Inclusion Means More than Just Being "In:" Planning Full Participation of Students with Intellectual and Other Developmental Disabilities in the General Education Classroom

Cheryl M. Jorgensen
University of New Hampshire

Laurie Lambert
University of New Hampshire

Author Note

Cheryl M. Jorgensen, Affiliate Faculty, Department of Education, University of New Hampshire; Laurie Lambert, Project Associate, Institute on Disability, University of New Hampshire.
Correspondence should be addressed to: Cheryl M. Jorgensen, P.O. Box 8, South Acworth, NH, 03607 or cheryl.jorgensen@unh.edu.

Abstract

When students with autism, intellectual, and multiple disabilities are included in general education classes their teachers often struggle with identifying meaningful participation opportunities. Too often students are seated in the back of the room, socially isolated from their classmates, taught primarily by a paraprofessional, and without access to the general education curriculum. This paper describes the routines-based instructional planning process of The Beyond Access Model that promotes students' full membership, participation, and learning of the general education curriculum in the general education classroom. The process is grounded in high expectations for all students and provides step by step guidance to their educational teams. Limitations of the research on the Model are presented with suggestions for future study.

Keywords: inclusive education, participation, presuming competence, curriculum modification, autism, intellectual disabilities, general education curriculum

When Amanda[1] was in ninth grade, the science teacher was nervous about having her in his general education class. He read on her Individualized Education Program (IEP) that she had an I.Q. of 55 related to a rare chromosomal condition that made her legally blind, unsteady on her feet, and prone to challenging behavior. In the first team meeting of the year he said "But what is she supposed to learn in my class?"

Tomas was a kindergarten student with autism who used echolalic speech, was bilingual, was legally blind, and had sensitivities to noise and light. His kindergarten teacher was eager to have him in her class but wondered how he would participate in the 90 minute literacy block if he were unable to speak and became anxious when the noise level in the classroom rose, as it frequently did in kindergarten.

Both of these teachers expressed fears that are common to general education teachers when they have not had students with autism, intellectual disabilities, or multiple disabilities in their classrooms. The United States special education law – The Individuals with Disabilities Education Act (IDEA) – clearly states that schools are accountable for all students with disabilities making progress in the general education curriculum. Although a clear preference is stated for those students to learn in a general education classroom, translating policy into daily practice is a challenge (IDEA, 2004; Rainforth, 2000; Wehmeyer & Agran, 2006).

When these students' teams used the Beyond Access Model (Jorgensen, McSheehan, & Sonnenmeier, 2010) to plan supports for their students' membership, participation, and learning of the general education curriculum in the general education classroom, positive outcomes occurred. The Beyond Access Model consists of four iterative phases including a baseline needs assessment, exploring and describing best-guess team and student supports, systematic implementation of promising supports with data collection, and review and revision of student and team supports based on data analysis. It also includes comprehensive professional development related to the Model's best practices (Jorgensen, McSheehan, & Sonnenmeier, 2010).

This article focuses on the Beyond Access Model's routines-based planning process that guides teams in planning a student's full participation in general education instructional routines. This process helps to assure that students will not be an "island in the mainstream," but fully participating and successful learners (Biklen, 1985, p. 18). Two case studies will be presented that illustrate how the planning process is used. The outcomes reported by students' educational team members will be presented. Finally, the limitations of the Beyond Access Model and directions for future research will be discussed.

Planning for Amanda's Participation in Physical Science

The Beyond Access Model's routines-based planning process consists of five questions that teams answer during regularly scheduled meetings that take place prior to the coming week's lessons (Jorgensen, McSheehan, & Sonnenmeier, 2010). This process has its roots in the discrepancy analysis technique described by Brown, Shiraga, York, Zanaga, and Rogan (1984); and adapted for use in inclusive education by many others (Biklen, 1985; Giangreco, Cloninger, & Iverson, 1993; Jorgensen, 1992; York, Vandercook, Macdonald, & Wolff, 1989).

The questions are:

---

[1] All names are pseudonyms.

1. What is the general education instructional routine?
2. What are students *without* disabilities doing to participate in the instructional routine?
3. Can the student with the disability participate in the same way in all components of the instructional routine or does the student need an alternate way to participate?
4. What supports does the student need to participate using alternate means?
5. Who will prepare the supports?

This process can be illustrated using Amanda's science class. During a 15 minute weekly meeting, Mr. Becker, the science teacher, provided Amanda's special education teacher with information about upcoming units, including the instructional routines that he used frequently, essential vocabulary, the unit's enduring understandings (McTighe & Wiggins, 2011), and the assessments he designed to measure students' knowledge and skills. Mr. Becker said that every class included a 20 minute "teacher lectures, students take notes" segment. So "all students are taking notes during a teacher lecture" is written in column one of a Beyond Access routines-based planning form (Figure 1).

Figure 1. Amanda's Routines-Based Planning Form for Science Lecture

Column #1	Column #2	Column #3	Column #4	Column #5
All students are participating in ____ (instructional routine).	Students without disabilities do ____ to participate.	Will the target student use the *same* or an *alternate* form of the column #2 "do?" in order to participate?	What *supports* will it take for the target student to do the behavior described in column #3?	What *planning and preparation* is needed by the team so that the supports are provided accurately and consistently?
All students are taking notes during a teacher lecture.	• Sit in seat	• Alternate	• Seat at front of room	• Talk with teacher about Amanda's desk location – special education teacher
	• Listen to teacher lecture	• Alternate	• Scheduled walk-around breaks	• Model how to give Amanda breaks – special education teacher
	• Look back and forth from the overhead projector to their notebooks	• Alternate	• Laptop or i-Pad for taking notes	• Purchase laptop or i-Pad – special education teacher
	• Write key points of the lecture in their notebooks	• Alternate	• Adapted writing software on laptop and guided notes	• Load software on device; provide guided notes; teach paraprofessional to support Amanda to use it – speech-language pathologist and occupational therapist

	• Ask teacher clarifying questions about the lecture	• Alternate	• Aided language board with science vocabulary and pictures	• Create aided language board – paraprofessional with advice from classroom teacher and special education teacher

The second step is to describe in some detail what the students *without* disabilities will do to participate in the instructional routine. Mr. Becker said that students will demonstrate their participation by sitting quietly in their seats, looking back and forth between the overhead projector and their notebooks, and writing key points of the lecture in a spiral bound notebook. They might raise their hands and ask a question. Each of these participation ("what students do") behaviors is written in column two.

The third step in the planning process is for the team to discuss whether Amanda can participate in the lecture and note-taking routine in the *same* way as other students or if she will need an *alternate* way to participate. The special education teacher remarked that Amanda can sit in the same kind of seat as the other students but her position in the classroom needs to be individualized because of her vision difficulties. The paraprofessional suggested that Amanda will need an accommodation in order to meet the "sit quietly" expectation in the form of a planned break mid-way through the lecture. The occupational therapist recommended that Amanda have a laptop computer or i-Pad with customized software, as she has neither the fine motor skills nor the written vocabulary to take useful notes using a pencil. The speech-language pathologist said that Amanda might benefit from an aided-language board (Beck, 2002) to support her to ask questions about the lecture topic.

When thinking about alternate means of participation, it is important that teams adhere to the maxim "only as special as necessary" (Giangreco, 2001, p. 13). Alternate means of participation need to reflect strong alignment with general education curriculum standards and maximum involvement in general education instruction led by the general education teacher. Where appropriate, the "alternate" notation is recorded in column three. To complete column four, the team members discussed details of the individualized supports that Amanda needed in order to fully participate in the column entries marked *alternate*. Entries in column four included sitting in the front of the room so she can see the overhead projector, having a three-minute break mid-way through the lecture, having a dedicated laptop computer or i-Pad, using Co:Writer6© (Johnston, 2012) to take notes, and using an aided language board to support question-asking.

The fifth column recorded what the team members will do in order to prepare the supports so that they will be ready for Amanda to use during the "teacher lectures, students take note" routines. Column five showed that the special education teacher will make sure that Mr. Becker knows that Amanda must sit in the front row. The special education teacher will model for the paraprofessional how to support Amanda to take a scheduled break. The special education teacher will also assure that a dedicated laptop or i-Pad is specified as an accommodation in Amanda's IEP. The speech-language pathologist will load the writing software on the laptop or i-Pad and both she and the occupational therapist will teach the paraprofessional how to support Amanda to use it. With input from the science teacher about the vocabulary that will be used during this unit, the paraprofessional will make an aided-language board with guidance from the special education teacher.

The team will evaluate the fidelity of implementation of these supports by using a checklist that describes each strategy and then rates its level of implementation using a scale consisting of 1 (not implemented), 2 (partially implemented), or 3 (fully implemented). If all supports are not rated a "3," the team discusses and implements strategies for improving the accuracy (i.e., implementing it correctly) and consistency (i.e., doing it accurately each and every time) of the support (Jorgensen, McSheehan, & Sonnenmeier, 2010, p. 216-219).

If these supports are provided with fidelity then the team has a high degree of confidence that Amanda's performance reflects her true capabilities. If supports are not provided with fidelity then the team will need to defer their assessment of what Amanda has learned and work to improve the quality of supports (Jorgensen, McSheehan, & Sonnenmeier, 2010).

Key Components of the Beyond Access Instructional Planning Process

Having High Expectations for All Students

The Beyond Access instructional planning process is grounded in the least dangerous assumption of presumed competence. Judgments about students' capacity for learning or their performance are deferred until teams can demonstrate that they are providing instruction and supports with high fidelity (Jorgensen, McSheehan, & Sonnenmeier, 2010). The positive impact of teacher expectations on student performance has been demonstrated in many research studies over the past 50 years (Merton, 1948; Rolison & Medway, 1985), and high expectations are encoded in IDEA. A challenge arises when students with more significant disabilities are not presently able to show what they know by speaking, writing, or typing. Jorgensen, McSheehan, and Sonnenmeier (2007) and many other researchers have shown that having high expectations of these students is the least dangerous assumption that can be made about their abilities (Biklen & Duchon, 1994; Donnellan, 1984; Jorgensen, McSheehan, & Sonnenmeier, 2007; Kasa-Hendrickson, 2005).

Even if students never show that they have mastered all that they have been taught, it is far more dangerous to presume that students will never learn and then find out that they might have, had they been provided with high quality instruction and assistive technology to support their communication and literacy skills (Jorgensen, 2005). Furthermore, many studies of the academic performance of students with significant disabilities have shown that many more students than ever thought possible can learn academic knowledge and skills when they are provided with high quality instruction and assistive technology within a general education classroom (Cole, Waldron, & Majd, 2004; Jackson, Ryndak, & Wehmeyer, 2009; Theoharis & Causton-Theoharis, 2010).

Planning for Participation in Typical Instructional Routines

Many teams believe that effective inclusion requires them to plan for each and every lesson that will be taught in the general education classroom. When the number of students needing such intensive supports is multiplied by the number of classes in which they are enrolled and by the number of lessons taught in each class, it is no wonder that teachers report burn-out and some students do not have the supports they need. This would be an almost impossible task for even the most dedicated teachers. Planning for instructional routines is a way to make the supports planning process more efficient as most teachers use a predictable number of instructional routines throughout a typical week or semester, based on our observations over 50 years of teaching experience.. This concept is consistent with the Participation Model of assessment and intervention in augmentative and alternative communication promoted by Beukelman and Mirenda (2005), and extends the partial participation model promoted by Baumgart et al. (1982). Some of these routines include:
- Teacher lectures, students take notes

- Teacher facilitates large group discussion (whether at the kindergarten calendar or in the high school honors seminar), students provide information and make comments
- Students complete worksheets or do other independent writing at their desks
- Students manipulate laboratory or cooking equipment
- Students work in cooperative learning groups
- Students use a word processor for online research or writing

We have found that when teams plan for these instructional routines, similar adaptations and supports can be used across subject areas or units of instruction. For example, Amanda needs fill-in-the-blank worksheets to practice language arts and science vocabulary words, social studies definitions, and specialized terms used in horticulture. These worksheets need to be typed in 24 point font, with black letters on yellow background, displaying four questions per page. Once a worksheet template has been designed specifically for Amanda (fill-in-the-blank worksheet templates are available in the Microsoft Office software package) then the specific questions and answers related to a particular subject area can be typed into the template to create multiple worksheets without "reinventing the wheel" each and every time such a worksheet is needed. If these templates are saved in digital form they can be endlessly adapted not only for Amanda but for other students as well.

Grounding the Process in What Students without Disabilities are Doing

When students with significant disabilities were first included in general education classes in the mid-1980's, the instructional planning process typically began by asking "Where are the opportunities throughout the day in the general education classroom for John to work on his IEP goals?" (Giangreco, Cloninger, & Iverson, 1993). Many teachers found opportunities in science for students to work on categorization, opportunities in language arts to work on vocabulary, and opportunities in math to work on money and time skills. What resulted, however, were some negative unintended consequences. In many instances students were physically present in a general education class working on a similar academic skill, but not truly engaged with the rest of the class. Beginning the inclusive instructional planning process with what is expected of students *without* disabilities helps to assure that students with disabilities will be connected to the general education curriculum, general education instruction, and their classmates without disabilities.

Planning for Tomas' Participation in Self-Selected Reading

To respond to Tomas' kindergarten teacher's concerns, his team met weekly to plan instructional supports that would allow him to participate in self-selected reading. Using the Beyond Access routines-based planning process and form, the team analyzed the self-selected reading routine (Figure 2).

Figure 2. Tomas' Routines-Based Planning Form for Self-Selected Reading

Column #1	Column #2	Column #3	Column #4	Column #5
All students are participating in ____ (instructional routine).	Students without disabilities do ____ to participate.	Will the target student use the *same* or an *alternate* form of the column #2 "do?" in order to participate?	What *supports* will it take for the target student to do the behavior described in column #3?	What *planning and preparation* is needed by the team so that the supports are provided accurately and consistently?
All students are participating in self- selected reading	• Listen to and follow teacher directions • Look through book bins • Pick up book and return to desk • Turn pages • Track text with fingers and/or eyes	• Alternate • Same "do" with adapted books • Same • Same • Alternate	• Social story/task card • Bin containing high interest books • Same • Same • Paraprofessional tracks text with finger	• Social story/task card – special education teacher • Put high interest books in Tomas' bin – kindergarten teacher • Teach paraprofessional how to track text – speech language pathologist

	• Ask questions and make comments	• Alternate	• Augmentative communication device to ask questions	• Program communication device with comments/questions related to the story - speech-language pathologist
	• Read with understanding	• Alternate	• Aided language board to enhance comprehension	• Create aided language board – paraprofessional with special education teacher supervision

First, the kindergarten teacher described the observable behaviors that students without disabilities exhibited during self-selected reading, including selecting a book from the book bins, turning pages, tracking text with their fingers and/or eyes, and mouthing the words as they were reading. These behaviors were entered in column two. Next, the team discussed whether Tomas could participate like his classmates without disabilities by doing the same behavior in the same way or whether he would need an alternate way to participate. They recorded "same" or "alternate" in column three for each of the "do's" in column two. Then the team discussed the specific supports that Tomas would need for each of his alternate participation behaviors and recorded them in column four. The team agreed that Tomas could choose his own book from a personalized book bin. An alternate behavior of reading softly aloud would be allowed for Tomas as this is typical for other kindergarteners and would not be disruptive. The team agreed that Tomas would benefit from having his paraprofessional use her finger to track the text, as Tomas' visual difficulties often interfered with his ability to follow the text easily. They also felt that a social story supplemented by a reading task card might help Tomas internalize the self-selected reading routine.

The team decided that Tomas would need to use his augmentative and alternative communication (AAC) device (DynaVox V+™)(DynaVox Mayer-Johnson, 2012) to ask questions of his teacher or make a comment to a classmate. The team determined that Tomas, like Amanda, might benefit from having an aided language board (Beck, 2002). Finally, team member responsibilities for creating these supports were recorded in column five of the planning form.

Finding Time for Instructional Planning Meetings

The Beyond Access Model routines-based instructional planning process recognizes that students' teams need administrative and organizational supports in order to teach their students well. Having a regular instructional planning meeting is one of these essential team supports. Finding time to meet is sometimes not easy, particularly if the school's master schedule has not been created with this planning time in mind. Schools that have used the Beyond Access Model have employed creative strategies for finding common planning time (Jorgensen, McSheehan, & Sonnenmeier, 2010) including:

- Rotate a substitute teacher throughout the building on the day that planning meetings take place
- Hold meetings during recess and rotate the responsibility for serving the recess duty (i.e., week 1 the speech-language pathologist covers the duty, week 2 the occupational therapist covers the duty, week 3 the general education teacher covers the duty, etc.)
- Build common planning time into related service providers' service hours (i.e., speech-language pathologist, occupational therapist)
- Hire substitutes or engage trained volunteers to cover duties (e.g., lunchroom, recess)
- Principal, Assistant Principal, reading specialist, or other certified staff member covers classes while teachers attend meetings
- Develop partnership with university programs (e.g., physical and health education, outdoor education, teacher education) and have pre-internship students cover classes

Discussion

The Beyond Access Model was first used from 2002-2008 with educational teams in 14 schools in New Hampshire that were part of federally funded discretionary projects. Since that time it has been adopted by schools in several other U.S. states. Team members from the original model demonstration schools who were surveyed after using the Beyond Access Model for six months reported the following outcomes:

- Team members presumed students to be more competent to learn grade level academic content
- Students spent significantly more time in general education classrooms
- Students' communication skills improved
- Students demonstrated more learning of general education curriculum content
- Team meetings were more efficient and team collaboration more effective
- School-family relationships improved

The limitations of the case study research that has been conducted on the Beyond Access Model include:

- The studied cases may not be representative of all students with intellectual and other developmental disabilities.
- Too few students and their teams have been studied to allow for generalization of results.
- The Model consists of many interrelated elements and it is not known which features make the most significant contributions to improvements in student learning.

Further research is needed to answer the following questions about the Beyond Access Model in general and the instructional planning process specifically:

- What features of the Model contribute to positive outcomes?
- How might the routines-based instructional planning process be nested within a Universal Design for Learning framework for all students?
- What team and system level supports contribute to implementation of the planned supports with fidelity?
- How sustainable is the Model when it is used outside of the context of a university-based demonstration project?

Conclusion

Including students with intellectual and developmental disabilities can be a rewarding endeavor for students, their parents, and their teachers. It is supported by over 30 years of research and meets the intent of IDEA. Using the Beyond Access Model routines-based instructional planning process helps assure that all students are held to high expectations and that they have the supports they need to go from simply being physically present in a general education class to being valued members and full participants.

References

Baumgart, D., Brown, L., Pumpian, I., Nisbet, J., Ford, A., Sweet, M. Messina, R., & Schroeder, J. (1982). Principle of partial participation and individualized adaptations in educational programs for severely handicapped students. *Journal of the Association for Persons with Severe Disabilities, 7*, 17-27.

Beck, J. (2002). Emerging literacy through assistive technology. *Teaching Exceptional Children, 35*(2), 44-48.

Beukelman, D. R., & Mirenda, P. (2005). *Augmentative and alternative communication.* (3rd ed.). Baltimore: Paul H. Brookes Publishing Co.

Biklen, D. (1985). *Achieving the complete school: Strategies for effective mainstreaming.* New York: Teachers College Press.

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.

Brown, L., Shiraga, B., York, J., Zanella, K. & Rogan, P. (1984). The discrepancy analysis technique in programs for students with severe intellectual disabilities. In L. Brown, M. Sweet, B. Shiraga, J. York, K. Zanella, P. Rogan & R. Loomis (Eds). *Educational programs for students with severe handicaps* (Volume XIV). Madison, WI: University of Wisconsin and the Madison Metropolitan School District.

Cole, C.M., Waldron, N., & Majd, M. (2004). Academic progress of students across inclusive and traditional settings. *Mental Retardation, 42*,136-144.

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

DynaVox Mayer-Johnson (2012). DynaVox V+. Pittsburgh: DynaVox Mayer-Johnson.

Giangreco, M. (2001). *Guidelines for making decisions about IEP services.* Montpelier, VT: Vermont Department of Education.

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

Individuals with Disabilities Education Improvement Act (2004). PL108-446, 20 U.S.C. §§1400 et seq.

Jackson, L. B., Ryndak, D. L., & Wehmeyer, M. L. (2009). The dynamic relationship between context, curriculum, and student learning: A case for inclusive education as a research-based practice. *Research and Practice for Persons with Severe Disabilities, 34*(1), 175-195.

Johnston, D. (2012). Co:Writer (Version 6). Volo, Illinois: Don Johnston.

Jorgensen, C. (1992). Natural supports in inclusive schools: Curricular and teaching strategies. In J. Nisbet (Ed.), *Natural supports in school, at work, and in the community for people with severe disabilities* (pp. 179-215), Baltimore: Paul H. Brookes Publishing Co.

Jorgensen, C.M. (2005). The least dangerous assumption: A challenge to create a new paradigm. *Disability Solutions, 6*(3), 1, 5-9.

Jorgensen, C.M., McSheehan, M., & Sonnenmeier, R. (2007). Presumed competence reflected in the educational programs of students with IDD before and after the Beyond Access professional development intervention. *Journal of Intellectual and Developmental Disabilities, 32*(4), 248-262.

Jorgensen, C.M., McSheehan, M., & Sonnenmeier, R.M. (2010). *The Beyond Access Model: Promoting membership, participation, and learning for students with disabilities in the general education classroom*. Baltimore: Paul A. Brookes Publishing Co.

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.

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.

McTighe, J., & Wiggins, G. (2011). *The understanding by design guide to creating high quality units*. Alexandria, VA: The Association for Supervision and Curriculum Development.

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

Rainforth, B. (2000). Preparing teachers to educate students with severe disabilities in inclusive settings despite contextual constraints. *Journal of the Association for Persons with Severe Handicaps, 25*(2), 83-91.

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.

Theoharis, G., & Causton-Theoharis, J. (2010). Include, belong, learn. *Educational Leadership, 68*(2). Retrieved from http://www.ascd.org/publications/educational-leadership/oct10/vol68/num02/Include,-Belong,-Learn.aspx

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 Publishing Co.

York, J., Vandercook, T., Macdonald, C., & Wolff, S. (Eds.). (1989). *Strategies for full inclusion.* Minneapolis: University of Minnesota, Institute for Community Integration.