Llywodraeth Cynulliad Cymru
Welsh Assembly Government

ROUTES FOR LEARNING

ADDITIONAL GUIDANCE

Assessment materials for learners with profound learning difficulties and additional disabilities.

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Contents

Introduction and rationale

The statutory framework provided by the Education Act 1996 and the Special Educational Needs and Disability Act 2001 supports the inclusion of all learners. It also provides a strong imperative to develop further guidance on the teaching and assessment of learners with more complex needs. As the number of staff trained and experienced in this work diminishes, inexperienced teachers require appropriate guidance. These materials are aimed primarily at this group of teachers, but it is hoped that they will also provide ideas for more experienced teachers to incorporate into their work.

This guidance document, written to support the use of the *Routes for Learning* materials, offers an overview of the main theories and background information underpinning the effective teaching and assessment of learners with Profound and Multiple Learning Difficulties (PMLD: see definition in Appendix 1). These materials are not a substitute for quality training: LEAs and schools are urged to access appropriate opportunities for mediating the guidance.

Most assessment instruments, even those focusing on early development or designed for learners with learning difficulties and disabilities, assume that children will follow a 'normal' pattern of development. To date, few assessments have considered the complex needs of learners with profound and multiple learning difficulties and the interaction between the sensory impairments, motor disabilities and medical problems that many of them experience.

Many linear or hierarchical assessments will be unable to detect the very subtle changes in behaviour shown by these learners, regardless of how many 'small steps' are provided. In real life, children's development and learning is not compartmentalised. A fit-for-purpose assessment for learners with PMLD must take a more holistic view of learners and focus on how they learn. Such an assessment will need to take account of learners':

- preferred learning channels and ways of processing information (e.g. visual, auditory, tactile)
- ways of communicating
- ways of integrating new experiences with prior learning
- ability to remember and anticipate routines
- approaches to problem-solving situations
- ability to form attachments and interact socially.

The *Routes for Learning* materials focus on those early communication and cognitive skills that are crucial to all future learning and improved quality of life. The use of these materials is intended not only to support teachers in assessing learners' current performance but also help them to discover what has shaped that performance. The assessment materials support a wider view of progress for these learners. This is described in more detail on page 41.

The impact of, and relationship between, the physical, sensory and learning disabilities of many learners with PMLD, mean that learning will not necessarily be hierarchical. Nor can we assume that it will follow the pattern of development of most young children without these impairments. To build in the flexibility necessary to cater for the very individual needs of these learners, the *Routes for Learning* materials show a range of learning pathways.

These materials are designed to be used across the curriculum with learners of all ages. They will support the development of 'child considered' approaches and the focus on emotional well-being in the Foundation Stage (for children aged 3–7). At Key Stages 2 and 3, the materials will be part of a revised National Curriculum and framework for assessment, which will include learners of all abilities.

The materials can be used to assess the learning of young people (aged 14–19) with complex needs across all learning pathways, which will provide an appropriate context for the development of these early skills.

This assessment will, therefore, celebrate the different abilities of learners with the most complex needs, rather than trying to fit them into an existing framework not developed with these needs in mind. As Mittler (2000) points out, to be specific about the needs of distinct groups is not to undermine inclusion. Providing equal opportunities is about meeting individual needs – not treating everybody in the same way.

Principles

The *Routes for Learning* materials have been developed with the following principles in mind.

- The focus is on the learner – on his/her abilities rather than disabilities. All learners are entitled to a fit-for-purpose assessment of their needs.
- The assessment is process-based and looks at the relationship between the learner and his/her environment. Figure 1 below shows the relationships between factors to be analysed in an effective process-based assessment.
- Learners should play an active part in the assessment process with the involvement of families and all professionals working within the support team.
- Staff undertaking the assessment must have a high regard for relationships, support interactive approaches and ensure a responsive learning environment.
- The main purpose of assessing a learner is to enable him/her to make the best possible progress in the development of skills, knowledge and understanding (assessment for learning). Vygotsky (1978) supported the use of dynamic assessment, which focused on the Zone of Proximal (next) Development (ZPD). The ZPD is the difference between what a learner can achieve independently and what he/she can achieve with adult help in the form of prompts or cues and support or scaffolding. The learner's current performance with this support can give an indication as to where future teaching priorities should lie. Vygotsky stressed that the interaction between learner and adult was key in leading to cognitive change.
- The assessment draws on many sources of information and is founded in research regarding the developmental process in learners with and without disabilities.

The assessment should:

- empower staff and parents/carers, valuing all sources of knowledge about the learners and sharing and feeding back information in a clear and helpful format
- lead to accurate judgements and promote consistency between staff and others assessing the learner
- support teachers and others in seeking evidence of understanding and help them to focus on priorities for future learning
- provide a whole picture of the learner and the learning process.

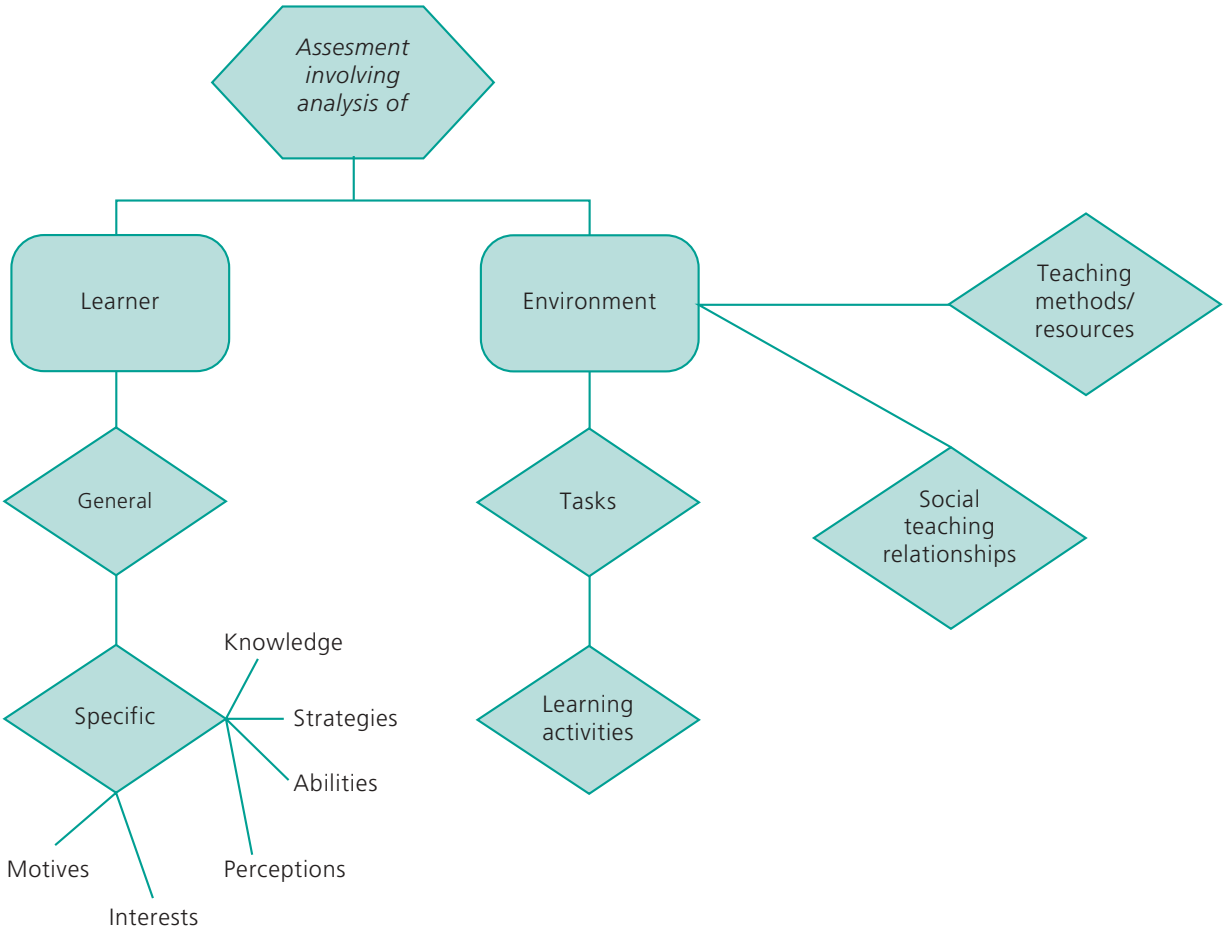


Figure 1 Process based assessment

(Reprinted from Norwich, B. (1990) *Reappraising Special Education*. London: Cassell.)

Using the materials

These materials have been designed for use by teachers, support staff, school managers, LEA advisory staff and trainers in Initial Teacher Education and Training (ITET) institutions. This guidance can be used by whole school staff or LEA advisers in Inset sessions. Specialists such as teachers of learners with VI and HI, physiotherapists and speech therapists should be involved in training and support wherever possible.

Every school may be at a different stage of development in terms of its provision and practice for learners with PMLD; levels of expertise among staff may vary. Most special schools have teachers with some specialist training in this area. This expertise should be tapped in training sessions for new teachers and for those who have training and experience in mainstream, rather than special schools.

The *Routes for Learning* DVD should be used in conjunction with this guidance and the assessment booklet. The DVD may be used by small groups of staff to:

- discuss and come to an agreement about the behaviours shown
- compare with video footage of their own learners to check and justify judgements made
- share with staff, parents and carers to clarify target behaviours and assist in planning appropriate programmes for individual learners
- show staff, parents and carers possible routes to be taken by learners and explain the importance of some areas of early learning.

The materials can be used as a baseline assessment and as a tool to track and support on-going progress (assessment for learning). The assessment profile will also support positive reporting to parents. This assessment does not provide a summary score because the complex behaviours of a learner with PMLD cannot be adequately described by a single number. However, the guidance will explore how the materials can be used for summative assessment to demonstrate school effectiveness.

The assessment in practice

Assessment should take place in a familiar environment with familiar staff. The involvement of parents, carers and other family members should be encouraged at all stages because the behaviour of the learners may vary at home or in the presence of family members. The family will know more about their child than can be ascertained from observations in school. Their input will therefore be essential, as will contributions from the multi-disciplinary team involved with the learner.

The Routemap provides an overview showing key milestones (in orange boxes) of early cognitive development, communication and social interaction. We believe that every learner will go through these key milestones although the routes they use to get there may vary according to their physical, sensory and learning needs.

In the Assessment booklet, each milestone is shown in greater detail. Staff should start at a step known to be within the learner's capability. They should then set up appropriate activities, moving through the pathways until well beyond the point at which the learner appears not to respond. The boxes will not necessarily be achieved in numerical order as many routes to each milestone are possible.

The assessment materials should then give support to teachers in making decisions about possible next steps, teaching activities and things to look for. The examples draw on a range of ways of learning, using a variety of senses, to cover the full range of learners' needs. Staff should be able to plan appropriate learning opportunities, teaching strategies and resources (such as staff and equipment). The materials will enable them to think about what a behaviour will look like when it is happening.

Approaches to teaching

This section will provide an overview of some of the main theories that have influenced the ways in which we teach learners with profound and multiple learning difficulties. Such theories may help us to predict and anticipate how learners might behave or react in certain situations. They therefore help us to structure our observations and think in depth about the meaning of what we have seen. Staff should reflect on the theory behind any classroom method to ensure that they develop an approach that is relevant and meaningful to their learners.

Behaviourist influences

The assessment and teaching of learners working at the very earliest stages of development was, in the past, heavily influenced by *behaviourist* ideas. This involved:

- a curriculum in which skills were 'broken down' into precise observable behaviours and arranged sequentially
- assessment practice which involved 'ticking off' skills as learners moved along a prescribed pathway
- an emphasis on carefully structured 1:1 teaching with little or no scope for incidental learning.

Collis and Lacey (1996) summarise some of the main concerns arising from such methods. These include:

- problems with generalisation (using skills learned in one situation in wider contexts) (Sugden 1989)
- learning mechanistically, without understanding (Farrell 1991)
- an emphasis on what is taught rather than what is learnt (Billinge 1988) and on the product rather than the process of learning (Smith *et al.* 1983)
- a focus on observable behaviours (Sugden 1989)
- placing the learner in a passive role (Jordan and Powell 1991)
- seeing the teacher as a technician rather than an educator (Guess, Benson and Seigel-Causey 1985).

Despite these concerns, we have adopted many behaviourist practices which continue to be effective for learners with complex needs. These include:

- planning systematically with clear outcomes
- the collection of baseline measures and on-going evidence of learning
- recognising the importance of context and the environment.

We have also learnt specific techniques (e.g. task analysis, prompting, reinforcement, fading or reducing prompts) that are useful, for example, in developing self-help skills, rote skills and for the initial training of some skills before they are applied more widely, in real life situations.

Interactive approaches

Interactive approaches can incorporate many of the practices outlined above and are not an alternative to behaviourism. They can provide a broader framework for learning by taking cognitive processes into account. As a result, many teachers have moved away from the teaching of small sequential steps and generally focus on broader attainment rather than on easily measured and recorded outcomes. It is now widely felt that over-reliance on pre-determined small steps from checklists may distort individual priorities and may narrow the curriculum taught.

The principles of interactive approaches are as follows:

- Learning depends on good interpersonal relationships with sensitivity to feedback from the learner.
- The focus is on understanding as well as on gaining skills.
- The emphasis is upon respect, negotiation and participation to motivate learners without the need for extrinsic (external or artifical) rewards.
- The quality of teaching and learning is as important as the performance of the objectives. Teachers need a clear understanding of the *process* to be undertaken as well as the end point to be reached.
- Teaching is not always dependent on breaking skills and content into small steps.

Curriculum design

All learners deserve to have their needs met through high-quality teaching and the provision of appropriate learning opportunities. They also have an entitlement to a broad, balanced and relevant curriculum which includes the National Curriculum. Close partnership with parents and carers, along with input from a range of professionals, will be required to provide these entitlements.

Before the National Curriculum was introduced, most special schools followed a developmental curriculum concentrating on early learning, personal, social and life skills. The subject-focused programmes of study introduced a welcome breadth to the curriculum but in some instances, this led to tokenistic practices which included re-labelling of developmental areas as subjects (and lack of access to subject programmes of study). It also saw a move towards totally subject-focused programmes (which were not always relevant to learners' individual needs.)

In 1996, SCAA and ACAC produced the guidance *Planning the curriculum for learners with profound and multiple learning difficulties*, which pointed out that the whole curriculum is broader than the National Curriculum and that 'the precise definition of balance will be a matter for debate between those determining priorities for each learner'. The guidance stated as a first principle that planning should start from the basis of the needs, interests, aptitudes and achievements of the learners. This clearly encompasses the communication, early cognitive skills and sensory abilities which are fundamental to all learning.

Wales Curriculum 2000 established a more coherent and inclusive curriculum framework, strengthening links between the areas of learning (for under 5s) and subjects of the National Curriculum. Greater cross-curricular emphasis was given to skills in communication, mathematics, IT, PSE and problem-solving.

Teachers found explicit opportunities to develop these skills in every subject. They could use National Curriculum subjects as contexts to meet the complex individual priorities of this group of learners and to provide a more holistic experience.

Following a review of the curriculum during 2003/4, the focus on these cross-curricular skills is being strengthened. Frameworks are developing for Communication, ICT, Application of Number and Thinking skills. Subject content will be reduced to provide greater flexibility for learners with complex needs. They will be able to work towards both cross-curricular and subject-related outcomes as appropriate to their needs.

Teachers will continue to plan using areas of learning, subject Programmes of Study or 14–19 pathways as contexts for learning. The skills frameworks will help them to focus on learners' priority needs (which are likely to include many of the communication and cognitive skills assessed by the Routemap.)

Learners will not make sense of a fragmented curriculum, divided somewhat arbitrarily into subject categories. Tasks must be relevant and purposeful to maximise motivation and to help learners make sense of the world around them. Curriculum experiences need to be carefully mediated as unco-ordinated approaches, particularly those using different sensory pathways, can lead to a range of experiences that carry little meaning for learners.

Although schools need to take account of their statutory National Curriculum obligations, the framework offers a high level of flexibility. Moreover, additional elements may be included in the curriculum as appropriate to the needs of learners. Staff should critically reflect on their current curriculum using the following points to structure their discussions.

- What are our aims/principles/values?
- What makes up a relevant curriculum for our learners? What are their priority needs?
- What, in addition to statutory elements, do we need to include? (These could include, for example, therapies.)
- What theoretical models have influenced our thinking? What commercially produced materials have we drawn on? Have we developed a clear rationale for their adaptation and use?
- How does the whole curriculum, including the 'hidden' curriculum, promote the social, moral, cultural, spiritual development of learners?
- How can we draw on the expertise of parents and other professionals?
- How do we maximise learner participation and capitalise on learners' interests?
- How can we ensure breadth and balance?
- What staff expertise do we have available? What further outside support and training might be needed?
- How does the location of the school impact on the curriculum? How can we make best use of the local community?
- How are learners grouped? Why?

- Is there a balance between individual and group activities? Is there one between different teaching approaches, e.g. experiential or interactive?
- What variations exist between key stages? Why?
- How are programmes of study used to ensure that learners receive their minimum entitlement? Is there a clear rationale for the selection of content to be covered in depth or in outline? Is provision made for planned revisiting where this is necessary?
- What use is made of the Access (including all learners) Statement and the flexibility it provides to meet learner needs?
- How are the skills frameworks and PSE framework used to ensure that priorities are addressed across the curriculum?
- Does the curriculum recognise the value of the *process* of learning as well as the *product*?
- Is social interaction valued and is maximum benefit gained from time used for personal routines, lunchtimes, etc.?
- Is the curriculum providing a coherent experience for our learners?
- What strategies are in place to support consistent teacher assessment and ensure this informs further planning (assessment for learning)?
- How is the progress of each learner recognised and reported to parents?
- What data are collected to monitor and evaluate the effectiveness of the curriculum and teaching/learning for our learners?

Schools should have regard for the concept of age appropriateness (for example, by ensuring that there is progression through the key stages in terms of curriculum, resources, activities and relationships). However, the priority is that learners' developmental needs are met so that they are empowered by developing skills for further learning. Table 1 sets out some ideas for planning progression for learners with complex needs.

For older learners, staff may wish to consider the use of wider contexts, including vocational and work-related experiences as contexts for learning. It is important, however, that an appropriate focus is retained on the needs of learners with PMLD .

Finally, schools must ensure that appropriate policies and practices are established to ensure the safety of both staff and learners. This may include child protection, manual handling, restraint and communication regarding medical information such as allergies and effects of medication.

Table 1 Planning for progression

Introducing new skills, knowledge, understanding and increasing the breadth of curriculum content
Creating opportunities to consolidate, maintain and generalise skills/concepts
Providing greater opportunities for creativity/experiential learning and experience of a wider range of teaching/learning styles and methods
Increasing learner participation in the learning process by including opportunities for control over the environment
Extending learning contexts to include more age appropriate situations, wider range of people and environments
Providing opportunities to practise skills and apply knowledge in practical situations with increasing independence, in preparation for adulthood

Planning appropriate outcomes

To develop an effective programme of work for learners with PMLD, teachers must first accurately identify the specific needs of each learner. The type of objectives set as a result of this process may vary depending on the area of work.

Teachers should avoid 'quick fixes' focusing on the most easily observable behaviours. Any skills achieved must be underpinned by real learning, which leads to a permanent change in behaviour. Breaking down a subject-based curriculum into lists of activities and experiences can lead to a fragmented approach: the skills, knowledge and understanding gained are not clearly identified and are consequently hard to reinforce across the curriculum. This makes learning doubly difficult for learners for whom generalisation is a problem anyway!

For some skills, a traditional behavioural objective may be appropriate (e.g. Jack will hit a switch to operate a toy on three consecutive occasions). This could be recorded by a simple tick indicating that Jack is able to hit the switch (but not necessarily with any underlying understanding!).

If understanding is to be assessed, a different kind of objective will be needed. It could be, for example, that Jack waits for the music to stop before pressing the switch again (showing understanding of the connection between pressing the switch and gaining the musical reward). Several incidences of this behaviour may be recorded to show understanding in different situations.

A short comment will be required to record any important information about the setting, staff or equipment. It may be useful to describe what happened, what strategies were used by the learner and whether any prompting or support was needed (and if so, of what type and level). This information may be important to inform future planning. Further information on recording is provided on page 43.

On occasions, more open-ended objectives may be appropriate – for example, when encouraging problem-solving or experiential activities. The learner's response to a given situation may be recorded (e.g. steps taken, what was achieved independently, techniques or strategies used, support needed, strategies to further develop problem-solving skills).

When success is achieved, it is important to maintain and further develop behaviours in a wider range of contexts and with different members of staff or different resources. Learners' responses may be specific to one situation initially and generalisation is an important learning outcome.

Hewett and Nind (1998) note that if we try to teach strictly to targets in a controlled and directed fashion 'we will probably not be providing the type of dynamic learning experiences which commonly produce the (desired) attainments.'

How does your school…

- organise its provision for learners with PMLD?
- justify and document the approaches used to ensure teaching is meaningful?
- select curriculum content to provide relevance, coherence and breadth?
- make best use of the trans-disciplinary team and contributions from parents and carers?
- include learners in decisions made about them?
- plan opportunities for progression across the curriculum?

4

A focus on learning

This section will provide an overview of:

- learning to learn at the earliest stages of development
- key principles for effective learning
- barriers to learning – sensory impairments, tactile defensiveness, stereotyped behaviours
- tactile development.

Learning to learn

Learners with PMLD working at the earliest stages of development are likely to move through the following basic learning processes:

- Habituation. This occurs when a regularly presented stimulus eventually fails to gain a response as the learner grows used to it. A small change in the stimulus will again trigger the response. This provides evidence of learning as the learner shows sensitivity to and memory of the properties of the stimulus (e.g. sound and movement patterns). It is useful to note how quickly the learner responds again – and how features of the stimulus were changed to recover their attention. (See clip 4 on DVD.)
- Early associative learning. This occurs when learners learn to anticipate a significant event through an earlier cue, which can be reliably associated with it. For example, the learner hears the dinner trolley and smacks his or her lips, looking forward to lunch. This again shows sensitivity to events and indicates the possibility of prediction developing at a later stage.
- Operant conditioning. This occurs when the consequences of an action alter the probability that it will be repeated. For example, a learner hits a toy, which plays a tune. This increases the likelihood of the learner hitting the toy again as he/she begins to make the link between the stimulus and the response. A learner may also stop an action to prevent a negative consequence – for example, touching a toy triggers a loud, frightening noise, so the learner doesn't touch it again.

If learners are observed closely during these learning processes, teachers will be able to gather evidence about the learners' level of awareness of events around them. The way learners respond can provide us with further knowledge and understanding about their memory, preference for different sensory stimuli, ability to associate cues with events, the ability to anticipate and predict and finally, the ability to influence events in their immediate environment.

Early responses may include 'stilling' (a momentary 'freeze'), a change in breathing pattern, tensing or relaxing, pupil dilation or eye movements, change in facial expression, vocalisation or movement of mouth, hands or feet. If learners are being filmed, staff need to ensure that these often small and barely perceptible responses are visible (see clip 1 on DVD).

As responses become more pronounced and more consistent and learners begin to act independently on their environment, greater accuracy should be expected, with learners having to refine their actions and become more specific in their intentions. (For example, it could be moving from an accidental swipe at a toy to a more focused aim. For an example of this behaviour, see clip 19 on DVD.)

It is important to establish:

- that a response is intentional and not reflexive, e.g. a startle
- that a response is directly linked to the stimulus and not a response to staff actions This is shown on clip 1 on the DVD where Megan possibly responds to the movement of the member of staff, rather than the fibre optics
- exactly what qualities of the stimulus lead the learner to respond.

It is essential to involve the learners and follow their lead. Any preference (e.g. for a certain type of music) expressed by the learner should be incorporated into the programme. It is equally important to notice and respond to behaviour that may signal rejection or the learner's wish to stop an activity (see clip 11 on DVD).

Haring *et al.* (1981) described the following hierarchy of skill development:

- Acquisition – in which learners learn correct new responses through demonstration, modelling or physical prompting with an emphasis on developing accuracy. At this stage learners need a great deal of support.
- Fluency – in which learners, through repeated doing, reach a level of mastery combining speed and accuracy. The action still takes time to complete.
- Maintenance – in which learners consolidate and maintain a high level of competency and fluency over time by over learning through repetition and familiarity. They will remember how to do the task after a break.
- Generalisation – in which learners develop and achieve mastery in different settings or contexts, with different stimuli or materials or with different staff.

- Application or adaptation – in which learners recognise similarities and differences between key elements of new situations and select appropriate responses, adapting their established skills and understandings to new problem-solving opportunities.

The application of skills developed and consolidated in this way in different situations can support problem-solving and self-directed learning. Moreover, learners must be given carefully planned opportunities to move through this sequence with each new skill, without losing spontaneity and creativity.

Some key principles for effective learning

Recent work in the neurosciences (Blakemore and Frith 2000, OECD 2002, Smith 2002, Hannaford 2002) has provided us with a clearer insight into how all children learn. The following principles will underpin any successful learning for learners with complex needs.

Learners who are under stress will not learn effectively due to the 'fight/flight' response.

Learners need to feel secure with the people around them. They must feel safe and be positioned comfortably. The learners' immediate surroundings must be considered to ensure that they are not overloaded with too many stimuli at any one time. Physical factors (e.g. thirst, hunger, fatigue) and factors affecting emotional state (e.g. attending respite care) should also be recognised so that learners are emotionally and physically ready to learn. The work of Abraham Maslow (1970) is relevant here and further details are provided in Appendix 2.

Learners' receptiveness to stimulation may depend, at least in part, on their bio-behavioural state. The term 'bio-behavioural state' refers to the level of arousal of the central nervous system. The Carolina Record of Individual Behaviour (Simeonsson, Huntington, Short and Ware 1988) defines nine levels of arousal:

1. Deep sleep
2. Quiet sleep
3. Active sleep
4. Drowsy
5. Quiet awake
6. Active awake
7. Fussy awake
8. Mild agitation
9. Uncontrollable agitation

The best times for learning are during quiet and active alert states. At times of very high or very low arousal, learning will not be effective. Internal factors such as hunger, tiredness, discomfort and state of health have an impact on the level of arousal, as do external factors such as noise, light, temperature and movement. Learners may be calmed by rocking and warmth and aroused by strong stimuli such as cool temperatures and fast movement. It is important to try to give learners strategies for regulating their own state – for example, bringing their hands into their mid-line or changing position.

Learners' ability to attend and learn may also differ with the time of day due to biorhythms. Levels of hormones, such as cortisol and adrenalin vary throughout the day and affect learners' states of alertness. Blood sugar levels may also have an effect.

For some tube-fed learners, it may be necessary to select optimum times for learning around feeding routines. Other learners may have epilepsy and be on medication for this or other conditions with side-effects such as drowsiness or mood swings. Over time, staff will begin to take all these factors into account in order to recognise and capitalise on the best times for working with each learner.

The brain needs a high level of sensory stimulation.

For learners with PMLD, the level of stimulation will need to be more carefully controlled than for other learners. Some may find difficulty in responding to stimuli through competing sensory channels. For example, a learner may be unable to carry out a tactile search while listening to the teacher talking. In the early stages of development, it may be appropriate to limit input to one sense only.

Seven major types of sensory input to the brain have been identified. In addition to auditory, visual, tactile (touch), olfactory (smell) and gustatory (taste), Rosen (1997) adds the vestibular sense (a sense of balance, speed and direction) and the proprioceptive sense (a sense of the position of the body in space). (Proprioception and kinesthesia are often used interchangeably. Kinaesthesia describes how we sense the position of our body when moving through space or the movement of individual body parts in relation to one another. Proprioception describes the sensations received by proprioceptors within the body – in the muscles, tendons, joints, inner ear – which inform us about the movement of our body and relative position of individual body parts.)

Brown, McLinden and Porter (1998) also include sensory input to the homeostatic system. The homeostatic system relates to the maintenance of internal equilibrium within the body – for example, regulation of body temperature – but it also has a role in maintaining a stable state when, for example, we are stressed, or even under-stimulated.

Stimuli to any of these senses should be carefully selected according to purpose. Orelove and Sobsey (1996) divide stimuli into 'alerting' stimuli, which raise levels of arousal (but risk fear/anxiety), and 'discriminating stimuli', which prepare learners to notice similarities and differences. For further information, see Appendix 3.

To avoid 'overload', staff should use simple communication strategies at the appropriate level (see page 29). Environments such as light and dark rooms should be used with care and with a clear focus on the purpose and complexity of activities. Care is also needed in the use of equipment to encourage interaction with the environment, such as little rooms and resonance boards. The work of Lili Nielsen will be of particular interest here and further information is given in Appendix 4.

Input needs to be carefully structured and linked to prior learning and experience.

Learners must be helped to build the concepts that are fundamental to early learning (shown in orange boxes on the Routemap). The following are of particular importance:

- Contingency Responding – the learner realises that performing a particular action causes an effect but has not yet made the 1:1 association (i.e. one switch press = one response).
- Contingency Awareness – the learner knows that one action will cause one particular response to happen.

In order to achieve contingency awareness, learners need something that they find rewarding, an action that they can perform and an ability to repeat this action while they can still remember the effect it had on the previous occasion. At this stage, the learner's memory is likely to be shorter than seven seconds and staff should take this into account in their planning.

When contingency awareness has been achieved, as stated above, the learner will associate a particular action (e.g. switch press) with a single reward. A learner hitting the switch more frequently in an attempt to gain more responses/rewards (and continuing to hit the switch while the reward is still operating), is probably demonstrating contingency responding and NOT contingency awareness. These behaviours are clearly shown on the DVD (see clips 23 and 26). For learners who have achieved contingency responding and who hit a switch frequently (with a physical action that they find relatively easy), the development of contingency awareness may be helped by using a switch that is harder to operate. This slows down the rate of responding and increases the effort or cost involved.

A further key concept is that of object permanence, where the learner knows that an object continues to exist even when it is out of sight. The learner carries a picture of the object 'in his/her head' and will search for the object when it disappears from view (see DVD clips 10, 20, 34). Appendix 5 provides further information to support the development of object permanence.

When introducing new areas of learning, experiences should be carefully planned to build on those that are familiar to the learner. The various aspects of the learning experience can then be gradually and systematically changed or extended.

Learning should be multi-sensory.

The role of movement in learning is increasingly being recognised and staff should explore (with physiotherapists) how careful positioning and movement may be used to enhance learning in the classroom.

Learners should be carefully assessed to find out their preferred or dominant sensory channel. Colour preferences, contrast, light, favourite sounds or 'feels' can then be used to full effect. Some learners may be 'tactile defensive' and will withdraw from touching objects (see page 23). Stimuli may be applied to other parts of body, such as the feet, and learners given opportunities to gradually tolerate contact with a range of materials. To help learners discriminate, stimuli will need to be made more salient (obvious), increasing differences between them. Ware (2003) suggests ways of providing a more responsive environment for learners with PMLD. As these learners are often slow to respond to stimuli, the parents, carers and staff need to allow adequate 'waiting time'. If such time has not been provided, the learner may have missed some of the experiences that foster early development.

Learners need immediate and consistent feedback on their responses.

Many learners with complex needs will have had limited feedback from their activities and may be in a state of 'learned helplessness' arising from their lack of control over their lives. This in turn may lead to the development of stereotyped behaviours (see page 24). Suggestions for teaching, which include ways of sharing information with the learner, are included in the assessment booklet. Such strategies may include using structure and cues to help prediction of regular events, providing opportunities for negative responses or a choice of whether to stop an activity. It is essential that responses which may signal rejection are responded to appropriately (see clip 11 on DVD).

The lack of mobility and sensory input for some learners will have restricted their experience of everyday objects and environments. Such experience must be built up systematically through all available senses. If ICT is used, staff should tailor the reward time to the needs of each learner (see clip 42 on DVD).

Some early reflexes may still be present even in older learners.

Reflexes such as the asymmetric tonic neck reflex, moro or startle reflex may be present. Reflexes for sucking and swallowing may be affected in some learners, leading to feeding difficulties. Different approaches may be necessary to take account of these reflexes; specialist advice should be taken from physiotherapists, parents, carers and others with close knowledge of the child. Learners will learn best when the inputs from the trans-disciplinary team, parents and carers are co-ordinated to ensure a cohesive synthesis between education, therapy and care to meet their individual needs. Further information on these early reflexes is given in Appendix 6 and clip 12 on the DVD.

Transfer or generalisation of skills often requires specific attention.

Skills taught in one setting or context or by a particular member of staff may not readily transfer to other settings or people. It may be necessary to re-teach a behaviour or skill in the same way in all settings, with various staff/resources to ensure that the learner will use the skill more widely. The ability to generalise skills will represent real progress for many learners with PMLD.

Attention should be paid to early affective, spiritual and emotional development.

Staff may notice learners responding to naturally occurring stimuli, such as sunlight shining onto the learner's face. Learners may show 'awe and wonder' or what has been described as a 'whole body smile'. It is not always possible to plan such responses – they occur unexpectedly – but they do show the importance of providing opportunities and time for exploration in a range of environments including natural environments.

Barriers to learning – sensory impairments

Visual and/or hearing impairments may sometimes be overlooked in learners who have very complex needs. Specialist assessment and advice should be sought if it is suspected that a learner has a sensory impairment.

Some conditions may cause learners' vision or hearing to fluctuate and learners may also not respond if environmental conditions, such as lighting and noise levels, are unsuitable. Learners may not respond to visual or auditory stimuli if they are given too much stimulation or too many competing demands are made on them. For example, if a learner's balance is poor, he/she may not be able to respond to a stimulus while being required to stand without appropriate support. Staff will also need to ensure that, before being asked to look or listen, the learner is in an appropriate state to attend (i.e. quiet/active alert) and not engaged in stereotyped behaviour or engrossed in another activity.

Some learners with complex needs may initially present as blind or deaf but will have some residual vision or hearing. They will need to be taught to use their senses and experiences should be planned to support their sensory development. Learners may at first only appear to recognise familiar or relevant sights and sounds, and they will move through a sequence similar to the one below in relation to each new experience.

With regard to auditory stimuli, Gleason (1984) outlined six levels of responses:

- Awareness – the learner gives an unintentional or reflex response.
- Attention – the learner gives a voluntary response such as stilling or vocalising showing an awareness that something is happening. This response may be fleeting or inconsistent.
- Localisation – the learner identifies where a sound comes from. Responses become increasingly consistent.
- Discrimination – the learner knows if sounds are the same or different, e.g. he/she may smile to a favourite song.
- Recognition – e.g. of own name – the learner remembers sound and meaning.
- Comprehension – the learner recognises sound and related meaning, e.g. looking at coat when he/she hears a car outside.

Learners with a cortical visual impairment may need to adopt unusual head positions to make best use of their vision and may have difficulties such as distinguishing objects from background, judging depth and distance. (Further information is given in Appendix 7.)

Learners with VI may smile later and may be later to develop shared attention (see page 29). Object permanence (i.e. the realisation that an object continues to exist, even when it is out of sight/reach) may also take longer to develop and it is important that staff provide relevant experiences – e.g. tactile searching on a tray – to encourage this development but do not worry unduly and move onto other relevant areas if this skill does not develop. Sense of self may also develop later in learners who have VI or MSI.

Vision is used to integrate and help make sense of information gained through other senses. Learners with poor vision therefore experience an additional barrier to learning and will need to be given alternative strategies to help them to organise and use incoming information from all their senses. The development of purposeful hand movements for learners with VI is crucial and activities need to contain possibilities for development in this area (see tactile development below).

The following points may help staff to meet the needs of this group of learners.

- Learners must be positioned appropriately to enable them to access equipment and maximise their use of vision and hearing to communicate with others and explore their environment.
- Properties of sensory stimuli need careful consideration. These can be visual (such as colour, contrast, brightness of light, pattern) or auditory (intensity, volume, pitch/frequency, tone). In both cases the pattern of presentation of the stimulus, as well as the duration, cueing and method of presentation, can be varied to prompt or change a learner's response.
- Work should normally take place in a quiet room, free from distractions. Consider lighting level, reflection or glare, background noise, acoustics, visual clutter and familiarity with, and actions of, staff present.
- Responses may be affected by levels of arousal, biobehavioural state (see page 17) or effects of medication. Learners hearing may fluctuate due to infections, etc.

Tactile defensiveness/tactile selectiveness

Some learners with PMLD, in particular those with sensory impairments may be 'tactile defensive'. Selective touch may be due to hypersensitive skin or to poor tactile discrimination or tactile defensiveness. Learners who are tactile defensive may avoid touch or experience aversive responses to some textures or stimuli. The stages outlined on page 24 may be used as a basis for moving a learner on from resistance to tolerance. It is important to note that even when a learner tolerates a stimulus this does not mean that he/she will be able to use this new source of information.

Stereotyped behaviours

Stereotyped behaviours or repetitive gestures should be closely observed to try to find out the purpose that they serve. They may have originally been communicative or exploratory but they may have become habitual. Stereotyped behaviours may be used to block out confusing stimuli and may provide clues to the learner's emotional state. Lee and MacWilliam (2002) suggest that when children start to use these gestures to communicate, there is less likelihood of them becoming obsessive or ritualistic as they will have acquired meaning.

These behaviours may be extended and linked to similar movements or objects. For example, for a learner who waves his hands to get a visual effect from bright light, a spinning toy may be attractive; for a learner who rocks, a swing may provide similar sensory feedback. Stereotyped movements can be used as the basis for interaction as adults can join in with the movement or use the rhythm to interact by tapping the learner or using musical instruments.

Tactile development

In normally developing infants, close senses (i.e. senses through which information is gained through close contact – touch and movement) appear to be more developed at an early stage than distance senses (i.e. visual and auditory where information is gained from less direct contact). This clearly has implications for organising the learning of those working at this very early stage of development. Generally, inputs through the near senses – i.e. tactile (touch), olfactory (smell), gustatory (taste), the vestibular sense (a sense of balance, speed, direction) and the proprioceptive sense (a sense of the position of the body in space) – will meet with a higher level of success. However, some learners may respond to a visual or auditory stimulus in preference to tactile one and all senses may not necessarily be used.

Stages for tactile development were outlined by Aitkens and Buultjens (1992). These are similar to those outlined for auditory attention on page 22 and also the stages outlined by Brown (1996), discussed on page 41. These are as follows:

- awareness (getting a reaction)
- attending (overcoming tactile defensiveness, exploring by hand/mouth)
- localising (finding/retrieving by touch)
- recognising (familiar people/objects)
- understanding (using touch for greater understanding of/appropriate use of objects).

With regard to the tactile sense, touch may be divided into two areas:

- haptic perception – direct touching via hands
- tactile perception – whole body receiving information through touch (e.g. mouthing, skin-sensitivity to temperature, pressure, pain, etc.).

These terms are often used interchangeably.

Touch may also be passive (not involving independent exploration) or active (active manipulative use of skin/other receptors). Although static touch may provide information about characteristics of objects such as temperature, texture and movement, active touch is usually necessary to gain detailed information. Mouthing is also an important means of early exploration.

McLinden and McCall (2002) outline the following exploratory procedures and the sensory information acquired through them:

Lateral motion (rubbing finger across surface of object)	Texture
Pressure (squeezing, poking)	Hardness
Static contact (fingers resting on surface)	Temperature
Enclosure (holding/grasping)	Shape/size/volume
Unsupported holding (holding in hand)	Weight
Contour following (tracing along contours of object)	Global shape, exact shape

Table 2 Exploratory procedures and acquired sensory information

(Reprinted from McLinden, M., McCall, S. (2002) *Learning Through Touch – Supporting Children with Visual Impairment and Additional Difficulties.* London: David Fulton.)

It is important to try to assess what object properties are being perceived by learners as they explore. This information will help to build a picture of learner preferences and may give some insight into future teaching methods. The main stages of development of manual behaviour for normally developing infants, together with some practical suggestions for developing the tactile sense, are provided in Appendix 8.

Learners with a visual impairment may find it hard to integrate and co-ordinate information gained through other senses. If they are to gather useful information about their environment, sensory information must be carefully structured. To help staff provide such structure, it may be useful to refer to the five stages of expanding space described by Best (1992): see Appendix 9. These support the need to move outwards, from activities based close to the learner to those taking place in a wider area and involving others.

Care is needed in selecting strategies to support learning through touch. Bridgett (1999) notes that there is a fine line between establishing awareness of the environment and 'coercively manipulating a child through an experience they may be unable to assimilate'. A preferable strategy may be that of hand-under-hand guidance. Here, the adult may rest a hand underneath the learner's and wait for the child to interact. Alternatively the learner's hand may be placed on top of the adults while he/she grasps an object, rotating the hand so the child is gradually introduced to the shape of the object. The adult's hand is gradually withdrawn until the child's fingers touch the object.

The following stages of physical guidance are derived from the work of McInnes and Treffry (1982).

- Coactive – moving through resistance to tolerance and passive co-operation. The adult works coactively behind the learner to hold or begin to manipulate an object.
- Co-operative – the adult works behind the learner to hold and manipulate features of an object, and may move to the front of the learner when he/she begins to respond co-operatively and finally begins to lead.
- Reactive – the learner imitates then initiates. The adult works reactively in front of the learner, who begins to independently locate, grasp and manipulate an object.

However touch is used it must be consistent, as different types of touch can have many meanings (e.g. reassurance, feedback, prevention of action) and could easily cause confusion for learners at an early stage of development.

How does your school...

- take account of the principles of effective learning?
- ensure opportunities for 'learning to learn' across the curriculum?
- meet the needs of learners with sensory impairments?

The communication process

'Communication is a dynamic process not a static situation so we should never "arrive" at a definitive programme for a child.'

(Brown, D. in Wyman 1996)

This section will provide an overview of:

- the development of early communication skills
- the importance of sensitive and consistent interaction with learners
- the use of objects of reference.

In the earliest stages of communication, Rowland (1996) suggests that there are four basic reasons for communicating with other people. These are:

1. to refuse things we do not want
2. to obtain things we do want
3. to engage in social interactions (positive/negative)
4. to provide or seek information.

As learners develop, they begin to express themselves in more conventional ways but early communication will include non-speech vocalisations, facial expressions, eye gaze, gestures, whole body or body part movement. Later, some learners may move on to use symbols including spoken words, manual signs or three-dimensional symbols or objects of reference.

The main stages in the development of communication skills are shown in Table 3. Although it is unlikely that learners with PMLD will achieve abstract symbols and language, these have been included to illustrate the possible progression.

Table 3 Main stages in the development of communication skills

(Adapted from Rowland, C. (1996) *Communication Matrix*. Portland, Oregon: Oregon Health Sciences University.)

Stage	Description	Possible interpretation
Pre-intentional behaviours	Learners show only involuntary/reflexive responses to internal or external stimuli usually associated with well-being, e.g. pain, hunger. These must be responded to and given meaning. (See clip 1 on DVD)	May be interpreted as expressing comfort or discomfort or showing interest in people
Voluntary behaviours (not yet intentional)	Although these behaviours are voluntary, they are not intentionally communicative, as learners do not yet realise they can control the behaviour of others. Parents/carers interpret these behaviours as communicating something. (See clip 2 on DVD)	May be interpreted as protesting, wanting to continue an action, to obtain more or to attract attention
Unconventional communication	Here, learners communicate intentionally but in unconventional ways, e.g. body movement. They realise that other people can be used to obtain something they want (proto-imperative). (See clips 11, 13, 15, 22, 28, 32 on DVD)	May communicate refusal/rejection, a request for more of an action/object, a request for a new action/object, a request for attention or showing affection
Conventional communication	Learners use pre-symbolic behaviours to communicate intentionally, e.g. gesture, vocalization. The learner 'acts on' both people and objects at the same time, e.g. gazing at someone and pointing to an object of interest to share their experience (proto-declarative). Learners without sight may not develop this shared attention. (See clips 33, 37, 39, 40 on DVD)	In addition to above may communicate: greeting others, offering/sharing, directing others' attention, using polite forms, confirming/negating information or asking questions

Concrete symbols	At this level, learners begin to use concrete symbols to represent objects/people. Such symbols may be objects of reference, pictures or actions/gestures. There must be a clear 1:1 relationship to the original object, i.e. symbol must resemble the original in terms of appearance, feel, sound or action made	In addition to above learners may request objects not present, label people/objects
Abstract symbols	Abstract symbols (e.g. speech, manual signs, Brailled or printed words, abstract graphic symbols or 3D abstract symbols) are used one at a time. They may also include proto words – the learners' own consistent pattern of sounds to stand for an object, person or event (e.g. 'nonny' for milk) (See clip 41 on DVD)	
Language	Here 2 or 3 abstract symbols may be combined and learners begin to use grammatical rules	

Coupe O'Kane and Goldbart (1998) state that during pre-intentional communication, the learner's development progresses through three levels:

- Reflexive level – the communication partner assigns social significance to a small range of very early behaviours, sounds and reflexes which occur in response to a limited range of internal and external stimuli through all available sensory channels.
- Reactive level – the communication partner assigns social significance to reactive behaviours which are produced in response to a wide range of stimuli through all available sensory channels.
- Proactive behaviour – the communication partner recognises behaviours as signals and assigns communicative intent and meaning, becoming increasingly selective about behaviours to which they respond, shaping intentional communication.

Figure 2 illustrates the 'gradual shift' from concrete to abstract. However it is likely that most learners with PMLD will always use 'concrete' methods of communication.

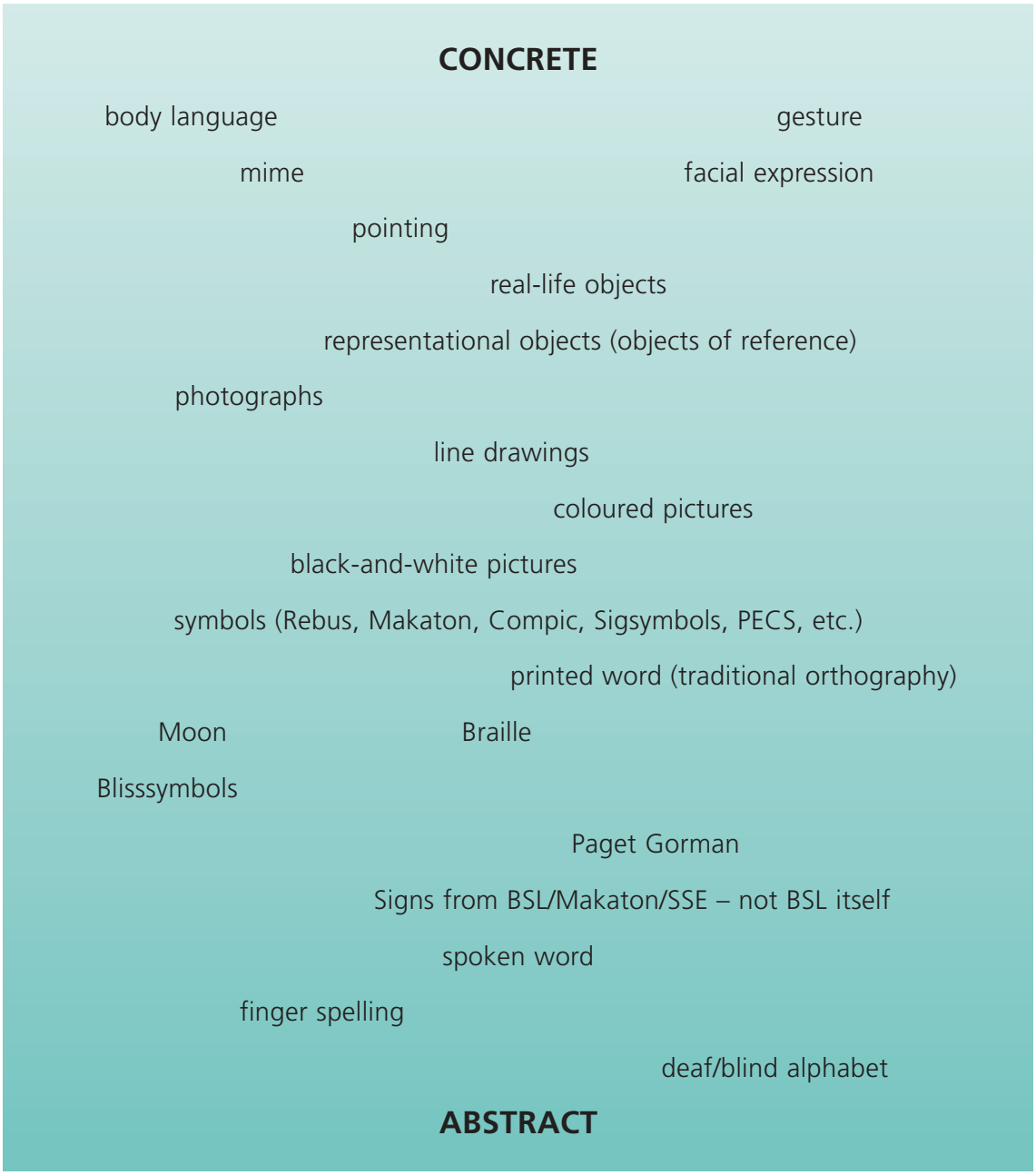


Figure 2 The 'gradual shift' from concrete to abstract

(Reprinted from Park, K. (1997) in Craft, C. and Downs, C. (eds) *Sex in Context: strategies and safeguards relating to the sexuality of children and adults with profound and multiple impairmments*. Brighton: Pavilion Publishing.)

Whatever means of communication is used, the essential elements are:

- contingency awareness (where the learner gains a sense of control and an awareness of their own ability to affect the environment – see page 19)
- a means of communication
- something to communicate about
- a belief that the communication will gain a response.

At all stages staff must respond to the learner's behaviours as if they were a communicative signal. Responding to needs and requests is vital to the learner's developing communication and must not be seen as 'spoiling' or 'giving in to' the learner. It is important that learners be given time and space to communicate within a consistent routine and that staff respond and give meaning to pre-intentional sounds/movements. Everyday and care routines can be used as opportunities to develop communication if staff appreciate the need to pause and follow up any attempt by the learner to 'fill the gap'. Routines can give security and some degree of control but the learner must not develop 'learned passivity' and must be given the time and opportunity to repair interactions when these have been interrupted.

As learners develop a wider range of responses, so staff should become more selective about the behaviours they respond to thereby shaping communication about objects/people present nearby.

Coupe O'Kane and Goldbart (1998) suggest the following seven aspects of interaction between learners and communication partners.

1. Vocalisation – communication partner responds to the learners' vocalisations by saying their name, singing, whispering, etc.
2. Facial expression – communication partner reacts to the learner's facial expressions, initiating smiling, frowning, etc., and looking for learner responses.
3. Body proximity – communication partner gets close, with face near to the learner so they are able to pick up on the learners body tone, etc., (see clips 1 and 2 on DVD). Sensitivity needed about personal space with some learners.
4. Eye contact/orientation of visual regard – communication partner should consider when starting an interaction or introducing an object to the learner whether their position is appropriate to help eye contact and joint regard of object.
5. Physical contact – communication partner needs to take into account likes/dislikes.

6. Imitation – communication partner imitates the learner's actions/sounds back to them.
7. Turn-taking – communication partner allows the learner time to respond and then provides feedback.

Further information about interaction is given by Nind and Hewitt (1994), who suggest that communication partners can:

- touch, rock or hold the learner
- share control of the activity with the learner
- allow themselves to be controlled by the learner
- use visual regard, mutual gaze, vocalisations
- exaggerate facial expressions
- use motherese – slower, simpler speech
- verbalise in short bursts, leaving gaps for the learner to respond
- use games and playful, ritualised routines
- synchronise tempo with the learner
- keep the learner's level of arousal and involvement within optimum limits
- respond to the learner, being sensitive to their signals and feedback
- adjust their input as the learner makes progress.

If a number of different people are in contact with a child, staff might use a personal identifier that is an integral part of themselves (e.g. long hair). Communication and handling strategies such as those suggested above, should be agreed to ensure a consistent approach. Communication Passports documenting a learner's responses and possible meanings can be useful in sharing this information with family and all staff working with the learner. This may also include individual 'meet and greet' routines which may be preferable to the use of standard 'Hello' songs with many learners. If learners do not yet recognise their name or own identifier, such a song will be the same in effect for everyone and will have little significance for individuals.

Home-school links will be of particular importance for any learners from minority ethnic groups for whom there may be additional cultural considerations when developing communication programmes and care routines. Schools should contact their local Ethnic Minority Achievement Service for support with additional language needs.

The link between early behaviours and events to which they may be a response is easy to miss in a busy classroom (Ware 2003), so it is necessary to carry out structured observations. Few published assessments provide enough detail at this early level of development, but the Affective Communication Assessment (Coupe *et al*.1988) can provide useful information to supplement that gathered from parents, carers and others who know the learner well (see Appendix 10).

Although for learners with PMLD many of the routes to social learning (e.g. modelling, verbal instruction) are limited by their sensory and physical disabilities, more is likely to be learnt by immersion in the communication process with sensitive communication partners than by 'training' provided on a set of visible behaviours.

Prompts or cues?

The terms cue and prompt are often used interchangeably. Goold and Hummell (1993) note that cues suggest a course of action to the learner while prompts are used to direct their actions.

Natural cues can be used to increase awareness and let the learner know an action or event is about to happen. Such cues might be auditory (e.g. rattling keys cueing car ride), gestural (e.g. arms out meaning 'Would you like to come up?'), olfactory (e.g. smelling Marmite for 'I'm putting this on your toast'), tactile (e.g. placing spoon to mouth for 'dinner is here'), visual (e.g. swimming costume for 'Let's go swimming'), routine cue (following set timetable with object/pictures) or verbal (speech/intonation suggesting a course of action). Many cues can be usefully paired with key words (e.g. 'lunchtime') to give specific signals to help attention, recognition and understanding.

With all cues, care must be taken to ensure that the means of communication is in line with the learner's cognitive development – for example, pictures and symbols may be meaningless to a child not yet at a symbolic level of understanding. For learners with PMLD – particularly if they also have a visual impairment – co-active signs may be used. Here, the communication partner physically guides the learners hand to produce a sign. This is used in the early stages of signing or when learners have little independent hand movement. An example of this practice can be seen on the *Routes for Learning* DVD (see clip 22). Again, this practice must have a clear purpose and be meaningful to the learner.

Objects of reference

Objects of reference (objects which stand for activities, places, people, etc.) can bridge the gap between non-symbolic and symbolic communication as they place lower demands on cognitive abilities, memory and visual skills. To use objects of reference in their purest form requires symbolic understanding and learners need to be able to attach significance to an object other than its actual use (e.g. a cup stands for snack time). They also need object permanence and shared attention, ensuring a common understanding of objects.

Many learners with PMLD who have not attained symbolic understanding may use objects as 'experiential signifiers' rather than full objects of reference. This means that learners are given a means of understanding and anticipating events such as a piece of towel to signal that they are about to go swimming. An identical object will offer the highest level of 'concreteness' for learners who might not yet have the ability to associate one object for another (Rowland and Schweigert 1989). McClarty (1995) warns that any introduced objects of reference should support communication at every stage and not merely become window dressing in the classroom.

For learners with complex needs, life can be a fragmented series of experiences with little order. Without structure, learners may never develop anticipation and memory so it is essential to provide a simple, structured environment with ordered routines to which objects can refer. Once simple routines are established, the most appropriate object for a small number of activities can be chosen. Objects must be meaningful to each individual and will not therefore be standard for each child or in any one classroom.

Objects of reference should initially be objects used in an activity, e.g. spoon for mealtime. With consistent use over time, learners will become increasingly aware of the connection between object and activity (for example, smacking lips when shown spoon immediately prior to meal). At this stage, the object may be distanced very slightly from the activity and signs of anticipation observed.

For learners with visual impairment, staff need to consider object size, positioning and the learners' means of access. In other words, they should determine which visual, auditory, olfactory qualities are needed to make the object a useful means of communication for the learner. As learners become familiar with objects of reference telling them what is about to happen, they may begin to use them expressively (e.g. to choose a drink).

McClarty (1995) stresses the importance of staff gaining information on the theoretical basis of this methodology and using this to develop a meaningful approach in the context of their own classroom.

How does your school…

- raise staff awareness of the communication process?
- cater for pupils from minority ethnic groups, ensuring cultural considerations are respected?

6

Assessment for learning

'Assessment for learning is the process of seeking and interpreting evidence for use by learners and their teachers to decide where they are in their learning, where they need to go and how best to get there.'

(Assessment Reform Group 2002)

This section will provide:

- information on assessment FOR learning and assessment OF learning and the relationship between them
- a discussion of key issues to be considered when assessing learners with PMLD
- a wider definition of progress for learners with PMLD.

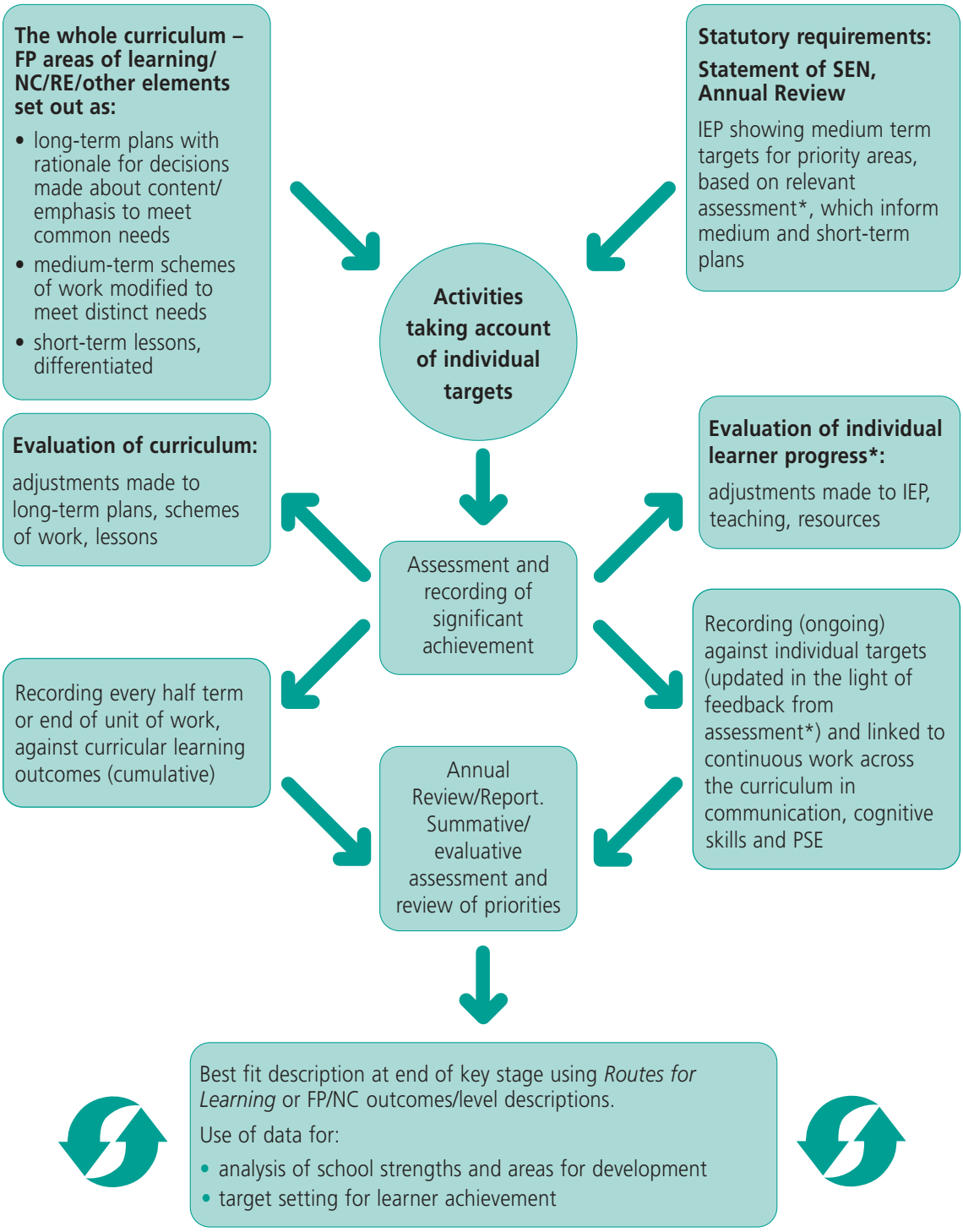
The *Routes for Learning* assessment is designed to enhance learning by helping staff to gather information which will enable them to move each learner through a developmental pattern which makes sense for them. Assessment will not be a 'one-off' event and staff are encouraged to observe learners over time, in different situations and to see multiple samples of each child's abilities. Assessment should be seen as an integral part of an interactive learning process.

Learners should be involved in their learning. They should be provided with opportunities for choice and will need motivating experiences to enhance their self-esteem, support increasing independence and empower them to take some control over their lives.

The diagram (Figure 3) shows how the statutory requirements for meeting the needs of learners with a Statement of SEN can be brought together with statutory curriculum requirements to ensure a child-centred approach with assessment for learning at its heart.

The assessment materials and related guidance will support teachers to identify precisely 'where the child is'. This will enable staff to plan activities which focus on the child's priority needs (in communication, social interaction and cognitive skills) at the appropriate level of development and ensure that the gap between where the child is and the proposed learning is not too wide.

The materials will support close observation and will enable teachers to gain a greater understanding of the learning process outlined above. As the quality of information gathered by the teacher improves, so will the planning for future learning. Consequently, the learner should make better progress. This is 'assessment for learning' in action.



This diagram shows opportunities to use the Routemap (marked *) to gain assessment information. This information can be used to enhance learning for individual learners both directly (assessment for learning), and more indirectly (assessment of learning), the outcomes of which may be used to improve the provision made by the school.

Figure 3 Using assessment information

The feedback from activities on the right-hand side of the figure will support the monitoring and evaluation of individual progress and enable staff to make any necessary adjustments to the teaching and resources used, as well as appropriateness of individual plans. The left-hand side shows how information may be used to evaluate the curriculum and its relevance to the target group.

Although the *Routes for Learning* materials emphasise on-going, formative assessment (assessment FOR learning), data could be used as a basis for a summative judgement (assessment OF learning). If there is agreement that ALL learners must 'pass through' the orange boxes on the Routemap (i.e. the fundamental building blocks of early learning) regardless of which route they follow, these key behaviours could form the basis of summative descriptors. These descriptors, in turn, could be used to demonstrate school effectiveness. (Further information on formative and summative assessment can be found in *A Focus on Achievement*, published by ACCAC in 2002.)

The difficulties associated with hierarchical or small steps assessments for learners with PMLD have been discussed. When such data are used for summative purposes, the reliability and validity become more questionable, if the small steps are not derived from relevant targets at an appropriate developmental level. The Routemap should address this problem at least in part: the focus is on significant developmental milestones rather than contrived and possibly inappropriate or tokenistic subject-lead targets. This aspect will be investigated further as part of the Review of the National Curriculum and Assessment Arrangements.

Assessment focus

The *Routes for Learning* assessment materials cover the key learning priorities for learners with PMLD (i.e. communication and social interaction and early cognitive development).

For learners working at the very early levels of development, dividing learning into subjects can be problematic and a more holistic approach is needed. As part of the on-going assessment process, developmentally appropriate targets can be set including the basic learning skills and essential cross-curricular skills discussed above (for example, communication, early cognitive development, PSE).

The areas of learning/National Curriculum subjects can be used as vehicles to achieve these targets in the context of a broad and balanced curriculum, appropriate to the setting in which learners are being taught. (See section on curriculum page 10.)
The key focus must be on essential skills for learning rather than on 'working towards' subject-related targets which may not be priorities for the individuals concerned. Targets should be regularly reviewed and changed if they are no longer relevant to the learner or if the learner is making no progress.

QCA (2001) published a framework for recognising attainment based on earlier work by Brown (1996) and Byers (1996) and on work published by ACCAC (1999). This framework of attainment represents a continuum of possibility in which learners may move around from day to day and from experience to experience. This sequence or continuum (shown in Table 4) is developmental, but many learners with PMLD may show awareness of/begin to respond to stimuli as these become familiar to them but may not continue to progress further in the short term. Presented with a new experience they may revert to 'encounter', being reluctant or unable to engage. Over time, learners may show increasingly consistent responses and begin to generalise these to a wider range of situations, although fluctuations in performance are likely to continue. This is similar to the sequence described with reference to sensory development on pages 22 and 24.

This explains at least in part why it is difficult to apply a hierarchical assessment to this group of learners whose responses are often idiosyncratic and 'patchy', varying widely from day to day and in different contexts. Judgements made about the achievement of a single small step within a sequence could therefore be misleading, but difficulties may also arise when making best-fit judgements. In this situation, the learner may show some characteristics of performance on several different levels, which vary widely with different times and in different situations.

Wolf-Schein (1998) states: 'It is important that individuals working with children who are severely disabled are given tools that enable them to address the relevant features of the child's behaviour without trying to fit the behaviour into a pre-existing assessment tool that was not developed for, or related to the behaviour of someone with very special problems, i.e. unique abilities and patterns of growth.'

Intended learning outcome	Assessment opportunities
Encounter	Learners are present during an activity
Awareness	Learners appear to show awareness that something has happened and notice, or they fleetingly focus on an object/person
Attention and response	Learners attend and begin to respond to what is happening, often inconsistently. They begin to distinguish between people, objects, events, places
Engagement	Learners show more consistent attention to and can tell the difference between specific events, objects, people, etc.
Participation	Learners begin to share, take turns and anticipate familiar sequences of events (possibly with support)
Involvement	Learners reach out, join in, 'comment' on activity and actions/responses of others

Table 4 Intended learning outcomes and assessment opportunities

It is important that schools discuss and clarify their understanding of the terms used in Table 4 above and recognise the flexibility required when such a model is applied to learners with PMLD. Building on this, staff may find it helpful to agree and document their wider view of progress for learners with PMLD. The points below may support these discussions.

For learners with PMLD, progress may:

- be shown through increased awareness and a greater range of responses leading to a higher level of engagement and participation (see Table 4)
- be shown by a move from use of near senses (tactile, proprioceptive, olfactory) and learning through sensation and movement to increasing use of more distance senses – visual, auditory
- be shown by movement through the communication continuum: from concrete modes (body language and use of real objects) towards more abstract – pictures, symbols, print, signs and spoken word (see Figure 2)

- be shown by movement through the interactive sequence – from resisting contact with others to tolerance, passive cooperation and supported involvement to enjoying social interactions/experiences
- be shown through a reduced need for support – move from coactive involvement, physical guidance to gestural or verbal prompts towards natural cues and independence
- occur as learners extend their repertoire of learning positions (e.g. face to face, sitting, standing in frame)
- be shown by a reduced need for 'artificial' reinforcement as learners become motivated by naturally occurring events/consequences
- be shown when learners move from dependence on a secure/predictable routine to a greater degree of autonomy
- be shown by a reduction in frequency/severity of behaviour that inhibits learning and an increase in more appropriate behaviour which serves the same function
- occur as learners learn to cope with frustration, failure and new, challenging situations (e.g. extending to new ways of learning)
- follow the same pattern as for other learners but take longer
- take place when learners transfer learning between different contexts or combine/use skills in different ways
- be shown when learners demonstrate the same achievement on more then one occasion, refining skills in a range of circumstances, situations and settings
- be shown when learners decide not to respond.

The above points highlight that, far from being straightforward (i.e. in small steps following a pre-determined hierarchy), progress for this group of learners is complex and may move in a number of directions. The significance of progress in any of the above must be recognised and taken into account when planning future learning.

How does your school…

- assess key outcomes/IEP targets for learners with PMLD across the curriculum?
- ensure that assessment informs forward planning and the evaluation of individual programmes?
- use summative data to evaluate the effectiveness of the curriculum and teaching approaches and ensure they are responsive to learner needs?
- define progress for learners with PMLD?

Record keeping

This section will provide information to help staff review and streamline their record-keeping process.

Teachers should note significant new responses showing progress towards individual priorities and subject understanding in a concise and manageable format. A tick in a box, however, is unlikely to provide the necessary information about the learners' type and quality of response (which may be key for informing future plans).

Porter and Male (1997) note the following criteria for good practice in assessment and recording. An effective system will:

- be meaningful for learners
- provide a more objective account of achievement and progress than teacher impressions or intuition
- provide a snapshot that encapsulates achievement
- reflect the broad range of curricular experiences
- be easy to record and summarise
- be cost-effective in terms of time and resources
- provide ways of comparing current responses with past ones, thereby indicating progress
- incorporate information which is indicative of:
  - type and form of support needed by learner to indicate their attainments
  - learner's previous experience of a particular learning context
  - frequency and typicality of learners response
  - the learning style and strategies of each learner
  - optimum teaching approaches
  - possible range of responses shown at same time
- include relevant personal information such as learner interests and motivation
- enable moderation within and across schools and settings
- be able to be modified to take account of audience.

The questions below are summarised from those presented by Collis and Lacey (1996). They aim to support staff in re-evaluating the purposes of recording.

1. Should we record the way learners perform tasks rather than whether they can/cannot do them?

   A tick indicating that a skill has been acquired will miss out on information about the learning process which is needed to inform next steps in teaching. To keep recording succinct and focused, record sheets may be prepared with questions and prompts.

2. Should recording concentrate on the implications of learners' actions for wider tasks?

   Recording should not just focus on a series of steps related to a single task but should look at how this learning fits more holistically into the learners' development and its relevance to their whole life.

3. Should recording involve learners whenever possible?

   Record keeping should involve learners (parents/advocates) to ensure relevance and usefulness.

4. How objective should records aspire to be?

   Factual reports of behavioural responses may again miss important information (e.g. the mood of the learner). Although such records may be subjective, they are relevant and for this reason, subjectivity needs to be recognised and expected (e.g. gathering evidence across several occasions to support judgements).

5. Should what we record always be founded in evidence?

   As stated above, if only hard evidence relating to behaviour (i.e. 'what is seen or heard') is retained, important information that may help in planning next steps for the learner may be lost. Interactive evidence, such as that concerned with the quality of relationships, requires staff to make inferences and it may be difficult to provide hard evidence to support opinions.

6. If learning is contingent on quality of relationships with staff, shouldn't details of this be recorded?

   As relationships with staff are likely to affect learning, information recorded should include details of the staff working with the learner and their interpretation of the learner's responses.

7. How can records reflect what has happened in learners' thought processes?

   Problem-solving strategies would need to be verbalised/evidenced in some way. Records may also show what the learner has gained from using the wrong strategy to solve a problem.

8. Should records be as clear and concise as possible?

   Records should focus on what is really needed, bearing in mind the main purpose of recording.

9. How can we record and interact at the same time?

   It might be possible to designate one member of staff to record at certain times, to set part of a session aside to assess/record or to make time at the end of a session to spend with learners. Time might be made available with staff after teaching sessions or regular recording meetings planned. Forms can be designed to be easily completed and photos or video used. *Above all, recording must be manageable to be effective*.

How does your school...

- ensure that record keeping is focused and manageable?

Conclusion

Our learners are entitled to access a curriculum and assessment framework which is fit for purpose and meets their specific needs – there is little benefit or increase in entitlement if they are included in structures that fail to do this.

The *Routes for Learning* materials recognise that learners with PMLD have unique abilities and ways of learning. The materials provide a holistic assessment of the related areas of communication, social interaction and cognitive development and the underlying learning processes. A similarly holistic approach should be taken to planning the whole curriculum. Staff should increase opportunities for learners to practise their skills in real school and community activities as well as working to extend the skills that they have. This, as opposed to teaching of isolated skills, will encourage learners' active participation. Although some learners may never complete a task alone, they may begin actively to contribute to or continue a movement they have been helped to begin. Such shared participation is more likely to have a real impact on their lives than a 'piecemeal' approach to skill development.

In supporting the assessment of this group of learners, the *Routes for Learning* materials will also ensure that the diverse needs of ALL learners can be met within the inclusive assessment framework in Wales.

9

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Appendix 1

Who are learners with PMLD/complex needs?

This working definition of learners with profound and multiple learning difficulties was compiled by a General Teaching Council for Wales network group to guide their discussions and enable them to plan appropriate outcomes for the aspects of the PSE Framework. The dangers of labelling learners are recognised and flexibility is required to avoid limiting expectations.

Learners with PMLD will have a profound cognitive impairment/learning difficulty, leading to significant delay in reaching developmental milestones. Such learners will be operating overall at a very early developmental level and will display at least one or more of the following:

- significant motor impairments
- significant sensory impairments
- complex health care needs/dependence on technology.

The inter-relationship of these disabilities increases the complexity of need, in turn affecting all areas of learning.

Learners with PMLD will have a Statement of Special Educational Need and are likely to be working on the behaviours shown on the Routemap for most or all of their school life. Staff will almost certainly find it difficult to establish reliable and consistent methods of communicating with them. Moreover, owing to high levels of dependency for basic self-care (such as dressing, toileting and feeding), they are also likely to require extra resources in school such as:

- specialist staffing and substantial support
- adapted curriculum and Individual Educational Plans
- mobility aids and therapy programmes
- frequent assistance and medical support.

N.B. This definition does not include those whose difficulties are believed to result from ASD unless this is also combined with a profound level of general learning difficulties.

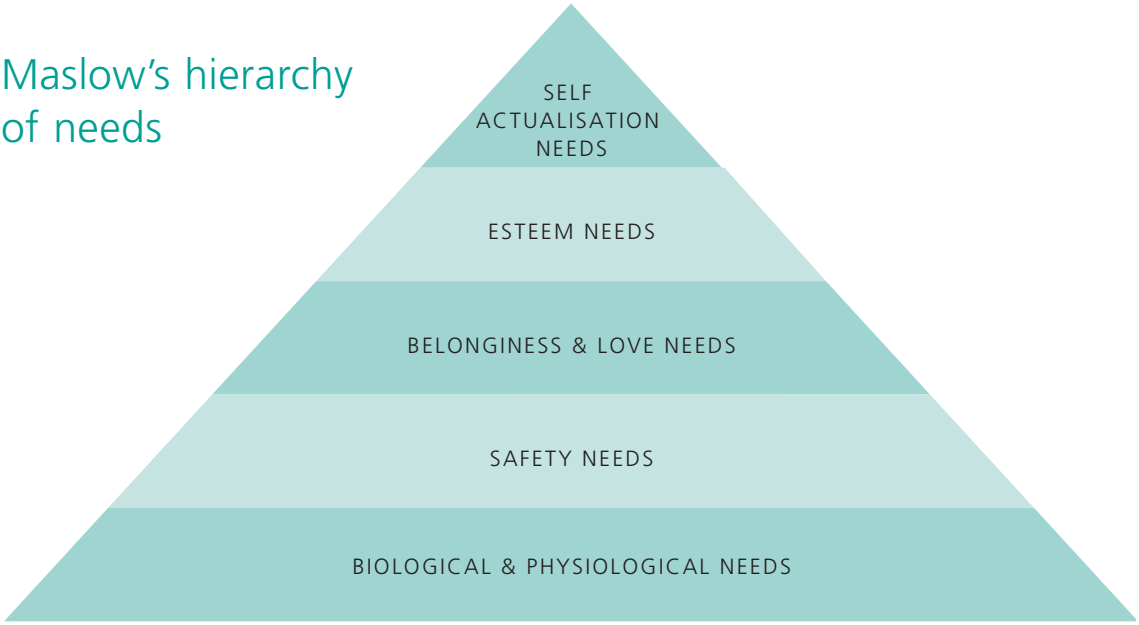
This definition draws on earlier work by:

Byers, R. (2000) 'Enhancing Quality of Life Project: Newsletter 1'. Cambridge University.

Julian, G. (2002) 'Curriculum and provision for pupils with profound and multiple learning difficulties in England, Wales and Ireland: a comparative study.' Unpublished Ph.D. thesis. School of Social Sciences, Cardiff University.

Appendix 2

Maslow's hierarchy of needs



Abraham Maslow (1970) established a hierarchy of needs, writing that human beings are motivated by unsatisfied needs, and that certain lower needs must be satisfied before higher needs can be addressed.

Physiological needs are the most basic needs of air, water, food, sleep, etc. If these are not satisfied we are unable to think about or do other things.

Safety needs relate to the need we all have for some stability and consistency in our world, e.g. security of home/family/work/routines.

On the next level is the need for love and belonging. We need to feel accepted by others.

Esteem needs can be divided into two types. Self-esteem comes from being competent in a task. Secondly there is the esteem, recognition and respect that comes from others.

Finally, self-actualisation is about maximising our potential.

The relevance of this to all learners is clear – learning is unlikely to take place while learners are pre occupied by unmet physiological needs or upset by a lack of stability, changes in routine, etc. For learners with PMLD, this highlights the importance of establishing a routine and enabling them to have some control over their otherwise chaotic environment. It is also essential that learners feel safe with staff and adults around them and have a sense of belonging to family/school groups and communities. Finally, all learners need to experience success and have this recognised and celebrated.

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Appendix 3

Alerting and discriminative descriptors of the sensory system

(Adapted from 'The Sensorimotor Systems: A Framework for Assessment and Intervention' by Winne Dunne pp40–41, Chapter 2 in *Educating Children with Multiple Disabilities: A Transdisciplinary Approach*, Third Edition (1996) by Fred P. Orelove and Dick Sobsey. Baltimore: Paul H. Brookes Publishing Co. Adapted by permission.)

Sensory system	Alerting descriptors	Discriminating descriptors
All systems	Unpredictability – unfamiliar task, learner cannot anticipate the sensory experiences that will occur	Predictability – sensory pattern in task is routine, learner knows what is happening and what will come next
Vestibular	Change in: Head position – learners head orientation is changed, e.g. from lying on back to sitting Speed – movements change pace, e.g. wheelchair stops as teacher pushing pauses to talk to other staff Direction – movements change planes, e.g. adult carrying learner bends down Rotary head movement – head moving in arc, e.g. spinning, turning side to side	Linear head movement – head moving in straight line, e.g. bouncing up/down, moving forward in wheelchair Repetitive head movement – movements repeat in simple sequence, e.g. rocking in rocker
Proprioceptive	Quick stretch – movements which pull on muscles, e.g. tapping on stomach muscle	Sustained tension – steady, constant action on muscles, pressing/holding, e.g. playing with heavy object Shifting muscle tension – constant change in muscles, e.g. walking, lifting

Sensory system	Alerting descriptors	Discriminating descriptors
Touch	Light touch – gently tapping on skin, e.g. touch from loose clothing	Touch pressure – firm contact on skin, e.g. patting, grasping – objects/people
	Pain – pinching, contact with sharp object	
	Temperature – hot/cold	
	Variability – characteristics change during task, e.g. dressing	
	Short duration stimuli – brief touch, e.g. water splash	Long duration stimuli – holding, grasping, e.g. carrying learner
	Small body surface contact – using only fingertips to touch object	Large body surface contact – holding, hugging, holding object with whole palmar surface of hand

These stimuli may be divided into:

- those which can raise the learner's levels of arousal (alerting), where care must be taken not to risk fear/anxiety
- those which prepare learners to notice similarities and differences between stimuli (discriminating).

Appendix 4

The work of Lili Nielsen

To maximise the feedback from the learner's immediate environment, Nielsen developed a wooden resonance board – a plywood board raised from the ground on wooden supports. Any movement causes vibrations, which are amplified through the board. This provides learners with an increased awareness of their body space in relation to the surface beneath them.

Nielsen also developed a 'little room' to enclose the learner. This consists of textured panels of various materials, which can be organised to encourage learners to perform movements and gain feedback about objects and spatial relations (see clip 19 on DVD). Nielsen found that learners particularly liked to touch objects with acute points and irregular surfaces.

Further reading

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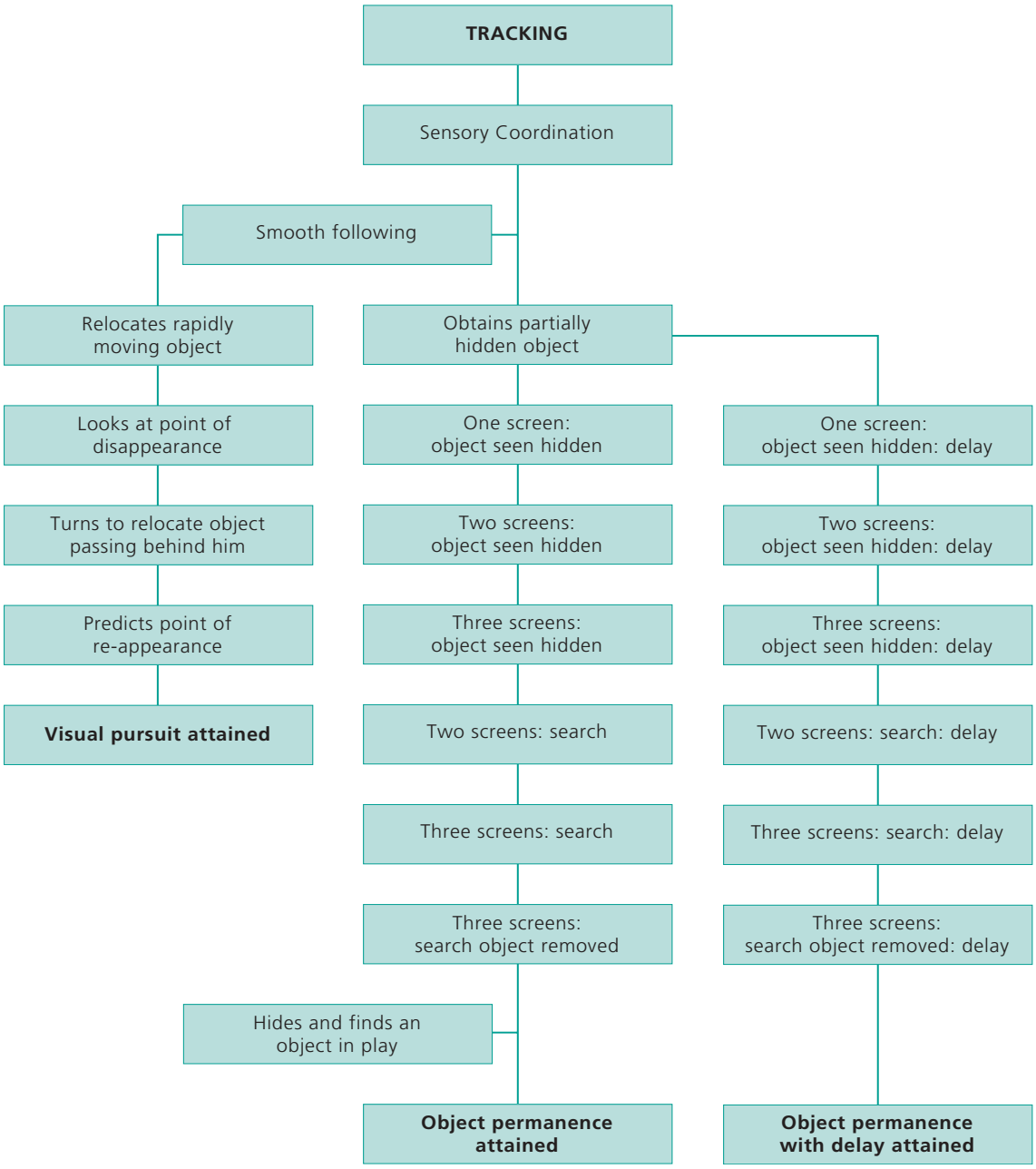
Appendix 5

Attaining object permanence



Reprinted from: Kiernan, C. C. (1981) *Analysis of Programmes for Teaching*. Basingstoke: Globe Education.

The diagram above illustrates how object permanence is attained in sighted learners. The sequence begins with 'Tracking' and shows development downwards on the diagram.

Appendix 6

Reflexes

Many reflexes, present in new-born babies, disappear as the baby matures. In children with cerebral palsy, in particular, these reflexes may still be present long after the ages when they should have become integrated in the nervous system. Some children may 'harness' these reflexes to achieve results (e.g. movement).

The following are the main reflexes that may still be present and affect learners with PMLD, particularly as regards motor function and speech. Their presence may also be an indication of the physical or emotional state of the learner. Physiotherapists should be consulted regarding positioning, posture and movement which may minimise the effects or overcome any inhibiting reflex actions.

Moro reflex

This causes a startle movement (arms upward, hand open, momentary freeze) in response to a perceived threat which also activates the stress hormones.

Palmar reflex

This grasp reflex occurs in response to pressure on the palm of the hand.

Asymmetrical tonic neck reflex

Movement of the child's head to one side will cause reflexive extension of arm and leg on the side to which the head is turned and flexion of limbs on opposite side.

Plantar reflex/foot grasp

A grasping response occurs if the sole of the foot is pressed behind the toes.

Neck righting

When head is rotated to one side, whole body rotates in the same direction.

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Appendix 7

Cortical Visual Impairment

Cortical Visual Impairment (CVI) often causes sight to be inconsistent or fluctuating. Learners may rely more on peripheral than central vision so correct positioning is essential. Learners may need to adopt different head positions to make best use of their vision. Extra time must be allowed for learners to respond and they may look at an object, touch it then look away, finding it difficult to perform both actions at the same time. They may 'shut down' if over-stimulated and may become tired. Frequent repetition and prompting will be needed to help learners to coordinate touch and vision.

Learners with CVI will need carefully planned and consistent presentation of objects and people if they are to become recognisable to them. They may have difficulty recognising faces and a range of cues may be used to support this development.

These learners may have difficulties such as distinguishing objects from background, judging depth and distance and will need a simple uncluttered environment and good contrast. They may show distinct colour preferences and may see moving objects better than static. As for most learners with PMLD, no single approach will be appropriate for all learners; trial and error, linked to careful observation, will be needed to establish the most effective approaches to learning.

Further reading

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Appendix 8

The development of manual behaviour

The figure below shows the early stages in the development of manual behaviour.

Phase 1 (0–4 months)

- Infants clutch an object lightly in one or both hands and possibly bring it to the mouth. This behaviour is considered to be largely controlled by the palmar grasp reflex which is present even before birth.
- There is limited movement of the fingers, which are restricted to opening and closing synergistically, in a 'kneading' pattern.
- The 'clutching' behaviour is considered to be similar to the 'enclosure' EP identified by Lederman and Klatzky (1987). The 'kneading' behaviour is considered as a rudimentary form of the 'pressure' EP.
- Oral exploration can be considered as a separate modality to manual exploration, as the movements young infants make with their mouths are more 'intricate' than the clutching they are able to engage in with their hands. Particular tongue movements (i.e. pressing the tongue against the roof of the mouth and drawing it backwards over the surface of the mouthed object in a cyclical fashion) can be considered to be analogous to the 'pressure' and 'lateral motion' EPs described for the hand.
- Infants in this phase might be able to haptically perceive temperature, size and perhaps compliance, but would not be expected to perceive texture, weight or exact shape with any precision as they are unable to perform the hand movements related to the EPs necessary to perceive these properties, e.g. lateral motion, contour following. However, active tongue movements could permit young infants to perceive hardness and texture orally.

Phase 2 (4–9 months)

- Manual behaviour with objects is characterised by repetitive finger and hand movements and includes scratching object, rubbing, waving, banging, squeezing and poking, passing from hand to hand.
- These manual behaviours are carried out with just one hand – the other hand serves to stabilise the object against a surface or helps to maintain the infant's sitting posture.
- Manual behaviours are considered to be similar to a number of EPs and are more intricate than the clutching and kneading described in Phase 1, i.e. poking objects is considered to be similar to the 'pressure' EP; kneading, scratching and rubbing similar to the 'lateral motion' EP; waving, banging and passing objects hand to hand is considered similar to the 'unsupported holding' EP.
- Infants may be expected to haptically perceive texture, hardness and weight with some precision, as well as temperature and size. However, these hand movements are not yet sufficient for accurate haptic perception of exact shape.

Phase 3 (9–10) months)

- By 9–10 months infants have developed torso strength and postural control which is necessary for independent sitting, allowing the second hand to be used in object manipulation.
- This phase is characterised by 'complementary bimanual' activities where one hand supports or positions the object while the other hand either manipulates it or acts on it with a second object.
- Bimanual activity is considered to relate to the 'contour tracing' EP, enabling infants in this phase to haptically explore and perceive shape.

Summary of development of manual behaviour during infancy (adapted from Bushnell and Boudreau 1991).

(Reprinted from McLinden, M. and McCall, S. (2002) *Learning through Touch – Supporting children with visual impairment and additional difficulties*. London: David Fulton.)

Encouraging tactile development

If the learner's hands are closed, try to open them by gently pressing the base of the wrists against a table or hard surface and take the thumb out from the palm. The learner's head should be in the midline, with elbows straight. Try stroking the outside edge of the hand or the fingertips to encourage hand-opening.

N.B. Advice should be sought from a physiotherapist prior to work in this area.

Avoid pushing toys into the learner's hands or pressing fingers around objects as this may cause the learner to withdraw. To encourage the learner to release an object, press down gently on the top of the hand. Encourage controlled letting go, rather than a throwing action.

The following activities may encourage the learner to use hands/fingers:

- Blow on or brush hands
- Massage, use vibration
- Decorate hands, fingers
- Open hands in different textures, e.g. water, cool gel, different gloves, warm sand, wax
- Clasp/unclasp hands covered with oil
- Move hands in rhythm (with noisy toys)
- Support learner to hold an object in both hands – move object from hand to hand
- Encourage reaching towards sound or visual stimulus
- Tie objects on to box/table/frame, etc., with elastic
- Place weight on hands
- Point, prod, play finger games
- Press fingers into different substances – push buttons
- Feel own face, hair, mouth – moisten and dip in icing sugar, etc., use different smells
- Use one hand at a time – note dominance?
- Support grasping – ensure reaction, e.g. noise from toy. Note progress towards judgement of distance
- Progress to early play skills – shaking, banging, dropping, pushing/pulling, squeezing to explore objects, exploration of parts, throwing.

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Appendix 9

Stages of expanding space

(from McLinden & McCall (2002) adapted from Best (1992))

1. Face space

The focus of children's interest is mainly their face and tactile experiences will involve the tongue, lips and the hands near the mouth.

2. Body space

The child's world expands to include the whole body. This is the space where different types of massage activities can be used to create awareness that something is happening to the body.

3. Personal space

The child's awareness of the world expands to include the space around the body and people and objects within that space. An element of manipulation of these will emerge as an increasing feature of the child's activity.

4. Social space

This refers to a wider area around the child and may include the whole room.

5. Group space

The child may start to share an activity under direction with another child and then take part in group activities.

Appendix 10

Affective Communication Assessment (Observation Recording Sheet)

ACA OBSEVATION Recording sheet		STIMULI															
Date																	
Child's name																	
HEAD	Turn: R–L U–D																
	Activity																
	Rotating																
	Other																
FACE	Frown																
	Smile																
	Anguish																
MOUTH	Activity																
	Open / close																
	Tongue activity																
	Contact																
EYES	Activity																
	Open / close																
	Gaze																
	Localise / search																
HANDS	Activity																
	Finger activity																
	Contact																
ARMS	Reaching																
	Activity																
LEGS	Activity																
BODY	Activity																
VOCALISATION	Utterance																
	Cry																
	Laugh																
	Other																
AFFECTIVE COMMUNICATION Interpretation of child's behaviour																	

(Reprinted from: Coupe, J., Barton, L., Barber, M., Collins, L., Levy, D. and D. Murphy (1985) *Affective Communication Assessment*. Manchester: Melland School.)

The Affective Communication Assessment (ACA) was developed by Coupe and colleagues (1985) in a school context to fulfil the need for an assessment for pupils at an early stage of communicative development. Through observation, they felt that sensitive communication partners could identify consistently occurring behaviours as a basis for programmes of intervention. This would then lead learners to extend their affective communication (i.e. where adults interpret and place communicative meaning on the learner's responses to the environment) and move towards intentional communication.

Stimuli that bring out strong positive or negative responses from the learner can be observed to determine their pattern, frequency and consistency. This observation can then be used as a basis for extending affective communication.

The above observation sheet can be used to note responses to a range of stimuli. Video or joint observation may be used and stimuli may need to be presented twice in succession with a pause in between to establish the consistency the learner's response.

Following these initial observations, the strongest responses of like, dislike, want and reject can be noted. Stimuli can then be re presented and behaviours further analysed. It may be possible to identify clusters of behaviours which are reliably linked to one specific interpretation of the learner's response (e.g. dislike).

Situations can then be planned to allow the learner to communicate with staff, who are alert to the behaviours and able to respond in appropriate ways. This will increase the frequency and quality of the learner's responses and shape the development of intentional communication.