Turning Mealtimes into Learning Opportunities: Integrating Feeding Goals into IEPs

Deborah A. Bruns and Stacy D. Thompson

TEACHING Exceptional Children, Vol. 46, No. 6, pp. 179–186. Copyright 2014 The Author(s). DOI: 10.1177/0040059914534619

Ella, 4 years old with autism; Joseph, 8 years old with a significant visual impairment and developmental delay; and Cylesha, 15 years old with cerebral palsy and a seizure disorder all receive special services at their school. They need varying supports and accommodations, such as a visual schedule for daily activities and routines, large-print materials, and an augmentative communication device and positioning equipment, respectively. Each student has issues related to his or her disability. However, one similarity that they all possess is that each child's individualized education program (IEP) includes goals to address feeding needs, ranging from increasing acceptance of textured foods to improving self-feeding skills, such as independent use of utensils, to implementing specialized strategies for mealtimes, including oral stimulation.

Ella's prekindergarten teacher, Ms. Gardner, has always included cooking activities in her classroom. She is especially excited to use cooking and snack time to work on Ella's resistance to textured foods. She also sees opportunities for building on literacy and numeracy skills, such as counting (e.g., "stir the mixture five times") and recognizing letters and sight words in recipes. Ella's speech-language pathologist (SLP), Ms. Berry, has consulted with Ms. Gardner on ways to also address Ella's language goals during cooking activities and snack time, such as identifying food items, asking for more, and responding to peers' questions. Ms. Berry has also agreed to sit in for next week's cooking activity to further facilitate Ella's participation and identify opportunities to work on the targeted areas. Ms. Broadstreet, Ella's occupational therapist (OT), has requested a meeting with Ms. Gardner and Ms. Berry to discuss a new oral stimulation regimen to help Ella prepare for mealtimes.

Joseph has been feeding himself since he was 4 years old but does not use utensils appropriately. He can verbalize his needs during meals and snack, such as asking for items and expressing when he is full. His parents would like for him to improve his socializing skills during meals (i.e., participating in conversational turns) as well as improving his use of utensils. During Joseph's IEP meeting, his special education teacher was focused on his bilateral hand use and issues around sensory exploration with his hands. His OT pointed out that working on Joseph's use of utensils would also support these fine motor skills. There are also goals on the IEP related to interactions with peers, which can be addressed in food-related activities and routines.

Cylesha has been exclusively gastrostomy tube fed since she was 4 years old. Until that time, she accepted varying amounts of pureed foods and thickened liquids. She was dependent on the classroom staff for all mealtime activities. After hospitalization for pneumonia shortly after her third birthday, the decision was made to provide supplemental tube feeding during the overnight hours via the gastrostomy tube. At the current time, Cylesha receives the majority of her daily intake through the gastrostomy tube. Her mother has advocated for increasing the variety of foods that Cylesha eats once she is medically stable. During any type of illness, oral activities are discontinued. An SLP consults with Cylesha's classroom teacher, Mr. Ward, about foods to offer, along with suggestions for adapted spoons and cups. A physical therapy assistant has also consulted on appropriate positioning for oral stimulation activities. Furthermore, as part of Mr. Ward's community-based instruction (CBI), Cylesha and the other students go to a fast-food restaurant once a week. She is assisted with proper positioning in the restaurant and orders a smoothie or shake to taste. Because Cylesha's IEPs have consistently included oral stimulation goals, it is important for her to have opportunities to go to various restaurants and participate in oral stimulation activities.

As the scenarios all suggest, each student has individual needs related to feeding as well as other developmental domains. Feeding difficulties can affect students in multiple ways (Ledford & Gast, 2006; Schwarz, 2003). As such, the provision of strategies and specialized interventions by members of the student's IEP team is necessary but may not be included on an IEP. The literature has described addressing feeding-related skills on IEPs as focusing on CBI-related areas, including grocery shopping, food preparation, and placing food orders in various types of restaurants (fast food, self-serve/buffet, sit-down), rather than teaching the skills needed to prepare and/or consume the food (Beakley, Yoder, & West, 2003; Wehman & Kregel, 2004). Conversely, Grisham-Brown, Pretti-Frontczak, Hemmeter, and Ridgley (2002) described opportunities to embed IEP goals and short-term objectives (STOs) for young children with developmental delays and disabilities within the context of mealtimes, with a focus on skill acquisition in areas such as fine motor development rather than on feeding skills. Finally, feeding goals may be included in IEPs for students with swallowing issues (dysphagia) and other medically based feeding difficulties (Lefton-Greif & Arvedson, 2008; McKirdy, Sheppard, Osborne, & Payne, 2008). These goals emphasize overall health and safety concerns more so than feeding-related skill acquisition and generalization, which is within the purview of teachers who work with students with disabilities.

The IEP is the foundation of instruction and interventions for students with disabilities. A team of teachers and related service professionals develop an IEP, including SLPs, OTs, nurses, and parents. Parent input is especially critical in identifying priorities and preferences (Dunst, 2002). The team is charged with creating a plan to implement individually appropriate activities to attain prioritized outcomes. These outcomes address academic areas, such as reading and math, as well as social and behavioral skill development, such as increasing interactions with same-age peers. An additional area is activities of daily living, or self-care such as dressing and grooming activities.

On most IEPs, feeding is typically not included or the focus is solely on meal preparation, not eating. (Beakley et al., 2003; Wehman & Kregel, 2004). When feeding is targeted on a student's IEP, the team member responsible for implementation of goals is often an SLP or OT, not a classroom teacher (McKirdy et al., 2008). This typically occurs for students who have feeding needs with an underlying medical concern or condition. Yet, a team approach can ensure appropriate training and supervision of classroom staff (Bruns & Thompson, 2010). For students similar to Ella and Joseph, daily routines such a mealtime are commonly emphasized on IEPs (Grisham-Brown et al., 2002; Salazar, 2012) but the depth and breadth of feeding may not be addressed, due to limited training of team members, including special education teachers, or use of a pullout model, such as an SLP working with a student on texture exploration in an office. Furthermore, feeding goals should be part of the instructional plan for older students such as Cylesha and should be viewed as a critical component of instruction (Patton, Cronin, & Jairrels, 1997).

The inclusion of feeding skills in an IEP can also produce a variety of learning outcomes that go beyond oral intake and food preparation, which can be particularly important to students as well as those with whom they interact on a consistent basis, such as parents, caregivers, related service professionals, and community providers (Bruns & Thompson, 2010; Ledford & Gast, 2006). Greater independence during mealtimes, for example, offers more opportunities for social interaction with others, which can increase self-esteem.

Meaningful and functional outcomes come from integrating feeding goals and STOs into daily activities and routines. Sensory activities, cooking, and mealtime routines can reinforce existing skills and incorporate new skills with necessary supports and reinforcement. This is especially relevant at the early childhood level, because these activities are often part of instructional planning, as well as for older students who are functioning at a lower developmental level, such as Cylesha. Preparing and serving a snack, for example, along with opportunities for interactions with peers and adults, highlights fine motor skills as well as a variety of problem-solving and communication skills. Including a focus on social interaction offers naturally occurring opportunities for acquiring and practicing requesting assistance, making "small talk" and other skills necessary across classroom and community settings. Fine and gross motor limitations can also be addressed through offering adapted utensils, positioning devices, and similar materials for optimal learning and safety. Increased independence and opportunities for community participation become additional outcomes when feeding skills are added to an IEP (Bateman & Herr, 2012; Wehman & Kregel, 2004). These considerations serve to enhance the connection between feeding and other skills targeted on an IEP, which can strengthen skill development in all areas of concern.

A Team Approach

A team approach is needed to address feeding skills. Each team member brings specialized skills from his or her discipline. A team could include an SLP, OT, and physical therapist on-site with additional input from a dietitian or nutritionist along with medical specialists. For example, a child with swallowing problems (dysphagia) may require the services of an otolaryngologist (ear, nose, and throat doctor). In turn, the otolaryngologist provides a list of foods and liquids to avoid, which the parent shares with the school's nurse. The nurse then calls a meeting with the child's IEP team to review the list and determine possible revisions to the IEP necessary to accommodate the child's dietary restrictions and participation in feeding activities. As described in the opening vignette, related service professionals offer support and assistance unique to their discipline (Bruns & Thompson, 2010).

Not all professionals will have the required training in feeding. For example, teachers and SLPs may not focus on feeding during their training, just as OTs may not specialize in sensory processing and oral stimulation. Consulting with school and, potentially, clinic-based service professionals may be necessary, such as a specialized feeding clinic in a hospital or similar facility. It is also important to note that professional organizations have guidelines about the provision of feeding activities and specialized interventions. Table 1 provides links to policy statements and similar documents from professional organizations regarding school-based feeding activities. As previously stated, students such as Ella, Joseph, and Cylesha will need the services of a constellation of professionals, depending on specific feeding needs as well as medical and health concerns. Similar to how an IEP is individualized to a student's present level of performance and targeted skill areas, feeding goals and STOs must be based on assessment results, future needs, as well as IEP team members' discipline-specific input, parent preferences, and additional considerations as warranted (e.g., anticipated future environments for students with significant delays).

All together, the combined expertise and sharing of student-specific materials and equipment, such as adapted spoons and feeder chairs, from professionals produces a coordinated approach for a student such as Ella, Joseph, or Cylesha. Feeding-related IEP goals and corresponding STOs should include all appropriate team members. This can ensure integration of these goals into classroom and other school-based (e.g., cafeteria) instruction and encourage in-classroom instruction on this important area of skill development. Involvement of parents and caregivers is also important for follow-through with successful strategies and specialized interventions (Bruns & Thompson, 2012). Some students may also require a specialized feeding plan developed and implemented by a team at a feeding clinic where the student receives services as an outpatient. In this situation, it is imperative that the school- and non-school-based teams communicate with one another to ensure consistency and the student's overall health and well-being. Plus, therapies can then be better implemented in "real world" settings.

Table 1. Individualized Education Program Feeding Team Members and Related Policy Statements

Team member	Professional organization and related policy statements
Speech-language pathologist	American Speech-Language-Hearing Association
	• Roles of speech-language pathologists in swallowing and feeding disorders: http://www.asha.org/policy/PS2002-00109.htm
	• Guidelines for speech-language pathologists providing swallowing and feeding services in schools: http://www.asha.org/policy/GL2007-00276.htm
Occupational therapist	American Occupational Therapy Association
	• Occupational therapy services in early childhood and school-based settings: http://www.aota.org/~/media/Corporate/Files/Practice/Children/Browse/EI/Official-Docs/EI%20and%20Schools%20final%2022811.ashx
	• Specialized knowledge and skills in feeding, eating, and swallowing for occupational therapy practice: http://www.aota.org/-/media/Corporate/Files/Practice/Children/Browse/EI/Official-Docs/Feeding%20Eating%20Swallowing%202007%20FINAL%20doc.ashx
Physical therapist	American Physical Therapy Association
	• Understanding the laws related to school-based practice: Foundations and updates (online course): http://www.apta.org/Courses/Online/CSM/2010/LawsRelatedtoSchoolBasedPractice/ (additional materials available only to members)
School nurse	National Association of School Nurses
	• Role of the school nurse: http://www.nasn.org/PolicyAdvocacy/PositionPapersandReports/NASNPositionStatementsFullView/tabid/462/smid/824/ArticleID/87/Default.aspx

Developing Feeding Goals

It is important to take into account the reason for including feeding goals in an IEP. As with targeting academic, social, and behavior goals, there must be a rationale. Feeding goals should include a brief explanation of its importance, such as "Max will increase self-feeding skills to prepare for kindergarten" or "Sophie will improve food preparation skills to be more independent." The rationale clarifies why these goals are important by connecting them to specific outcomes (Bateman & Herr, 2012; Klein, Cook, & Richardson-Gibbs, 2001). In addition, IEP goals must be based on assessment data and be responsive to a student's current and future needs (Overton, 2012).

Addressing feeding skills in an IEP also reinforces contextual learning and linkages to "real world" outcomes. Application activities promote

generalization, which is particularly significant for students with disabilities (Alberto & Troutman, 2008). Feeding skills can be addressed by most, if not all, members of a child's IEP team within the context of motivating activities, such as preparation of a favorite snack. Feeding-related IEP goals are also a means to incorporate contributions of team members. Specifically, the SLP may focus on the student accepting tastes of textured foods, for example, while the physical therapist ensures proper positioning during feeding and other daily classroom activities. Both professionals have feeding-related IEP goals addressing their respective areas of expertise and can work together to ensure the student's success. This cross-disciplinary collaboration can also foster the exchange of ideas, such as adaptive feeding items (e.g., specialized spoons) and seating adaptations.

Determining STOs

Similar to the rationale for IEP goals, STOs must logically break a goal into its component parts. In addition, parent input should be given priority within the context of a child's specific feeding needs. The description of Cylesha in the opening vignette offers a case in point. In addition, all three students share a need to further develop various aspects of eating, whether it is the continued acceptance of tastes or the improvement of utensil use for independence at mealtimes. Based on these examples, prioritizing IEP goals and corresponding STOs then becomes a means to achieving feeding outcomes to meet current and future needs (Lefton-Greif, & Arvedson, 2008; Schwarz, 2003). This approach can also foster collaboration among IEP team members with feeding goals as a link across disciplines (e.g., Redstone & West, 2004).

Mealtimes are a daily occurrence and typically a motivating experience. Including feeding-related STOs can build on this association. Referring to the IEP goal in the previous section focusing on preparation for kindergarten ("Max will increase self-feeding skills to prepare for kindergarten"), STOs can address such skills as going through the lunch line in the cafeteria, opening containers (e.g., milk carton), and using utensils appropriately. Yet, the most critical skills to target in STOs should address student-specific strategies and specialized interventions to facilitate eating independently. Similarly, the combination of STOs addressing these skills can target reducing Ella's aversion to textured foods, for example. As Ledford and Gast (2006) point out, mealtimes may not be a positive experience for some children with autism, and steps must be taken to strengthen the positive aspects of eating within a context of skill development and facilitating mealtime independence.

Together, these components result in a student with the necessary skills to complete these tasks and increase independence, which is valued for students with disabilities. On a general level, STOs must be viewed as elements building on one another, with the purpose or outcome of attaining the stated IEP goal (Bateman & Herr, 2006). Difficulty with one STO affects achievement of the IEP goal. STOs must also be meaningfully linked. Issues can arise if STOs are too broad or too specific. Finally, there must be sufficient opportunities to acquire, use, and generalize skills targeted in the STOs as a means to meet a student's IEP goal.

STOs provide specific, observable, and measurable steps to reach annual goals; that is, several STOs are linked for each annual goal. STOs must include conditions, the desired behavior or skill, and criteria for mastery. Each STO should include one or more conditions specifying the assistance that a student should receive. Conditions should address the amount and/or type of support, such as hand-over-hand assistance, verbal reminder, and model. For feeding-related STOs, the condition can include use of a feeding chair and adapted spoon to be used at every meal, snack, and related feeding opportunity.

STOs specify the behaviors or skills in observable and measurable terms, leading to the IEP goal. Active verbs are required, such as "Follow three-step directions," "Read three paragraphs" and "Complete a grooming routine." Active verbs enable teachers to observe and identify incremental skill development so that teachers and therapists can more readily collect data to determine a student's progress. The final component of STOs is specific criteria to indicate how the student must perform the skill to demonstrate achievement, such as "five of five times daily" or "100% accuracy."

Each STO should be distinct from the others but related to reaching the annual goal. In other words, all STOs contribute to the feeding-related goal, rather than three STOs focusing on the same skill but with varying criteria for mastery, such as increasing the amount

Table 2. Sample Feeding Goals and Short-Term Objectives for Ella, Joseph, and Cylesha

Student	IEP goal	STO1	STO2	STO3
Ella	Ella will increase age-appropriate feeding skills to prepare for kindergarten.	Given oral stimulation materials and adult model, Ella will participate in oral stimulation activities for a minimum of 5 minutes for 5 consecutive days.	Given feeding chair, preferred spoon, and praise, Ella will accept a minimum of five spoonfuls of textured foods each day at snack for 10 consecutive days.	Given adult and peer models, Ella will demonstrate mealtime manners such as waiting turn for food item and saying "thank you" a minimum of one time per snack and cooking activity.
Joseph	Joseph will improve his self-feeding skills to promote independence.	Given spoons, forks, and knives with textured grips and praise, Joseph will demonstrate bilateral hand use of utensils with a minimum of 75% of food reaching his mouth during a minimum of two lunches a week for 2 weeks.	Given verbal cues, Joseph will use both hands in sensory exploration during cooking and food preparation activities for a minimum of 5 minutes during each planned activity within a 2-week period.	Given preferred foods, Joseph will interact with two or more classroom peers during meals (e.g., comment on food item, request assistance) for 5 consecutive days within a 3-week period.
Cylesha	Cylesha will continue oral stimulation activities to participate in age-appropriate activities.	Given Rifton feeding chair, Textured Grabber, and physical assistance, Josie will grasp the Textured Grabber to make contact with her cheeks or lips for at least 30 seconds during three of three daily opportunities for a minimum of 5 of 10 days.	Given Rifton feeding chair, Chewy Tube, and physical assistance, Cylesha will tolerate the Chewy Tube placed inside her mouth and rubbed against her top and bottom teeth for at least 15 seconds during two of three daily opportunities for 5 consecutive days.	Given Rifton feeding chair, physical assistance, and praise, Cylesha will use her tongue to taste puréed fruits placed on her lips during two of three daily opportunities for 4 of 5 days for 2 weeks.

Note. IEP = individualized education program; STO = short-term objective.

of food accepted from 1 to 2 to 3 ounces. See Table 2 for sample feeding-related IEP goals and STOs for Ella, Joseph, and Cylesha.

Integrating Feeding Goals and STOs Into Classroom Activities and Routines and CBI

Feeding skills can be a part of classroom instruction, especially for younger students and those with more significant disabilities in terms of developmentally appropriate instruction and preparation for future environments. A foundation of a functional curriculum is instruction for independent functioning in work, home, and community settings (Wehman & Kregel, 2004). CBI may also be included in a student's IEP. This area can further encompass feeding goals and STOs. Outings to grocery stores, fast-food restaurants, and similar locations can be the basis or context for feeding-related IEP goals and STOs, whether related to skill building or used as a reinforcer, either alone or in combination with other reinforcers, such as praise or tokens. Furthermore, as described earlier, in early childhood settings, feeding STOs can be readily integrated into daily routines (Grisham-Brown et al., 2002) and can address developmental skills.

Integration of feeding goals and corresponding STOs can also facilitate home-school collaboration and coordination. For example, preparation of food items in school can address multiple developmental areas for younger children (e.g., language, fine motor), as well as math, science, and history for older students. Similar activities can be encouraged at home via items in weekly newsletters and informal contacts with parents. Food preparation and family mealtimes can address IEP goals and, just as important, have the potential to positively affect relationships among family members (Ledford & Gast, 2006), even for students who are primarily or exclusively tube fed (Burklow, McGrath, Allred, & Rudolph, 2002).

Feeding goals can be incorporated into CBI in a number of ways. CBI targets a number of areas, including employment, independent living, and community participation (Beakley et al., 2003; Wehman & Kregel, 2004). A commonality is the necessity of acquiring and utilizing appropriate mealtime skills, whether in the workplace or one's home. Mastering travel training and ordering from a menu is incomplete without demonstration of appropriate utensil use and the ability to regulate flow of liquids (e.g., juice with pulp, tea). CBI also includes a classroom/school-based component for further skill development. Additional opportunities to work on IEP feeding

Table 3. Feeding-Related Progress-Monitoring Methods

Method	Description
Anecdotal notes	Informal documentation of performance of STOs, including context such as setting (speech therapy session, school cafeteria, or fast-food restaurant in community), presence of adults and peers, skills demonstrated, and overall intake
Tallies	Collect data on frequency, duration, and latency of specific discrete feeding skills
Checklists	Commercially available (see Morris & Klein, 2000) or teacher prepared, including task analysis of STOs related to such areas as participating in cooking activities/food preparation and feeding skill development; record presence/absence of skill and amount/type of assistance needed
Criterion-referenced assessment systems	Document skills based on observations; collect data multiple times over school or calendar year to monitor progress of STOs
Performance graphs	Provide visual representation of progress of STOs over time; can represent checklist criterion-referenced assessment systems data

Note. STO = short-term objective.

goals and STOs can be offered in the classroom and during school events and the like, further reinforcing skill development. Finally, much of CBI occurs during the middle and high school years in preparation for transition at age 21 (or later in some states). Targeting feeding skills continues to be an important area for older students with more involved needs. Bateman and Herr (2012) provide an example of an IEP goal, STOs, and corresponding task analysis centered on fork use. The authors highlight this as a necessary skill in self-care for students approaching adulthood.

Progress Monitoring

Team members can assist with monitoring progress on feeding-related IEP goals and STOs. It is imperative to collect feeding-related data to monitor progress or lack thereof. Progress in feeding, as in other areas targeted on an IEP, can be categorized as steady progress, slow progress, variable progress, no progress, and goal met—or similar terminology (Alberto & Troutman, 2008). Analysis of resultant data will demonstrate obvious as well as smaller changes that can be used to update and/or revise feeding-related IEP goals and STOs.

Guiding questions for progress monitoring focus on identification of where and when feeding-related activities will occur, who will be involved in their implementation, and what specific skills will be taught. For the last focus, the stages of learning—acquisition, fluency, maintenance and generalization—are key to determining progress. Ultimately, generalization of skills such as accepting portions of textured foods, pouring liquids from a pitcher into a cup with minimal spillage, and completion of a cleanup routine after lunch are instructional or intervention targets needed in current and future environments, including school and community settings. For this reason, collecting data over time to track skill development and assisted or independent use, as appropriate, is critical.

Members of the IEP team who are involved in implementing feeding goals and STOs need to collect data. Input can also be gathered from parents and caregivers as appropriate to ensure generalization. The most appropriate and meaningful types are anecdotal notes, tallies, and checklists. Based on the STO, a determination is made of the use of one or more of these types of data collection. For example, STO2 for Ella focuses on accepting a minimum of five spoonfuls of textured foods each day at snack for 10 consecutive days. Her prekindergarten teacher, SLP, and/or classroom aide can keep a tally sheet (data sheet) of the number of spoonfuls she accepts daily. Tallies can also be kept for Cylesha's STOs in classroom and CBI settings. To document progress for Joseph related to sensory exploration during cooking and food preparation activities (STO2), anecdotal notes could be used to collect data during each cooking and food preparation activity. Criterion-referenced assessment systems can also be utilized. A performance graph can further be completed to provide a visual representation of student progress (see Tables 3 and 4 for information about data collection methods and examples for Ella, Joseph, and Cylesha). The overall approach described here is represented in Box 1.

As the examples indicate, developing and implementing feeding goals and STOs requires teamwork and knowledge of this specialized area (e.g., initial presentation of textured foods, providing oral stimulation, tube feeding methods). Resources related to feeding are provided in Box 2. Collectively, they provide an overview of feeding development and common feeding difficulties in school-age children with disabilities. In addition, each resource offers a range of strategies and specialized interventions that can be utilized to develop IEP goals and STOs by a student's school-based feeding team and corresponding progress monitoring materials.

Conclusion

Because feeding is critical to survival, it is important that there is ongoing

Table 4. Child-Specific Examples of Progress-Monitoring Methods

Child	Short-term objective	Progress-monitoring methods
Ella	STO2: Given feeding chair, preferred spoon, and praise, Ella will accept a minimum of five spoonfuls of textured foods each day at snack for 10 consecutive days.	• Data sheet for daily tally of number of spoonfuls accepted • Weekly performance graph • Review Hawaii Early Learning Profile[a] items monthly
Joseph	STO2: Given verbal cues, Joseph will use both hands in sensory exploration during cooking and food preparation activities for a minimum of 5 minutes during each planned activity within a 2-week period.	• Anecdotal notes describing sensory materials and affect during activity • Data sheet for duration (minutes) of sensory exploration during cooking and food preparation activities • Weekly performance graph
Cylesha	STO1: Given Rifton feeding chair, Textured Grabber, and physical assistance, Josie will grasp the Textured Grabber to make contact with her cheeks or lips for at least 30 seconds during three of three daily opportunities for a minimum of 5 of 10 days.	• Data sheet for duration (seconds) of Textured Grabber use • Weekly performance graph

Note. STO = short-term objective.
[a]Criterion-referenced system for infants, toddlers, and preschoolers (Teaford, 2010).

Box 1. Steps to Integrating Feeding Into Individualized Education Programs

Develop feeding goals
- Present level of performance
- Rationale for current and future contexts
- Real-world contexts

Develop short-term objectives (STOs)
- Logical steps to reaching feeding goal
- Focus on positive, motivating feeding opportunities
- Components: conditions, behavior/skill, criteria for mastery

Integrate feeding goals and STOs into classroom activities/routines and community-based instruction
- Target skills identified in functional curriculum
- Use strategies and specialized interventions
- Implementation of STOs in classroom and community settings

Progress monitoring
- Ongoing data collection
- Team members determine progress and needed adaptations and modifications
- Review performance graphs to adjust feeding goals and STOs

communication among professionals about successes, changes, and concerns regarding a student's feeding skills and development. Collaboration with related service professionals (OT, SLP, physical therapist) and each student's teachers is necessary for positive and lasting outcomes. Generalization of newly acquired feeding skills demonstrates the student's learning and helps to meet related IEP goals. A student can demonstrate generalization across adults and settings and, in this case, with various foods, utensils, and the like. For example, as Joseph more consistently uses utensils at school, his parents should expect to see the same skills at home during mealtimes. Coordinating efforts with Joseph's OT and SLP will be necessary to attain this outcome. Similarly, Ella's and Cylesha's families can both provide feeding opportunities at home.

Including and integrating feeding goals and STOs in a student's IEP can positively affect feeding development, emerging skills, and opportunities for skill development in related areas of need. Gains in feeding can facilitate a critical skill set for daily living and provide motivating activities to encourage a variety of goals in other skill

Box 2. Feeding Resources

Arvedson, J. C., & Brodsky, L. (Eds.). (2002). *Pediatric swallowing and feeding: Assessment and management* (2nd ed.). San Diego, CA: Singular.

Bruns, D. A., & Thompson, S. D. (2012). *Feeding challenges in young children: Strategies and specialized interventions for success*. Baltimore, MD: Brookes.

Ernsperger, L., & Stegen-Hanson, T. (2004). *Just take a bite: Easy, effective answers to food aversions and eating challenges*. Arlington, TX: Future Horizons.

Flanagan, M. A. (2008). *Improving speech and eating skills in children with autism spectrum disorders: An oral-motor program for home and school*. Shawnee Mission, KS: Autism Asperger.

Morris, S. E., & Klein, M. D. (2000). *Pre-feeding skills: A comprehensive resource for mealtime development* (2nd ed.). San Antonio, TX: Therapy Skills Builders.

Silkrocki, M., & Guenter, P. (2001). *Tube feeding: Practical guidelines and nursing protocols*. Gaithersburg, MD: Aspen.

Williams, K. E. (2007). *Treating eating problems of children with autism spectrum disorders and developmental disabilities: Interventions for professionals and parents*. Austin, TX: PRO-ED.

areas. The information and resources provided here are offered as suggestions to further enhance efforts to address this critical area of IEP development for students with disabilities.

References

Alberto, P., & Troutman, A. C. (2008). *Applied behavior analysis for teachers* (8th ed.). Upper Saddle River, NJ: Merrill/Prentice Hall.

Bateman, B. D., & Herr, C. M. (2012). *Writing measurable functional and transition IEP goals*. Verona, WI: Attainment.

Beakley, B. A., Yoder, S. L., & West, L. L. (2003). *Community-based instruction: A guidebook for teachers*. Arlington, VA: Council for Exceptional Children.

Bruns, D. A., & Thompson, S. D. (2010). Feeding challenges in young children: A best practices model. *Infants & Young Children, 23*(2), 93–102.

Bruns, D. A. & Thompson, S. D. (2012). *Feeding challenges in young children: Strategies and specialized interventions for success*. Baltimore, MD: Brookes.

Burklow, K. A., McGrath, A. M., Allred, K. E., & Rudolph, C. D. (2002). Parent perceptions of mealtime behaviors in children fed enterally. *Nutrition in Clinical Practice, 17*(5), 291–295.

Dunst, C. J. (2002). Family-centered practices: Birth through high school. *Journal of Special Education, 36*(3), 139–147.

Grisham-Brown, J., Pretti-Frontczak, K., Hemmeter, M. L., & Ridgley, R. (2002). Teaching IEP goals and objectives in the context of classroom routines and activities. *Young Exceptional Children, 6*(1), 18–27.

Ledford, J. R., & Gast, D. L. (2006). Feeding problems in children with autism spectrum disorders: A review. *Focus on Autism and Other Developmental Disabilities, 21*(3), 153–166.

Lefton-Greif, M. A., & Arvedson, J. C. (2008). School children with dysphagia associated with medically complex conditions. *Language, Speech, and Hearing Services in Schools, 39*(2), 237–248.

Klein, M. D., Cook, R. E., & Richardson-Gibbs, A. M. (2001). *Strategies for including children with special needs in early childhood settings. Albany*, NY: Delmar.

McKirdy, L. S., Sheppard, J. J., Osborne, M. L., & Payne, P. (2008). Transition from tube to oral feeding in the school setting. *Language, Speech, and Hearing Services in Schools, 39*(2), 249–260.

Morris, S. E., & Klein, M. D. (2000). *Pre-feeding skills: A comprehensive resource for mealtime development* (2nd ed.). San Antonio, TX: Therapy Skills Builders.

Overton, T. (2012). *Assessing learners with special needs: An applied approach* (7th ed.). Upper Saddle River, NJ: Merrill/Pearson.

Patton, J. R., Cronin, M. E., & Jairrels, V. (1997). Curricular implications of transition: Life skills as an integral part of transition education. *Remedial and Special Education, 18*, 294–306.

Redstone, F., & West, J. F. (2004). The importance of postural control for feeding. *Pediatric Nursing, 30*(2), 97–100.

Salazar, M. J. (2012). Home–school collaboration for embedding individualized tools in daily routines. *Young Exceptional Children, 15*, 20–30.

Schwarz, S. M. (2003). Feeding disorders in children with developmental disabilities. *Infants & Young Children, 16*(4), 317–330.

Teaford, P. (2010). *Hawaii Early Learning Profile 3–6 checklist* (2nd ed.). Menlo Park, CA: VORT.

Wehman, P., & Kregel, J. (2004). *Functional curriculum for elementary, middle, and secondary age students with special needs*. Austin, TX: PRO-ED.

Deborah Bruns, *Associate Professor, Special Education program, Department of Educational Psychology and Special Education, College of Education and Human Services, Southern Illinois University Carbondale,* **Stacy Thompson,** *Associate Professor, Early Childhood program, Department of Curriculum & Instruction, College of Education and Human Services, Southern Illinois University Carbondale.*

Address correspondence regarding this article to Deborah Bruns, Department of Educational Psychology Southern Illinois University Carbondale, IL 62901 (e-mail: dabruns@siu.edu).

TEACHING Exceptional Children, *Vol. 46, No. 6, pp. 179–186.*