

Using the Choice-making Skills of Students with Disabilities for Educational Planning

Marie Van Tubbergen, Ph.D.

Donna Omichinski, B.A.

Seth Warschausky, Ph.D.

*Department of Physical Medicine and Rehabilitation
University of Michigan*

Abstract

For students with significant speech and movement impairments, meaningful participation in educational planning activities is difficult. These students face barriers in communicating choices about daily activities and basic knowledge; therefore, student-initiated curriculum goals are not systematically included in IEP and transition planning processes. We present models for conceptualizing the **1)** expression of choice in students with severe impairments in speech and movement, **2)** inclusion of choice-making techniques and abilities into IEP documents, and **3)** inclusion of choice-making in transition planning. Using these models, we argue that optimal student participation in educational planning requires clear identification of a student's current choice-making techniques; and, that advanced techniques and abilities in expressing choices are best developed through systematic consideration in educational planning.

Using the Choice-making Skills of Students with Disabilities for Educational Planning

Case Illustration

P, a 14 year old female diagnosed with quadriplegic cerebral palsy, was placed in a designated classroom for students with cognitive and physical impairments (Multiple Impairments). She was functionally nonverbal. Her cognitive abilities were estimated to be more than three standard deviations below the mean. Parents and teachers described P's curriculum in terms of functional activity goals such as eating and toileting as well as behavioral goals to reduce disruptive and self-injurious behaviors. Parents and individual professionals developed methods of interacting with P and eliciting responses about her preferences and opinions. P was sometimes present for IEP and transition planning meetings, but her participation was often limited to affectionate, social interactions with parents and professionals. Occasionally, P's opinion about a specific goal was elicited through phrasing that anticipated a positive response (e.g. "P, you like to work on the calendar with Ms. X, right?"). Her consistent response was to smile, moving her head up and down.

Rationale and Practice of Student Participation in Educational Planning

As written in the Individuals with Disabilities Education Improvement Act of 2004 (IDEA 2004) the full participation of students in the planning process of Individual Educational Plans (IEP) and transition planning is an important priority. As an ideal, students and their families use these tools to collaborate in crafting curricula that promote optimal learning. Particularly in the view of parents, this collaboration can enhance self-determination by helping students to become responsible partners in their educational planning (Grigal, Neubert, Moon, & Graham, 2003). There is evidence that student participation in educational goal setting is linked to improved academic abilities and communication skills (Mason, McGahee-Kovac, Johnson, & Stillerman, 2002; Schunk, 1985), higher rates of goal achievement (Powers, Turner, Westwood, Matuszewski, Wilson, & Phillips, 2001; Realon, Favell, & Loweree, 1990), and better outcomes in adulthood (Halpern, Yovanoff, Doren, & Benz, 1995; Wehmeyer, Agran, & Hughes, 2000).

Now, years later, the difficulties of achieving this ideal are abundantly clear. Students and families encounter obstacles to full partnership in the tangled and ever-changing nature of federal, state, and local regulations, the power and knowledge differentials between students and school professionals, and in the pragmatic difficulties of finding the time and resources to consult, plan, and follow-up with interventions. Educators also are dissatisfied with levels of student participation, leading Mason, Field, & Sawilowsky (2004) to conclude that teachers lacked instruction on systematic techniques encouraging meaningful student planning and participation, despite the availability of many structured interventions shown to be effective (see Test, Mason, Hughes, Konrad, Neale, & Wood, 2004 for a review).

Person-centered planning is the current model used to frame the participation of students in their educational planning. Although there are various implementations of person-centered planning, the premise of each is to intentionally craft an opportunity for the individual student to shape her future by way of expressing her own vision, goals, and the needed supports and services for success. Person-centered planning methods are beneficial in that they explicitly describe activities that represent meaningful participation in educational planning meetings, as opposed to mere attendance. The distinction is important, as even in a sample reporting high levels of student attendance at IEP meetings, the majority of students who attended reported they had not been told the purpose of the meeting, had no preparation for the meeting, and were not involved with goal-setting in any way (Field & Hoffman, 1994). For students with significant impairments, the likelihood of meaningful participation is even lower, as many do not even attend their IEP meetings (deFur, Getzel, & Kregel, 1994).

For students with significant impairments in speech and movement, difficulties in clear and consistent communication of choice are barriers to even initial efforts toward participation and partnership. Communication of choice requires both clear expression from the student and acknowledgement from the listeners. There have been recent efforts to clarify current abilities in communicating preferences and knowledge for students with significant impairments. A criterion-based model, presented below, lays out progressive levels of responses, and provides a framework for presenting choices to students with significant impairments (see [Table 1](#)). This table has been modified from its original presentation (Van Tubbergen, Warschausky, Birnholz, and Baker, in press).

Choice-making assessment tools, developed within this framework, identify how students with even the most severe impairments communicate preferences and knowledge while providing guideposts to enhance and refine choice-making skills over time. Examining the communication of choice in this manner creates a positive feedback loop: Identifying a student's current abilities to communicate choice facilitates optimal participation in IEP and transition planning, while also providing educational and curricular goals toward more effective communication of choice, which in turn generates more opportunities to participate and partner in IEP and transition planning.

Choice-Making and the IEP

The purpose of IDEA is to “ensure that all students with disabilities have available to them a free and appropriate public education that emphasizes special education and related services designed to meet their unique needs.” These specifications are delivered through the IEP (IDEA, Part B). The IEP is the basis of providing a quality education for each child with a disability and is designed in such a way to meet each child's unique educational needs (section §300.347 of IDEA 1997). The process potentially creates an environment where collaboration among students, parents, teachers, school administrators, and ancillary school personnel results in a quality education for the student. A properly executed IEP also guides and supports the student toward independence and self-determination beyond the school setting. To illustrate the relevance of identifying the student's current capacity for communicating choice and how it can contribute to the IEP process, we focus on three components of the IEP and demonstrate how communication of choice can both contribute to and be incorporated into an educational plan.

Present Level of Academic Achievement and Functional Performance

An IEP is developed from an understanding of the student's present level of academic achievement and functional performance (PLAAFP). The PLAAFP should accurately describe the student's performance in all areas of education that are affected by the student's disability, anchoring the IEP in results-based accountability [R340.1721e(2)(a)]. The PLAAFP should also provide the information necessary to ensure appropriate involvement in the general education curriculum. Additionally, each identified educational need specified in the PLAAFP should logically connect to measurable annual goals and short-term objectives and supplementary aids, services, or supports designed to enable the student to progress in the general education curriculum.

To integrate the communication of choice into the PLAAFP, at least two assessment strategies are necessary. First, the student's current techniques to express preferences and knowledge can be measured. Educators and parents may need time to experiment with different strategies for presenting questions and detecting responses in order to identify the student's optimal skills (see Table 1 for examples). Second, intellectual, academic, and/or functional skills (i.e. PLAAFP) can be assessed by accommodating typical assessment tools into a format that matches a student's current abilities to communicate choice, as revealed in the choice-making assessment process just described.

Annual Goals and Short-term Objectives

The annual goals and short-term objectives section of the IEP builds upon the abilities and needs identified in the PLAAPF. Annual goals and objectives should provide measurable answers to questions of who, what, where, when, and how. This section of the IEP was designed to describe the reasonable expectations of progress for the student over a 12-month time period. The IDEA and its implementing regulations require that the annual goals meet: **1)** the student's disability-related needs and enable the student to be involved and make progress in the general education curriculum; **2)** other education and transition needs that result from the student's disability [34 CFR § 300.347(a)(7)(ii)(B)]. Each annual goal should have more than one short-term objective and each short-term objective should be measurable and provide an intermediate step between the PLAAPF and the annual goal. The short-term objectives should, in fact, be achievable in a short and specified period of time. Each short-term objective must contain 3 components: evaluation procedures, performance criteria, and schedules for evaluation.

The communication of choice can be incorporated into annual goals and short-term objectives. From the PLAAPF, a student's current abilities in communicating preferences and knowledge are identified. Using a format like the one found in **Table 1**, immediate next steps in refining the student's techniques to express choice while expanding the types of presentation to which a student is able to accurately respond can be identified. For students with beginning skills in communicating choice, goals should emphasize progression from preference-only communication to communication of preferences and knowledge. Methods of presentation and response for choice-making should be used to answer the "how?" questions when setting objectives for academic, assessment, social, and behavioral realms, such that these techniques become part of a standard for Universal Design Learning.

Case Illustration

Over the past marking period, L has been able to use a Jelly Bean Switch® positioned at midline on her tray to correctly select a virtual button from an array of four buttons, presented horizontally on a 17" computer screen with the use of an automatic scanning program set for 2 seconds per button. Each button should be at least 1.5 inches square with at least .5 inch of space between buttons. She is able to click on her desired choice 85% of the time. After each selection, she is able to use yes/no signals (head up/head down, respectively) to answer the question "was that your answer?" Using these techniques, L has a reliable method to express her knowledge of academic material. Using these techniques, objectives for the next marking period in the area of calendar instruction are that L will be able to reliably identify: season, month, date, day, and time.

Related Services and Supports

Related services and supports include: special education; supplementary aids and services; and program modifications or supports for school staff. They are intended to aid the child in meeting their annual goals, and are commonly thought of as accommodations. The services and supports should also enable the child to participate in extracurricular and/or nonacademic activities (e.g. athletics and employment) as well as providing access to the general education setting.

Consideration of accommodations of communication of choice falls into three major domains: Assistive technology (AT), educators and curriculum delivery. AT accommodations for optimal flexibility in communicating preferences and knowledge should be available throughout the school environment and in daily living activities. Support for AT accommodations can be found in the AT section of the IEP and in the Assistive Technology Act of 1998 (05-394, S.2432). Educators, including support/ancillary staff, can be trained in identifying and supporting communication of choice throughout all of the student's school activities. Arguably, such training can be viewed as an expression of the IDEA 2004 requirement for highly qualified teachers. Finally, delivery of the curriculum can be adapted such that opportunities for communicating choice are incorporated into the instruction and assessment.

Incorporating communication of choice into the IEP can facilitate systematic, comprehensive interventions directed toward a students' greater participation in all areas of education. **Table 2** summarizes how choice-making fits into components of the IEP and provides relevant examples.

Choice-Making and Transition Planning

Through the focus of the transition planning, a shift occurs where the student is prepared for the next phase of his/her life. Transition planning facilitates progression from a public education setting to employment, postsecondary education, and/or optimal independent living. It has been argued that transition planning should infuse a student's educational programming from the beginning, but in most states it is not formally addressed until later adolescence (Kohler & Field 2003). A statement of needed transition services is included in the IEP no later than age 16 (Sec. 300.347(b)(1)(iii)) or younger if determined by the IEP team. The statement of transition clarifies how planned interventions link a student's current abilities (obtained through the PLAAFP) with the skills necessary to obtain the student's desired adult outcomes. One technique to assist transition teams in making this shift is called backward planning (Steere, Wood, Panscofar, & Butterworth, 1990). Backward planning encourages teams to identify long term goals at the outset, and work backward through time to identify what and when progressive goals need to be met to achieve the desired outcomes for the child when he leaves the educational system. This anchors the transition planning process at both ends: the student's current abilities and activities, and the abilities and activities desired by the student in adulthood.

Ideally, transition planning begins with a thorough assessment of the student's interests in addition to aforementioned assessment of strengths and difficulties. To accurately assess vocational or recreational interests, it is imperative for a student to practice expressing preferences that have real consequences. A student must also have methods to communicate choices that demonstrate knowledge in order to realistically expand the range of possible (e.g.) independent living opportunities. Therefore, systematic consideration of a student's communication of choice is also important in transition planning although at present including goals related to choice into a transition plan is uncommon (Grigal, Test, Beattie, & Wood, 1997).

We consider three domains highlighted in transition planning: employment, postsecondary education and independent living, and demonstrate how communication of choice can both contribute to and be incorporated into the plan.

Employment

Employment goals in transition planning identify desired and attainable vocational opportunities during and after secondary education. The transition plan also identifies education and training experiences that promote success in a vocational arena. Communication of both preference and knowledge choices are critical in choosing appropriate employment experiences. Preferences in work activities evolve over time as students mature and have exposure to a wider variety of environments. Using the student's optimal methods for presenting and responding to choices, preferences about work activities and environments can be assessed and pursued.

Identifying a student's preferences obviously is not sufficient to develop an appropriate and beneficial employment situation - it also is necessary to consider how the student can express their knowledge. Identifying a student's expressive capabilities will help to clarify employment options as well as encourage creative use of technology that leads to new employment opportunities, including supported environments. For example, a student may master the skills needed to recognize and respond to a pattern that is incomplete. This skill could be adapted to a specific work environment in which on-line applications are reviewed. The student might become adept at recognizing and marking (through the use of a switch) applications as complete or incomplete.

Postsecondary Education

Postsecondary education includes education or training acquired after a student obtains a high school diploma or certificate of completion. Postsecondary education goals may include vocational training, trades school, adult education settings, or college settings. Again, goals are meant to be student-driven and to include reasonable steps from a student's current abilities.

Much as preference and knowledge choices are critical in developing appropriate employment opportunities, systematic consideration of communication of choice is necessary to develop additional education and training opportunities. For example, if a student intends to complete postsecondary coursework in computer skills, it will be necessary that the student have access and expertise with assistive technology that is portable and compatible with computers outside the school environment.

Independent Living

Independent living goals identify a student's goals for living on their own, within a residential community setting, or in their family home. Focus on communication of choice may be most compelling as transition teams plan for a student's increased independence. Safety is a significant concern for many students with severe speech and movement impairments; therefore, developing methods for students to communicate their knowledge and comfort with levels of independence in the home, school and community is vital. Many students in this population will not ever live independently, but this does not preclude the duty to carve out widening domains in which they exercise independence. **Table 3** provides examples for how choices of preference and knowledge fit into independent living and the other transition planning activities.

Conclusion

At the center of all educational planning is the child with the disability. Including communication of choice in IEP and transition planning activities can identify and organize the interventions most likely to be successful, and clarify the goals that make education meaningful for that child. Wehmeyer and Schalock (2001) argue persuasively for the systematic inclusion of self-determination into educational planning. For students with significant disabilities, the systematic inclusion of choice-making into educational planning is a critical first step toward self-determination.

Supported communication of choice emerges quickly and naturally for the typically developing child such that no conscious or concentrated effort is required for its maturation. For many children with significant disabilities, this naturally occurring process is blocked and/or delayed. Most would argue that communication of choice is a basic human right, a right not waived by absence of a swift or otherwise typical acquisition. We argue that for students with severe disabilities, the communication of choice must be an identified, assessed, and articulated domain in educational planning as a whole, rather than a haphazard collection of techniques used in different ways by a variety of educational professionals. The IEP and transition planning are ideal tools to enhance and refine communication of choice for these students.

Articulating and prioritizing a student's abilities to communicate choice offers abundant, positive opportunities for children with severe impairments in speech and movement. When a student is able to make an informed choice, even if it by way of assistive technology, parents and educators can tap into areas of the student's life that may not have been accessible before, such as self-awareness, specific academic strengths and difficulties, or memory, to name a few. A student's communication of choice can be used to develop optimal IEPs and transition plans; those plans can incorporate the student's choices as well as target the development of more advanced choice-making communication techniques. By prioritizing choice-making, a student's experience of participating in educational planning can be empowering and promote independence.



References

- deFur, S., Getzel, E.E., & Kregel, J. (1994). Individual transition plans: A work in progress. *Journal of Vocational Rehabilitation*, 4, 139-145.
- Field, S. & Hoffman, A. (1994). Development of a model for self-determination. *Career Development for Exceptional Individuals*, 17, 159-169.
- Grigal, M., Neubert, D.A., Moon, M.S., & Graham, S. (2003). Self-determination for students with disabilities: Views of parents and teachers. *Exceptional Children*, 70, 97-112.
- Grigal, M., Test, D.W., Beattie, J. & Wood, W.M. (1997). An evaluation of transition components of individualized education programs. *Exceptional Children*, 63, 357-372.
- Halpern, A.S., Yovanoff, P., Doren, B., & Benz, M.R. (1995). Predicting participation in postsecondary education for school leavers with disabilities. *Exceptional Children*, 62, 151-164.

- Kohler, P.D. & Field, S. (2003) Transition-Focused Education: Foundation for the Future. *The Journal of Special Education*, 37, 174-183
- Mason, C., Field, S., & Sawilowsky, S. (2004). Implementation of self-determination activities and student participation in IEPs. *Exceptional Children*, 70, 441-451.
- Mason, M., McGahee-Kovac, M., Johnson, L., & Stillerman, S. (2002). Implementing student-led IEPs: Student participation and student and teacher reactions. *Career Development for Exceptional Individuals*, 25, 171-192.
- Powers, L.E., Turner, A., Westwood, D., Matuszewski, J., Wilson, R., & Phillips, A. (2001). TAKE CHARGE for the future: A controlled field-test of a model to promote student involvement in transition planning. *Career Development for Exceptional Individuals*, 24, 89-103.
- Realon, R.E., Favell, J.E., & Loweree, A. (1990). The effects of making choices on engagement levels with persons who are profoundly mentally handicapped. *Education and Training in Mental Retardation*, 25, 299-305.
- Schunk, D.H. (1985). Participation in goal setting: Effects on self-efficacy and skills on learning disabilities children. *The Journal of Special Education*, 19, 307-317.
- Steere, D.E., Wood, R., Panscofar, L., & Butterworth, J. (1990) Transition from School-To-Adult-Life - Module 39. Indiana Designs Equitable Access for Learning. Retrieved October 4, 2006 from <http://ideal.sf.edu/10047/narrative.asp>
- Test, D.W., Mason, C., Hughes, C., Konrad, M., Neale, M., & Wood, W.M. (2004). Student involvement in individualized education program meetings. *Exceptional Children*, 70, 391-412.
- Van Tubbergen, M., Warschausky, S., Birnholz, J., & Baker, S. (in press). Choice beyond preference: Conceptualization and assessment of choice-making skills in children with significant impairments. *Rehabilitation Psychology*.
- Wehmeyer, M.L. , Agran, M., & Hughes, C. (2000). A national survey of teachers' promotion of self-determination and student-directed learning. *The Journal of Special Education*, 34, 58-68.
- Wehmeyer, M.L. & Schalock, R.L. (2001). Self-determination and quality of life: Implications for special education services and supports. *Focus on Exceptional Children*, 33, 1-16.

Table 1

Table 1
Model of Choice-making Skills

Skill Level	Skill Description	Forced Choice	Yes / No
			
Orienting Responsive	Will notice and attend, at least briefly, to novel stimulus		
Preference	Will communicate a general, affective response regarding personal preference	“Which picture do you like best?”	“Do you like this fish?”
Preference-Advanced	Will communicate a specific response signal regarding personal preference	“Which picture do you like best?”	“Do you like this fish?”
Directed	Will communicate a specific response signal to questions unrelated to personal desires	“Which one is a fish?” “Which one is a cow?”	“Does this fish have a tail?” “Is this fish black?”
Prediction	Will communicate a specific response signal to questions requiring indirect application of knowledge	“Which one does not show an animal?” “Which one swims?”	“Is this an animal?” “Can it fly?”

*Examples in the model are accessible and relevant to many, but not all, children. Questions and topics can be tailored to an individual child’s experience.

Table 2

Table 2
Choice-making in Components of IEP

IEP	Purpose in the IEP	Including Choice	Example
PLAAFP (Present Level of Academic Achievement and Functional Performance)	Should accurately describe the student's performance in <i>all</i> areas of education that are affected by the student's disability.	Mary is able to communicate choices of preference through specific signals for "yes" and "no". She moves her head up to signal "yes" and down to signal "no."	1. Mary uses her "yes" and "no" signals to choose preferences for (e.g.) activities, food, and some self-care needs. 2. She does not yet use these signals to answer questions about instructional content (e.g.) math, vocabulary items, or science.
Goals and Short-term Objectives	Should build upon the abilities and needs identified in the PLAAFP. These goals and objectives should be measurable.	1. Mary will learn to use her yes/no signal to answer questions related to instructional content with 80% consistency. 2. Mary, with consultation from staff with expertise in Assistive Technology (AT), will develop initial skills to use computer scanning presentations. She will practice with equipment identified through the AT process at least 3x/day, and choices in her display will always include at least one neutral or undesired consequence.	1. Mary is able to communicate the answer to a math problem through the use of choice by use of her yes/no signal: "Is 2 + 3 = 5?" 2. Mary will use a head mouse or other switch interface system to choose a 3 minute activity from three choices: sand play, quiet time, or music.
Related Services and Supports	Services and supports include special education, supplementary aids and services, and program modification or supports for school staff. Intended to aid the child in meeting their annual goals.	Teachers, therapists, and ancillary support team members (IEP Team) will coordinate presentation and response styles to encourage consistent use of Mary's yes/no signals and emerging scanning skills. The IEP team will schedule regular monthly meetings to review progress and make necessary modification according to progress.	1. PT: Mary will use yes/no or scanning signals to choose the first PT activity of session. 2. OT: Mary will identify self-care items (toothbrush, comb, etc.) using yes/no. 3. Daily assessment of instructional content will be presented such that Mary can express her knowledge independently.

Table 3

Table 3
Transition Planning & IEP Correlation Table

Components of Transition Planning	Preference Choices	Knowledge Choices
Employment	Photos of Mary's prior vocational experiences will be scanned and used to track her preferences for additional vocational experiences.	As the monitor for on-line order forms in her workplace, Mary will use her switch to accurately identify and mark incomplete order forms.
Post-Secondary Education	Photos of Mary's prior vocational experiences will be scanned and used to track her preferences for future vocational training.	Mary will correctly identify the bus she rides to her vocational training site from an array of four pictures of buses.
Independent Living	Mary will interact with two new people in the community each week by using her signals for yes/no to communicate a preference.	Mary will complete weekly rehearsal exercises to appropriately activate her augmentative communication device to communicate that she needs help and feels unsafe.