence, and student performance

	Students				
	C	N	P	S	T
<i>Teaming practices</i>					
Efficient and effective meetings					
<i>n</i>	8	9	6	8	6
Mean	5.9	5.4	6.7	5.0	6.5
Mode	7	7	7	5	7
<i>SD</i>	1.1	1.5	0.5	0.9	0.8
Team collaboration					
<i>n</i>	8	9	6	9	6
Mean	5.9	5.4	6.3	5.2	6.3
Mode	7	6	6	6	7
<i>SD</i>	1.1	1.3	0.5	0.8	1.2
School-family relationships					
<i>n</i>	8	9	6	9	6
Mean	5.6	4.8	4.8	4.7	3.2
Mode	7	4	6	5	5
<i>SD</i>	1.8	1.3	2.1	1.0	1.8
<i>Presumed competence</i>					
<i>n</i>	8	8	6	9	6
Mean	5.1	4.5	5.8	5.1	6.2
Mode	6	5	7	5	6
<i>SD</i>	0.8	0.9	1.2	0.6	0.8
<i>Student performance</i>					
Membership and participation					
<i>n</i>	7	9	6	9	6
Mean	5.3	5.3	6.3	5.2	6.7
Mode	7	6	6	5	7
<i>SD</i>	2.2	1.3	0.5	1.2	0.8
Communication					
<i>n</i>	8	9	6	8	6
Mean	4.5	5.0	5.2	5.1	5.7
Mode	5	6	5	4	7
<i>SD</i>	1.7	1.5	1.2	1.1	2.0
Demonstration of learning					
<i>n</i>	7	9	6	9	6
Mean	3.9	5.0	6.5	5.3	5.5
Mode	4	5	7	6	5
<i>SD</i>	0.7	0.7	0.8	0.7	1.2

^a Likert-scale ratings: 1 = strongly disagree, 4 = neither agree nor disagree, 7 = strongly agree.

upon codes and were eliminated from further analysis.

Impact on teaming practices

Three of the BA Impact Survey questions addressed teaming practices: (a) efficient and

effective team meetings, (b) team collaboration, and (c) school-family relationships (see Appendix B). Analysis of the 159 examples of changes in teaming practices revealed seven themes. Themes and exemplar comments are provided in Table 6.

Table 6. Distribution of themes and exemplar comments related to improved team practices

Theme	Exemplar comments	n	%
Attending meetings	"Meetings did not happen before; all of the team was not present."	23	14
Facilitation	"Less meeting outside of the team meeting." We used a "more organized approach to meetings" when the "facilitator redirected the group."	16	10
Meeting structures and strategies:	"Our meetings are much more focused. We accomplish so much in a short time."	48	30
Agendas (16)	"Our agendas are set and timed each meeting!"		
Parking lot for ideas (7)	"Parking lot [for ideas not on the agenda] helped us to stay on topic."		
Time management (8)	We "established time limits, rules, and boundaries during meetings."		
On-task behavior (12)	Meetings were "task based."		
Defined meeting roles (5)	Meetings had "a facilitator, timekeeper, and a recorder."		
Communication	"Working through difficult differences of opinion."	21	13
Shared understanding	"The team all seem to be on the 'same page' at the same time." "I feel that as a team we all really know what the other person is working on."	24	15
Positive intentions	"Parent and school personnel are listening to each other more attentively."	10	6
Team member role	"Classroom teacher is taking the lead with more confidence." "Staff work on goals jointly."	17	11
Total		159	

Discussion of impact on teaming practices

The findings regarding teaming practices are consistent with the findings of other similar studies (Hunt, Soto, Maier, Müller, & Goetz, 2002; Kent-Walsh & Light, 2003; Soto, Muller, Hunt, & Goetz, 2001). Effective and efficient meetings have been found to be necessary to support the work of a well-functioning team (Jorgensen, Fisher, Sax, & Skoglund, 1998; Kaner, 1996; Snell & Janney, 2000; Villa & Thousand, 1995). Teams need time to meet, skilled facilitation of meetings, and effective communication among team members. These practices support individual team members in fulfilling their roles, sharing responsibility for the work, and fostering a positive collaborative working environment.

Collaborative teaming practices were a topic of the workshops and the BA faculty modeled specific strategies for running meetings for each of the teams. Simply having a meeting is not enough. The role of an outside facilitator was found to be helpful in providing structure to the meetings.

The concept of presuming positive intentions (Garmston & Wellman, 1999) was encouraged by BA faculty as one strategy to redirect negative perspectives among team members. In some cases, the relationship between the family and the school had been seen as contentious or simply absent (e.g., T's team mean rating of 3.2 in response to the statement regarding improvements in school-family relationships). Assuming that each

Table 7. Distribution of themes and exemplar comments related to impact of presumed competence

Theme	Exemplar comments	n	%
Membership	"Daily attendance." "Having him stay in class." "[Student] is participating more in group activities instead of non-participation being anticipated."	9	13
Participation-Instruction-Curriculum	"Giving him the same work." "Assuming [the student] is beginning to read and has some of those mechanics in place; having him participate in self-selected reading." "Gen Ed math class—working on same lesson with support."	25	37
Planning	"When I plan a lesson, I now begin with what the class is doing instead of changing the activity completely for [the student]. I discuss with my team what supports need to be in place for [the student] to participate." "[Team members being] open to trying new and more challenging activities for the student."	8	12
Supports	"Giving [the student] a means to participate." "He worked in small groups with other children with modified work."	15	22
Demonstration of learning	"She completes writing activities after reading." "Reading grade level text." "During language arts—guided reading, word wall word—[the student] is really improving!"	10	15
Total		67	

person has a reasonable rationale for doing something (i.e., assuming a positive intention) may support individuals to be more open to listening to another's comments or better understand a family's circumstances, such as work schedules, which may account for the large variability in ratings noted among individual members of T's team.

Impact of presumed competence

One of the BA Impact Survey questions addressed presumed competence of students' participation and learning (see Appendix B). Team members provided 67 examples of the impact of team members' presumed competence of the student. Analysis revealed five themes. These themes and exemplar comments are provided in Table 7.

Discussion of impact of presumed competence

Presumed competence was a focus of the BA orientation workshop and formed the foundation of the BA best practices (see Appendix A). Some of the questions posed by the BA faculty during the CASTS interviews encouraged team members to reflect on their expectations for each student's learning. Since Rosenthal and Jacobson's classic *Pygmalion in the Classroom*, educators have recognized the influence of teachers' expectations on student performance (Rosenthal & Jacobson, 1968). Kasa-Hendrickson (2005) found results consistent with this study in her qualitative investigation of teachers' optimistic constructions of students' abilities. Presuming a student with significant disabilities is competent to learn the GE curriculum is not

Table 8. Team ratings of students' membership and participation in the general education classroom prior to and following implementation of the Beyond Access model

General education classroom membership and participation	C	N	P	S	T
Prior to the CASTS	0%-20%	0%-20%	40%-60%	20%-40%	20%-40%
Following 6 months of implementation of the Beyond Access model	60%-80%	20%-40%	60%-80%	60%-80%	60%-80%

Note. CASTS = Comprehensive Assessment of Student and Team Supports.

standard practice in schools. Given participants reported broad impact of this guiding principle across students' educational programs, specific professional development, including coaching of team members to apply presumed competence, appears to have had a positive impact on team members' perception of student outcomes

When presuming competence, teams not only expected students to be present in the GE class but also collaborated in lesson planning and provided supports to promote the students' engagement in the same activities as classmates without disabilities. The focus was not on what a student can or cannot do. Participating in the instructional activities of the GE curriculum is necessary for the learning of GE curriculum content (Wehmeyer & Agran, 2006). These participants reported learning of GE curriculum content by students, which was previously not expected. They credited shifting of that expectation as responsible, in part, for dramatic changes in their perceptions of student performance to the concept and guiding principle of presumed competence.

Impact on student performance

Three questions on the BA Impact Survey (Appendix B) addressed team members' perception of changes in student performance: (a) classroom membership and participation, (b) communication, and (c) learning. Team members' perceptions of membership and participation at the baseline and following 6 months of implementation of the BA model

are presented in Table 8. Four of the 5 students' teams reported 60%-80% participation by the student in the GE classroom following 6 months of implementation of the BA model. Team members provided 116 examples of changes in communication and learning. Themes and exemplar comments are provided in Table 9.

Discussion of impact on student performance

The BA model, and the CASTS in particular, seem to create cognitive dissonance for teams regarding the expectation for students to be included in the GE classroom and the GE curriculum. All teams reported an increase in student membership and participation prior to any specific recommendations to do so. It is notable that 4 of the 5 teams reported at least 60%-80% membership and participation by the student they supported. This is particularly notable for student C since she had just reentered her local school in August (at the beginning of the BA project), following 2 years of primarily home-based instruction. Student N's participation was influenced by the team's ability to provide behavior supports within the classroom during instruction and other activities (e.g., use of a leveled reading curriculum) that did not match N's learning style well.

The teams created more opportunities for the students' participation in and learning of the GE curriculum. Although access to activities in the classroom was necessary for

Table 9. Distribution of themes and exemplar comments related to improved student performance

Theme	Exemplar comments	n	%
<i>Communication</i>			
Opportunity to communicate	"We are expecting [the student] to respond verbally or [with] pictures or [by] writing." "The team worked to get [the student] to use his device more frequently."	12	20
Supports for communication	"Picture prompts." "Picture schedules." "Using [DynaMyte] to read." "Giving her time to respond."	19	32
Means of communication		24	40
Verbal (9)	"[Student] will say when he is angry." "[Student] said, 'I need my pencil sharpened.'"		
Unaided (2)	"She is making more eye contact."		
Aided (13)	"Improved use of communication choices." "Using AAC device during academic instruction."		
Communication about curriculum	"By allowing [the student] access to academic material in his communication device, he is better able to communicate in classroom discussions."	5	8
Total		60	
<i>Learning</i>			
Membership and participation	"When [the student] is or was in the classroom, there were more opportunities for him to be following the core academics."	8	14
Supports	"Ways of group participation being researched and tried." "Computer use for writing."	9	16
Learning curriculum content:		21	38
Learning reading (9)	"Learning new vocabulary— sight words." "Student able to summarize (with pictures) non-fiction text in book report format with modified materials."		
Learning writing (6)	"[Student] now writing 1 of 5 word wall words that the rest of the peers do weekly."		
Learning math (2)	"Student learning multiplication." "Participates in our daily math lessons."		
Learning other curriculum (4)	"Compare and contrast lesson —[student] learned same and different."		
Reference to curriculum		18	32
Reading (10)	"Reading group." "Working with words."		
Writing (2)	"'Cast-a-Spell' for spelling."		
Math (5)	"Participates in whole class math instruction."		
Other curriculum content (1)	"Involved in learning about life cycles."		
Total		56	

Note. AAC = augmentative and alternative communication.

students' learning, it was not sufficient. Supports were also needed.

Improvements in student communication reflect changes in team members' practices as much as changes in student behavior. Team members reported creating opportunities and providing supports for students to communicate. This is a promising finding, suggesting that changes in team members' expectations and practices led to changes in student performance.

There were five examples of students' communicating about curriculum content. Previous perceptions of these students' communication emphasized functional skills (e.g., *I need help; I want ...*), activities of daily living (e.g., *I need to use the bathroom*), and social participation (e.g., *hello*). As teams began to focus more on students' participation and engagement with GE curriculum content, they began to include age-appropriate messages for curriculum content on the students' AAC devices.

Reasons for impact

In response to open-ended survey questions, team members provided a total of 171 reasons why the impact occurred. Codes were assigned to 155 (91%) of the reasons for impact. The noncoded items consisted of ambiguous responses, unrelated answers, or items that did not fit with agreed upon codes and were eliminated from further analysis.

Reasons for impact on team member practices

Four of the BA Impact Survey open-ended questions addressed team members' perceptions about why there were changes in team practices: (a) provision of supports to the student, (b) factors influencing provision of supports, (c) what influences team members to change their practice, and (d) team collaboration (see Appendix B). Analysis of the 122 responses revealed five broad themes. Themes and exemplar comments are presented in Table 10.

Changes in expectations was reported as a factor influencing changes in team mem-

bers' practices, including a belief that the student could participate more in the classroom. Presumed competence in planning and in examining individualized educational program goals was also reported. Having shared understanding and facilitated meetings also were reported as reasons for changes in team members' practices. Team members perceived that changes occurred "because we worked on weekly goals as a team" and had "more time for communication among team members." Team members reported planning for the students' participation based on the GE goal for the activity and providing the supports to make the students' participation successful as reasons for changes in their practices. Reflective practice approaches represented a third of the professional development reasons for change. Team members reported that the opportunity to reflect, "think about the child," and "look at the effectiveness of what they are doing" led them to change their practice. Team members noted that the CASTS "interviews can be very eye opening; you don't really see some things as true until you are forced to speak them out loud."

Reasons for impact on students' performance

One question on the BA Impact Survey focused on reasons for improved demonstration of learning of GE curriculum content by the students. Analysis of the 33 responses clustered into four themes. Themes and exemplar comments are presented in Table 10.

Nearly a quarter of the reasons cited for changes in the students' demonstration of learning of GE curriculum focused on the expectations of team members regarding the students' abilities. Specifically, respondents reported that emphasizing presumed competence resulted in planning lessons, modifying GE curriculum, and exploring different ways a student could participate in the curriculum (e.g., programming academic vocabulary on the AAC device). The students' membership in the classroom was cited as a reason for changes in students' demonstration of learning. Increased membership led to a greater

Table 10. Distribution of themes and exemplar comments for reasons for impact on team practices and improvements in student performance

Theme	Exemplar comments	n	%
Reasons for impact on team practices			
Expectations	"The [presumed competence] approach and willingness of the team to apply the theory."	7	6
Shared understanding	"CASTS provides a road map that all team members have agreed to follow." "Guiding the entire team to be working on the same goals, which in turn lead to improvement all around!"	26	21
Facilitated meetings	"Weekly meetings seemed essential for good team collaboration." "Everyone needs a set time to COME TOGETHER." "I think giving our team guidance of how to use our time was of great value."	19	16
Planning and acquiring supports	"Team has learned various supports."	25	20
Professional development, including reflective practice	"The CASTS process is the opposite of stagnant! It is a dynamic process whereby all team members look at the effectiveness of what they are doing and ask on a daily basis, 'How can I create the best environment for [the student] to learn?'" "Process of educating the team of best practices and helping them to think carefully about areas in need of support."	45	37
Total		122	
Reasons for improved student performance			
Expectations	"[Presumed competence] opened our minds more to ALL the possibilities academically and socially that lie ahead for [the student]."	8	24
Membership and supports in general education classroom	"I think just keeping him in the classroom makes a huge difference!" "Team members' dedication to creating modified materials to GE curriculum."	5	15
Team collaboration and planning	"Classroom teacher was put into leadership role and others were used to support curriculum IN the classroom." "More thought went into how to plan for the child to participate."	17	52
Professional development	"Ideas from BA workshops" were used with student. "Expertise and encouragement from [BA faculty]."	3	9
Total		33	

Note. CASTS = Comprehensive Assessment of Student and Team Supports; BA = Beyond access.

need for supports for students' active participation in the classroom. Over half of the responses concerning reasons for change in students' demonstration of learning were related to team collaboration and planning (e.g., "having time to plan curriculum" and "team members' dedication to creating modified materials for the curriculum"). In addition, team members attributed students' demonstration of learning (e.g., "use of dry erase board") to something they learned during a workshop.

Discussion

A variety of reasons for changes in team members' practices were reported, suggesting that no one factor was responsible for the changes observed. Holding high expectations for student learning of the GE curriculum (i.e., presuming competence), having time to evaluate and reflect on current team and school practices and their influence on student learning, and high-quality professional development through workshops and on-site coaching may work together to influence team members' practices. Following these professional development activities, team members were open to ideas and willing to try new instructional approaches. The changes in team expectations and team practices enhanced student membership in the classroom, creating a demand for appropriate supports for the students' participation. In order for these supports to be provided effectively, team collaboration and planning was essential. Team members reported that these changes were related to concomitant changes in student learning.

IMPLICATIONS

The results of this study showed that school teams that participated in the BA orientation, CASTS process, and professional development workshops reported perceived changes in (a) their team's effectiveness; (b) their expectations for students' membership, participation, and learning of the GE curriculum; (c) the supports that were provided to students; and (d) the students' membership, participation, and learning of GE curriculum content.

Limitations of this study

The schools that participated in this project were chosen precisely because they were supportive of inclusive education for students with significant disabilities and in fact had been practicing at least *partial inclusion* for several years. The impact of a comprehensive needs assessment process (the CASTS) and professional development activities in other schools that were less supportive of the aims of the project might not have been as great, and the design did not allow for control measures. The students who participated in the study represented a narrow age range, so generalization to other age groups should be done cautiously. The fact that this study's results were based on team members' perceptions of change rather than on observable measures might reflect predisposition to give positive ratings to activities to which one has devoted time and attention. Finally, although some developmental measures were available for some of the students at the beginning of the BA project, no pre/post measures of student development were included to indicate direct outcomes of implementing the BA model.

Given these limitations, this study nevertheless provides some preliminary implications for expectations for student and team learning, instruction and inclusion, AAC and communication supports, professional development, and future research.

Implications of greater expectations for student and team learning

This study indicated that team members made a connection between student learning and their own expectations about what students with significant disabilities could learn. Kasa-Hendrickson (2005) found similar results in her study of four classroom teachers. This suggests that a first step toward improving student performance ought to be raising team members' underlying expectations for students' learning. Rather than using perceived student deficits as the driving force for educational programs (i.e., focusing solely on remediation of what students cannot do), this

study suggests that teams shift their attention to how the environment, instruction, curriculum, materials, and AAC supports can be manipulated to create the context in which a student can access and participate in GE classrooms and learn the GE curriculum.

These findings also suggest that any evaluation of student learning abilities ought to be postponed until there is a high level of confidence that the necessary conditions and supports for learning have been in place consistently. Evaluation of student learning should be accompanied by a related evaluation of the team's effectiveness in including the student in an accommodating learning environment, educators' expectations for the student's learning, the quality of instruction and supports (including AAC), and the team's collaboration skills. Judgments about what students are learning should take place within a dynamic assessment process where teams are continuously asking: "How is the student doing?" "How well are we providing supports?" "What can we try next?" "How might we do this differently?" "How can we provide the student with the means to show us that she is competent?"

Implications for instruction and inclusion

The individualized educational programs of students with significant disabilities often focus on access and life skills, and many of these students are not expected to learn the same GE curriculum content as their classmates (Jorgensen et al., 2006). This study showed that teachers who learned to apply the concept of presumed competence were able to suspend their need for initial direct evidence of the students' abilities and to see the link between the student's learning of GE curriculum and the instruction and supports that were being provided within the GE classroom. They made comments such as "his being in the classroom really helped him to learn" and "when we provided him with the visual supports, he showed us that he can learn math." Although a presumption that the student may be able to learn GE curriculum content ap-

pears to be an important factor, especially for students with the most significant disabilities, simply maintaining high expectations for learning does not seem to be sufficient. However, it does appear to lead to other deeper changes in systems that support new learning, both for educators and students. These findings are consistent with those of others (Kasa-Hendrickson, 2005; Kluth, Straut, & Biklen, 2003; Wehmeyer & Agran, 2006), who have suggested that students' membership in a GE class where they receive instruction in the GE curriculum is not only a desired outcome of education but also improves the likelihood of their learning GE curriculum content.

Implications for AAC

The findings of this study have implications for AAC evaluations and supports. In practice, AAC evaluations that focus on acquiring or improving the use of technology for communication are limited to what a particular student needs without explicating what the team needs in order to implement these recommendations. Whether AAC services are provided by in-school staff or consultants, any evaluation of students for AAC ought to include a similar assessment of the team's capacity to implement those recommendations, plus identifying and assisting with the follow-up technical assistance to help them do so (Beukelman & Mirenda, 2005; Sonnenmeier et al., 2005). AAC assessment should be thought of as dynamic and ongoing (Goossens', 1989), linked closely with the students' access to, progress in, and learning of the GE curriculum and the team's ability to implement AAC and AT best practices.

A second implication related to AAC is the importance of giving students a way to communicate about the GE curriculum even before they have demonstrated what they know (Goossens', 1989). The participants in the current investigation reported that AAC supports, including vocabulary and messages related to the GE curriculum, led to improvements in students' participation and learning. This study supports the principles of Benkelman

and Mirenda's Participation Model (2005) and the recommendations of the National Joint Committee on the Communication Needs of Persons with Severe Disabilities (1992, 2002) that there should be no prerequisites to providing students with a means to communicate about age-appropriate topics and academic subjects.

Implications for professional development

The findings of this study suggest that professional development for teams that work with students with significant disabilities should be carried out within an integrated system of job-embedded activities, including needs assessment, workshops, instructional planning, teaching, data collection, and reflection on practice and student learning outcomes (National Staff Development Council, 2001).

Prior to the provision of professional development, a comprehensive needs assessment of the student and team should be conducted. In this study, data were gathered from multiple sources and teams were involved in the identification of and prioritization of professional development activities based on analysis of these data. Given the increased demands for membership, participation, and learning in the BA model, professional development to enhance teaming practices may be a *necessary* first step in order to proceed with professional development related to enhancing knowledge and skills in AAC or other best practices. Without well-functioning teams, it is likely that recommendations regarding AAC, instruction, and supports might not be implemented, and that professional development in other best practices might not be as effective.

In addition to focusing on instructional practices that meet criteria for evidence-based practices (Access Center, n.d.), it is useful to address expectations about student learning and collaborative teaming. Professional development should promote exploring creative and innovative strategies to improve students with significant disabilities' access to, participation in, and learning of the GE curriculum.

Implications for research

The results of this study suggest numerous questions for future investigations. Do the team members' perceptions of change reflect observable changes in team behavior, instruction, and student learning? Are similar changes observed for students who are in preschool, early elementary, later elementary, middle, and high school? What effect does the school district's philosophy about inclusive education have on the implementation of the BA model?

How effective are GE teachers as primary instructors for students with significant disabilities? What variations in practice are explained by professional development in presumed competence versus in other best practices (e.g., AAC, instructional strategies)? Do other teams report similar outcomes without using presumed competence? What features of the BA model and other instructional supports move students beyond access and result in their learning of GE curriculum content?

CONCLUSION

The results of this study show that team members who applied the principles and processes of the BA model perceived positive changes in how students with significant disabilities engage in and learn the GE curriculum. Specifically, team members reported that engaging in a comprehensive process of reflection (as promoted by the BA CASTS process) led to changes in their teaming practices, curriculum planning, and provision of student supports. A challenge for the field is to rethink current assessment practices to allow for more extensive assessment of a student's abilities within the larger contexts of the family, classroom, school, and community that takes place over an extended period of time. Such practices will set the stage for the effective implementation of educational best practices that provide for not only access to but also learning of the GE curriculum by all students, including those with significant disabilities.

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Appendix A

Beyond Access Model Best Practices That Promote the Learning of General Education Curriculum Content for Students With Significant Disabilities²

1. **High expectations and the least dangerous assumption of presumed competence.** All students with significant disabilities pursue the same learner outcomes as students without disabilities. When students do not currently demonstrate content knowledge or skills, the least dangerous assumption principle (Donnellan, 1984) of presumed competence (Biklen, 1999) applies, and all aspects of their educational programs reflect high expectations.
2. **General education class membership and full participation.** Students with significant disabilities are members of age-appropriate general education classes in their neighborhood school and have access to the full range of learning experiences and environments offered to students without disabilities (Jorgensen, 1998; McGregor & Vogelsberg, 1998).
3. **Quality augmentative and alternative communication.** Students with significant disabilities are provided with accurate and reliable augmentative and alternative communication supports and services that enable them to communicate about the content of the academic curriculum and in social situations with adults and age-appropriate classmates (based on Beukelman & Mirenda, 2005; McCarthy et al., 1998).
4. **Curriculum, instruction, and supports.** Curriculum and instruction are designed to accommodate the full range of student diversity. Individualized supports are provided to enable students to fully participate and make progress within the general education curriculum (Jorgensen, 1998; Kleinert & Kearns, 2001).
5. **Ongoing authentic assessment.** Authentic, performance-based assessments are conducted within typical activities in inclusive environments for the purpose of identifying students' learning and communication styles, preferences and interests, academic strengths and weaknesses, and need for support (Beukelman & Mirenda, 2005; Goossens, 1989).
6. **Family-school partnerships.** Families and schools are engaged in partnership to create quality inclusive educational experiences for students with significant disabilities (Giangreco, Cloninger, & Iverson, 2000).
7. **Team collaboration.** General and special education teachers and related service providers demonstrate shared responsibility by collaborating in the design, implementation, and evaluation of students' educational programs and their individualized educational programs (Giangreco et al., 2000; Rainforth, York, & Macdonald, 1992).
8. **Special and general education reform.** Administrators provide leadership to align general and special education reform and improvement with respect to the creation of a community of learners that is inclusive of students with significant disabilities (Kleinert & Kearns, 2001).
9. **Professional development.** Professional development for general and special education staff is linked to improved educational outcomes for students with significant disabilities (Danielson, 1996; National Staff Development Council, 2001).

²For the list of best practice indicators, see Jorgensen, C., McSheehan, M., & Sonnenmeier, R. (2002). *Best practices that promote the learning of the general education curriculum content by students with significant disabilities*. Retrieved from <http://iod.unh.edu/beyond-access/best-practice.pdf>

Appendix B

Beyond Access Impact Survey

Directions: Based on your experience with the CASTS (Comprehensive Assessment of Student and Team Supports) process, assign the number that best represents the level of agreement you have with the statement, using a 7-point scale, with 1 = strongly disagree, 4 = neither agree or disagree, and 7 = strongly agree. Following each statement, list two examples of changes that you attribute to participation in the CASTS process for each area addressed.

1. Participating in the CASTS process resulted in an increase in the student's membership and participation in the general education classroom.

Estimate of the student's level of membership and participation in the general education classroom:

PRIOR to CASTS

0%-20%

20%-40%

40%-60%

60%-80%

80%-100%

... Within 1 month FOLLOWING CASTS

0%-20%

20%-40%

40%-60%

60%-80%

80%-100%

2. Participating in the CASTS process resulted in the application of the *least dangerous assumption of presumed competence to learn the general education curriculum* when planning for the student's participation and learning within lessons.
3. Participating in the CASTS process resulted in improved learning of core academics by the student.
4. Participating in the CASTS process resulted in improved communication by the student.
5. Participating in the CASTS process resulted in improved team collaboration.
6. Participating in the CASTS process resulted in improved school-family relationships.
7. Participating in the CASTS process resulted in more effective and efficient team meetings.

Open-Ended Questions Directions: Based on *your* experience with the CASTS process, describe how *your practice* has changed by responding to the listed open-ended questions. Please report only on changes you have made, not on your perceptions of changes made by other team members. Please include specific examples of the impact of the CASTS process whenever possible.

1. If you reported changes in the student's demonstration of learning of general education curriculum as a result of the CASTS process, why do you think those changes took place?
2. If you reported changes in the team's provision of supports to the student as a result of the CASTS process, why do you think those changes took place?
3. If you reported changes in team collaboration that occurred as a result of participation in the CASTS process, why do you think those changes took place?
4. What is it about the CASTS process that influences team members to change their practice?
5. Is there anything else that you would like to tell us about the impact of the CASTS process on student learning, team collaboration, professional development, or systems variables?