

# INTERIM SUPPORT DOCUMENT: COMMUNICATION

English Key Learning Area

To assist teachers in programming for  
students with special education needs.

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# INTRODUCTION

This support document ensures that English is inclusive of the full range of students. It aims to assist teachers in effective program development for students with high support needs in the English Key Learning Area. The support material on early communication may be programmed within the English Key Learning Area or integrated across the other Key Learning Areas and in a range of environments. 'Students with high support needs' refers to those students requiring a high level of 'environmental' support in order to have access to educational services.

Many students with high support needs have not developed spoken language but may learn to communicate in other ways. It is essential for all students to be able to communicate as it enables them to exert some control over their environment and to interact with the people with whom they come in contact.

The provision of appropriate curriculum for students with special education needs is based on the principle that all students have the capacity to learn and communicate.

## Key Learning Areas

Students with special education needs should experience a broad and balanced curriculum across all Key Learning Areas (KLAs) through the development of individualised educational programs that meet their needs and reflect the Key Learning Areas.

The features of the program will be:

- outcomes that are relevant to the needs of the student within the framework of the KLA
- program content that is consistent with the KLA
- learning experiences and teaching activities that are appropriate to students' chronological age.

The development of a teaching program for students with high support needs is based on an assessment of the individual student's needs:

- across present and future home, school and community environments
- within life skills (basic living skills), leisure/recreation, vocational and academic domains.

The student's communication needs and related academic needs can be derived from or put into the framework of the English Key Learning Area. Other learning needs may be met within the framework of other KLAs.

Establishing appropriate content for a student's individualised program will be decided at the school. The content or outcomes, however expressed, can be derived from or organised within the English KLA or integrated across KLAs. For example:

- *communication skills* in the English KLA
- *independent living skills, interpersonal skills* in the Personal Development, Health and Physical Education (PDHPE) KLA
- *vocational competencies* in the Technology and Applied Studies (TAS) KLA
- *basic numeracy skills, functional mathematics skills* in the Mathematics KLA
- *community living skills* in the Human Society and Its Environment (HSIE) KLA.

The content may also be integrated across the KLAs. For example:

- *independent living skills and activities* may be programmed across the English, PDHPE and HSIE KLAs
- *leisure and recreation skills and activities* may be programmed across the English, PDHPE, HSIE, TAS and Creative Arts KLAs
- *communication skills* may be integrated across all the KLAs.

## Communication Across the Key Learning Areas

Communication is fundamental to all areas of the curriculum and should be considered as an across-curriculum concern. Students with special needs can develop communication skills in a range of contexts, for a range of people and for a range of purposes. These may be broad-based skills applicable across a range of KLAs. For example:

- if the student has a need to learn to express their feelings appropriately, this may be an English outcome using spoken communication or non-verbal communication, eg gestures, body movements, or augmentative devices;
- in PDHPE, the student may wish to express their feelings about their personal identity;
- in TAS, the student may wish to express their feelings about what they have made;
- in Creative Arts, the student may wish to express their feelings about the artwork they have produced.

## Student-centred Programming

Student-centred programming assumes that the need of the individual student is the central determinant of curriculum rather than prescribed content, such as in a syllabus. In the development of a program to enhance the communication skills of a student, the following aspects are to be taken into account:

- the specific needs, interests and abilities of the student
- the environments in which the student will need to communicate
- the people with whom the student will need to communicate
- the chronological age of the student.

In developing individualised educational programs, the following steps are suggested:

- *collect information* about each student
- *determine priorities* for each student
- *set objectives* for each student
- *develop and implement programs* for each student
- *review programs* for each student.

In programming for the needs of an individual student in early communication, the following issues should be considered:

- outcomes are to be written within the curriculum framework of a KLA;
- outcomes should reflect a breadth of experience of a KLA;
- context of situation and culture will determine the appropriate outcomes to be programmed;
- the students' chronological age will determine the type of learning experiences and the context of situation. This is particularly relevant for secondary-age students with high support needs.

From these considerations student priorities, expressed as outcomes, can be written. These specific outcomes for each student can be programmed across a range of situations. The everyday communication needs of the individual student may be programmed across each area of the curriculum and across all contexts in which the student learns.

## Using the Support Document

This support document presents information needed by teachers to program for early communication in a style compatible with K–6 English. It provides guidance to teachers responsible for the development of programs in the English K–6 KLA for

students with high support needs. It has been designed to be contiguous with the *English K–6 Syllabus and Support Document* (1994) so that teachers and students can move in a sequenced manner along the continuum of the documents. This document introduces the development of communication skills at the earliest level, ie pre-intentional communication. From this the student might move to the more familiar forms of writing, reading, speaking and listening contained in levels 1–5 of the *English K–6 Syllabus and Support Document*.

To use the *Interim Support Document: Communication* effectively, teachers will need to understand the following factors.

## **Functions of communication**

The functions or purposes of using communication in this document include being able to 'make requests, request help, maintain social interaction, express feelings and make choices'. These functions are expressed as outcomes that will serve as long-term communication goals or aims for an individual student. From these functions a program can be developed to meet the individual communication needs of the student.

## **Outcomes**

Outcomes are written for each function of communication. The outcomes express the range of functions appropriate for students with high support needs. They are the broad statements of achievement for an individual student. An example of an outcome is 'the student is able to make requests to satisfy needs and wants'. For each outcome, more specific teaching objectives can be developed based on the individual needs of the student.

## **Level of complexity**

The 'Content' section of this document (see pages 24–93) uses a range of forms of communication other than language so that all students will have access to K–6 English. The section is organised into three levels:

- pre-intentional
- intentional
- symbolic.

This indicates the increasing levels of complexity in terms of programming requirements for individual students.

## Examples of student behaviour

Examples of student behaviour are indicators of student achievement for the outcome. They have been written for each level of complexity (pre-intentional, intentional, symbolic) and are only examples of student behaviour for this level. The level of student achievement will be assessed with reference to the student's behaviour. For example:

- at the pre-intentional level, a student may look at a toy on the floor and the teacher interprets this as a request to play with the toy;
- at the symbolic level, a student may point to 'want' and 'music' on the communication board as a request to listen to some music.

This is not an exhaustive set of behaviours, but it provides a means by which student behaviour can be placed at a level of complexity for programming purposes.

*All student behaviour should be considered to be potentially communicative regardless of the level of complexity.*

## Programming considerations

Programming considerations are more specific comments on the possible issues that may need attention when writing a program. They cover issues such as:

- the *context* in which the objectives will be taught;
- the specific *objectives* that will provide the basis for programming the communication function for an individual student;
- the *environment/s* to which the behaviour will be generalised;
- the *teaching strategies* that are appropriate to the behaviour;
- the relevant *personnel* who are involved in the student's program, eg families, caregivers, teachers, peers;
- the regular *monitoring* of student progress for each function and outcome;
- the ongoing *assessment* of student progress in terms of the individualised behaviours;
- the *evaluation* of the student program.

The following sections of this support document provide detailed information about the development of individualised educational programs for teachers of students experiencing severe communication difficulties. They outline some important dimensions of programming for communication and how these can be addressed in the context of the English KLA.

## DIMENSIONS OF COMMUNICATION

Three key dimensions of communication are addressed in this support material and programming information is provided on how to integrate these dimensions into a relevant and functional program for students. These dimensions are:

- communication functions (purposes of communication)
- context (with whom, where and what activities)
- levels of complexity (how students communicate).

### Communication Functions

People communicate for different reasons and purposes to achieve a variety of goals or outcomes. For example, a person may cry because they are sad or happy, to relieve tension or to elicit a sympathetic response from another person. The functions of the crying behaviour may be to express feeling, to gain affection, to request help or to initiate social interaction. The more communication functions that a student can use, the more communicative control they have over their environment and the more involvement they have in meaningful social exchanges with other people. Therefore, expanding the range of communication functions for students should be seen as having *primary* importance.

In developing early communication skills it is important to take into account the effect that the student's communicative behaviour has on the communication partner. The challenge lies very much with the communication partner, particularly in the very early stages of communication, to be able to recognise behaviours as communicative; interpret or recognise the purpose (function) of the communicative behaviour; respond consistently to these behaviours; and provide numerous opportunities for students to develop and hone their communication skills across a range of people, settings and activities.

The functions used by students with very early communication skills tend to focus on protesting, requesting and attracting attention. It is the role of the teacher or communication partner to expand this repertoire to include more sophisticated functions such as asking and responding to questions, commenting, and maintaining social interactions. Therefore, teaching students to use an increasing number of communication functions across a range of situations or contexts is a key consideration when developing their program.

## Examples of communication functions

- making requests to satisfy needs and wants
- requesting help
- protesting
- expressing feelings
- rejecting objects, services, assistance
- making choices
- asking for reward or affection
- expressing continuation
- providing information/making comments
- responding to social initiations
- initiating social interactions
- maintaining social interaction.

## Context

For communication to be meaningful, relevant and functional for the student, various contextual considerations need to be taken into account when planning and developing a student's program.

'Context' refers to all aspects of a student's environment. This includes:

- people with whom they interact;
- the setting where the interaction occurs;
- what the student is doing, ie activities in which they are participating;
- when they are participating in these activities.

The environment and activities and routines in which a student participates therefore provide the teaching context in which communication skills can be developed and practised. Context also takes into account how spontaneously the students are communicating, ie how reliant the students are on 'extra' contextual information, such as verbal cues, to initiate and use communicative behaviours.

It is therefore very important when developing communication programs that contextual aspects are **actively** considered and incorporated. Such planning may include :

- increasing the number of people with whom students interact;
- expanding the teaching/learning settings;
- increasing the number of activities where students can use specific communication functions;

- increasing the spontaneity of a student's communication, ie reducing the reliance on external cues;
- using naturally occurring events and routines that occur across the day.

## Levels of Communication Complexity

Students communicate in a range of ways (forms), including speech, signs, pictorial representations, gestures, facial expressions and body movements. Some of these forms may be used individually or in combination (multi-modal). For a large number of students with special learning needs, nonverbal or nonsymbolic communication forms will be their only way of communicating with others. Therefore it is very important to recognise *all behaviours* as being potentially communicative.

In the very early stages of communication, the success of the communication exchange is very much reliant upon communication partners' interpretation of, and consistent response to, students' behaviours. That is, the communication partner recognises particular student behaviours, such as body movements and vocalisations, as having a communication function. As students become increasingly aware that their behaviours can affect and influence other people in a range of environments, their communication behaviour becomes more complex and more recognisable to a greater number of people. The levels of communication complexity addressed in this support document represent the process of learning to communicate, where behaviours, regardless of their intentionality, can be accepted as communicative and can form the basis for developing more complex communication forms.

The three levels of communication complexity are:

- pre-intentional
- intentional
- symbolic.

It is important to keep in mind that when students are using some form of symbolic communication (including speech, signing, pictorial systems or other alternative or augmentative systems) there is increasing complexity. For example:

- moving from simple symbolic forms to more abstract representations;
- moving from simple line drawings to more abstract symbols, or words;
- increasing the syntactic complexity, eg moving from using one word to two or three words, using more complex sentences.

## Learning to Communicate

Reprinted with permission from Butterfield (1994).

	Pre-symbolic (non-verbal)	Symbolic (verbal)
<i>Pre-intentional Primary Forms</i>	<i>Intentional Conventional Forms</i>	<i>Conventional use of Symbolic Forms</i>
Only those who frequently interact with the student may understand the behaviour.	The student makes their intentions known to a partner.	A symbolic system may be words, signs or pictures. These are now used to carry out the functions previously achieved with non-verbal means.
The communication partner interprets the intended purpose of the interactions.	Increasing maturity of forms used, for example the student may point to an object and use eye contact. The student may take the partner's hand and place it on the object of interest.	Initially the student refers to items, people or events present at the time (in context).
Behaviours are idiosyncratic and non-conventional.	More people can understand the function of the behaviour.	The student progresses to using the symbolic system to refer to items, people or events not present at the time (out of context).
At first communication is not necessarily directed to a partner and depends on those nearby to interpret what is required.	The process is now coordinated. The partner and the object of interest are combined into the one act, eg eye gaze alternates from the object of interest to the person who is to receive the message.	The student may depend on a multi-modal system of symbols, and/or gestures and/or vocalisations.
Later the act is more goal directed and may be directed to an object or to a partner. For example, staring at a required object and pointing, or gaining a partner's attention but not indicating clearly why.	There is combined use of vocalisations and gestures.	Symbols can be combined to extend the syntactic structure of language used.
	There is expectancy that the message will be understood (checking). If not, the behaviour may escalate.	
	Satisfaction is apparent when needs met.	

Idiosyncratic behaviour

Goal-directed behaviours

Conventional gestures

Early words (actions, functional)

First words context dependent

Reference to out-of-context words

Dimensions of Communication

An overview of some communication forms, including alternative and augmentative devices, can be found in *Programming Communication for Students with Severe Intellectual Disability*, NSW Department of Education, 1991.

## The Interactive Nature of Communication

When programming for communication, its interactive nature needs to be considered in relation to its functions or purpose; the student's level of complexity; and the contextual aspects of the communication.

As communication is a two-way process that requires a message to be understood and responded to by a communication partner, an awareness of the importance of developing students' receptive communication skills needs to be a part of the process. Initially, teaching may focus on providing opportunities for students to attend to what is happening in activities in which they are participating; when students are beginning to communicate using some symbolic forms, they will need to learn to develop an association between symbols and the meaning of that symbol. Keeping in mind the interactive nature of communication, the programming process and examples outlined in this document reflect both the development of receptive and expressive communication skills.

The communication partner therefore has a critical role in providing teaching and learning experiences and opportunities that will:

- increase the range of communication functions
- expand contextual experiences
- increase levels of communication complexity.

# ASSESSMENT AND PROGRAMMING

## The Role of the Communication Partner

The role of communication partners, whether they are teachers, family members, or therapists, is critical in developing students' communication skills. Consequently, there needs to be an *expectation* on the part of communication partners that any behaviour is potentially communicative. Communication attempts by students are often not easy to recognise and rely largely, if not totally, on the communication partner's ability to:

- recognise behaviours
- interpret their function (purpose)
- respond to these behaviours consistently.

Communication partners also have a major responsibility to create communication opportunities across the day during naturally occurring activities and routines.

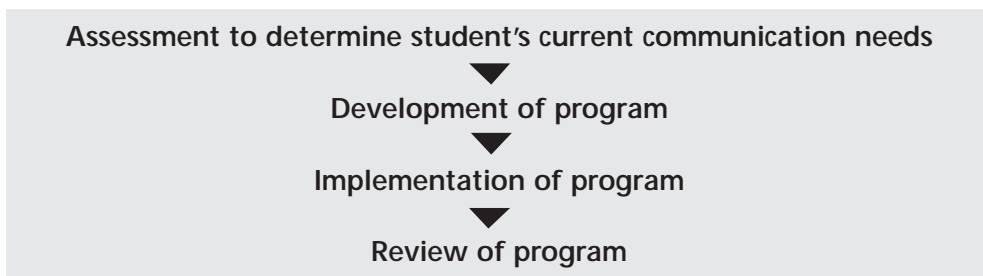
## Teaching Strategies to Develop and Enhance Communication

- Create a positive environment for communication.
- Use and create opportunities in daily routines to increase student attention and encourage communicative interactions.
- Respond consistently to communicative behaviours.
- Allow time for students to respond.
- Expect students to respond in whatever form they can.
- Provide opportunities for making choices across the day.
- Recognise behaviours as communicative (even behaviours that may be difficult or challenging).
- Try not to anticipate students' needs.
- Talk to students about what they are doing.
- Focus on students' interests.
- Provide turn-taking opportunities.
- Create a need to communicate.
- Use a range of communication forms when communicating.
- Use open-ended questions, which require more than a yes/no response.

More specific examples of teaching strategies are included in the 'Content' section under *Suggested teaching considerations* (pp 24–93).

## The Programming Process

This section is intended to provide assistance to teachers in programming to meet students' early communication needs. The following flowchart presents an overview of the programming process.



### Assessment of Communication Needs

Why do we need to assess ?

Assessment is a critical step in the programming process and, if conducted thoroughly and carefully, will provide the necessary information with which to begin to plan and develop relevant and functional programs for students. Assessment is also an ongoing process, as not only does it provide information from which programs can be developed, but ongoing assessment also gives information as to whether students are achieving objectives and outcomes. The next section focuses on using assessment as an initial information gathering process.

What information do we need to collect ?

To enable functional and relevant programs to be planned and developed, answers to the following questions will be needed:

- What is the student communicating about and why? That is, what are the purposes of a student's communication? (*Communication functions*)
- How is the student currently communicating these functions? (*Levels of communication complexity/communication forms*)
- With whom, where and when is the students communicating these functions? (*Context*).

The assessment of the student's communication abilities and needs therefore necessitates an integration of the three key dimensions:

- communication functions
- level of complexity
- context.

### How will information be collected?

The most valuable means of assessment will centre on gaining information about:

- what the student is currently doing
- where communication is occurring
- with whom the student is communicating.

This information can be collected in a number of ways, both formal and informal.

- *Observation* is a critical assessment tool requiring the teacher or communication partner to develop a heightened awareness of how students are communicating and what they are communicating about. Observation tools such as an ABC (Antecedents, Behaviour, Consequences) analysis (see Case Study 1, p 94) or a Descriptive Observational Information Form (Appendix 1, p 104) can be gained from casual observation. Using others in the observation process also gives a broader assessment perspective.
- *Information inventories or interviews* can also be a valuable mechanism for collecting assessment information. Such inventories serve the purpose of gaining information about important contextual considerations (eg people, environments), as well as giving information about what the student is currently communicating (*functions*) and how the student is communicating (*forms*). Information inventories can be completed by families, teachers, therapists, teacher's aides or others who know the students well. It is important to note that they can also be completed as part of a team effort involving some or all of the above-mentioned people. For an example of an assessment tool, see Appendix 2, p 105.
- More formalised methods of assessment can also be used, such as standardised communication or language assessment tools. Examples of such assessments can be found in *Programming Communication for Students with Severe Intellectual Disability* (NSW Department of School Education, 1991), and Butterfield, Arthur, & Sigafos (1995).

The necessary assessment information can be gained from a range of sources:

- parents and siblings
- teachers

- speech pathologists and other therapists
- teacher's aides
- the student
- peers
- anyone who knows the student well.

The most important source of information will usually come from the student's family or caregivers and the student's environments.

The students' environments and their activities within those environments provide both the context in which communication is developed and the content of the teaching program.

## **Programming**

### **Communication functions and outcomes**

Early communication serves specific purposes. Assistance in the development of communication programs for students with high support needs may be gained by referring to the wide range of examples provided within each level of complexity for each outcome (see 'Content' section, pp 24–93). It is intended that these examples will lead teachers to an understanding of appropriate programming decisions relevant to the needs of students.

The following table lists some common functions of early communication. These have been written as 'outcomes' from which the selection of appropriate goals in communication for an individual student can be made.

<b>Communication Functions</b>	<b>Outcomes</b>
<ul style="list-style-type: none"><li>• makes requests to satisfy needs and wants</li><li>• requests help</li><li>• protests</li><li>• rejects objects, services, assistance</li><li>• expresses feelings</li><li>• makes choices</li></ul>	<ul style="list-style-type: none"><li>• The student makes requests to satisfy needs and wants.</li><li>• The student indicates disapproval and/or rejection of objects, services or assistance.</li><li>• The student expresses emotions and feelings.</li><li>• The student makes choices and expresses preferences.</li></ul>

*continued next page*

Communication Functions	Outcomes
<ul style="list-style-type: none"> <li>• expresses continuation</li> <li>• attends to partner, object or event</li> <li>• takes turns</li> <li>• responds to social initiation</li> <li>• initiates social interaction</li> <li>• maintains social interaction</li> <li>• provides information/makes comments/asks questions</li> <li>• farewells/greets</li> </ul>	<ul style="list-style-type: none"> <li>• The student expresses a desire for an activity to continue, or that they would like some more.</li> <li>• The student gives attention to another person, an object or event in their environment.</li> <li>• The student takes turns in a joint activity with another.</li> <li>• The student responds to a social initiation by another.</li> <li>• The student initiates social interaction with another.</li> <li>• The student maintains social interaction with another.</li> <li>• The student gives information or makes a comment, asks questions when asked, or asks questions spontaneously.</li> <li>• The student farewells and greets others in appropriate situations.</li> </ul>

Each of these 12 'outcomes' have had specific programming information developed for them. This is presented in the 'Content' section (pp 24–93) below and has been organised in the following terms.

- *Context*, in which communicative behaviours may occur and in which the teaching of communicative behaviour should occur. Sample contexts are provided that exemplify appropriate antecedent and consequent events to certain communicative behaviours, including environmental components and the behaviours of others with whom the student is interacting. The 'context' section also contains some sound teaching strategies and routines.
- *Examples of student behaviour* that are communicative (or potentially communicative) in nature. These may be used by the teacher:
  - as a starting point for programming;

- as the basis of a potential instructional objective or as an assessment device;
- as a pointer to the student's mastery of a particular 'outcome'.

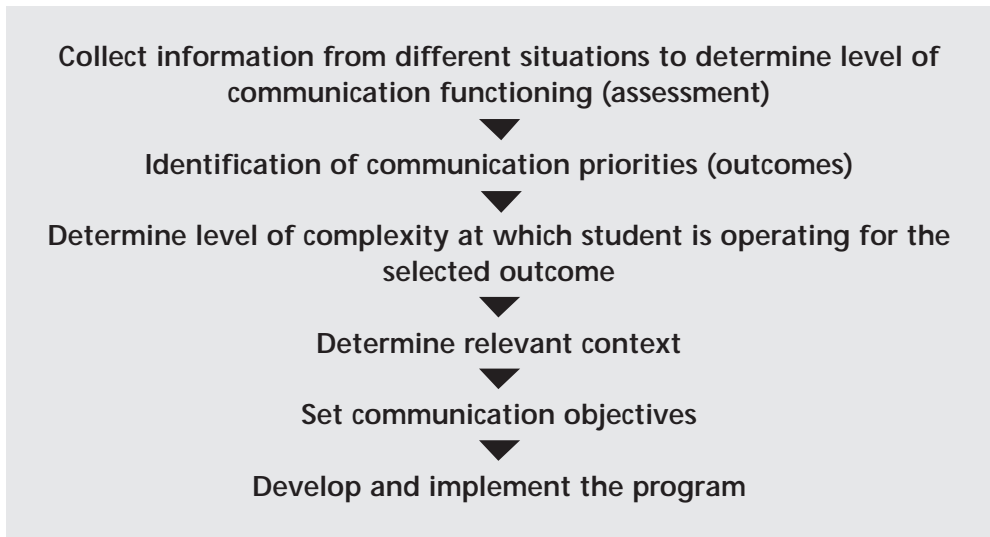
Please note that these student behaviours are *examples only* and will be specific to individual students.

- *Suggested teaching considerations*, which are examples of an appropriate instructional objective for each outcome at a particular level of complexity, as well as some strategies teachers might consider in the teaching of the objective. Developing objectives that relate to the specific learning needs of the student and the specific contextual aspects provides a way of breaking the broadly stated outcomes into smaller teaching steps. Teachers may use these suggestions to develop a repertoire of sound communication-teaching strategies, skills and ideas.
- *Levels of complexity* are the student's level of communicative functioning, which provide a basis for instructional decision making. The behaviour a student exhibits will be indicative of the level of communicative complexity appropriate to that student. This level may be considered as a 'starting point' for the commencement of the program. Knowledge of this level can be useful in the design of communication programs and the provision of appropriate activities and experiences. The aim could be to consolidate and broaden the student's functions at this level or to move them further along.

## The process

After information has been collected from the variety of available sources, the level of communicative functioning of the student will be clearer. Knowledge of the student will indicate which section of this support document can be used to help meet the student's communication needs. If the student's communicative functioning has not been determined, this document may be used to help do so.

The flowchart on the next page overviews the steps involved in programming for communication.



- *Collect information* to build a profile of a student's current communication skills and needs. (See 'Assessment of Communication Needs', p 16, for more detail.)
- *Determine which communication outcomes are relevant to the needs of the student.* The following material in the 'Content' section will be useful as it provides a 'menu' from which relevant outcomes may be selected. Selection must be guided by knowledge of the needs of the student gained through the collection of information and assessment of the student (see Appendices 1–3 for further details on this).
- *Determine the student's level of complexity within the outcome(s) selected for instruction.* If a student is operating at a pre-intentional level, the main aim would be to establish intentionality. If the student is operating at intentional or symbolic levels, the main aim would be to increase communication repertoires or to increase the sophistication of the communication behaviour. Regardless of the level of complexity at which a student is operating, it is important to always consider expanding the range of communication functions within each student's program.
- *Identify some relevant contexts in which the teaching of communication will be embedded.* The 'Content' section gives some useful examples of how contextual considerations, such as people, environments, activities, and time need to be incorporated to ensure that communication is not taught in isolation. For

communication to be meaningful and purposeful, naturally occurring routines and functional activities, which are considered to be teaching priorities for the student, serve as important teaching situations for communication skills.

It should be stressed that these are examples only and that specific relevant contexts will need to be identified for individual students.

- *Set communication instructional objectives that are appropriate for the individual student and identified contexts.* Examples of such objectives can be found under *Suggested teaching considerations* in the 'Content' section.
- *Develop and implement the program.* Once instructional objectives have been set, the program will need to be developed and implemented.  
This will involve:
  - analysing activities into smaller steps
  - deciding on instructional procedures and strategies
  - deciding on the materials required
  - determining the reinforcement to be used
  - deciding on the personnel involved and other organisational aspects.
- *Monitor and review the program.* Once outcomes have been selected for the student, it will be necessary to decide how progress towards the achievement of these outcomes can be monitored. It will often be necessary to break the outcomes into smaller, easily achievable objectives and to develop monitoring strategies that will indicate when students have achieved the objectives.

The review should indicate whether each student's needs are being met and ensure that a close match between student priorities and programs is being achieved.

An example of this process follows, with more detailed examples presented in the 'Case Studies' (pp 94–103).

## Example

### **Relevant communication outcomes**

Make choices and express preferences.

### **Decide on context or activity**

Mealtimes

### **Activity analysis**

1. Decide that it is morning-tea time
2. Move to the location for morning tea
3. Obtain the items needed for morning tea
4. Select preferred items to eat or drink
5. Consume morning tea
6. Clean up
7. Move to next activity.

Determine the following:

- Which steps of the activity can the student already do?
- Which steps will be targeted for instruction?
- Which steps will require assistance?

Write an instructional objective (short term) for the steps targeted for instruction.

### **Instructional objective**

'When presented with the choice of two items, the student will indicate a preference for the preferred food item by reaching and touching the preferred item.'

This step is inherently communicative.

**Note:** other examples may need communication components built into them.

## CONTENT

The content has been organised into sections based upon four broad functional categories:

- requesting
- rejecting
- providing information and making comment
- engaging in social routines and interactions.

**In each section communication functions have been expressed in the form of communication outcomes.**

- These outcomes form the framework for the selection of appropriate curriculum goals in communication for an individual student.
- These are essential communication skills that each student will need to acquire and be fluent in.
- These outcomes will be used across a range of environments.

Any one outcome may be selected at any of the three levels:

- pre-intentional
- intentional
- symbolic.

**Any one outcome may be selected at any of the three levels according to student need.**

- Considerations about which outcomes to select is a decision based upon the student's present and future needs.
- The decision is made by the school in collaboration with the student's family and other professionals.

The table on the following two pages shows the relationship between communication functions, outcomes and levels of complexity.

## Communication Functions, Outcomes and Levels of Complexity

Communication Functions	Outcomes	Levels of Complexity
<p><b>1. Requesting</b></p> <ul style="list-style-type: none"> <li>• requests objects</li> <li>• requests help</li> <li>• requests turns</li> <li>• requests reward or affection</li> <li>• makes choices</li> <li>• expresses continuation</li> </ul>	<p><b>1. 1:</b> The student is able to make requests to satisfy needs and wants.</p> <p><b>1. 2:</b> The student takes turns in a joint activity with another person by responding according to the activity.</p> <p><b>1. 3:</b> The student is able to make choices and express preferences.</p> <p><b>1. 4:</b> The student is able to express a desire for an activity to continue, or that they would like some more.</p>	<p>For each outcome <b>1. 1-1. 4:</b></p> <ul style="list-style-type: none"> <li>• pre-intentional</li> <li>• intentional</li> <li>• symbolic</li> </ul>
<p><b>2. Rejecting</b></p> <ul style="list-style-type: none"> <li>• rejects objects, services, assistance</li> <li>• protests</li> </ul>	<p><b>2. 1:</b> The student is able to let the listener know that they disapprove of the listener's behaviours or actions, or reject objects, services or assistance.</p>	<p>For outcome <b>2. 1:</b></p> <ul style="list-style-type: none"> <li>• pre-intentional</li> <li>• intentional</li> <li>• symbolic</li> </ul>

## Communication Functions, Outcomes and Levels of Complexity (cont)

Communication Functions	Outcomes	Levels of Complexity
<p><b>3. Providing information and making comments</b></p> <ul style="list-style-type: none"> <li>• makes comments</li> <li>• provides information</li> <li>• asks questions</li> <li>• expresses feelings and emotions</li> </ul> <p><b>4. Engaging in social routines and interactions</b></p> <ul style="list-style-type: none"> <li>• greets</li> <li>• farewells</li> <li>• responds to social initiations</li> <li>• initiates social interactions</li> <li>• maintains social interactions</li> </ul>	<p><b>3. 1:</b> The student is able to give information, make a comment, or ask questions spontaneously or on request.</p> <p><b>3. 2:</b> The student is able to express emotions and feelings.</p> <p><b>4. 1:</b> The student is able to give attention to another person, an object or an event in their environment.</p> <p><b>4. 2:</b> The student is able to respond to a social initiation by another.</p> <p><b>4. 3:</b> The student is able to initiate a social interaction with another.</p> <p><b>4. 4:</b> The student is able to maintain social interaction with another.</p>	<p>For each outcome <b>3. 1–3. 2:</b></p> <ul style="list-style-type: none"> <li>• pre-intentional</li> <li>• intentional</li> <li>• symbolic</li> </ul> <p>For each outcome <b>4. 1–4. 4:</b></p> <ul style="list-style-type: none"> <li>• pre-intentional</li> <li>• intentional</li> <li>• symbolic</li> </ul>

# 1. Requesting

Communication Functions	Outcomes
<p><b>1. Requesting</b></p> <ul style="list-style-type: none"><li>• requests objects</li><li>• requests help</li><li>• requests turns</li><li>• requests reward or affection</li><li>• makes choices</li><li>• expresses continuation</li></ul>	<p><b>1. 1:</b> The student is able to make requests to satisfy needs and wants.</p> <p><b>1. 2:</b> The student takes turns in a joint activity with another person by responding according to the activity.</p> <p><b>1. 3:</b> The student is able to make choices and express preferences.</p> <p><b>1. 4:</b> The student is able to express a desire for an activity to continue, or that they would like some more.</p>

**Outcome 1.1:** The student is able to **make requests to satisfy needs and wants**

<b>Level of complexity</b>	<b>Context</b>	<b>Examples of student behaviour</b>	<b>Suggested teaching considerations</b>
<b>Pre-intentional</b>	<p>1a) Cup on table ...</p> <p>1c) ... teacher interprets, 'Oh, you would like a drink' and gives student a drink.</p> <p>2a) Lunchtime — student's lunch is placed on desk. Teacher pauses before giving student some food ...</p> <p>2c) ... teacher interprets this as a request for food, saying 'You're telling me you would like some lunch'.</p>	<p>1b) ... student moves arm in involuntary spasm towards cup ...</p> <p>2b) ... student vocalises ...</p>	<p><i>Example of a student objective for this outcome at this level of complexity:</i></p> <p>Philip will look towards item/object to request that he wants it.</p> <p><i>Activities:</i> Mealtimes</p> <p><i>Teaching strategies:</i></p> <ul style="list-style-type: none"> <li>– when Philip looks towards an item/object, note this as a request for item</li> <li>– in initial teaching reliance is on teacher/partner to interpret and respond consistently</li> <li>– select preferred item/object, place nearby. Wait for Philip to look (time depends on Philip's needs, ie 5–20 secs) and then note when Philip looks</li> </ul>

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Pre-intentional</b>	<p>3a) Student has been listening to music when tape finishes ...</p> <p>3c) ... teacher's aide interprets this as wanting some help and moves to student, saying 'You'd like some help with your music — thanks for letting me know'.</p> <p>4a) Toy on the floor ...</p> <p>4c) ...teacher interprets and says, 'You want to play with the toy'.</p>	<p>3b) ... student flaps arm ...</p> <p>4b) ... student looks in the direction of the toy ...</p>	<ul style="list-style-type: none"> <li>– if Philip does not look you may need to highlight the item's presence</li> <li>– once Philip is using a consistent response to make a request, increase expectations by requesting that Philip looks at item, eg 'If you want the drink, you will have to tell me'</li> <li>– give numerous opportunities across the day for Philip to make requests</li> <li>– set up situations, eg place items out of reach</li> <li>– give time for Philip to communicate</li> <li>– avoid anticipating the requests and expect Philip to communicate.</li> </ul>

**Outcome 1. 1:** The student is able to **make requests to satisfy needs and wants**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
Intentional	<p>1a) Lunchtime at school. Cup on the table in front of the student ...</p> <p>1c) ... teacher gives student assistance with the drink, saying, 'You're telling me you are thirsty' ...</p> <p>2a) Out in the playground ...</p> <p>2c) ... teacher says, 'You want a swing', and lifts the student onto the swing.</p>	<p>1b) ... student moves hand to touch cup ...</p> <p>1d) ... student smiles.</p> <p>2b) ... student walks towards the swing, looks at teacher and points to swing ...</p>	<p><i>Example of a student objective for this outcome at this level of complexity:</i> While shopping, Matthew will request that he would like some chips by vocalising and pointing towards chip container.</p> <p><i>Activities:</i> Shopping, having lunch in shopping centre</p> <p><i>Teaching strategies:</i></p> <ul style="list-style-type: none"> <li>– teaching a more 'formalised' mechanism for requesting is a useful strategy if Matthew uses 'inappropriate' behaviours, eg screaming, banging on table</li> <li>– encouraging a combination of two behaviours can develop more intentional behaviour</li> <li>– in initial teaching towards the achievement of this objective, respond consistently to his vocalisations as a request for chips</li> </ul>

table continues

<b>Level of complexity</b>	<b>Context</b>	<b>Examples of student behaviour</b>	<b>Suggested teaching considerations</b>
<b>Intentional</b>	<p>3a) Mother and child shopping in the supermarket ...</p> <p>3c) ... mother does not respond ...</p> <p>3e) ... mother responds 'Do you like these lollies' and gives them to the child.</p> <p>4a) Class in the library ...</p> <p>4c) peer takes book and sits down and reads story with student ...</p>	<p>3b) ... child looks at mother and then looks at the lollies ...</p> <p>3d) ... child stops, looks again at mother, looks at lollies then back to mother ...</p> <p>4b) ... student takes peer's hand and moves towards the bookshelf, looking up at a book on the shelf ...</p> <p>4d) ... student smiles.</p>	<ul style="list-style-type: none"> <li>- to further develop this request you can model or physically assist Matthew to point to chip container after vocalising</li> <li>- the development of a pointing response will make Matthew's request more recognisable by more people, and encourage the movement towards more symbolic communication system, eg object symbols</li> <li>- provide opportunities for Matthew to make requests, eg move chip container away</li> <li>- show that you expect Matthew to request</li> <li>- avoid anticipating needs</li> <li>- to encourage Matthew to make other requests in a similar way, teach in other activities and settings.</li> </ul>

**Outcome 1.1:** The student is able to **make requests to satisfy needs and wants**

<b>Level of complexity</b>	<b>Context</b>	<b>Examples of student behaviour</b>	<b>Suggested teaching considerations</b>
<b>Symbolic</b>	<p>1a) Lunch time at McDonalds ...</p> <p>1c) ... student receives Big Mac.</p> <p>2a) Waiting at the bus stop ...</p> <p>2c) ... student's friend says, 'Wait, the bus isn't here yet!'</p>	<p>1b) ... student points to symbol of 'Big Mac' on communication board to request a hamburger ...</p> <p>2b) ... student vocalises 'bbb' and signs 'bus' to indicate that he wants to get onto the bus ...</p>	<p><i>Example of a student objective for this outcome at this level of complexity:</i> Natalie will point to line drawings / pictures to request items/objects during the day.</p> <p><i>Activities:</i> Playing in the playground, having lunch, morning tea</p> <p><i>Teaching strategies:</i></p> <ul style="list-style-type: none"> <li>- gradually increase number of line drawings that Natalie discriminates between</li> <li>- to increase difficulty and encourage spontaneous requesting, begin with items being present, and once Natalie is making requests across a range of activities, move items out of sight</li> </ul>

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Symbolic</b>	<p>3a) During free-play session in class ...</p> <p>4a) During lunch ...</p> <p>4c) ... teacher says, 'Oh you would like some help?' ...</p>	<p>3b) ... child points to 'want' and 'music' on communication board to request to listen to some music.</p> <p>4b) ... student hands teacher drink bottle and says 'help' ...</p> <p>4d) ... student looks at teacher and nods.</p>	<ul style="list-style-type: none"> <li>- to develop this skill you may need to model or demonstrate</li> <li>- use the communication board to 'talk' to Natalie by indicating requests using board as well as verbally</li> <li>- expect Natalie to use communication board and avoid anticipating her request, eg indicate that you are not sure what she wants and expect her to show you using communication board.</li> </ul>

**Outcome 1.2:** The student is able to **take turns in a joint activity with another person by responding according to the activity**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Pre-intentional</b>	<p>1a) In a music activity in a Year 1 class that requires students to clap ...</p> <p>1c) ... on seeing this, teacher responds, 'That's right, it's your turn to clap'.</p> <p>2a) When playing 'peek-a-boo' with sister ...</p> <p>2c) ... sister responds by hiding again.</p>	<p>1b) ... student moves arm slightly ...</p> <p>2b) ... student gurgles when she sees her sister ...</p>	<p><i>Example of a student objective for this outcome at this level of complexity:</i> When given instruction 'It's your turn', Garry will move arm during a range of activities across the day.</p> <p><i>Activities:</i> Music, mealtimes, looking at a book</p> <p><i>Suggested strategies:</i></p> <ul style="list-style-type: none"> <li>- give consistent instructions, eg 'It's your turn, Garry'</li> <li>- wait for some response, no matter how slight</li> <li>- the length of waiting time will depend upon Garry</li> <li>- give assistance for Garry to move hand, and over time reduce the amount of assistance given</li> </ul>

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Pre-intentional</b>	<p>3a) While using the computer with a teacher and another student ...</p> <p>3c) ... teacher responds 'Yes that's right, it's your turn'.</p>	<p>3b) ... student looks at teacher ...</p>	<ul style="list-style-type: none"> <li>- expect some response and give positive feedback to encourage Garry</li> <li>- reduce the reliance on verbal instruction to take turns.</li> </ul>

**Outcome 1.2:** The student is able to **take turns in a joint activity with another person by responding according to the activity**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Intentional</b>	<p>1a) In the playground some students are playing 'pat-a-cake' ...</p> <p>1c) ... students respond 'It's your turn' and play pat-a-cake with student ...</p> <p>2a) While playing with Lego at home ...</p> <p>2c) ... brother responds 'Yes, it's your turn' and hands block to student ...</p>	<p>1b) ... student lifts hand up ...</p> <p>1d) ... student smiles.</p> <p>2b) ... student vocalises and points to Lego ...</p> <p>2d) ... student takes block and puts it on the tower, then points to brother.</p>	<p><i>Example of a student objective for this outcome at this level of complexity:</i> Angela will wait and take turns during activities across the day.</p> <p><i>Activities:</i> All activities across the day</p> <p><i>Suggested strategies:</i></p> <ul style="list-style-type: none"> <li>– set up as many turn-taking opportunities as possible across the day for Angela to participate in</li> <li>– if it is Angela's turn, look expectantly towards her and wait for her to respond. If she is given a verbal prompt, eg 'Whose turn is it?' wait for her to respond. If she does not you may need to give her a more direct prompt, eg 'Angela, it's your turn'</li> <li>– give reinforcement for any response, particularly if Angela is able to participate without any prompting.</li> </ul>

**Outcome 1.2:** The student is able to **take turns in a joint activity with another person by responding according to the activity**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Symbolic</b>	<p>1a) In a kindergarten class students are playing a turn-taking game ...</p> <p>1c) ... teacher responds, 'Yes, it's your turn ...'</p>	<p>1b) ... student points to herself and says 'Me' ...</p> <p>1d) ... student smiles and takes turn, then points to next person.</p>	<p><i>Example of student objective for this outcome at this level of complexity:</i> Tommy will wait and take turns during activities across the day.</p> <p><i>Activities:</i> All activities across the day.</p> <p><i>Suggested strategies:</i></p> <ul style="list-style-type: none"> <li>- set up as many turn-taking opportunities as possible across the day for Tommy to participate in</li> <li>- if it is Tommy's turn, look expectantly towards him and wait for him to respond. If he doesn't, give a verbal prompt, eg 'Whose turn is it?' and wait for him to respond. If he does not you may need to give him a more direct prompt, eg 'Tommy it's your turn'</li> <li>- give reinforcement for any response, particularly if Tommy is able to participate without any prompting.</li> </ul>

**Outcome 1.3:** The student is able to **make choices and express preferences**

<b>Level of complexity</b>	<b>Context</b>	<b>Examples of student behaviour</b>	<b>Suggested teaching considerations</b>
<b>Pre-intentional</b>	<p>1a) Teacher sets up a situation at meal time in which student has to indicate a choice of food, eg banana or apple. Teacher asks student, 'Do you want a banana or an apple?' then waits for some response from student that could be interpreted as showing a preference for either the banana or the apple ...</p> <p>1c) ... teacher seizes on this behaviour and responds by saying, 'You looked at the apple. You are telling me you want the apple', then provides the student with the apple.</p>	<p>1b) ... the student might momentarily look in the direction of the apple ...</p>	<p><i>Example of student objective for this outcome at this level of complexity:</i> Peter will select preferred food item or recreation/ leisure activity from a choice of two items by reaching and touching.</p> <p><i>Activities:</i> Mealtimes, activities across the day</p> <p><i>Suggested strategies:</i> – present two items in front of Peter. In initial teaching you might have to provide extra information to Peter by telling him what the choices are, letting him feel, taste etc, or highlighting their presence, eg touching, tapping the items</p>

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Pre-intentional</b>	<p>2a) Child with teacher at the start of free play time. Volunteer asks 'Which toy would you like to play with' and presents a number of toys one after the other, observing closely any slight change in the student ...</p> <p>2c) ... the teacher provides the toy that had been presented when the child exhibited the behaviour change.</p>	<p>2b) ... if the student increases tone ...</p>	<ul style="list-style-type: none"> <li>- wait a specified amount of time for Peter to respond</li> <li>- if Peter touches item, even if it is not intentional give him feedback and give him the item</li> <li>- it would be useful to note his response to his choice</li> <li>- manipulate the teaching by providing choices of items that are known preferred or non-preferred items</li> <li>- give many opportunities across the day for Peter to make choices.</li> </ul>

table continues

### 1.3 Requesting

## Outcome 1.3 (contd)

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Pre-intentional</b>	<p>3a) Child and mother at home during breakfast time. Mother presents two items, one that she knows the child really likes and one she knows is not liked. Mother asks, 'Would you like honey or sardines on your toast?'. Mother waits for a response from the child ...</p> <p>3c) ... mother says, 'You don't want sardines,' ...</p> <p>3e) ... mother says, 'You want honey'.</p>	<p>3b) ... if child turns head away ...</p> <p>3d) ... if child turns head towards ...</p>	

**Outcome 1.3:** The student is able to **make choices and express preferences**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Intentional</b>	<p>1a) Mother and child in the park. Mother asks child whether he/she would like to play on the swings or the slippery dip, signing each as she speaks ...</p> <p>1c) ... mother responds by saying, 'You would like to play on the swing', and takes child over to swing.</p> <p>2a) Teacher asks, 'Would you like to read a book?' ...</p> <p>2c) ... teacher sets the book up on the page turner for the student to read.</p>	<p>1b) ... student indicates preference by looking towards swing ...</p> <p>2b) ... student smiles ...</p>	<p><i>Example of student objective for this outcome at this level of complexity:</i> Peter will select preferred food item or recreation/ leisure activity from a choice of two by reaching and touching object symbol representations.</p> <p><i>Activities:</i> Mealtimes, activities across the day</p> <p><i>Suggested strategies:</i> – once Peter is making reliable choices of real objects, you would begin to introduce a more 'formalised system' of making choices, eg using object symbols</p>

table continues

1.3. Requesting

## Outcome 1.3 (contd)

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Intentional</b>	<p>3a) Teacher and students together during lunch. Teacher asks one student whether he would like to sit next to Michael or Stacey ...</p> <p>3c) ... teacher then locates student next to Michael for lunch.</p>	<p>3b) ... student looks at Michael ...</p>	<ul style="list-style-type: none"> <li>– present two items in front of Peter. In initial teaching you might have to provide extra information to Peter by telling him what the choices are, letting him feel, taste etc, or highlighting their presence, eg touching, tapping the items</li> <li>– wait a specified amount of time for Peter to respond</li> <li>– if Peter touches item, even if it is not intentional, give him feedback and give him the item</li> <li>– it would be useful to note his response to his choice</li> <li>– manipulate the teaching by providing choice of items that are known preferred or non-preferred items</li> <li>– give many opportunities across the day for Peter to make choices</li> <li>– once Peter is coping with two choices, increase number of items to choose from.</li> </ul>

**Outcome 1.3:** The student is able to **make choices and express preferences**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Symbolic</b>	<p>1a) Student is asked whether he/she would like to watch TV, listen to music or read a book during free time. These items are represented on photographs and mounted on a light scanner ...</p> <p>2a) Teacher asks student to select which leisure activity they would like to do ...</p> <p>3a) While out shopping student is asked to choose what they would like for lunch ...</p>	<p>1b) ... student presses large button switch to activate scanner and stops it on the photograph of the book.</p> <p>2b) ... student points to Lego on the communication board.</p> <p>3b) ... student signs drink and sandwich.</p>	<p><i>Example of student objective for this outcome at this level of complexity:</i> Peter will select preferred food item or recreation/ leisure activity by pointing to symbols on his communication board.</p> <p><i>Activities:</i> Mealtimes, activities across the day</p> <p><i>Suggested strategies:</i></p> <ul style="list-style-type: none"> <li>- introduce choice boards for various times across the day, eg mealtimes, recreation/leisure, playground, library etc</li> <li>- gradually increase the number of symbols Peter is expected to discriminate between</li> <li>- in initial teaching, the teacher may have to model and shape the correct response</li> <li>- provide as many opportunities across the day as possible</li> <li>- wait for a response</li> <li>- expect a response.</li> </ul>

**Outcome 1.4:** The student is able to **express a desire for an activity to continue or that they would like some more**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Pre-intentional</b>	<p>1a) During mealtimes a teacher's aide pauses between giving student spoonfuls of food ...</p> <p>1c) ... teacher's aide gives student another mouthful of food.</p> <p>2a) While pushing student on swing in the playground, teacher pauses ...</p> <p>2c) ... teacher interprets this as wanting more, and continues pushing.</p>	<p>1b) ... student vocalises ...</p> <p>2b) ... student flaps arms ...</p>	<p><i>Example of student objective for this outcome at this level of complexity:</i> Peter will indicate more by reaching and touching object/item in front of him at mealtimes and during recreation/leisure activities.</p> <p><i>Activities:</i> Mealtimes, leisure activities</p> <p><i>Suggested strategies</i></p> <ul style="list-style-type: none"> <li>– in early teaching stages place item close by hand</li> <li>– during mealtimes and other recreation/leisure activities, pause between mouthfuls of drink, etc and observe Peter's behaviour</li> <li>– at any slight hand movement respond and bring item/object to hand</li> <li>– interpret this as wanting more and give feedback to Peter</li> </ul>

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Pre-intentional</b>	<p>3a) While reading child a story at home, mother pauses ...</p> <p>3c) ... mother says 'Oh you would like some more' and continues reading story.</p> <p>4a) During a music activity in a Year 1 class, teacher turns music off ...</p> <p>4c) ... teacher interprets this as wanting more, and turns cassette on, responding to student's request for more music.</p>	<p>3b) ... student touches mother's arm ...</p> <p>4b) ... student looks toward cassette player ...</p>	<ul style="list-style-type: none"> <li>- once Peter is touching object close by, move it further away to encourage more intentional behaviour</li> <li>- set up situations during activities, eg while reading a book pause and wait for Peter to respond; in the playground while playing ball, pause and look expectantly at Peter and wait for response.</li> </ul>

**Outcome 1.4:** The student is able to **express a desire for an activity to continue or that they would like some more**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Intentional</b>	<p>1a) While having a drink at morning tea, teacher's aide pauses between mouthfuls ...</p> <p>1c) ... teacher's aide responds 'Thanks for telling me you would like some more' and gives student more drink.</p> <p>2a) While having lunch at McDonalds, father moves Big Mac out of reach ...</p> <p>2c) ... father does not respond, expecting child to communicate further ...</p> <p>2e) ... father says ' Oh, you would like some more Big Mac' and gives it to child.</p>	<p>1b) ... student reaches towards cup, then looks at teacher's aide ...</p> <p>2b) ... student reaches and touches father's arm ...</p> <p>2d) ... student touches father's arm again and vocalises ...</p>	<p><i>Example of student objective for this outcome at this level of complexity:</i> Jamie will request an activity to continue by touching partner's arm and looking at item/object.</p> <p><i>Activities:</i> Listening to music</p> <p><i>Suggested strategies:</i></p> <ul style="list-style-type: none"> <li>– expect two behaviours to indicate more</li> <li>– pause during activity and wait expectantly for Jamie to respond</li> <li>– if Jamie does not respond ask him to let you know if he wants some more, and wait for response</li> <li>– you may need to shape or model expected behaviours in early teaching stage</li> </ul>

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Intentional</b>	<p>3a) In the classroom student is playing with toys and teacher moves toy away ...</p> <p>3c) ... teacher responds positively about child asking for more of the toy and gives it back ...</p> <p>4a) While participating in a reading activity with a Year 3 class ...</p> <p>4c) ... peer turns page and continues to read ...</p>	<p>3b) ... student looks at teacher and then at toy ...</p> <p>3d) ... student smiles.</p> <p>4b) ... student vocalises and touches page ...</p> <p>4d) ... student laughs and looks at page.</p>	<ul style="list-style-type: none"> <li>– set up situations across the day where Jamie has to ask for more, eg when having lunch at McDonalds, in playground, during a music activity</li> <li>– encourage same response to Jamie's communication with other people.</li> </ul>

**Outcome 1.4:** The student is able to **express a desire for an activity to continue or that they would like some more**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Symbolic</b>	<p>1a) During lunchtime teacher pauses while assisting student to eat a sandwich ...</p> <p>1c) ... teacher continues assisting student.</p> <p>2a) In the playground student is playing ball with peer, peer stops throwing ball ...</p> <p>2c) ... peer responds 'You want some more ball' and continues throwing ball.</p>	<p>1b) ... student touches object symbol to represent food (miniature plate) ...</p> <p>2b) ... student says ' more' ...</p>	<p><i>Example of student objective for this outcome at this level of complexity:</i> Michele will reach and touch object symbol to request an activity to continue.</p> <p><i>Activities:</i> Having a drink, listening to music, reading a story</p> <p><i>Suggested strategies:</i></p> <ul style="list-style-type: none"> <li>– pause during activity and wait for Michele to reach and touch object symbol</li> <li>– may need to shape behaviour and give assistance in early teaching stage</li> <li>– always expect a response</li> <li>– give feedback to Michele</li> </ul>

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Symbolic</b>	<p>3a) While having morning tea, teacher moves biscuit out of reach ...</p> <p>3c) ... teacher responds 'What do you want?' ...</p> <p>4a) While student is riding bike at home with brother, brother stops bike ...</p> <p>4c) ... bike riding continues.</p>	<p>3b) ... student vocalises ...</p> <p>3d) ... student points to 'more' and 'biscuit' on communication board.</p> <p>4b) ... student looks at brother and signs 'more' ...</p>	<ul style="list-style-type: none"> <li>– give many opportunities across the day</li> <li>– introduce to other settings, eg at home.</li> </ul>

## 2. Rejecting

Communication Functions	Outcomes
<p><b>2. Rejecting</b></p> <ul style="list-style-type: none"> <li>rejects objects, services, assistance</li> <li>protests</li> </ul>	<p><b>2.1:</b> The student is able to let the listener know that they disapprove of the listener's behaviours or actions, or reject objects, services or assistance.</p>

**Outcome 2.1:** The student is able to **let listener know that they disapprove of the listener's behaviours or actions, or reject objects, services or assistance**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Pre-intentional</b>	1a) While participating in an art lesson in a Year 2 class ...	1b) ... student bounces in chair ...	<p><i>Example of student objective for this outcome at this level of complexity:</i> Ashleigh will indicate when she does not want any more to eat or has finished with an activity by vocalising.</p> <p><i>Activities:</i> Mealtimes, activities across the day</p>
	1c) ... teacher interprets this as rejecting the activity and says 'Oh you have had enough' and takes student to another activity ...	1d) ... student stops bouncing in chair.	
	2a) During mealtime ...	2b) ... student turns head away from cup ...	

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Pre-intentional</b>	<p>2c) ... teacher interprets this as finished and moves cup away. Waits for a few seconds, and tries to assist student to have another drink ...</p> <p>2e) ... teacher responds 'OK thanks for letting me know you've finished'.</p> <p>3a) In the playground student is playing in the sandpit by himself. Another student goes over to play ...</p> <p>3c) ... the other student moves away ...</p>	<p>2d) ... student turns head away again ...</p> <p>3b) ... student vocalises loudly and flaps arms ...</p> <p>3d) ... student continues to play by himself.</p>	<p><i>Suggested strategies:</i></p> <ul style="list-style-type: none"> <li>- be responsive to Ashleigh's vocalisations during mealtimes and other activities</li> <li>- respond to vocalisations as indicating finished (if context is appropriate)</li> <li>- manipulate the situation, ie provide Ashleigh with something you know she doesn't like and respond to her behaviour by immediately discontinuing the provision of the disliked food</li> <li>- respond to Ashleigh's behaviour in a consistent manner and ensure other people she interacts with do the same.</li> </ul>

**Outcome 2.1:** The student is able to **let listener know that they disapprove of the listener’s behaviours or actions, or reject objects, services or assistance**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Intentional</b>	1a) Mealtime at school ...  1c) ... teacher waits, then continues to assist student ...  1e) ... teacher responds 'OK your lunch is finished' ...  2a) In the taxi ready for journey home ...  2c) ... teacher responds by modelling in sign, 'No, sit' supporting the signing with spoken language and relocates the child in the taxi ...	1b) ... student purses lips tightly closed and turns head away to indicate he/she does not like being fed mashed pumpkin on a fork ...  1d) ... student pushes bowl away and turns head away again ...  1f) ... student looks at teacher and smiles.  2b) ... student bites child next to him/her and tries to move away to indicate he/she does not like sitting next to that child ...  2d) ... the student sits quietly.	<p><i>Example of student objective for this outcome at this level of complexity:</i> Vincent will shake head to indicate he does not want to do something.</p> <p><i>Activities:</i> A range of activities across the day</p> <p><i>Suggested strategies:</i></p> <ul style="list-style-type: none"> <li>- create situations where it is likely Vincent will not want to do something</li> <li>- ask if he would like to do something</li> <li>- wait for a response</li> <li>- in early teaching stages you might need to model and shape correct response</li> <li>- respond consistently.</li> </ul>

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Intentional</b>	<p>3a) At home watching TV with family ...</p> <p>3c) ... sister says, 'I'm watching TV' and turns it on again ...</p> <p>3e) ... sister says 'OK then — what would you like to do instead?'</p>	<p>3b) ... child walks to the TV and turns it off and then goes to sister and stands in front of her to indicate disapproval at her watching TV ...</p> <p>3d) ... child repeats action ...</p>	

**Outcome 2.1:** The student is able to **let listener know that they disapprove of the listener's behaviours or actions, or reject objects, services or assistance**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Symbolic</b>	<p>1a) Lunchtime at school ...</p> <p>1c) ... teacher's aide says, 'You don't want any more' and ceases the lunchtime activity.</p> <p>2a) Afternoon storytime at school ...</p>	<p>1b) ... child says, 'No' when given another sandwich ...</p> <p>2b) ... student points to the symbol of 'finish' and 'story' on the communication board to indicate that he doesn't want any more story.</p>	<p><i>Example of student objective for this outcome at this level of complexity:</i> Annelese will point to 'I've finished' on her communication board across range of activities, to indicate that she has had enough or wants to discontinue.</p> <p><i>Activities:</i> This objective could be taught in the context of any activity where it is known that Annelese would want to stop the activity at a certain point.</p> <p><i>Suggested strategies:</i> – develop a communication board adequate to Annelese's communication needs</p>

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Symbolic</b>	<p>3a) Peer providing assistance to student walking to the playground ...</p> <p>3c) ... peer says 'Do you want to walk by yourself?' ...</p>	<p>3b) ... student says, 'Go away!' ...</p> <p>3d) ... student nods.</p>	<ul style="list-style-type: none"> <li>- teach Annelese means of using the board, eg head pointer, finger pointing, eye pointing etc</li> <li>- watch for signs of Annelese becoming bored with the activity with which she is currently engaged. You may need to create this situation by engaging her in one you know she does not enjoy</li> <li>- provide many opportunities across the day for Annelese</li> <li>- model and/or shape appropriate response</li> <li>- teaching the communicative function of 'finished' or 'I've had enough' is a useful strategy if Annelese uses inappropriate behaviours, eg throwing items.</li> </ul>

### 3. Providing Information and Making Comments

Communication Functions	Outcomes
<b>3. Providing information and making comments</b> <ul style="list-style-type: none"> <li>• makes comments</li> <li>• provides information</li> <li>• asks questions</li> <li>• expresses feelings and emotions</li> </ul>	<b>3.1:</b> The student is able to give information, make a comment, or ask questions spontaneously or on request.  <b>3.2:</b> The student is able to express emotions and feelings.

**Outcome 3.1:** The student is able to **give information, make a comment or ask questions spontaneously or on request**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Pre-intentional</b>	1a) At home mother is giving student her dinner ...  1c) ... mother interprets 'Yes, it is a delicious dinner'.	1b) ... student makes vocalisation ...	<i>Example of a student objective for this outcome at this level of complexity:</i> Mark will use vocalisations to make comments during a range of activities across the day.  <i>Activities:</i> As many opportunities as possible across the day

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Pre-intentional</b>	<p>2a) During a shared reading session, teacher pauses and asks 'Who is enjoying the story?' ...</p> <p>2c) ... teacher responds, goes over to student and says 'Oh, you do, I'm glad that you do'.</p> <p>3a) A teacher's aide makes a comment to another student about what they are wearing ...</p> <p>3c) ... teacher's aide sees this and responds 'Oh! You like the jacket too!'.</p>	<p>2b) ... student stiffens their body in the chair ...</p> <p>3b) ... student nearby looks at teacher's aide and other student ...</p>	<p><i>Suggested strategies :</i></p> <ul style="list-style-type: none"> <li>- the role of the communication partner to interpret and respond consistently is critical</li> <li>- it is important to respond to Mark's vocalisations as communicative and to set up situations across the day where Mark will need to or is expected to comment</li> <li>- once the situation has been set up wait for a few seconds (length of time will depend on student). If no response, you may need to repeat, or highlight the presence of an item/object.</li> </ul>

### 3.1. Providing Information and Making Comments

**Outcome 3.1:** The student is able to **give information, make a comment or ask questions spontaneously or on request**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Intentional</b>	<p>1a) While making a milkshake at school before morning tea a spoon drops to the floor ...</p> <p>1c) ... teacher says 'Oh, the spoon is on the floor, thanks for telling me' ...</p> <p>2a) After having a mouthful of drink at lunchtime ...</p> <p>2c) ... teacher's aide responds 'Your drink must be really nice'.</p>	<p>1b) ... student looks at the spoon and then at the teacher ...</p> <p>1d) ... student smiles.</p> <p>2b) ... student looks at the teacher and smiles ...</p>	<p><i>Example of student objective for this outcome at this level of complexity:</i> Benny will use a combination of communicative behaviours and gestures to give information or to make comments across the day.</p> <p><i>Activities:</i> Across the whole day</p> <p><i>Suggested strategies:</i></p> <ul style="list-style-type: none"> <li>- Benny is able to point, use gestures and respond to yes and no by nodding and shaking his head</li> <li>- respond to Benny's 'natural' gestures as communicative and provide many opportunities across the day for him to use them to give information or make comments</li> </ul>

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Intentional</b>	<p>3a) While at the swimming pool, teacher is looking for a missing towel and asks the students ...</p> <p>3c) ... teacher responds 'Thanks for telling me' ...</p>	<p>3b) ... student takes teacher's hand and guides her/him to the next seat, points to the towel on the ground ...</p> <p>3d) ... student smiles.</p>	<ul style="list-style-type: none"> <li>- use more open-ended questions than closed questions</li> <li>- expect and wait for a response</li> <li>- to introduce a more symbolic system, introduce some simple signs for Benny to use. Ensure that these signs are meaningful</li> <li>- in early teaching of signs, use signs to respond to student and model and shape student's attempts into increasingly more recognisable signs.</li> </ul>

### 3.1. Providing Information and Making Comments

**Outcome 3.1:** The student is able to **give information, make a comment or ask questions spontaneously or on request**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Symbolic</b>	<p>1a) During mealtime at school ...</p> <p>1c) ... teacher responds 'Yes, your yoghurt is yum'.</p> <p>2a) During a news session the teacher asks what a student did on the weekend ...</p> <p>2c) ... teacher responds 'Oh, you went out in the car. Where did you go?' ...</p> <p>2e) ... teacher responds 'McDonalds, wow! What a lucky boy'.</p>	<p>1b) a student points to 'It's yum' on communication board' ...</p> <p>2b) ... student signs 'car' ...</p> <p>2d) ... student points to McDonalds on communication card ...</p>	<p><i>Example of a student objective for this outcome at this level of complexity:</i> Sara will use her communication board to give information during 'news' session.</p> <p><i>Activities:</i> News session in regular Year 2 class</p> <p><i>Suggested strategies:</i></p> <ul style="list-style-type: none"> <li>- use open-ended questions to encourage giving of information: 'What did you do last night?'</li> <li>- use communication board to respond to Sara's communication and to elicit more information</li> </ul>

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Symbolic</b>	<p>3a) In the playground ...</p> <p>3c) ... teacher pretends not to understand and looks questioningly at student ...</p> <p>3e) ... teacher responds 'Oh, there is a plane in the sky!'.</p>	<p>3b) ... student comes rushing up to teacher and excitedly points to the sky ...</p> <p>3d) ... student points again and says 'Plane! Sky!' ...</p>	<ul style="list-style-type: none"> <li>- in early stages of teaching towards this objective, Sara may rely on questions as the prompt to give information. It is important to build into the program a movement towards Sara using the communication board more spontaneously, ie without relying on questions to prompt responses</li> <li>- in building up the repertoire, you can also work towards eliciting 2-3 word commands.</li> </ul>

### 3.1. Providing Information and Making Comments

**Outcome 3.2:** The student is able to **express emotions and feelings**

<b>Level of complexity</b>	<b>Context</b>	<b>Examples of student behaviour</b>	<b>Suggested teaching considerations</b>
<b>Pre-intentional</b>	<p>1a) During a dancing activity in a Year 2 class ...</p> <p>1c) ... a peer stops and looks at the student, acknowledging that she is enjoying the activity, then continues with the activity ...</p>	<p>1b) ... student laughs in response to having her wheelchair moved in time to the music ...</p> <p>1d) ... student continues to laugh.</p>	<p><i>Example of student objective for this outcome at this level of complexity:</i> Annie will vocalise to indicate wanting some time by herself and that she would like to be left alone.</p> <p><i>Activities</i> Consistent responses across the day</p> <p><i>Suggested strategies:</i></p> <ul style="list-style-type: none"> <li>– Annie may bang her tray to indicate that she is unhappy in someone's presence</li> <li>– teach Annie more appropriate ways of expressing these feelings, ie vocalisations</li> <li>– when Annie vocalises without the accompanying behaviour — respond and interpret that Annie was wanting more time by herself</li> </ul>

table continues

<b>Level of complexity</b>	<b>Context</b>	<b>Examples of student behaviour</b>	<b>Suggested teaching considerations</b>
<b>Pre-intentional</b>	<p>2a) On seeing his mum arrive in school to pick him up ...</p> <p>2c) ... mum goes over to the child.</p>	<p>2b) ... student looks towards mum and smiles ...</p>	<ul style="list-style-type: none"> <li>- if Annie continues to bang her tray, say to her ' If you want me to go away, you will have to tell me properly'</li> <li>- wait expectantly for Annie to vocalise.</li> </ul>

**Outcome 3.2:** The student is able to **express emotions and feelings**

<b>Level of complexity</b>	<b>Context</b>	<b>Examples of student behaviour</b>	<b>Suggested teaching considerations</b>
<b>Intentional</b>	1a) On arriving at school ...  1c) ... teacher acknowledges that student is pleased to see her ...	1b) ... student goes over to teacher and looks at her and gives her a hug ...  1d) ... student looks at teacher and smiles.	<p><i>Example of student objective for this outcome at this level of complexity:</i>            Michaela will use a combination of behaviours (vocalisations and gestures) to express her emotions.</p> <p><i>Activities:</i>            Many opportunities across the day</p> <p><i>Suggested strategies:</i></p> <ul style="list-style-type: none"> <li>– Michaela is able to point, use gestures and respond to yes and no by nodding and shaking her head</li> <li>– respond to Michaela's 'natural' gestures, which are communicative, and provide many opportunities across the day for her to use them to express emotions and feelings</li> <li>– expect and wait for a response</li> </ul>
	2a) After finishing lunch ...  2c) ... teacher responds 'You are telling me you are tired' ...	2b) ... student vocalises and points to the rest area ...  2d) ... student nods and keeps pointing towards the rest area.	

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Intentional</b>	<p>3a) After being pushed over in the playground ...</p> <p>3c) ... teacher sees this and goes over to ask the student what the problem is ...</p> <p>3e) ... teacher asks student again ...</p> <p>3g) teacher responds 'Oh, you are angry because you were pushed over' ...</p>	<p>3b) ... student screams and bangs fist on the ground ...</p> <p>3d) ... student continues to bang fist on ground ...</p> <p>3f) ... student looks at teacher and then points towards the student who pushed him over ...</p> <p>3h) ... student nods.</p>	<ul style="list-style-type: none"> <li>- to introduce a more symbolic system, introduce some simple signs for Michaela to use. Ensure that these signs are meaningful</li> <li>- in early teaching of signs, use signs to respond to Michaela and model and shape her attempts into increasingly more recognisable signs.</li> </ul>

**Outcome 3.2:** The student is able to **express emotions and feelings**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Symbolic</b>	1a) On arriving at school, when asked how he is ...	1b) ... student points to 'I'm fine' on his communication board.	<p><i>Example of student objective for this outcome at this level of complexity:</i> Samantha will use her communication board to indicate how she is feeling and to express her emotions.</p> <p><i>Activities:</i> Many opportunities across the day</p> <p><i>Suggested strategies:</i></p> <ul style="list-style-type: none"> <li>– gradually increase the number of symbols that represent emotions and feelings</li> <li>– provide many opportunities across the day, eg on arrival 'How are you?' and wait for a response. You may need to model a response or assist Samantha to point to the symbol</li> <li>– use Samantha's communication board to respond</li> </ul>

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Symbolic</b>	<p>2a) After finishing lunch ...</p> <p>2c) ... teacher acknowledges that student is feeling unwell.</p>	<p>2b) ... student goes over to the teacher, points to his stomach and says 'sick' ...</p>	<p>– if Samantha expresses emotions or feelings in an inappropriate manner, eg hitting others, teaching an alternative means of expressing these emotions is very important.</p>

### 3.2. Providing Information and Making Comments

## 4. Engaging in Social Routines and Interactions

Communication Functions	Outcomes
<p><b>4. Engaging in social routines and interactions</b></p> <ul style="list-style-type: none"> <li>• greets</li> <li>• farewells</li> <li>• responds to social initiations</li> <li>• initiates social interactions</li> <li>• maintains social interactions</li> </ul>	<p><b>4.1:</b> The student is able to give attention to another person, an object or an event in their environment.</p> <p><b>4.2:</b> The student is able to respond to a social initiation by another.</p> <p><b>4.3:</b> The student is able to initiate a social interaction with another.</p> <p><b>4.4:</b> The student is able to maintain social interaction with another.</p>

**Outcome 4.1:** The student is able to **give attention to another person, an object or event in their environment**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Pre-intentional</b>	<p>1a) When teacher walks into room ...</p> <p>2a) In the playground</p> <p>3a) During a music activity in a Year 2 class ...</p>	<p>1b) ... student looks towards him.</p> <p>2b) ... student vocalises when peer walks nearby.</p> <p>3b) ... student looks up when she hears favourite song.</p>	<p><i>Example of a student objective for this outcome at this level of complexity:</i> Harry will look at object/activity he is engaged with/in.</p> <p><i>Activities:</i> Using a computer, playing ball, having lunch/morning tea</p> <p><i>Suggested strategies</i></p> <ul style="list-style-type: none"> <li>- ask Harry to look at object before participating in activity; before being given a spoonful of food; or before the computer is activated</li> <li>- the teacher may need to highlight the presence of the object by touching or shaking it, holding it up, etc</li> <li>- expect a response and give time for Harry to look</li> <li>- give feedback when Harry is looking</li> <li>- it may be necessary to program for an increase in length of time that Harry is expected to look at item.</li> </ul>

4.1. Engaging in Social Routines and Interactions

**Outcome 4.1:** The student is able to **give attention to another person, an object or event in their environment**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Intentional</b>	<p>1a) While operating computer using switch ...</p> <p>2a) When mother arrives to pick up student from school ...</p> <p>3a) While looking at a book with mother ...</p> <p>3c) ... mother responds by talking about picture.</p>	<p>1b) ... student looks at screen.</p> <p>2b) ... student turns and looks at mother.</p> <p>3b) ... student points to picture and looks at mother ...</p>	<p><i>Example of a student objective for this outcome at this level of complexity:</i> When shopping and when in the playground, Damien will respond to his name when called by going to the teacher.</p> <p><i>Activities:</i> Going shopping, playing in the playground</p> <p><i>Suggested strategies:</i></p> <ul style="list-style-type: none"> <li>- in early teaching stages, stand close by and expect Damien to respond to name by moving towards teacher</li> <li>- wait for response before repeating and giving assistance</li> <li>- gradually move further away</li> <li>- give feedback to Damien</li> </ul>

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Intentional</b>	<p>4a) While playing in sandpit ...</p> <p>4c) ... teacher goes over to look at bucket ...</p>	<p>4b) ... student vocalises and holds up bucket to show that it is full of sand ...</p> <p>4d) ... student smiles.</p>	<ul style="list-style-type: none"> <li>– increase opportunities for Damien to respond to name</li> <li>– encourage consistent response with other communication partners.</li> </ul>

4.1. Engaging in Social Routines and Interactions

**Outcome 4.1:** The student is able to **give attention to another person, an object or event in their environment**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Symbolic</b>	<p>1a) Teacher walks into classroom ...</p> <p>1c) ... teacher acknowledges, and takes student out to the playground.</p> <p>2a) Student is drawing at his desk ...</p> <p>2c) ... friends respond and acknowledge his drawing.</p>	<p>1b) ... student gestures for teacher to come and then points to 'playground' on the communication board ...</p> <p>2b) ... he holds up drawing, looks at his friends and says 'look' ...</p>	<p><i>Example of student objective for this outcome at this level of complexity:</i> During all group activities across the day, Mario will give attention to his peers or the teacher by looking at them and responding using 1–2 word utterances.</p> <p><i>Activities:</i> All group activities across the day</p> <p><i>Suggested strategies:</i> – encourage Mario to attend to others in the group by looking at them. Use some simple prompting procedures, teaching stages to encourage Mario to look towards speaker, eg if students are expected to look towards a picture, wait five seconds for Mario to look. If he doesn't look, draw his attention to it; if he still</p>

table continues

<b>Level of complexity</b>	<b>Context</b>	<b>Examples of student behaviour</b>	<b>Suggested teaching considerations</b>
<b>Symbolic</b>	<p>3a) In the playground, a plane goes overhead ...</p> <p>3c) ... teacher says 'That's right, it's a plane'.</p> <p>4a) While out shopping a bus goes past ...</p> <p>4c) ... dad responds.</p>	<p>3b) ... student looks over at teacher, then looks and points to plane, saying 'plane' ...</p> <p>4b) ... student vocalises and signs 'bus' ...</p>	<p>doesn't look, give him a more specific prompt, eg 'Mario look at the picture'</p> <ul style="list-style-type: none"> <li>– encourage Mario to develop his language by asking more open-ended questions, rather than closed questions</li> <li>– model a more complete response if he only uses one word</li> <li>– supply the beginning and wait expectantly for him to respond, eg 'That's right it's a ... '</li> <li>– always give him reinforcement for communicative attempts and for giving attention.</li> </ul>

## 4.1. Engaging in Social Routines and Interactions

**Outcome 4.2:** The student is able to **respond to a social initiation by another**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Pre-intentional</b>	<p>1a) Lunchtime at school and teacher's aide announces that it is time for chocolate yoghurt</p> <p>1c) ... teacher's aide puts yoghurt in front of the student and says, 'Lovely, yoghurt'.</p> <p>2a) Student is sitting in posture chair in classroom and student's mother walks in and says 'Hi' to the child ...</p> <p>2c) ... mother walks closer to child and talks to the child.</p>	<p>1b) ... student shows excitement in her facial expressions ...</p> <p>2b) ... student smiles and vocalises ...</p>	<p><i>Example of student objective for this outcome at this level of complexity:</i> Gabby will look at communication partner when greeted.</p> <p><i>Activities:</i> Responding to social initiations by others is not an activity-specific skill and is needed in a wide variety of contexts and social situations. There are many opportunities to teach this skill in school settings.</p> <p><i>Suggested strategies:</i></p> <ul style="list-style-type: none"> <li>- through careful observation and interaction determine Gabby's response to partner</li> <li>- engage different people in this activity with Gabby to encourage generalisation.</li> </ul>

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Pre-intentional</b>	<p>3a) In the classroom during music teacher says 'Your turn to play the triangle', and strikes it in front of the student ...</p> <p>3c) ... teacher then places triangle in the student's hand and guides him/her through the action of striking the triangle.</p>	<p>3b) ... student blinks in response then looks at the triangle ...</p>	

## 4.2. Engaging in Social Routines and Interactions

**Outcome 4.2:** The student is able to **respond to a social initiation by another**

<b>Level of complexity</b>	<b>Context</b>	<b>Examples of student behaviour</b>	<b>Suggested teaching considerations</b>
<b>Intentional</b>	<p>1a) Child approached by mother ...</p> <p>1c) ... mother says, 'Oh, you want to be picked up', and picks child up.</p> <p>2a) ... teacher comes into the classroom and greets the student saying, 'Hello Suzie, how are you today?' ...</p> <p>2c) ... teacher says, 'Suzie, you are telling me you are pleased to see me', and physically guides the student through the sign for 'Hi'.</p>	<p>1b) ... child holds up arms to be picked up ...</p> <p>2b) ... student smiles in response and lifts arm ...</p>	<p><i>Example of student objective for this outcome at this level of complexity:</i> Morissa will shake the communication partner's hand when greeted.</p> <p><i>Activities:</i> Arriving at school, many situations across the day</p> <p><i>Suggested strategies:</i></p> <ul style="list-style-type: none"> <li>– set up a situation in the morning which will provide opportunity for this behaviour to be taught</li> <li>– coach other people in Morissa's environment to create the opportunity for Morissa to respond to greetings</li> </ul>

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Intentional</b>	<p>3a) In the playground with other students before school . The principal enters the playground and says 'Good morning' ...</p> <p>3c) ... principal says to student, 'It's lovely to see you but it is not always good to hug', and manipulates the student's hands through the sign for 'Good morning'.</p> <p>4a) Student in classroom listening to favourite music through headphones. Another student approaches and turns off the player saying, 'It is time to go home' ...</p> <p>4c) ... teacher observes this and repeats the instruction 'It's time to go home' ...</p>	<p>3b) ... student runs to principal and hugs her ...</p> <p>4b) ... student listening to music thumps desk and stamps feet ...</p> <p>4d) ... student looks at other student and removes head phones.</p>	<p>– shape Morissa's response to social initiation into targeted form (shaking hands). This can be done in many ways: successive approximations, prompting, reinforcing only appropriate forms, modelling appropriate form etc.</p>

#### 4.2. Engaging in Social Routines and Interactions

**Outcome 4.2:** The student is able to **respond to a social initiation by another**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Symbolic</b>	<p>1a) Arriving at school. Teacher's aide says, 'Good morning Peter', to the student ...</p> <p>2a) Leaving school in the afternoon. Teacher says, 'Bye, bye' and waves to the student and waits for a reply ...</p> <p>2c) ... teacher models slowly and emphatically, 'Bye, bye'.</p>	<p>1b) ... student signs, 'Hi'.</p> <p>2b) ... student waves back and vocalises, 'B, B' ...</p>	<p><i>Example of student objective for this outcome at this level of complexity:</i> Melody will sign and say 'Bye bye' when farewelled by teacher when leaving school in the afternoon.</p> <p><i>Activities:</i> Leaving school and any other situation across the day when Melody is required to say farewell</p> <p><i>Suggested strategies:</i> – develop consistent routines and structure in daily events so that Melody can learn to anticipate forthcoming events and prepare to engage in the appropriate behaviour. Melody will learn to associate the end of the day with the need to sign and say 'Bye, bye'</p>

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Symbolic</b>	<p>3a) Student engaged in an activity. Another student approaches and asks, 'Can I play?' ...</p> <p>4a) Student greeted and asked, 'How are you?' ...</p>	<p>3b) ... student responds by nodding head and saying, 'Okay'.</p> <p>4b) ... student indicates that he/she is not well by looking at symbol for 'sick' on the communication board.</p>	<ul style="list-style-type: none"> <li>- interact consistently both within the routine of farewelling at the end of the day and in the manner of communication</li> <li>- provide appropriate consistent cues</li> <li>- model the appropriate behaviour</li> <li>- prompt if necessary</li> <li>- always reinforce correct responses.</li> </ul>

## 4.2. Engaging in Social Routines and Interactions

**Outcome 4.3:** The student is able to **initiate a social interaction with another**

<b>Level of complexity</b>	<b>Context</b>	<b>Examples of student behaviour</b>	<b>Suggested teaching considerations</b>
<b>Pre-intentional</b>	<p>1a) Student sitting in group activity ...</p> <p>1c) ... teacher notices and asks the student, 'What is the matter?' and checks that the student is all right.</p> <p>2a) Student listening to music using headphones ...</p> <p>2c) ... teacher waits for a few seconds to see what student will do ...</p> <p>2e) ... teacher goes over to student.</p>	<p>1b) ... student vocalises ...</p> <p>2b) ... student moves head and headphones fall off ...</p> <p>2d) ... student looks at teacher ...</p>	<p><i>Example of a student objective for this outcome at this level of complexity:</i> Gemma will move her arm up and down to gain the attention of a person with whom she wants to initiate social interaction.</p> <p><i>Activities:</i> This skill is very useful for the student across many situations. It should be taught in the context of many activities.</p> <p><i>Suggested strategies:</i> – look for actions exhibited by Gemma that could be used to initiate social interaction and that are approximations of the behaviour targeted in the objective. When Gemma exhibits this behaviour ensure that people perceive it and act on it as if it were intentional</p>

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Pre-intentional</b>	<p>3a) On arriving at school ...</p> <p>3c) ... student's friend approaches and says, 'Hello'.</p> <p>4a) Student is in playground away from other students ...</p> <p>4c) ... other peers go over to student and talk to him ...</p>	<p>3b) ... student smiles in response to a familiar face ...</p> <p>4b) ... student is crying ...</p> <p>4d) ... student stops crying and looks at friends.</p>	<ul style="list-style-type: none"> <li>- initially Gemma may need the behaviour to be reinforced artificially but this should always be paired with some appropriate social reinforcer</li> <li>- Gemma may need a program that increases her awareness of others being present in her immediate environment before she can initiate social interaction with them</li> <li>- Gemma's desire to initiate interaction with others may be increased if these personal interactions result in the satisfaction of her personal needs.</li> </ul>

### 4.3. Engaging in Social Routines and Interactions

**Outcome 4.3:** The student is able to **initiate a social interaction with another**

<b>Level of complexity</b>	<b>Context</b>	<b>Examples of student behaviour</b>	<b>Suggested teaching considerations</b>
<b>Intentional</b>	<p>1a) In a group situation ...</p> <p>1c) ... no-one responds ...</p> <p>1e) ... the other group member responds to the student's behaviour by going over to him/her.</p> <p>2a) An instructional situation with one staff member moving from one student to the other ...</p>	<p>1b) ... student increases tone and vocalises then looks at a particular member of the group to initiate contact ...</p> <p>1d) ... student repeats behaviour ...</p> <p>2b) ... one student when not receiving attention rocks back and forth on chair and thumps desk ...</p>	<p><i>Example of student objective for this outcome at this level of complexity:</i> Mary will reach and touch switch to activate loop tape to ask for attention across the school day.</p> <p><i>Activities:</i> Across all daily activities; mealtimes; recreation/leisure</p> <p><i>Suggested strategies:</i></p> <ul style="list-style-type: none"> <li>– respond to all activations as deliberate and give attention as soon as possible</li> <li>– when Mary is using switch regularly, increase expectation and delay the time between activation and giving attention</li> </ul>

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Intentional</b>	<p>2c) ... teacher waits for student to stop the rocking and thumping then goes to the student and models the appropriate manner to initiate social interaction, eg raising hand.</p> <p>3a) In the classroom, teacher is talking to teacher's aide at the beginning of the day organising some activities ...</p> <p>3c) ... teacher responds to the student's attempt to initiate interaction by manipulating the student's hands to tap her on the arm.</p>	<p>3b) ... student walks up to them and stands in very close proximity looking up into their faces ...</p>	<ul style="list-style-type: none"> <li>– wait for Mary to repeat action before responding</li> <li>– introduce this with other people, and in other places.</li> </ul>

table continues

4.3. Engaging in Social Routines and Interactions

## Outcome 4.3 (contd)

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Intentional</b>	<p>4a) All students assembled together in school hall. The physiotherapist walks across the hall through the group ...</p> <p>4c) ... the therapist breaks the eye contact and takes a few more steps, looks back at the child and smiles ...</p> <p>4e) ... therapist walks over to student and says, 'You want to talk, do you?' ...</p>	<p>4b) ... one of the students look at the physiotherapist and follows with her gaze until eye contact is established ...</p> <p>4d) ... child copies the smile ...</p> <p>4f) ... student smiles.</p>	

**Outcome 4.3:** The student is able to **initiate a social interaction with another**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Symbolic</b>	<p>1a) At home out in the front garden. Next door neighbour walking past ...</p> <p>1c) ... neighbour stops and chats to the child.</p> <p>2a) Student in wheelchair with electronic communication device mounted on tray top ...</p> <p>2c) ... teacher responds by saying, 'I heard you Steven, I'll be there in a moment'.</p>	<p>1b) ... child looks at neighbour and signs, 'Hi' ...</p> <p>2b) ... student wants to get the attention of the teacher so selects and activates the message, 'Excuse me' and looks towards the teacher (this is repeated until teacher responds) ...</p>	<p><i>Example of student objective for this outcome at this level of complexity:</i> Mark will say, 'Hello' and wait and then repeat if necessary to initiate social interaction.</p> <p><i>Activities:</i> Opportunities across the day</p> <p><i>Suggested strategies:</i></p> <ul style="list-style-type: none"> <li>- create situations across the day when Mark will need to interact</li> <li>- wait for Mark to initiate interaction</li> <li>- if he does not initiate a greeting, wait for a response</li> <li>- instructor could first model the behaviour for Mark by saying, 'Hello Mr Smith'</li> <li>- prompt Mark appropriately to imitate the behaviour</li> </ul>

table continues

4.3. Engaging in Social Routines and Interactions

## Outcome 4.3 (contd)

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Symbolic</b>	<p>3a) Child shopping with mother and sees friend from school ...</p> <p>3c) ... friend hears name being vocalised, attention is established and a conversation begins.</p>	<p>3b) ... child attracts the attention of friend by vocalising 'Hi' and an approximation of friend's name ...</p>	<ul style="list-style-type: none"> <li>– provide sufficient opportunities for Mark to practice the behaviour</li> <li>– gradually reduce the level of prompting</li> <li>– encourage other people with whom Mark interacts to expect an initiation.</li> </ul>

**Outcome 4.4:** The student is able to **maintain social interaction with another**

<b>Level of complexity</b>	<b>Context</b>	<b>Examples of student behaviour</b>	<b>Suggested teaching considerations</b>
<b>Pre-intentional</b>	<p>1a) Student is engaged in an activity that it is known he/she doesn't like ...</p> <p>1c) ... teacher immediately stops the activity letting the student know that the activity has been stopped because of the crying. The student is then engaged in an activity that it is known he/she really enjoys, like gaining one-to-one attention from teacher's aide. The aide talks to the child, watching for signs of enjoyment. The aide then deliberately moves away from the student and observes. If the child ...</p> <p>1e) ... these behaviours are acknowledged and the aide returns to the student and carries on with the social interaction.</p>	<p>1b) ... student cries ...</p> <p>1d) ... then follows the aide with her eyes, vocalises, decreases/ increases movement, etc ...</p>	<p><i>Example of student objective for this activity at this level of complexity:</i> George will maintain social interaction by responding to the cessation of an enjoyable activity.</p> <p><i>Activities:</i> Listening to music</p> <p><i>Suggested strategies:</i> – to establish a sense of cause and effect and control over his environment engage George in an activity you know he does not enjoy. Wait for a negative response and cease the activity</p>

table continues

4.4. Engaging in Social Routines and Interactions

<b>Level of complexity</b>	<b>Context</b>	<b>Examples of student behaviour</b>	<b>Suggested teaching considerations</b>
<b>Pre-intentional</b>	<p>2a) Mother and child playing together on lounge room floor. Mother moves away ...</p> <p>2c) ... mother responds by returning to child and continues to play.</p> <p>3a) Lunch time at school. Therapist assisting student with eating and engaging in some social 'chit chat'. Therapist moves away to attend to another child ...</p> <p>3c) ... therapist immediately returns to replace the utensils on the table and talks to the student.</p>	<p>2b) ... child cries ...</p> <p>3b) ... student accidentally knocks eating utensils off the table ...</p>	<ul style="list-style-type: none"> <li>- now engage George in an activity that you know he really enjoys (like listening to music) and that provides him with one to one attention. Stay in close physical contact with George watching for any sign of enjoyment</li> <li>- occasionally turn off the music and closely observe George</li> <li>- if George looks at, moves towards the sound, vocalises etc, respond by turning the music on again</li> <li>- create the need to maintain social interaction by systematically terminating enjoyable activities and shaping appropriate response behaviours.</li> </ul>

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Pre-intentional</b>	<p>4a) Student lying supine on mat on the floor of the classroom listening to music. Student is approached by another student who touches him/her on the arm ...</p> <p>4c) ... other student continues touching to elicit the reaction.</p>	<p>4b) ... student exhibits a startle reflex ...</p>	

**Outcome 4.4:** The student is able to **maintain social interaction with another**

<b>Level of complexity</b>	<b>Context</b>	<b>Examples of student behaviour</b>	<b>Suggested teaching considerations</b>
<b>Intentional</b>	<p>1a) Young child on change table having nappy changed by mother. On completion of the nappy change, mother tickles child on the tummy ...</p> <p>1c) ... mother continues to tickle to encourage this smiling response from the child.</p> <p>2a) Student is playing on floor with toys. Teacher joins with the student on the floor and begins to play by activating one of the battery toys. The teacher stops the toy and turns her back on the student and waits for a response from the student ...</p>	<p>1b) ... child smiles and squeals with delight ...</p> <p>2b) ... student vocalises, grabs for the toy, touches the teacher ...</p>	<p><i>Example of student objective for this outcome at this level of complexity:</i> Julie will use body movements to maintain social interaction with her carer.</p> <p><i>Activities:</i> Having lunch, having a snack</p> <p><i>Suggested strategies:</i></p> <ul style="list-style-type: none"> <li>- use movements as communicative behaviours but ensure they match Julie's level of actions, eg during activities in which you are assisting Julie to eat you might place Julie's hand on your hand and allow it to ride on yours as you assist her to eat</li> <li>- be aware of Julie's readiness and willingness for interaction, which will enhance her sensitivity to communicative acts</li> </ul>

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Intentional</b>	<p>2c) ... following the response, the teacher acknowledges the student's request and continues to play by activating the toy.</p> <p>3a) Student in electric wheelchair approaches a visitor to the room and begins to tap tray top and look at the visitor. Visitor responds by saying, 'Hi, how are you?' then moves away ...</p> <p>3c) ... visitor responds by chatting to the student.</p> <p>4a) Child and therapist working together on an activity. Therapist stops the activity deliberately and waits for a response from the child ...</p> <p>4c) ... therapist acknowledges child's response and continues on the activity with the child.</p>	<p>3b) ... student activates his/her electric wheelchair following the visitor around the room ...</p> <p>4b) ... child smiles, pauses and smiles again ...</p>	<ul style="list-style-type: none"> <li>- use pauses in Julie's eating to allow time for her to direct her partner and thus learn to maintain social interaction, eg pause in your assistance with her eating and see if she moves to get another mouthful</li> <li>- if Julie does not use body movements intended to communicate her desire for another mouthful, you might utilise patterns in games (repeatedly moving spoon in towards Julie's mouth and then away again, counting or singing) to see if the repetition causes her to anticipate food coming and she moves to pull it in</li> <li>- provide support</li> <li>- establish routines within the activity.</li> </ul>

#### 4.4. Engaging in Social Routines and Interactions

**Outcome 4.4:** The student is able to **maintain social interaction with another**

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Symbolic</b>	<p>1a) Two children talking. Sally indicates that she must move on to class ...</p> <p>1c) ... Sally agrees and the conversation continues.</p> <p>2a) Teacher assisting student with drink. Teacher signs 'finished' to the student and starts to pack up ...</p> <p>2c) ... teacher models 'More drink please', goes to refrigerator and provides the student with more drink.</p>	<p>1b) ... Helen says, 'Let's stay here and talk a little longer' ...</p> <p>2b) ... student signs, 'More' ...</p>	<p><i>Example of student objective for this outcome at this level of complexity:</i>            Nguyen will use both his Message Mate, and signs to continue a communication interaction.</p> <p><i>Activities:</i>            Many opportunities across the day</p> <p><i>Suggested strategies:</i>            – Nguyen uses a range of communication modes to communicate. He may use his Message Mate to gain initial attention and use a combination of signs and symbols to continue and maintain the interaction</p>

table continues

Level of complexity	Context	Examples of student behaviour	Suggested teaching considerations
<b>Symbolic</b>	<p>3a) Volunteer talking to student using student's communication board. Volunteer points to picture of girl on the board and asks, 'Who is this?' ...</p> <p>3c) ... volunteer responds by eliciting responses from the child about the playground.</p> <p>4a) Teacher and student talking together during lunch ...</p>	<p>3b) ... child smiles and slowly points with her eyes to symbol of 'friend'. Child then looks at volunteer then to the symbol for playground then looks back at the volunteer ...</p> <p>4b) ... student asks questions of the teacher that serve to maintain conversation.</p>	<ul style="list-style-type: none"> <li>- the communication partner/s need to be aware and responsive to all of Nguyen's communication forms and encourage the maintenance of a communicative interaction by asking open-ended questions, expecting and waiting for responses</li> <li>- it may be necessary to provide models or shape correct responses</li> <li>- provide as many opportunities as possible across the day, and with an increasing number of people, for Nguyen to develop his communicative abilities in maintaining interactions.</li> </ul>

#### 4.4. Engaging in Social Routines and Interactions

## CASE STUDIES

### Case Study 1

#### **Background information**

Angie is a five-year-old girl with severe and multiple disabilities. She has been assessed as having a severe intellectual disability, cerebral palsy, and a severe visual impairment. She attends a special school and lives at home with her parents and two older brothers. She is not able to walk but can sit independently. She needs assistance with eating and drinking and is not toilet-trained. Angie communicates using natural gestures and some vocalisations.

#### **Assessment**

Angie has been receiving support from the local Developmental Disability Service since the diagnosis was made of her disability. A psychological assessment suggests that she is functioning in the severe range of intellectual disability. Reports have been received from an occupational therapist, a physiotherapist and a speech pathologist.

These reports point out the following:

- Angie has definite problems with hand function that inhibit the acquisition of skills necessary for many self-care skills such as washing, teeth cleaning, dressing, etc.
- While Angie is able to sit independently with reasonable head control and good trunk control, she needs a lot of assistance with mobility. She is unable to stand without assistance and resists crawling and moving to explore her environment. She is able to roll from supine to prone and vice versa.
- Angie is able to chew and swallow independently but requires assistance in getting the food to her mouth.

To gain assessment information on Angie's communication skills and abilities from the family, a Communication Inventory was used. An example is shown in Appendix 2 (p 105).

The teacher also completed one of these inventories and collected information by videotaping several activities in which Angie was participating in. An ABC analysis was completed from this (see p 98).

From these assessments, the following points were made about her program:

- Angie uses smiles to indicate a preference.
- Angie turns her head away when presented with food she does not like.
- Angie moves her left hand towards the book and also during lunch her left hand moves towards her drink (although the teacher does not think that this was intentional).
- Angie seems to look more towards objects and people on her left-hand side.
- Angie loves social contact and when left by herself will quite often whinge or cry. This is particularly the case at home.
- Angie is attracted to brightly coloured objects that gain her attention. Angie will look towards them despite her visual impairment.
- Activities that elicit and encourage the most communication, especially looking, smiling and some hand movements, are listening to music, mealtimes and being with other people.
- Angie mainly uses pre-intentional forms of communication and indicates some social interaction ability.
- Angie is able to satisfy basic needs and wants by crying and shows enjoyment by smiling and laughing. She enjoys music, meals, being with others and swimming. She vocalises more frequently at mealtimes.

## **Learning priorities**

In a meeting between the teacher, parents, therapists and caseworker it was decided that the highest priorities for Angie's program were those set out in the following table: each of these priorities can be programmed under KLAs as shown on the next page.

<b>Priority</b>	<b>Key Learning Area</b>
Having lunch	PDHPE
Going to the toilet	PDHPE
Using a cassette player	Science & Technology, PDHPE
Looking at books	English
Playing with toys	PDHPE
Discriminating objects	Mathematics
Making choices and expressing preferences	English, PDHPE, HSIE
Initiating social contact	English, PDHPE, Creative Arts
Expressing continuance	English, HSIE
Moving from one activity to another with minimal assistance	PDHPE, Creative Arts, HSIE
Using hands to complete functional activities	PDHPE, Creative Arts, Science & Technology

It was also considered imperative by the team that the communication and physical management outcomes be addressed within and across all of the student's programs. This meant that opportunities to teach and provide practice in communicating, mobility and hand function had to be identified within the programs designed to teach Angie how to 'Have lunch', 'Go to the toilet', 'Use a cassette player' etc. This was considered important because it provides a natural context for the achievement of communication and physical management outcomes.

The considerations that need to be taken into account when deciding the learning priorities for Angie include:

- chronological age
- student and parent preferences
- present and anticipated future environments
- relevance to whole of life
- availability of resources.

After referring to relevant assessment materials and discussion amongst all members of the team, the following outcome in communication was decided:

### **Communication Outcome**

- Express choice and preferences (Outcome 1. 3)

### **Activity**

- Having lunch (see 'Context' and 'Suggested teaching considerations').

### **Example of student objective**

- When presented with two food items Angie will select preferred item by reaching and touching (see 'Suggested teaching considerations').

### **Suggested strategies**

- Give Angie opportunity to feel both items and develop her awareness of their location.
- Ask Angie to make a choice of preferred item, eg 'Angie, do you want the apple or the banana?'
- Wait for Angie to respond. (It is important to provide the item chosen whether intentionally touched or not.)
- If no response is made, teacher needs to decide what assistance is appropriate, eg repeat instruction or model or provide some extra information.

An important part of the program will be the teacher's decisions regarding the monitoring of the student's progress. The teacher will need to know whether the program is working. Also of importance is the need for the teacher to maximise opportunities for teaching and learning of communication outcomes. This can be done by identifying all activities that will provide a meaningful context for particular communication skills to be taught and practised.

## ABC Analysis

**Student:** Angie

**Time:** 12.50 – 1.15

**Date:** 11/6/95

**Activity:** Lunchtime

Antecedents	Behaviour	Consequences
1. Teacher sits down next to Angie.	2. Angie looks toward teacher.	3. Teacher pats Angie's arm and says 'Yes, it's time for lunch'.
4. Teacher places yellow plate on desk.	5. Angie looks at plate and moves left arm.	6. Teacher places sandwich on plate.
7. Teacher places sandwich in Angie's hand and helps her take it to her mouth.	8. Angie turns head away.	9. Teacher says, 'Angie, it's your tomato sandwich'.
10. Teacher repeats 7.	11. Angie turns head away.	12. Teacher says 'OK — let's try something else'.
13. Teacher places cheese stick in Angie's hand.	14. Angie smiles and slightly moves hand.	15. Teacher says, 'Oh, you want your cheese stick' and assists Angie to eat.

## Case Study 2

### Background information

Michael is an eleven-year-old boy who exhibits autistic tendencies. He rarely communicates using speech and has problems interacting with others in social situations. His main form of expressive communication is drawing with a pencil and paper. Michael lives at home with his family and attends his local school where he is in a class with 29 other students of the same age. Michael's parents would like him to attend his local high school when he leaves primary school at the end of the year.

### Assessment

Michael was diagnosed as autistic at the age of four after his parents became concerned over what they considered to be anti-social behaviour. He preferred to be alone, was not affectionate and would not talk very much. While these unusual behaviours have persisted, he has developed well in other areas. He has highly developed computer skills, he is well behaved, his receptive language is excellent and his artistic talents are highly developed for his age.

The teacher who has been working with him has observed that Michael's literacy and numeracy skills are well below the class average, but he is most concerned about Michael's lack of social and communication skills. He doesn't talk to other children, he won't respond to adults and prefers to be alone.

He also suffers from epilepsy, but this is well controlled with medication.

### Learning priorities

After consultation with Michael's parents, the support teacher working in the school, some experts from the Autistic Association and Michael himself, the teacher set learning priorities for Michael in each of the following Key Learning Areas.

#### English

- engaging in conversations
- increasing reading skills

## Mathematics

- working in groups
- problem solving (in groups)
- simple addition and subtraction operations

## Science and Technology

- reporting results of simple experiments
- guiding other students in the illustration of project books.

The support teacher stressed the importance of treating Michael's communication and socialisation needs as 'across-curriculum concerns' and therefore maximising Michael's opportunities to develop these important skills across the day.

The first step in developing a communication program for Michael was to **identify some communication outcomes**.

The outcomes targeted for Michael were:

- respond to social initiation by another
- initiate social interaction with another
- maintain social interaction with another.

(It should be noted that communication outcomes could have been identified in the initial instance rather than deriving them from broader, less specific needs as we have here.)

It was decided to limit outcomes to these three initially. It was also decided that these outcomes be analysed into specific behaviours that Michael needs to be taught:

### Responds to social initiation

- respond to greeting by saying 'Hi'
- establish and maintain eye contact with people talking to him
- answer 'yes' and 'no' appropriately when asked a 'yes/no' question.

### Initiates social interaction

- use some greetings, eg 'good morning' and 'good afternoon'
- asking questions, eg 'What's the time?', 'What are we doing next?', 'Where are you going?'
- move physically closer to a person or group of people, eg sitting next to someone during lunch.

### **Maintains social interaction**

- make comments, eg 'That's good', 'I like that'
- maintain eye contact with person/people during a conversation
- ask questions to extend a dialogue.

The next step suggested by the support teacher was to timetable specific times throughout the day and across Key Learning Areas in which these behaviours could be taught and practised.

Michael's communication and social skills developed quite significantly using this approach. It was enhanced by using peer tutoring and by identifying potential communication partners for Michael, coaching them in appropriate strategies that would help him in his acquisition of more appropriate communication and social skills.

## Case Study 3

### **Background information**

Luigi is an eight-year-old boy with muscular dystrophy who attends his local school. Luigi loves school and being with his friends. He follows the regular class curriculum in all of the KLAs and is performing academically towards the top of his class. Luigi's condition has regressed to a point where performing the most simple tasks has become very difficult. His teacher has been advised that enrolment in a special class for students with physical disabilities may be a better option for him in terms of his physical management. Of most concern to the teacher is Luigi's loss of speech, as his condition becomes progressively worse.

Luigi and his family were reluctant to consider a move to a support class because of Luigi's love for his school, and the close friends he has made are very important to him. In respecting Luigi's wishes a decision was made to continue his inclusion in his current program with support and advice provided by people with expertise in physical disabilities.

### **Learning priorities**

Although Luigi's ability to engage in physical activities is being compromised his ability to perform intellectually is continuing to improve. He has real talent in Mathematics and Science and Technology and he loves to read. His teacher feels that opportunities for him to continue to develop in these areas should be provided.

The content of the syllabuses in each of the KLAs has generally maintained relevance for Luigi. The main challenge for the teacher in this situation is to be creative and resourceful in maintaining access for Luigi to the syllabus content.

### **Modifications, adaptations, equipment and technology**

The following have provided much support to Luigi in his continued participation in his class.

## English

- A page turner was obtained so he could continue reading his favourite books.
- A computer with a special key guard was made available for him to use as a word processor instead of writing by hand.
- Much of his access to information was made via the computer in all of the Key Learning Areas.
- An electronic communication device with synthesised voice was obtained for him to maintain some means of expressive spoken language.

## PDHPE

- An electric wheelchair was obtained so Luigi could retain some degree of independent mobility.
- Some games were modified so he could continue his participation in PE.
- Luigi was happy to score or umpire while the rest of the class played cricket.

**Similar strategies were used in other KLAs to maximise Luigi's level of participation in them.**

# APPENDIX 1

## DESCRIPTIVE OBSERVATIONAL INFORMATION FORM

**Student** ..... **Setting** .....  
**Observer** ..... **Date** .....  
**Time Start** ..... **Time Stop** .....

Time	Antecedent Events	Student Responses	Consequent Events

# APPENDIX 2

## COMMUNICATION INVENTORY

**Student** .....

**Completed by:** ..... **Date** .....

**Part A: (circle the appropriate number: 0 = N/A; 1 = not at all; 2 = sometimes; 3 = often; 4 = always)**

1. Does your child react to objects, activities and/or people by displaying an observable change in behaviour? 0 1 2 3 4

How? .....

When? .....

2. Does your child initiate social interactions? 0 1 2 3 4

How? .....

When? .....

3. Does your child keep this social interaction going? 0 1 2 3 4

How? .....

When? .....

4. Does your child end any social interaction? 0 1 2 3 4

How? .....

When?.....  
.....

5. Does your child accept assistance from others? 0 1 2 3 4

How?.....  
.....

When?.....  
.....

6. Does your child offer assistance to others? 0 1 2 3 4

How?.....  
.....

When?.....  
.....

7. Does your child request affection? 0 1 2 3 4

How?.....  
.....

When?.....  
.....

8. Does your child express feelings? 0 1 2 3 4

How?.....  
.....

When?.....  
.....

9. Does your child make requests (eg food, objects, actions)? 0 1 2 3 4

How?.....  
.....

When?.....  
.....

10. Does your child express rejection/refusal (eg food, objects, actions)? 0 1 2 3 4

How?.....  
.....

When?.....  
.....

11. Does your child make choices when presented with options? 0 1 2 3 4

How?.....  
.....

When?.....  
.....

12. Does your child gain other's attention? 0 1 2 3 4

How?.....  
.....

When?.....  
.....

13. Does your child respond to his/her name? 0 1 2 3 4

How?.....  
.....

When?.....  
.....

14. Does your child respond to questions? 0 1 2 3 4

How?.....  
.....

When?.....  
.....

15. Does your child ask questions? 0 1 2 3 4

How?.....  
.....

When?.....  
.....

16. Does your child comment or give information? 0 1 2 3 4

How?.....  
.....

When?.....  
.....

17. Does your child farewell? 0 1 2 3 4

How?.....  
.....

When?.....  
.....

18. Does your child greet others? 0 1 2 3 4

How?.....  
.....

19. Does your child share with others? 0 1 2 3 4

.....

20. Does your child take turns? 0 1 2 3 4

.....

21. Does your child maintain socially acceptable behaviour when alone and/or with others?

0 1 2 3 4

How? .....

When? .....

22. Does your child accept change between routine activities?

0 1 2 3 4

Comment: .....

23. Does your child accept unexpected changes in routine?

0 1 2 3 4

Comment: .....

**Part B: General Comments**

1. How does your child mainly interact or communicate with you at the moment?

.....  
.....

2. In the future, how would you like your child to communicate with you and others?

.....  
.....

3. Who are the people who communicate frequently with your child?

.....  
.....

4. When you are with your child, which activities encourage the most interaction?

.....  
.....

5. When you are with your child, which activities encourage the least interaction?

.....  
.....

6. Does your child have any behaviours that you consider to be a problem?

.....  
.....

7. General Comments:

.....  
.....  
.....  
.....  
.....

## APPENDIX 3

### ASSESSING AND PROGRAMMING Communication Functions, Outcomes and Levels of Complexity

<b>Communication Functions</b>	<b>Outcomes</b>	Pre-intentional	Intentional	Symbolic
<ul style="list-style-type: none"> <li>• makes requests to satisfy needs and wants</li> <li>• requests help</li> <li>• protests</li> <li>• rejects objects, services, assistance</li> <li>• expresses feelings</li> <li>• makes choices</li> <li>• expresses continuation</li> <li>• attends to partner, object or event</li> <li>• takes turns</li> <li>• responds to social initiations</li> <li>• initiates social interactions</li> <li>• maintains social interaction</li> <li>• provides information/makes comments/asks questions</li> <li>• farewells/greets</li> </ul>	<p>The student makes requests to satisfy needs and wants.</p> <p>The student indicates disapproval and or rejection of objects, services or assistance.</p> <p>The student expresses emotions and feelings.</p> <p>The student makes choices and expresses preferences.</p> <p>The student expresses a desire for an activity to continue, or that they would like some more.</p> <p>The student gives attention to another person, an object or event in their environment.</p> <p>The student takes turns in a joint activity with another.</p> <p>The student responds to a social initiation by another.</p> <p>The student initiates social interaction with another.</p> <p>The student maintains social interaction with another.</p> <p>The student gives information or makes a comment, or asks questions when asked or spontaneously.</p> <p>The student farewells and greets others in appropriate situations.</p>			

## APPENDIX 4

### References and Suggested Reading

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- MacDonald, J C and Gillette, Y, 'Communicating with persons with severe handicaps: roles of parents and professionals', *Journal of the Association for Persons with Severe Handicaps*, 11(4), 255–265, 1986.
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- NSW Department of School Education, *Strategies for Teaching Students with Severe Intellectual Disability*, Sydney, 1989.
- NSW Department of School Education, *Programming Communication for Students with Severe Intellectual Disability*, 1991.
- Siegel-Causey, E, & Guess, D, *Enhancing Non-symbolic Communication Among Learners with Severe Disabilities*, Paul H Brookes, Baltimore, 1989.

## Journals and Newsletters

*Augmentative and Alternative Communication.* A journal sponsored by the International Society for Augmentative and Alternative Communication, published by Williams and Wilkins, 428 East Preston St, Baltimore, Maryland 21202, USA.

*MAC-LINK Newsletter.* Provides information about microcomputers, electronic communication aids and related technology.  
For information contact:  
Microcomputer Applications Centre  
52 Thistlethwaite St  
South Melbourne, Vic, 3205  
Ph: (03) 9690 9177

*Which Switch?* A newsletter produced by the Noah's Ark Toy Library (Victoria) about switches, reactive toys and objects, and related technology.  
For information contact:  
Noah's Ark  
28 The Avenue  
Windsor Vic, 3181  
Ph: (03) 9529 1466

# APPENDIX 5

## SUPPORT AGENCIES

### **AGOSCI**

Enquiries :  
C/- Speech Pathology Department  
W C Allen Centre  
5 Aquatic Drive  
Frenchs Forest NSW 2086  
Ph: (02) 9451 9022 ext 378

### **Australian Quadriplegic Association**

1 Jennifer Street  
Little Bay NSW 2036  
(PO Box 397, Matraville 2036)  
Ph: (02) 9661 8855

### **Computer Assessment Service**

NSW Society for Crippled Children  
PO Box 4055  
Parramatta NSW 2124  
Contact: Raelene Smith  
Ph (02) 9630 3364

### **Computer Education Unit**

NSW Department of School Education  
PO Box 16  
Erskineville NSW 2043  
Contact: Doug Piper  
Ph: (02) 9517 6900

## **The Northcott Society**

2 Gross Street  
North Parramatta NSW 2150  
Ph: (02) 9890 0100  
Fax: (02) 9683 2827

## **PARA-QUAD**

33 Burlington Road  
Homebush NSW 2140  
Ph: (02) 9764 4166

## **Resource Support Unit**

Special Education Branch  
NSW Department of School Education  
PO Box 6000  
Parramatta NSW 2124  
Ph: (02) 9633 0400

## **The Spastic Centre of NSW**

The Assistive Device Service  
(PO Box 184 Brookvale 2100)  
189 Allambie Road  
Allambie Heights NSW 2100  
Sales: 5 Aquatic Drive  
Frenchs Forest 2086  
Ph: (02) 9451 9022  
Fax: (02) 9451 4877

## **TAD (Technical Aid to the Disabled), NSW**

PO Box 108  
Ryde NSW 2112  
Ph: (02) 9808 2022

# APPENDIX 6

## SUPPORT RESOURCES

### Computer Programs (Software)

#### **CompicMatch**

- gives practice in matching Compic pictographs with themselves or with words they represent in large print
- for single-key access of the Apple IIe computer
- each disk comes with a set of 64 common pictographs

#### **Compic Sentence**

- assists teaching students to make up sentences using pictographs
- for single-key access of the Apple IIe computer

Supplier of both software programs:

*Compic Development Association*

PO Box 351

North Balwyn, Vic, 3104

Ph: (03) 9857 8151, ext 40

#### **Makaton Computer Programs**

- these were produced by the Makaton Vocabulary Development Project in England. The programs are compatible with BBC computers
- contact *Makaton Australia* for information

### Compic Booklets

The following booklets with information and ideas about applications of Compic are available:

1. *Special Considerations for Visual/Perceptual Problems*
2. *Miscellaneous Compic Worksheets*
3. *Compic Word Matching Worksheets*

4. *Action Pictures and Worksheets*
5. *Book Translations, Story Box Series A + B Sets*
6. *Compic Recipes — Microwave*
7. *Shopping List*
8. *Compic Recipes — Easy*
9. *Compic Recipes, Chores, Budgeting Sheets, Menu Plans, etc*

Cost: \$3. 50 per booklet, plus \$5. 00 postage and handling for any number of booklets (order forms available from Compic Development Association)

## Print and Video Resources

Acorn Computers Australia, *Special Access Guide*, BBC Microcomputer Systems London, 1991.

Price-Davies, Peter, *Gaining The Edge: The Macintosh & Special Needs*, Apple Computer Australia, Sydney, 1993.

## Teaching Cards

### **Photo Library 1:**

150 black and white photographs of domestic objects.

### **Photo Library 2:**

150 black and white photographs of everyday objects.

These Photo Libraries are published by Winslow Press.

They are produced in the UK, so some items may not be familiar products.

Cost : \$45. 50 for each (approximately).

Supplies: Helio Books, PO Box 6025, Adelaide, SA, 500

Ph: (08) 232 0983 Fax: (08) 232 2020

## **Plastic Flashcards**

These are unbreakable, large-size plastic flashcards available for vocabulary in stages 1–4.

Supplier: Makaton Australia, PO Box 84, Waratah, NSW, 2298

## Resource Pack of Linedrawings

Two packs are available of black and white pictures for vocabulary; one illustrating stages 1–4, the other for stages 5–8.

Cost: \$35 for each pack.

Supplier: Makaton Australia, PO Box 84, Waratah, NSW, 2298

## Compic Display/Teaching Cards (Stages)

These are a set of all the Compic items available in the large size on individual, laminated teaching cards.

Cost: \$190 per set.

Supplier: Compic Development Association

## Switches

The Rehabilitation Equipment Centre (TREC) make a *Switch Assessment Kit*, and *Switch Fixtures Kit*, in addition to supplying individual switches. Contact TREC for further information.

Technical Solutions

Rehabilitation Engineering Division, Regency Park Centre for the Young Disabled.

Switch-On Project, Rocky Bay Village.

Relpar Pty Ltd

Assistive Device Service, Spastic Centre of NSW  
(distributors for Prentke-Romiché Switches)

See 'Suppliers', page 121.

## Voice Output Communication Aids

### Digital Yes/No Unit

Supplier: Technical Solutions

## **Voice Synthesiser**

Supplier: Technical Solutions

## **Wolf (User Programmable)**

Supplier: Rehabilitation Engineering Division, Regency Park Centre for the Young Disabled

## **Introtalker**

Supplier: Assistive Device Service, Spastic Centre of NSW.

## **Small Alltalk — Level 4**

Supplier: Rehabilitation Engineering Division, Regency Park Centre for the Young Disabled

## **Scan Wolf**

Supplier: Rehabilitation Engineering Division, Regency Park Centre for the Young Disabled

## **Vocriss**

Supplier: TREC.

## **Signing**

### **Dictionary of Australasian Signs (Vols 1 & 2)**

Cost: \$11 each plus postage and handling.

Supplier: Victorian School for the Deaf, 597 St Kilda Rd, Melbourne, Vic, 3004. Ph: (03) 9510 9961

## **Auslan Dictionary**

Supplier: Deafness, Resources Australia, 115 Cambridge Street, Stanmore,  
NSW 2048. Ph: (02) 9560 3868

## **Linedrawings to use with the Revised Makaton Vocabulary**

Supplier: Makaton Australia, PO Box 84, Waratah, NSW 2298. Ph: (049) 68 7416

## **Suppliers**

### **Assistive Device Service**

Spastic Centre of NSW  
5 Aquatic Drive  
French's Forest, NSW 2086  
Ph: (02) 9451 9022

### **Compic Development Association**

PO Box 351  
North Balwyn, Vic 3104  
Ph: (03) 9857 8151, ext 40  
Tuesdays, Wednesdays, Thursdays

### **Don Johnston Developmental Equipment**

PO Box 639  
Waucona, IL 60084  
USA

### **Makaton Australia**

PO Box 84  
Waratah, NSW 2298  
Ph: (049) 687 422

## **Rehabilitation Engineering Division**

Regency Park Centre for the Young Disabled  
PO Box 209  
Kilkenny, SA 5009  
Ph: (08) 243 8260  
Fax: (08) 243 8208

## **Relpar Pty Ltd**

48–52 Sydenham Road  
Marrickville, NSW 2204  
Ph: (02) 9519 2943  
Fax: (02) 9516 5420

## **Switch-On Project**

Rocky Bay Village  
PO Box 53  
Mosman Park, WA 6012  
Ph: (09) 384 1855

## **Technical Solutions**

Cnr Seymour and Station Sts  
Belgrave, Vic, 3160  
Ph: (03) 9754 4368  
Fax: (03) 9752 5113

## **TREC (The Rehabilitation Equipment Centre)**

5 Linton Street  
Moorabbin, Vic, 3189  
Ph: (03) 9532 0611  
Fax: (03) 9532 0616

## **Royal Victoria Institute for the Blind**

333 Burwood Highway  
Burwood, Vic, 3125  
Ph: (03) 9288 6422  
Fax: (03) 9514 735