

## Addressing teacher concerns in communication programming and instruction for students with severe intellectual disability: A report of work in progress

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Although the extant literature on augmentative and alternative communication interventions is replete with examples of best practice, a number of writers have recently been concerned to encourage the translation of such breakthroughs into general practice in the many and varied contexts in which people with severe intellectual disabilities are educated (Arthur, Linfoot & Butterfield, 1992; Calculator & Jorgensen, 1991). Why is it that changes in knowledge and practice are disparate? Are academic journals, for example, a useful medium for encouraging instructional reform, a question posed recently by Connell (1992). How can we ensure that our pedagogy is dynamic and responsive to the empirical base?

One continuing theme in the study of human change processes has been the importance of clearly identifying people's concerns and needs when innovations are proposed (Hord, Rutherford, Huling-Austin & Hall, 1987). This allows for the adoption of such change by the participant such that a non-threatening sense of ownership is achieved, in what some have phrased a 'bottom-up' style.

This paper links the findings of a statewide survey of teachers in the area of communication programming and instruction, reported elsewhere (Arthur, Butterfield & Linfoot, 1991; Butterfield, Arthur & Linfoot, 1992), to the development of a responsive professional development manual (Butterfield, Arthur, Linfoot & Philips, 1992). The key components of a statewide inservicing program, designed to support use of this resource, will be discussed, along with the introduction of an evaluation instrument designed to measure how effectively this project has addressed the needs of teachers in the workplace.

### Identified teacher needs

Table 1 describes the professional development needs of the 241 respondent teachers, (for a comprehensive review of the procedures used in the initial survey exercise, response rates and other issues in the analysis of the

data, see Arthur et al, 1992).

Table 1

Reported professional development needs of teachers of students with moderate or severe intellectual disability.

#### Needs

Number of reports

% of total responses a,b  
 Assessment 3213  
 Programming: goal setting, data collection 3314  
 Programming: use of augmentative systems 5121  
 Programming: preverbal/multiply impaired 4217  
 Programming: behaviour and communication 94  
 Instructional strategies including generalisation 4720  
 Technology: computers, electronic systems 3414  
 Team programming: parents, therapists 167  
 Language and speech including atypical patterns 2912  
 Using the document 'Programming Communication' 115  
 Request for Speech Pathologist 5322  
 Miscellaneous: ESL, networking 4418

a. Figures have been rounded to the nearest whole percentage point.

b. Sum of responses exceeds 100% due to multiple needs identified by many respondents.

The divergent teacher needs presented in Table 1 suggest a number of important directions for future professional development planning. Of particular interest is the large numbers of teachers who expressed a need for support in assessment, programming and instruction. Staff working in this field appear keen to develop skills in the area of how to teach; the methodologies that are relevant to the communication development of their students.

Conversely, 22% (n=53) of teachers indicated a need for more speech pathology services. Whilst in no way downplaying the important role of speech pathologists, particularly given the growing importance of collaboration and team programming, teachers (and others who provide daily educational programs, such as teachers aides-special) have a prime, indeed integral part to play in the delivery of communication programs. Teaching staff must be empowered to program and deliver effective interventions for their students as well as initiate improvements in the responsiveness of

the many environments in which interaction takes place. Is it possible that teachers and their assistants are so busy trying to carry out a myriad of programs and responsibilities everyday that they are unable to tune into the existing communication patterns and functions of their students? How can they be assisted to program for communication and improve how they react to student behaviours in a systematic and yet naturalistic way? Creating communicative contexts: An instructional manual for teachers of students with severe intellectual disability

This resource is designed to merge identified teacher needs with current best practice, as outlined in the research literature. Although a detailed overview of the manual is available elsewhere (Butterfield, Arthur & Linfoot, 1992), it should be noted that emphasis is placed on the transactional nature of true communication, and readers are encouraged to

combine established programming principles with naturalistic opportunities for communication across people, settings and time.

The overall aims of the document are to increase facilitator awareness of the interactive nature of communication and the opportunities that exist to extend on student communicative behaviours if facilitators are aware of the significance of non linguistic behaviours as communicative. As such the importance of accepting the multi modal nature of communication is emphasised (Glennen & Calculator, 1985).

The following flow chart (Figure 1) provides an indication of the overall process outlined in the Creating communicative contexts manual.

PLEASE SEE APPENDIX 2

Figure 1. An overview of the Creating communicative contexts process.  
Derived from Butterfield, Arthur, Linfoot & Philips, 1992, p.13.

The first phase describes the process of assessment, with the collection of information across environments, through observations and interview. A framework based on the development of non linguistic communication and interaction skills and abilities then guides the analysis of assessment information. The focus is on understanding the pragmatic and social qualities of student behaviours as well as analysing closely the nature of those behaviours or forms. In addition the facilitator is asked to closely examine their own interaction skills and the opportunities they provide in creating a communicative environment.

The programming section places primacy on the identification of communicative opportunities in activities that already form the priorities of the students individual educational program. Objectives set are therefore related to the assessment information and the functional needs of the student.

While the strategies describing the how to teach aspect have been organised into three levels, it is expected that these will be used as required

according to student interest and activity opportunities. All strategies reported focus on achieving functional and interactive communication through the use of naturally occurring opportunities across daily activities.

#### Inservicing program

A series of 3 x 3 hour inservice sessions have been presented by researchers working on the project, in 2 locations in each of the ten Departmental regions across NSW. A break, usually of 3 weeks, occurs between each session to allow participants to trial strategies and prepare to report back to the group. The program has been offered to personnel in Departmental, Catholic and Independent schooling systems and although primarily targeted at teachers, other people interacting with students who have a severe disability, such as therapists, parents and aides, have been encouraged to attend the sessions. As detailed below, the sessions are sequential, with a focus on the process established in the Creating communicative contexts document.

In phase one, participants are introduced to the manual, with discussion centering on the rationale for the project, the initial survey results and a detailed explanation of the assessment processes. Participants are then asked to identify a student with whom they will use the assessment techniques.

The second phase of the program provides participants with the opportunity to share experiences relating to their use of the assessment strategies and refine their skills in this area. An overview of the programming and instructional procedures is provided, with facilitators then matching their identified assessment information to this content, and deciding on an appropriate objective and strategy for their student, given setting, time and personnel considerations.

In the third and final phase, participants report on the program objectives and instructional procedure(s) attempted with their targeted student. Further discussion of this implementation process is used to address concerns. The group is then assisted to identify ways in which the established process of intervention can be networked and developed at a class, school, cluster and regional level. This session concludes with activities designed to identify the communicative functions of challenging behaviour, thus extending the application of a pragmatic approach to communication.

All personnel involved in this program were invited to complete a short questionnaire, attached as Appendix 1, which will provide both a range of demographic information, and more importantly, data as to the effectiveness of the project as a whole. Specifically, evaluation will focus on the effectiveness of;

- the instructional manual and
  - the three-phase inservicing program
- in addressing teacher needs and concerns in this area. To what degree have the provision of relevant knowledge and opportunities for skill development in communication processes answered the dilemmas of teachers and others

working in this field?

Project evaluation

The questions posed in the questionnaire (Appendix 1) were derived from statements made by teachers at two separate phases of the original project. In the original statewide survey (Butterfield, Arthur & Linfoot, 1992), teachers were asked to note their needs (see Table 1) and concerns in the area of communication programming. These comments provided a qualitative dimension reflecting actual conditions in the field and act as a sound basis for both intervention and evaluation.

Secondly, nine teachers were involved in a pilot program to trial the processes of assessment, programming and instruction as the instructional manual was being developed. These personnel were asked to identify the aspects they considered important in a document to help them in the area of communication programming and instruction (Butterfield, Arthur, Linfoot & Philips, 1992).

The statements describing current skills and knowledge, are grouped according to the prime need categories identified above, namely, assessment, programming and instruction. Table 2 indicates the range of questions relevant to each aspect.

Table 2

Grouping of statements reflecting current skills and knowledge

Area	Questions
Assessment	1- 8
Programming	9-14
Instruction	15-19

The statements describing current concerns are grouped to reflect the levels of concern typically found when an innovation is introduced. Levels of concern about implementing an innovation such as this manual usually move through seven stages in all (Hall, George, & Rutherford, 1979). In the first instance, participants can be expected to respond according to their level of awareness of the innovation. Secondly, their responses provide an indication of their need to gain further information. Thirdly, responses reflect the level of concern they have in personally being able to adapt to this information, and then in being able to manage this program given their present time, organising and scheduling arrangements. The next set of statements relate to the concerns of understanding the consequence to the students and the evaluation of student improvements in relation to application of the new information. The need to collaborate with other professionals and then recognising the possibility of introducing new or refocused ideas is measured in the responses to the final statements. Table 3 provides a guide to the concern-based statements in the survey, relevant to each level.

Table 3

Grouping of statements reflecting current concerns

Level of concerns	Questions
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Level 0. Awareness	1- 3
Level 1. Information	4- 7
Level 2. Personal	8-10
Level 3. Management	11-13
Level 4. Consequence to students	14-15
Level 5. Collaboration	16-17
Level 6. Refocusing	18-20

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It is expected that some participants will demonstrate understanding of the innovation at some of the earlier levels and move through to coping with personal and management related concerns by the end of the program. Alternatively, others may have been previously interacting with the information provided, or may already have attempted to manage the implementation in the class. In this case, it can be anticipated that the individual will benefit from the opportunity to collaborate, share experiences and turn to refocusing their philosophy and applications.

The period this project offers for implementing this form of intervention evaluation is shorter than would ideally be expected. However, it is hoped that even small changes in the nature of teacher ability to accept, understand, apply and use the document, Creating communicative contexts, in the classroom and other community-based settings will be in evidence. Relatively minor changes in levels of concern along the continuum discussed earlier, will indicate improved opportunities for communication enhancement for students with severe intellectual disability.

#### Future directions

Future papers will report on the analysis of data collected over 1992, and the directions indicated. Of particular interest is the question of how empowered teachers feel in the area of communication programming and instruction. As suggested earlier and in previous work (Butterfield, Arthur & Linfoot, 1992) our original data suggest something of a contradiction: a paucity of speech pathologists accompanied by overwhelming teacher reliance on their skills in this area. This need for teacher development has served as an important rationale in the current project, and deserves continuing attention.

In the light of the multi-stage nature of this innovation, longitudinal follow-up is important. This would involve monitoring the ongoing degree to which teachers manage the innovation themselves as a result of the practical format of the document and the opportunity to be guided initially through the use of such a resource. As an example of such follow-up, a comparison could be made between the stages of concerns experienced by those teachers who were able to participate in the original implementation program and a new group of teachers who have begun to use the manual at a later stage.

Access to feedback from teachers and others working in the area who are at the level of refocusing their philosophy and programming applications will be extremely important if the Creating communicative contexts project is to remain alive and in touch both with the real needs of teachers working

with students with severe intellectual disability and the information being presented in the literature.

#### References

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#### Appendix 1

#### INSERVICE PROGRAM TO SUPPORT THE INTRODUCTION OF THE CREATING COMMUNICATIVE CONTEXTS MANUAL

This anonymous survey is designed to help us evaluate the effectiveness of the manual and the inservicing program in increasing skills and knowledge and addressing your concerns in the area of communication programming and instruction.

The descriptors used are based on a combination of factors identified in our statewide survey, piloting and introductory inservices conducted in 1991. Please feel very free to add any further comments. We are very keen



not relevant to me of me in my current role	not true of me now	somewhat true of me now	very true now
I can identify a starting point			0 1 2
3 4			
I am able to effectively observe students interactions			
0 1 2 3 4			
I understand the process and features of communication			
0 1 2 3 4			
I can identify what it is the student means to communicate			
0 1 2 3 4			
I am able to interpret the communicative bases of inappropriate behaviours			
0 1 2 3 4			
I understand very basic communication behaviours			0 1
2 3 4			
I currently involve other relevant personnel in the identification of communication goals for students			0 1 2
3 4			
I am actively involved in identifying communication goals for my student/s			
0 1 2 3 4			
I set communication goals that reflect the interactive nature of communication	0 1 2 3 4		
I am able to set realistic and achievable long term goals for students			
0 1 2 3 4			
I am able to set realistic and achievable short term objectives for students	0 1 2 3 4		
I program for communication across activities			0 1
2 3 4			
I program for communication across settings			0 1 2
3 4			
I program for communication across personnel			0 1 2
3 4			
I am able to adapt teaching to all levels and abilities			
0 1 2 3 4			
I can implement a range of instructional strategies in natural settings that develop communication skills			0 1 2 3
4			
I know how to develop students' ability to initiate communication			
0 1 2 3 4			
I am able to develop students' ability to make a choice			
0 1 2 3 4			
I can create an environment that encourages communication			
0 1 2 3 4			

Please indicate the level which best describes your current concerns in the area of communication programming and instruction for people with severe

intellectual disability.

	0	1	2-3	4
not relevant to me of me in my current role		not true of me now		somewhat true of me now now
I do not have a copy of the CCC manual	0	1	2	3 4
I am aware of but have not used the CCC manual	2	3	4	0 1
I have begun to use the CCC manual	0	1	2	3 4
I need further professional development opportunities in the area of communication enhancement for people with severe intellectual disability	0	1	2	3 4
I am concerned about how to interpret inappropriate behaviours as communicative	0	1	2	3 4
I need information on the use of augmentative communication systems	0	1	2	3 4
I need information on communication programs for students who do not seem to react to events in their environment	2	3	4	0 1
I have concerns about how to implement communication programs	0	1	2	3 4
I find it difficult to know how and what to assess in communication	0	1	2	3 4
I am concerned that I am being asked to fulfil a role that requires intensive specialist knowledge	0	1	2	3 4
I need skills in implementing programs across activities	0	1	2	3 4
I find it difficult to manage time required to implement the principles of the CCC manual	0	1	2	3 4
I find it difficult to obtain the necessary teaching resources required to implement the principles of the CCC manual	2	3	4	0 1
I am concerned that students experience consistency across settings	0	1	2	3 4
I would like to more fully understand the communicative behaviours of my students	0	1	2	3 4
I feel the need to have support from other professionals in this area	0	1	2	3 4
I feel isolated and would like to have more opportunity to discuss programs with others	0	1	2	3 4
I believe that teachers need to have more emphasis on communication in training courses	0	1	2	3 4
I am concerned that teachers tend to introduce only one mode of communication	0	1	2	3 4

It concerns me that students who have severe intellectual disability are  
often placed  
in segregated settings with poor communication role models  
0 1 2 3 4

Thank you for your participation in and support of this program.