

Clinical Exchange

Professional Skills for Serving Students Who Use AAC in General Education Classrooms: A Team Perspective

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In recent years, the number of students with severe communication impairments and augmentative and alternative communication (AAC) needs served in general education settings has increased

ABSTRACT: The roles of school-based professionals serving students with augmentative and alternative communication (AAC) needs are changing in light of the inclusion movement. Focus group research methodology was used to investigate professional skills regarded by educational team members as necessary to support students who used AAC in general education classrooms. Educational teams consisted of speech-language pathologists, classroom teachers, inclusion support teachers, instructional assistants, and parents. All valued the ability to work collaboratively, provide access to the core curriculum, cultivate social supports, maintain and operate the AAC system, and create classroom structures to educate heterogeneous groups of students. Implications are discussed for AAC service delivery and the professional preparation of speech-language pathologists serving as members of AAC teams in inclusive classrooms.

KEY WORDS: augmentative communication, AAC, collaborative teaming, focus groups, inclusion, speech-language pathologists

(Erickson & Koppenhaver, 1998; Erickson, Koppenhaver, Yoder, & Nance, 1997; Koppenhaver, Spadorcia, & Erickson, 1998; Simpson, Beukelman, & Bird, 1995; Sturm, 1998). Successful inclusion of students with significant disabilities requires more than simple placement in a general education classroom. A considerable body of literature shows that effective inclusion programs require substantive changes in the structure of the classroom, a different conceptualization of professional roles, and a continuous need for collaborative teaming (e.g., Gee, Graham, Sailor, & Goetz, 1995; Giangreco, Dennis, Cloninger, Edelman, & Schattman, 1993; Giangreco, Prelock, Reid, Dennis, & Edelman, 1999; Rainforth & York-Barr, 1997; Thousand & Villa, 1992; York-Barr, Schultz, Doyle, Kronberg, & Crossett, 1996).

Students with disabilities are included when they are full-time members of age-appropriate, general education classrooms in their home schools and receive necessary supports for participating both socially and academically (e.g., Gee et al., 1995). In the case of students who use AAC systems, team members must work together to integrate an often complex array of technologies for learning, mobility, and participation in the classroom (Erickson & Koppenhaver, 1998; Erickson et al., 1997; Koppenhaver et al., 1998; Soto, Müller, Hunt, & Goetz, in press; Sturm, 1998).

As inclusive education continues to emerge as a widespread practice for students with AAC needs, it is critical that research be conducted to identify those factors that contribute to successful outcomes. The information reported on here is part of a larger study examining the opinions of educational team members regarding critical issues in the inclusion of students with AAC needs (Soto et al., in press) The specific intent is to describe the professional skills that educational team members identify as necessary for supporting students who use AAC in inclusive classrooms. It is important that educational personnel understand their expected roles and responsibilities within inclusive classrooms so that they can meet the needs of the students they serve. Additionally, understanding the ways in which these roles and responsibilities of educational personnel are changing provides an opportunity to reflect on the ways in which professional and in-service preparation programs should be altered to address the demands of an inclusive model of service delivery.

THE FOCUS GROUP APPROACH

Focus Groups

To identify the professional skills considered essential for the support of students who use AAC in inclusive classrooms, focus group methodology was selected (Krueger, 1993; Morgan, 1998). This methodology uses semi-structured group discussions led by a trained facilitator. The focus group approach allows in-depth knowledge to be obtained concerning the professional skills that team members value in supporting the successful inclusion of students with AAC needs. As recom-

mended by qualitative researchers (e.g., Krueger, 1998b; Morgan, 1988, 1993), the focus group participants were selected based on their expertise in the inclusive education of students with AAC needs. AAC specialists employed by school districts in the San Francisco Bay Area were personally contacted. The specialists identified AAC-using students who were full-time members of general education classrooms. A total of 30 core members of those students' educational teams were invited to participate in a focus group discussion. All teams had more than 3 years of experience working in inclusive classrooms. The 30 participants represented six school districts.

Five focus groups were organized according to the participants' roles within educational teams. These roles were speech-language pathologist, parent, classroom teacher, inclusion support teacher (i.e., a special education teacher assigned to provide support to the classroom teacher), and instructional assistant. The role of the inclusion team members varied depending on whether they were parents, teachers, or related service professionals. (For a general description of the roles of educational team members in inclusive programs, see Giangreco et al., 1999.) As shown in Table 1, the groups ranged in size from four to seven participants. Table 1 also summarizes demographic information about the focus group participants.

Organization of Focus Group Meetings

Five focus groups were organized according to their roles on educational teams, such as speech-language pathologist, parent, classroom teacher, inclusion support teacher, or instructional assistant. The participants were not members of the same inclusion team. One semi-structured interview lasting from 60 to 90 minutes was conducted with each

Table 1. Demographic information on the 30 focus group participants.

<i>Group</i>	<i>N</i>	<i>Age</i>	<i>Gender</i>	<i>Ethnicity</i>	<i>Years of experience with AAC^a</i>
Speech-language pathologists	7	25–35 (<i>n</i> = 1) 35–45 (<i>n</i> = 2) 45–55 (<i>n</i> = 4)	All Female	All European American	3–5 (<i>n</i> = 2) 6–10 (<i>n</i> = 3) 11 or more (<i>n</i> = 2)
Parents	4	35–45 (<i>n</i> = 2) 45–55 (<i>n</i> = 2)	3 Female 1 Male	All European American	3–5 (<i>n</i> = 1) 6–10 (<i>n</i> = 3)
Classroom teachers	6	35–45 (<i>n</i> = 1) 45–55 (<i>n</i> = 5)	5 Female 1 Male	3 European American 2 Hispanic American 1 Armenian American	3–5 (<i>n</i> = 5) 6–10 (<i>n</i> = 1)
Inclusion support teachers	7	20–35 (<i>n</i> = 3) 35–45 (<i>n</i> = 3) 45–55 (<i>n</i> = 1)	All Female	5 European American 2 Asian American	3–5 (<i>n</i> = 3) 6–10 (<i>n</i> = 3) 11 or more (<i>n</i> = 1)
Instructional assistants	6	25–35 (<i>n</i> = 3) 35–45 (<i>n</i> = 2) 55–65 (<i>n</i> = 1)	All Female	3 Caucasian 2 Hispanic American 1 African American	3–5 (<i>n</i> = 3) 6–10 (<i>n</i> = 3)

^a AAC = augmentative and alternative communication.

group, which consisted of four to seven participants. The first author served as moderator in all five interviews. The role of the moderator was to stimulate discussion through the use of a nondirective interview guide and facilitation strategies (e.g., probes), which functioned to clarify responses, obtain additional information, and encourage the active participation of all individuals (Krueger, 1998b).

All focus group meetings began with a brief introduction by the moderator explaining the purpose of the interview and outlining the ground rules (e.g., freedom to express one's opinions) (Krueger, 1998a). The introduction was followed by six questions, including an icebreaker and a wrap-up question. The last question invited participants to identify what each believed to be the most critical point of the evening's discussion. The following four content questions were designed to elicit opinions from the focus group members on factors and skills that contributed to the successful social and academic inclusion of students with AAC needs.

1. In your experience, what does successful inclusion of students who use AAC look like?
2. What are the barriers that may limit access to such a successful experience?
3. What are the most important skills that inclusion team members need in order to make the inclusion of AAC-using students possible?
4. What are the positive outcomes you have seen as a result of the inclusion of students who use AAC?

The second author served as assistant moderator during all five interviews. The assistant moderator developed a summary throughout each focus group of key points made by participants, as well as notable quotes. She shared the summary with the group during a 3–4 minute period at the end of each focus group and concluded the session by asking whether the summary was accurate, and whether any major points had been omitted. All focus group discussions were audiotaped and transcribed verbatim for later analysis.

The meetings took place at the homes of two of the research team members and the library of a public school. As is customary in focus group research, participants were given a small honorarium for their participation (Krueger, 1998b). A third member of the research team was in charge of setting up the recording equipment and the refreshments. Both the assistant moderator and a third researcher sat outside of the focus group circle to avoid influencing the group members.

After participants left, the moderator conducted a debriefing with the assistant moderator and the other research team member. The purpose of the debriefing was threefold: (a) to review from multiple perspectives the major points that were made, (b) to identify differences between groups, and (c) to note unexpected responses.

Identifying and Verifying Themes

The focus group transcripts were then analyzed to identify the participants' opinions regarding the skills required to support the inclusive education of students

with AAC needs. A content analysis was conducted in two phases using a method outlined by Strauss and Corbin (1990). During the first phase, the five members of the research team worked independently to identify each statement from the focus group transcripts that indicated an opinion regarding the professional skills needed to support the inclusive education of AAC-using students. An opinion was operationally defined as a statement expressing an evaluation or judgement based on firsthand experience. Each opinion statement was labeled according to the skill to which it referred (e.g., the ability to operate the student's AAC system), as judged by the team member. Team members then compiled lists of necessary professional skills based on their independent analyses, noting only the skills that were mentioned across all focus groups.

During the second phase of analysis, the entire team met to compare results. A master list of professional skills was produced by identifying skills that appeared across each of the independently generated lists (Strauss & Corbin, 1990). Any differences between the individually generated lists of necessary skills were resolved via team consensus. The team then worked together to identify clusters of skills that seemed to group together under a common theme (e.g., AAC system maintenance and operation) (Strauss & Corbin, 1990). The themes emerged by consensus as the research team grouped all identified skills (Morgan, 1998).

As recommended by focus group researchers (Morgan, 1998; Morgan & Krueger, 1993), a number of procedures were used to ensure that findings accurately represented the participants' opinions. First, focus groups included members of different educational teams who had different professional roles, thereby maximizing the possibility that discussions captured multiple perspectives. Second, at the end of each focus group, the assistant moderator summarized the major points of the discussion, giving the participants an opportunity to suggest revisions and the research team an opportunity to verify that they were accurately "hearing" what participants were saying. Third, the consensus approach to the content analysis reduced the potential for bias from any single perspective. Finally, after all analyses were complete, a member check was held enabling members of the original focus groups to review the initial findings, confirm their overall accuracy, and suggest revisions.

PROFESSIONAL SKILLS: FIVE THEMES

The four content questions yielded a number of professional skills that participants in all five focus groups believed were necessary to support students with AAC needs in inclusion programs. The skills were grouped by research team consensus under one of five major thematic headings: (a) collaborative teaming, (b) providing access to the curriculum, (c) cultivating social supports, (d) AAC system maintenance and operation, and (e) creating classroom structures that support the learning of heterogeneous groups of students.

Collaborative Teaming

All focus groups stressed the ability to work collaboratively in a multidisciplinary team as a critical skill for providing services to students with AAC needs in general education classrooms. When describing what collaborative teaming meant to them, participants emphasized the importance of regular team meetings where all team members contributed to the development of strategies and ideas for achieving mutually defined goals. Collaborative teaming skills were further defined as an understanding of the roles and responsibilities of all team members combined with a willingness to be flexible around role boundaries. Participants also mentioned the importance of team members treating one another with respect regardless of professional title or position. Finally, successful collaborators were described as individuals who were able to communicate effectively and maintain an action-oriented approach. Typical comments by focus group participants included the following:

- I think successful inclusion takes a good team where everyone talks a lot about what needs to be done, and there are a lot of people who are filling in the gaps and supporting. (Speech-language pathologist)
- [Team members] need to have organizational skills, and they also need to have communication skills and team building skills—the ability to work with their colleagues without letting their egos or old histories get in the way. (Parent)
- The team members have common goals and objectives that they're working toward, instead of dividing the child up into different areas of expertise. (Speech-language pathologist)

Providing Access to the Curriculum

All focus groups noted the importance of using the student's AAC system as a means for accessing the core curriculum in general education classrooms. Participants believed that it was imperative for all team members, irrespective of title, to have a working knowledge of the core curriculum and the ability to contribute to curriculum adaptations and modifications. Participants also believed that it was necessary for team members to be able to assess the student's individual learning style in order to develop appropriate instructional strategies. Typical comments by focus group participants included the following:

- Knowing what the curriculum is is very important, so that when the teacher is doing some kind of class instruction, your student can answer the questions about the very specific thing that [the class] is studying. (Speech-language pathologist)
- You need...the ability to recognize the child's individual and unique learning style. (Instructional assistant)

Cultivating Social Supports

All focus groups expressed the need for team members to be able to provide ongoing support to the AAC-using

student in a number of ways. These strategies included facilitating social interactions between the student and his or her peers, identifying and cultivating natural supports within the classroom, and training peers as communication partners. Participants also noted the importance of being able to highlight the uniqueness and attractiveness of the focus student (e.g., programming the student's device to reflect his or her interests and personality). However, all focus groups stressed that it was critical to provide support in an unobtrusive way so as to foster the independence and autonomy of the focus students. Typical comments about cultivating social supports included the following:

- You need to be able to know how to develop the peer support in the class, so that the peers are supporting the student as much as possible. (Inclusion support teacher)
- Another skill which I think is really, really difficult to teach people is...how to support interactions between kids without yourself being a major player in the interaction, how to prompt another kid to interact with the kid you're targeting, as opposed to you being in the middle of it. (Speech-language pathologist)

AAC System Maintenance and Operation

When describing the skills that related to AAC technology, focus group participants stressed the importance of team members' knowing how to operate, maintain, and integrate all of the elements of the AAC system (e.g., low-tech boards, hi-tech devices, and computers). Although participants did not feel that it was necessary for team members to "have all of the answers," they mentioned the importance of team members knowing how to get technical help or access additional resources when necessary.

Participants also stressed the importance of being able to facilitate the student's use of the AAC system across classroom activities, make vocabulary recommendations for participation in current and upcoming school events, and identify vocabulary for the student to express his or her personal "voice" (e.g., preferences, interests, or a sense of humor). Finally, participants expressed the need for team members to familiarize peers with how the AAC system worked, as well as to train them to provide communication support. Typical comments included the following:

- If [staff] can have more exposure to the AAC system, and have some key maintenance points—both system maintenance and vocabulary maintenance—then they feel like they can handle what comes. (Inclusion support teacher)
- One thing I think that's important—a skill to have for different members of the team—is to be able to see opportunities to use the system and to be aware of how the system can be used within the curriculum, how it can be used within a social context, and how it could be used at home. (Inclusion support teacher)

Building a Supportive Classroom Community

The ability to "build a community" that would fully support students with AAC needs in general education

classrooms emerged as a fifth theme across all focus groups. When further describing the skills that were involved in building community, participants mentioned the ability to use cooperative learning strategies, team teaching between general and special education personnel, and sharing information with colleagues. Additionally, participants emphasized advocacy skills that directly related to building an inclusive educational community wherein the AAC-using student was embraced as a rightful member. These skills included identifying ways in which general education and special education personnel might work together to support all students in the classroom, generating activities that promoted the appreciation of differences within the classroom, and advocating for inclusive education in general, as well as for the needs of the particular focus student. Comments included the following:

- Well it doesn't work as well in little rows.... It works in cooperative grouping and pairing. (General education teacher)
- Well, physically the student isn't down in the left corner of the classroom. (Speech-language pathologist)
- I think that inclusion is forcing us to...become more student-centered, rather than other-centered, which would be really wonderful. (Speech-language pathologist)

IMPLICATIONS FOR SERVICE DELIVERY AND PERSONNEL PREPARATION

The results of the focus group discussions provide preliminary information regarding skills valued by educational team members who serve students with AAC needs in general education classrooms. Although the focus groups were not specifically asked to place special emphasis on any particular team member, the results of this study seem to have important implications for the appropriate roles and responsibilities of speech-language pathologists serving students with AAC needs in inclusive classrooms. The identified professional skills can be used to inform speech-language pathologists on how to address the service delivery demands of an inclusive environment.

As Whitmire (2000) recently noted, an understanding of the changing roles and responsibilities of school-based speech-language pathologists is critical for the provision of context-relevant services that will not jeopardize the unique contributions made by the speech-language pathologist to student learning and development. Findings underscore the importance of speech-language pathologists, who serve in inclusion teams, in being sensitive not only to the communication needs of the individual AAC user, but also to the specific classroom context within which the student will be using his or her communication system. In addition to providing clinical services if needed, the speech-language pathologist also should be able to maximize the AAC user's social and academic participation in the classroom by making curricular

modifications and facilitating social interaction with peers. The general education curriculum and regular school activities now become the context within which intervention targets are defined (Whitmire, 2000).

Members of all five focus groups expressed a need for flexibility around traditional role boundaries for all team members. In particular, this would point to the importance of the speech-language pathologist knowing how to train other people to assume many of the responsibilities that were formerly considered to be his or her exclusive domain (Lyon & Lyon, 1980). This means that the speech-language pathologist helps the general education teacher, inclusion support teacher, and instructional assistant to develop strategies for including the AAC-using student both academically and socially. In turn, teachers and other educational personnel help the speech-language pathologist with implementation and generalization of communication goals (Whitmire, 2000).

Finally, these results encourage speech-language pathologists to see themselves as members of collaborative teams rather than as outside consultants in leadership roles. The ability to provide collaborative services means knowing how to share information within the context of a team meeting or the general education classroom. Sharing responsibility for student success involves working in partnership with other educational personnel. Members of all five focus groups consistently echoed the theme of the need for an "equal footing" relationship, rather than hierarchical relationships, among team members. Instructional assistants and parents were particularly emphatic in stressing the importance of professional team members being willing to value the contributions of all team members—regardless of professional role or credentials (Giangreco, 1990; Giangreco et al., 1999; Rainforth & York-Barr, 1997).

The results of the focus group process seem to have implications for the preparation of speech-language pathologists serving on AAC teams. Our findings suggest that, at the professional level of preparation, programs should include extensive information on the different roles and responsibilities speech-language pathologists are likely to assume as members of AAC teams, and how these roles and responsibilities may change depending on the client and the contexts within which services are delivered. Furthermore, professional preparation programs should provide the prospective speech-language pathologist with ample opportunities to practice AAC in diverse educational and clinical settings and to observe and develop collaborative teaming skills.

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