

---

## Outcome Measures - Tools and Processes in AAC: What's Driving Us?

### *Mesure des résultats - Outils et mécanismes en matière de CS : Qu'est-ce qui nous motive?*

Nora Rothschild, DSP, Jackie McGinnis, PhD, and Lynnette Norris  
Augmentative Communication Service, Hugh MacMillan Rehabilitation Centre  
Toronto, Ontario

**Key words:** augmentative and alternative communication (AAC) intervention, outcome measurement, quality of life

---

#### Abstract

This paper describes a client-centred AAC program's initial attempts to measure, analyze, and feed back client-related data. Various tools and processes used to measure individual client outcomes as well as program organizational processes show how all of these facets are required to improve client outcomes. This is work in progress which is continually changing in an effort to improve services to better meet the needs of stakeholders.

At Alliance '95, an outcomes conference, agreement was reached on a number of principles for AAC interventions and outcomes, including the following: a) results of AAC interventions should improve quality of life, and b) results of outcome measures should be fed back into the process to improve cost effectiveness, equipment and services. This paper illustrates how current outcome measures and processes at the Augmentative Communication Service reflects these ideals.

#### Abrégé

*Cet article décrit les premières tentatives de mesure, d'analyse et de récupération de données liées aux clients dans le cadre d'un programme de CS axé sur la clientèle. Divers outils et mécanismes servant à mesurer les résultats de chaque client, de même que des méthodes organisationnelles touchant les programmes, démontrent comment tous ces aspects sont nécessaires afin d'améliorer les résultats des clients. Il s'agit de travaux en cours, qui sont en perpétuel changement, afin d'améliorer les services pour mieux répondre aux besoins des intéressés.*

*Dans le cadre d'Alliance '95, une conférence sur les résultats, un certain nombre de principes ont fait l'unanimité en ce qui a trait aux interventions et aux résultats relativement à la SC: a) les résultats en matière de CS devraient améliorer la qualité de la vie et b) les mesures des résultats devraient être réintroduites dans le mécanisme, afin d'améliorer la rentabilité, le matériel et les*

*services. Cet article illustre comment les mesures des résultats actuels et les méthodes du Augmentative Communication Service reflètent ces aspirations.*

It is no longer enough to say one provides quality service without data to support the claim. Being accountable means having data that is objectively collected and analyzed. In the quest for accountability, health care providers banter about a number of terms, some of which include evaluation, feedback, client outcome measurement, workload measurement, and total quality management (TQM).

At the Augmentative Communication Service (ACS), client outcome measures are used to evaluate the effectiveness of intervention. Other measures and processes are used to compare interventions between clients, teams and service delivery models, identify areas for improvement of intervention and service, and to provide a measure of accountability to stakeholders, management and government. Outcome measures are usually viewed for the impact on the client. At ACS outcome measures are used on two distinct levels: a) at the individual client level, and b) at the program organizational processes level.

Client outcome measures as defined by Parnes (1995) are client oriented and give an indication of the impact of service or intervention on the people who receive it. A central theme in the provision of AAC services is the essential recognition that there are a large number of stakeholders. Williams (1995) identified 13 potential categories of stakeholders, all of whom will have different concerns regarding functional outcome measures.

At the ACS of the Hugh MacMillan Rehabilitation Centre (HMRC), there are a number of stakeholders. They include clients, agency staff, government, and tax payers.

## Outcome Measures

The focus of their concerns is different and therefore their requirement for outcomes are different also. Parnes (1995) has noted, "While one cannot discount any of the stakeholders, they should not be regarded as equal. The consumer and family must remain the central focus of the outcomes measure. Close attention to funders and administrators is needed in terms of answering the questions that they ask and more importantly, helping them to ask the right questions." As Williams (1995) succinctly said, "whose outcome is it anyway?" (p.6). In designing appropriate measures, it is important to know how each stakeholder defines service quality to design appropriate measures (Leebov & Scott, 1994). Frattali (1993) argues that each stakeholder has a responsibility in measurement and must work together collaboratively if functional assessment is to advance.

At ACS individual client outcome measures are used for the following: a) to measure client and family perceptions of satisfaction and goal attainment, and b) to measure change, over a period of time, in the client's status. Change in status should be identified from the use of documentation that supplies objective data.

At the second level of overall program processes, outcome measurement tools are used to analyze the various service elements in order to improve program processes for clients and other stakeholders.

At both the client and program level, measurement and evaluation performed simply for the sake of measurement is wasteful - for all stakeholders involved. Parnes (1995) remarks that for outcome measurement, it is necessary to: a) identify the measurement process, b) set standards, c) collect the data, and d) analyze and justify results in a way that permits meaningful feedback. This article attempts to illustrate these processes. These processes are driven by our client-centred philosophy captured by Blackstone (1991) when she wrote, "in the final analysis, functional outcomes are what counts!" (p. 111).

In light of the importance of these measures, the lack of available tools is alarming (Frattali, 1992). Although this paper describes initial attempts, ACS continues to search for viable tools. The call for the development of outcome measures tools in AAC is a focus in 1995, but this call is truly an echo of past voices on the subject.

At the first International Society for AAC (ISAAC) Research Symposium held in Stockholm in August of 1990, Stephen Calculator spoke on evaluating the efficacy of AAC intervention. In his opening presentation Calculator stated that "...attention to functional outcomes implies revision in how we assess, intervene and evaluate the impact of AAC" (p. 25). At *Alliance '95*, an outcomes conference in Monterey, California, agreement was reached regarding a

number of principles for AAC interventions and outcomes, including the following: a) results of AAC interventions should improve quality of life and, b) results of outcome measures should be fed back into the process to improve cost effectiveness, equipment, and services.

Outcome measures at ACS reflect these ideals. Quality of life has been a difficult concept to define and thus measurement has been impossible. It is easy to say that the results of AAC interventions should improve quality of life for persons who use AAC systems. It sounds right, this notion of improved quality of life. But what does it mean? Certainly something different for everyone.

The diversity of opinion regarding the components and definitions of quality of life illustrates the difficulty in measurement, since quality of life is not subject to direct observation (Kinney & Coyle, 1989). Robert Schalock (1994) defined quality of life within his work in the field of mental retardation and developmental disability. The three basic concepts he refers to are: a) general feeling of well-being; b) opportunities to fulfill one's potential, and c) feelings of positive social involvement.

Taylor (1994) supports quality of life as a sensitizing concept that provides a general sense of reference, instead of an objective concept that can be defined. Empowerment is another factor which contributes to quality of life. Connally (1994) suggests that the most basic form of empowerment is to listen to a person and to take what they have to say seriously.

The purpose of this paper is to describe the measurement tools and processes used at both the client and program level and how they are used to provide feedback and effect appropriate changes for clients and other stakeholders.

### Ontario's system of service delivery

Ontario has a unique system of AAC service delivery. ACS is one of 18 AAC clinics authorized by the Ontario Ministry of Health's Assistive Devices Program (ADP). Each of the authorized AAC clinics is peer reviewed for accreditation. AAC clinics which are accredited may authorize ADP approved devices to eligible clients. ADP then pays 75% of equipment costs.

ADP has collected its own outcome measures over the past four years. In 1990, in order to address lengthy and growing waiting lists, ADP provided funding for additional staff. In return, ADP expected documentation of outcome measures to show increased numbers of clients seen, with a proportionate decrease in the waiting lists. Continued

funding of these positions was dependent on the demonstration of meeting specific standards set by each AAC clinic at the outset. The measures were identified by ADP to address ADP's goals for increasing the number of clients seen annually. Measures included: a) client waiting period, b) the number of clients seen for assessment, and c) the number of AAC devices authorized. ACS has met all aspects of the standards set for each reporting period.

These outcome measures were driven by ADP for a specific purpose and they have had a number of positive effects. The standards provided guidelines for caseload sizes which the government expected and in meeting those standards, they provided additional resources. The outcome reporting kept agencies focused on finding more efficient ways of providing client service. These measures also prompted the investigation of other forms of outcome measures which would be more reflective of the critical issues.

The AAC program's philosophy and service delivery model is briefly discussed below so that the reader will understand the context within which the interrelationships between stakeholders and outcome measures are presented.

### **The AAC Program**

The Augmentative Communication Service (ACS) is a service available to anyone in the province of Ontario. ACS works to improve the quality of life by enhancing the face-to-face and written communication abilities of individuals who have a physical disability and for whom speech is functionally inadequate to meet daily face-to-face needs. A trans-disciplinary team is comprised of augmentative communication specialists with professional backgrounds in Speech-Language Pathology or Special Education and Occupational Therapy with backup support from the clinical, technical, and clerical support staff.

ACS's principle functions include: a) meeting identified client needs, b) meeting educational needs identified by clients, community teams, agencies wanting to develop expertise in AAC, graduate schools and other professionals, and c) initiating and participating in AAC clinically-based research.

The following philosophies are shared by all ACS staff and service delivery is structured to reflect these values: a) client/family centred and community based services are necessary in order to achieve participation through functional communication which then lead to improved quality of life, b) education, research, and evaluation are integral elements to client service, c) a goal oriented approach utilizing a transdisciplinary team approach and

demystifying the expert image through collaborative consultation leads to improved client outcomes; and, d) advocacy on behalf of clients and the field of AAC is an important ongoing element of service.

ACS establishes its workload at the outset of each calendar year, addressing priority needs in response to client requests. Client needs as identified by the client, family, and community team are matched to the staff resources available. The service hours are estimated on an annual basis and allocated to each client based on the individual's needs and abilities.

The actual client service plan is later developed in collaboration with the entire team. Thus principles of client and family-centered service are melded with the aim of identifying outcomes based on client needs. In keeping with a family-centred and community based philosophy to provide information, ACS also coordinates a series of annual workshops covering a range of AAC related topics.

There is continual evaluation of the ACS method of service delivery using both formal and informal methods. For example, in 1990 an external evaluation of the service delivery model was commissioned. This evaluation provided a list of 22 recommendations for the clinical, research, educational, and organizational components of the program. These recommendations were systematically addressed in order to improve services.

### **Client Level Outcomes**

ACS has a number of tools to measure various client outcomes. What follows is a summary of these tools. In each section we have discussed the implementation of the tool as it relates to the client, but in keeping with our focus on process outcomes, there is also a discussion of how information is fed back into the service and the standards of achievement which have been set for each measure.

### **Application for Service**

At the conclusion of the service year, clients are sent an application for service for the upcoming year. The application gathers a great deal of information including, demographics, diagnosis, seating and mobility status, communication abilities and areas of communication that require ACS service. A database is used to track areas of intervention, geographical locations of clients and available clinician hours. At the client level the standard for service eligibility is based on documented commitments by family and community team members.

## Outcome Measures

The application itself is evaluated each year as to ease of use and accuracy of data submitted. A consumer advisory committee reviews the application form and suggests changes to make the form easier for clients to complete.

## Client Service Plan

The client service plan outlines the goals, objectives and action plans for the service year. It is completed jointly by the ACS team, the client and the community team. ACS uses a case management model, whereby one clinician in the team assumes responsibility for coordination of meetings and necessary documentation.

Typically the goals for service are those which have been requested on the application. Objectives are tailored to the client's skills and participation patterns. The actions section delineates who is responsible for completing various tasks associated with each objective. As would be expected, these actions contain information about anticipated assessments, technology trials, etc. These service goals are documented on the client's health record. Throughout the service year, this document is used to evaluate the progress toward achieving the goals. At the end of the service year, the form is reviewed to determine completed and outstanding goals. Clients whose goals are incomplete and require completion will receive service in the following year to complete the goal. The standard is to have the one primary goal with a possible second goal addressed within the annual service year.

The most fundamental client outcome measurement tool used is the client service plan and the resultant annual summary of goals, discussed below. This tool forms the basis for outcome measurement at both the individual client level as well as at the overall program process level. In reviewing past client plans, it became apparent that staff training and documentation of basic guidelines was essential. Thus training, practice, and documented guidelines were provided to assist staff in completing these important tools with the client team.

The guidelines for service plan development included the following principles: a) all goals and objectives must have a client focus and be stated in measurable terms, b) each client plan requires follow-up with measurement and feedback, c) the client service plan is a dynamic document, d) all parties must be honest and respectful, and e) all objectives should in some way impact on the client's quality of life.

For ACS, the Goal provides the broad, "big picture". These are standard goals, chosen from the 13 standard goals listed in Appendix 1. They deal with different aspects and stages of assessment, intervention and support for face-to-

face or written communication and are related to the allocation for service. These broad goals are used administratively: they allow tracking by providing standardization; they facilitate annual resource allocation; they allow for future workload measurement based on client needs; and they allow reporting of client based outcome measures.

For ACS, the objectives are individualized and client centered. They are stated with individual client aims in mind. They answer the question: "How will this improve the client's quality of life/communication?" They are clearly measurable in a specified time. They are not process oriented.

Actions are process oriented. They refer to "how we do it". All actions which are necessary components for attainment of the clients' objectives are listed. Team member(s) and target dates for each are documented. Table 1 is an example of the client service plan.

**Table 1. Client service plan example**

<b>Goal:</b> Joe will improve face to face communication. Joe will communicate in school using a VOCA.	
<b>Objective 1:</b> Joe will identify at least three situations in the school environment where he needs to participate.	
<b>Actions:</b>	<b>Team Members</b>
List all of Joe's school situations.	Joe, school
Complete participation assessment of these situations.	ACS, school
Model use of the VOCA for Joe, in these three situations.	ACS, school
Prioritize those three situations to target first.	Joe, school

## Annual Summary of Goals

For the past three years, at the end of each service year, ACS has gathered information regarding the client and his or her facilitators' perceptions about the completeness of their yearly goals. In order to do this, clients received a summary goal sheet with their application for the next service year. On this form, the past year's goals were stated along with comments by the ACS team regarding whether or not they felt the goals were complete. The client and community team were requested to agree or disagree with these staff perceptions and to provide comments.

If the client disagreed, consensus was sought. If negative comments were noted, ACS management contacted the family for further discussion. This information about the

completeness of goals was used to assist in ensuring appropriate service for the following year. If a goal was not completed, services are assured for the following year in order to complete or modify the goal. Comments also allowed a means for clients to provide some feedback on satisfaction.

Although these summary goal sheets were a useful tool, they require refinement: language used is at times not clear to clients, it lacks standardization, and the client is asked to sign staff signatures. With the new client service plan and staff training, ACS is better equipped to modify processes to obtain the information needed. For the current service year, summary goal sheets will be based on the new client service plan which has been reviewed and updated throughout the year.

### **VOCA Protocol**

The various voice output communication aid (VOCA) protocol (McGinnis et al., 1992) is a data collection form that clinicians can use to document the communication functions used during a conversation by an individual using a VOCA. The protocol was designed to document the occurrence of the following communication functions: requests for objects, actions, information and clarification; repetitions, affirmations, questioning, giving information and no response. Clinicians are able to record the data live, while observing the targeted interaction.

Each of the communication functions is given a two letter code, which the observer circles during conversational turns. At the end of the observation, the occurrence of each code is tallied to give an indication of which functions were used most frequently. Additionally, because the functions are recorded for the dyad, issues of conversational control, and participation pattern can be analyzed. The clinician can use this tool to determine areas for focused intervention. When used in a pre and post format this tool can document changes over time in the interaction patterns of persons using voice output. The standard is to obtain increases over baseline numbers that are acceptable to the client.

### **AAC Competency Questionnaire**

The AAC Competency questionnaire (Antonius, 1993) is a tool that is the focus of a new research project at ACS. The tool is a 24-item questionnaire that assesses how the person using AAC and his/her communication partners perceive communication competence. It is based on the four areas of competence defined by Light in 1988 (i.e., operational, strategic, linguistic, and social). Antonius (1993) expanded on Light's four defined areas to create this questionnaire.

For each area of competence a mean score of competence will be generated. The clinician is then able to focus intervention on those areas where competence is low and the person using AAC wishes to attain a higher level. This tool is presently undergoing reliability testing. When used in a pre and post format, changes in the scores over time will provide information about increases or decreases in perceived communication competence. The standard is to record an increased perception in competence from the data obtained in pre-testing.

### **Communication Device Review**

After assessment has been completed and before a device can be given to the client, clinicians must complete a communication device review form. This documents the client's present communication skills and needs and provides a rationale for the selection of the recommended device. This information is then brought to a meeting of the clinician's peers for review and subsequent approval/disapproval. This process is mandatory. Once the recommendation has been approved, the staff proceed with supplying the recommended equipment to the client. This review process and information collection is an important facet related to becoming more accountable to our stakeholders. Stakeholders in this case, include the client, the clinic, the centre, the general public of taxpayers, and the Ministry of Health. Additionally, this review allows clinicians to share assessment and intervention information for the target client with colleagues who may be working with clients who have similar needs.

### **Program Level Outcomes**

The overall program process outcome measures are all based on cumulative individual client measures. ACS believes that the program outcomes need to reflect client outcomes. Data is analyzed using the total client population served in any year to provide feedback of trends. Analysis is made easier through use of a data base.

The following tools are used with clients who require the use of an AAC system. These tools allow us to track, collect, ensure completeness, and obtain satisfaction feedback.

### **Client Goal Achievement**

Information is tabulated for cumulative client goal attainment from the individual client data. At present this data is collected and reviewed to determine broad trends in goal attainment. For example, in a specific year, of the total 265

---

## Outcome Measures

cumulative client goals, 75% were completed by the end of the service year. This is ACS' accepted standard for cumulative client goal attainment.

An analysis of this cumulative client goal data helps determine trends in service and allows comparisons. For example, what trends exist amongst designated goals, type of communication device given, clinical team composition and local versus outreach service.

### Education for Clients and Local Community Teams

Each year ACS holds a series of workshops covering a range of AAC related topics, including: introductory workshops, hands-on workshops to help in preparing and using light technology communication systems and hands-on workshops to increase consumer awareness and comfort with various voice output communication aids (VOCAs) and computers with specific AAC applications. Participants are asked to complete an eight question evaluation form at the end of each session. Five questions use a five-point likert scale (very poor to excellent) and three questions are open-ended. The essence of the evaluation is to determine whether or not the objectives of the workshop were met and what other types of workshops participants would like to see offered.

The following is a good illustration of the workshop outcomes and their usefulness in the area of education. For the five questions which could be rated as very poor to excellent, based on data from 56 evaluations, 57% of the time, a rating of excellent was given. A rating of above average was given 35% of the time. Hence 92% of workshops were rated as above average or better.

The three open-ended questions have provided the most valuable feedback for identifying the changing needs of clients. Overwhelmingly clients and their teams asked that the educational workshops be held on evenings and weekends so that more persons could attend. Additionally, ACS has been asked to provide workshops to community teams on software packages used to design communication books. Clients are also asking for workshops on topics related to communication such as literacy. In response, workshops are now offered on a variety of topics, both at different times and often in the client's community.

### Device Information

ACS uses a variety of tools to monitor devices used by clients, thus obtaining a great deal of device-related information. Communication device reviews are tabulated to show trends in the types of equipment authorized. Client equipment orders, for loan, lease, or purchase are tracked daily and audited periodically to ensure that equipment is

being ordered, delivered and dispensed to clients in a timely and financially appropriate way. A tabulation of the number of terminated leases is analyzed to identify reasons for the terminations in order to provide feedback on trends.

The following is a good illustration of outcome measures and their usefulness in this area. For one six-month period in 1994, 34 clients were authorized for communication devices at ACS. Of the 34 devices, only 12% were dispensed within a six-week period, 35% were dispensed within a 7- to 12-week period and 53% were dispensed 12 weeks or more following authorization.

As a result of these findings, the entire process was reviewed and the process, tools and standards were restructured. A standard of six weeks following date of equipment order was set. Later, within a four-month period in 1995, a total of seven devices were authorized. Seventy-one percent of the seven devices were dispensed in less than six weeks following authorization, an improvement of 59%. Additionally, all devices were dispensed within six weeks of the date of the equipment order. Thus as a result of continuous quality measurement, feedback and resultant process changes, ACS was able to significantly improve client service.

### Total Quality Management

The concept of total quality management (TQM) has undergone a radical change at the Hugh MacMillan Rehabilitation Centre (HMRC) and consequently so have all of its programs, including ACS. In the past, ACS conducted quality assurance audits of various processes, workshops, resources, and committees. In a given service year, a calendar of these audits was developed with the chosen activities coming from perceived problem areas. There were also activities that were selected because they were felt to require an annual check. The results of these audits were reported back to staff in order to make suggested improvements.

Currently, TQM has become integrated into the yearly operating plan of the service. The yearly calendar of audited activities has been replaced by standards of practice which have been defined along with the annual goals for operation.

TQM is now an integral, ongoing aspect of the operational plan with the intent of providing feedback for continuous improvement in the three principle functions of client intervention, education and research. Appendix 2 shows the current annual ACS operating plan intended to enhance service, illustrating how TQM and outcome measures can be incorporated. Goals follow the principle areas of client outcomes, education, research and organization. Objectives and key activities to address these goals are outlined with targets for setting acceptable standards.

## Client Satisfaction Survey

According to Leebov and Scott (1994), the first step in determining customer satisfaction is identification of the customer's definition of service quality. From this point, one can design measures for: a) overall satisfaction, b) customer perceptions of important service attributes, and c) measures of performance of key elements in your service process (p.89).

In both the evaluation of the service delivery model and total quality management activities, clients of ACS have been surveyed to determine their perceptions of the quality of service received. Further checks of client satisfaction are performed by management in an audit of clinicians' reports and by responding to client concerns. Additionally the annual summary of goals was an attempt to determine satisfaction with goal attainment.

A new survey, currently in development, will attempt to do these things, as well as, determine quality of life parameters and client/family perceptions of what ACS does well and areas for improvement. The importance of this survey is to address all areas of concern and make improvements where possible.

## Summary

ACS is obligated to all stakeholders to show that the ACS service is making a difference: addressing stakeholder needs and ensuring that service is efficient and effective. At ACS changes are made continuously to address client needs and to feedback to clients and program, issues as they arise via all of the above measurements.

ACS is searching for additional, appropriate, and sufficiently sensitive tools which measure functional outcomes and are sensitive to issues regarding quality of life. Ideally, these tools should be broadly used and standardized. The drive now is to collect the right data and ask the right questions so that the right things are measured while keeping Williams' plea in mind: "Whose outcome is it anyway?" (Williams, 1995, p.6).

## Acknowledgments

The authors wish to acknowledge clients of the Augmentative Communication Service (ACS) as the reason this paper was written. Acknowledgments also to ACS staff for their commitment to client-centred philosophy and their continual willingness to experiment and make improvements. Special thanks go to Penny Parnes and Lucie Beland-O'Keefe for their comments on early drafts of this publication.

*Please address all correspondence to:* Nora Rothschild, Hugh MacMillan Rehabilitation Centre, Augmentative Communication Service, 350 Rumsey Rd., Toronto, Ontario M4G 1R8.

## References

- Antonius, K. (1993). *Augmentative and alternative communication competence: An informal rating tool for users and facilitators*. Paper presented at AC Rounds, Toronto ON.
- Blackstone, S. (1995). AAC stakeholders: It's all relative. *Augmentative Communication News*, 8 (1) 1-8.
- Blackstone, S. (1991). Evaluation of AAC service delivery programs: Meanings and methodologies. In D. J. Gardner-Bonneau (Ed.), *Methodological issues in research in Augmentative and Alternative Communication* (pp.108-113). Philadelphia: ISAAC.
- Calculator, S. (1990). Evaluating the efficacy of AAC intervention for children with severe disabilities. In J. Brodin & E. Bjorck-Akesson (Eds.), *Methodological issues in research in Augmentative and Alternative Communication*, (pp. 22-35). Stockholm: ISAAC.
- Connally, P. (1994). The California quality of life project: A project summary. In D. Goode (Ed.), *Quality of life or persons with disabilities: International perspectives and issues*. Cambridge, MA: Brookline Books.
- Frattali, C. (1994, May). *Functional assessment: Its uses from clinical and policymaking points of view*. Paper presented at the CASLPA Conference. Winnipeg, MB.
- Frattali, C. (1993). Perspectives on functional assessment: Its use for policy making. *Disability and Rehabilitation*, 15, 1-9.
- Kinney, W.B., & Coyle, C. (1989). *Predictors of quality of life among physically disabled adults*. Philadelphia, PA: Temple University, Department of Recreational and Leisure Studies, Program in Therapeutic Recreation.
- Leebov, W., & Scott, G. (1994). *Service quality improvement: The customer satisfaction strategy for health care*. Chicago: American Hospital Publishing Incorporated.
- Light, J. (1989). Toward a definition of communicative competence for individuals using augmentative communication systems. *Augmentative and Alternative Communication*, 5, 137-144.
- McGinnis, J., Gutmann, M., McGhie-Richmond, D., & Warrick A. (1992) *VOCA Protocol*. Toronto: Internal Document, Augmentative Communication Service.
- Parnes, P. (1995). *Outcome measures: A question of accountability*. Paper presented at Alliance '95, Monterey, CA.
- Schalock, R. (1994). The concept of quality of life and its current applications in the field of mental retardation/developmental disability. In D. Goode (Ed.), *Quality of life for persons with disabilities: International perspectives and issues*. Cambridge, MA: Brookline Books.

## Outcome Measures

Taylor, S. (1994). In support of research on quality of life, but against quality of life. In D. Goode (Ed.), *Quality of life for persons with disabilities: International perspectives and issues*. Cambridge, MA: Brookline Books.

Williams, M. (1995). Whose outcome is it anyway? *Alternatively Speaking*, 2(1), 1-3.

## Appendices

Appendix A lists the 13 standard client goals used in the development of a client service plan.

Appendix B contains the annual operating plan which outlines the two client, one education, one research and two organizational goals with corresponding objectives, activities and targets.

### Appendix A: Standard Goals

#### 1. DOMAIN: FACE TO FACE COMMUNICATION

##### 1.1 Re: VOCA

- 1.1.1 *(client name)* will improve face to face communication. *(client name)* will use a VOCA.
- 1.1.2 *(client name)* will improve face to face communication. *(client name)* will communicate in *(environments)* using a VOCA.
- 1.1.3 *(client name)* will improve face to face communication. *(client name)* will maintain and/or increase communication skill(s) using a VOCA.

##### 1.2 Re: Light Technology

- 1.2.1 *(client name)* will improve face to face communication. *(client name)* will use a light technology system.
- 1.2.2 *(client name)* will improve face to face communication. *(client name)* will be able to communicate in *(environments)* with light technology.
- 1.2.3 *(client name)* will improve face to face communication. *(client name)* will maintain and/or increase communication skills with light technology.

##### 1.3 Re: Early Communication

- 1.3.1 *(client name)* will improve face to face communication. *(client name)*'s early communication goals and modes/means of communication will be identified.
- 1.3.2 *(client name)* will improve face to face communication. *(client name)*'s partners from *(environments)* will implement *(goals)* through *(modes)*.

#### 2. DOMAIN: WRITTEN COMMUNICATION

- 2.1 *(client name)* will improve written communication. *(client name)* will use a computer system to meet written communication needs.
- 2.2 *(client name)* will improve written communication. *(client name)* will write independently using a computer.
- 2.3 *(client name)* will improve written communication. *(client name)* will maintain and/or increase written communication skills using a computer.
- 2.4 *(client name)* will terminate their computer lease.

#### 3. DOMAIN: ADVOCACY

- 3.1 *(client name)* will outline a plan requesting ACS staff to become advocates regarding their communication needs.

## Appendix B: 1995 Annual Operating Plan

<b>Client Outcomes - Goal 1:</b>	
<b>In collaboration with the client's community team, determine appropriate communication goals to meet the needs of the client in all environments where they live, learn, work and play.</b>	
<b>Objectives and Activities</b>	<b>Targets</b>
<p><i>Objective 1.1:</i> Begin collaboration with <b>goal setting</b> meetings to appropriately plan the service year.</p> <p>Activities:</p> <ul style="list-style-type: none"> <li>• all clients and their community teams to specify goals and objectives for 1995 after first case conference of 1995</li> <li>• ensure that a community team is available to work with at least 80% of 1995 ACS active clients in meeting client's AAC needs by signing on 1995 applications.</li> </ul>	
	<ul style="list-style-type: none"> <li>• 90% clients to have goals documented</li> <li>• 70% client goals met</li> <li>• 80% client/community teams agree with ACS documentation of goal outcome</li> <li>• 90% of accepted applications are completed correctly with appropriate signatures</li> </ul>

<b>Client Outcomes - Goal 2:</b>	
<b>Provide individualized, quality service to meet the client and community team's needs for augmentative communication.</b>	
<b>Objectives and Activities</b>	<b>Targets</b>
<p><i>Objective 2.1:</i> Provide the most appropriate augmentative communication system for each client and appropriately <b>document</b> this process.</p> <p>Activities:</p> <ul style="list-style-type: none"> <li>• ensure client confidentiality by setting up new policies and following them according to newly enacted legislation</li> <li>• dispense approved equipment to clients</li> </ul>	
	<ul style="list-style-type: none"> <li>• 100% release of information forms are signed</li> <li>• time from ordering to equipment dispense not greater than two months</li> </ul>
<p><i>Objective 2.2</i> To provide <b>support</b> for established systems to clients and families.</p> <p>Activities:</p> <ul style="list-style-type: none"> <li>• provide troubleshooting support to all clients</li> </ul>	
	<ul style="list-style-type: none"> <li>• within 48 hours of initial contact.</li> </ul>

Continued on page 266

**Outcome Measures**

**Appendix B - Continued**

<b>Education - Goal 1:</b> <b>To increase the knowledge and skills of clients and their families and community teams in their use of both augmentative communication systems and intervention recommendations.</b>	
<b>Objectives and Activities</b>	<b>Targets</b>
<p><i>Objective 1.1:</i> To offer quality educational workshops that are directly related to the clinical services ACS provides.</p> <p>Activities:</p> <ul style="list-style-type: none"> <li>• Create new workshops to meet the changing needs of ACS clients.</li> <li>• Maintain flexible times and locations of workshops</li> </ul>	
	<ul style="list-style-type: none"> <li>• Two new workshops to be offered and evaluated</li> <li>• Workshops offered on evenings, weekends and in other locations</li> </ul>
<b>Research - Goal 1:</b> <b>To complete clinically driven research in AAC to be shared with the AAC community at provincial, national and international levels.</b>	
<b>Objectives and Activities</b>	<b>Targets</b>
<p><i>Objective 1.1:</i> To carry out clinical research.</p> <p>Activities:</p> <ul style="list-style-type: none"> <li>• determine research priorities for the year</li> <li>• negotiate FTE and research focus for the year</li> <li>• design and implement research projects</li> <li>• secure external funding as appropriate</li> </ul>	
	<ul style="list-style-type: none"> <li>• eight potential projects identified for the year</li> <li>• at least 1 FTE dedicated to research-related activities for the year</li> </ul>
<p><i>Objective 1.2:</i> To disseminate research.</p> <p>Activities:</p> <ul style="list-style-type: none"> <li>• submissions to peer reviewed journal(s)</li> <li>• present research findings at conferences</li> </ul>	
	<ul style="list-style-type: none"> <li>• one paper accepted to peer reviewed journal</li> <li>• minimum of two papers planned for presentation in 1995/96</li> <li>• 80% of annual submissions be accepted for presentations.</li> </ul>
<p><i>Objective 1.3:</i> To maintain formal and informal links with provincial and international universities</p> <p>Activities:</p> <ul style="list-style-type: none"> <li>• provide placements for interns in S-LP, OT, and Communication Disorders graduate programs</li> <li>• teach university courses in S-LP and OT</li> <li>• promote student research</li> </ul>	
	<ul style="list-style-type: none"> <li>• one student intern for the year</li> <li>• at least two staff lecture to different courses</li> <li>• provide support to at least one student research project</li> </ul>

## Appendix B - Continued

<b>Organizational - Goal 1: To practice family centered care at ACS.</b>	
<b>Objectives and Activities</b>	<b>Targets</b>
<p><i>Objective 1.1:</i> Promote consumer involvement and provide consumer support in various aspects of the operation at ACS.</p> <p>Activities:</p> <ul style="list-style-type: none"> <li>• ensure service plans are client centered</li> <li>• develop client friendly documentation regarding payment issues.</li> <li>• ACS consumer advisory group to continue to provide input to ACS staff and operations</li> </ul>	
<ul style="list-style-type: none"> <li>• staff training completed</li> <li>• create brochure re: payment issues</li> <li>• consumer group meets once this year</li> <li>• at least two consumer recommendations made by the consumer group will be addressed</li> </ul>	

<b>Organizational - Goal 2: To reciprocally share clinical and organizational expertise with rehabilitation professionals who interact with AAC throughout Ontario.</b>	
<b>Objectives and Activities</b>	<b>Targets</b>
<p><i>Objective 2.1:</i> To maintain current knowledge of clinical work in progress at other centers via linkages and meetings.</p> <p>Activities:</p> <ul style="list-style-type: none"> <li>• participate on electronic mail and meetings re: provincial issues to maintain linkages and current knowledge</li> <li>• support other AAC centres</li> <li>• offer ACS community team training to staff of other AAC clinics</li> </ul>	
<ul style="list-style-type: none"> <li>• at least two staff participate in annual provincial meetings</li> <li>• signed contract with one AAC clinic as mentorship agreement</li> </ul>	