



# **UK ABA Autism Education Competence Framework**

**Version 1.1  
November 2011**

**LEVEL 1**

**ENGLAND**

**NOTE: This document presents a portion of the Competence Framework. Specifically, it includes only those competencies specific to the practice of behaviour analysis.**





**Ambitious  
about Autism**



**BeyondAutism**



*'Improving the quality of family life'*





The UK ABA (Applied Behaviour Analysis) Autism Education Competence Framework is for practitioners working with children and young people with autism. The project has been funded by Ambitious about Autism, the national charity for children and young people with autism, primarily through generous grant donations. A project management group, led by Ambitious about Autism and including Bangor University and a parent member, worked with the support of, and in collaboration with, key stakeholders from the ABA and autism communities across the UK.

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## What is Applied Behaviour Analysis?

Applied Behaviour Analysis (ABA) uses an understanding of why behaviour occurs to address a wide range of social issues, including helping individuals to learn. Like other applied sciences, ABA can be applied to a range of populations and settings (e.g., business and industry, education, gerontology, healthcare) and to a range of social concerns (e.g., anxieties, depression, phobia, addiction, behaviours associated with autism). What distinguishes ABA from other disciplines is not just that it focuses on behaviour and the context (environment) in which behaviour occurs, but that for behaviour analysts, behaviour and environment are broadly defined. Behaviour encompasses all of the activities people engage in (including actions, interactions, talking and thinking) and environment encompasses both the physical and social events, external and internal, that people experience. Behaviour analysts use principles of learning and laws of behaviour that have been scientifically demonstrated, and use clearly defined procedures to specify how to change behaviour. The effectiveness of any behaviour change intervention is continually monitored and evaluated. The primary focus of ABA is on behaviour that is important to individuals, in terms of enabling them to lead more fulfilling lives.

Practicing behaviour analysts work to achieve positive behaviour change for individuals, groups of people, and for organizations and society as a whole. Behaviour analysts might be involved in helping to make a positive difference to behaviour change in any context in healthcare, public health, social care, education, or business. Behaviour analysts work with people to help achieve behaviour change by using ABA-based intervention approaches.

## Our Values

In common with other helping professions, behaviour analysts always aim:

- to do no harm
- to ensure that people are safe and feel secure
- to promote the right of every individual to beneficial help and support irrespective of intellectual ability, age, culture, gender, sexuality, or other background
- to work in the best interests of individuals and their families and carers

In addition, the practice of behaviour analysis is characterised by the following commitments:

- ambition for the person, and optimism about what is possible for them
- an assumption of every person's ability to develop and learn
- a determination not to limit expectations by basing them on assumptions about a person's disabilities
- empowering the individual by establishing skills that enable the development and management of their own behaviour
- using feedback from individuals and their families and carers to amend interventions
- to build on, and facilitate, learning by using the individual's interests and preferences
- the development of strengths as a part of any intervention designed to minimise difficulties
- a recognition that learning is lifelong, and includes skills in all areas of life
- using evidence of what is and is not working for each individual to guide decision making
- adapting practice according to new and emerging evidence in the wider professional environment
- collaborative working with other professionals, family members, and carers to best support the individual

## What is the UK ABA Autism Education Competence Framework?

The UK ABA Autism Education Competence Framework is a detailed framework of the knowledge and demonstrable behaviours (i.e., things that can be demonstrated to another person) that are important for anyone in UK education settings working with children and young people with autism using ABA<sup>1</sup>.

Section 1 of the framework will provide a clear, professional development pathway for those wishing to pursue a career in ABA and is compatible with the internationally recognised Behaviour Analyst Certification Board (BACB®) credentialing. Taken as a whole, the framework is intended to provide a more general professional development pathway for anyone working with children with autism within the field of education, but will also, as a later development, map onto the UK Qualifications and Credit Framework."

As a result of the Framework it is envisaged that:

- More children and young people with autism will benefit from high-quality, evidence-based education delivered by competent professionals.
- Practitioners will benefit from professional development and occupational standards.
- Parents and organisations supporting the education of children and young people with autism will be able to employ practitioners with a greater degree of certainty about competence and quality.
- Education providers and the academic community will have a greater understanding of the nature and use of ABA in educational practice for children with autism.

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<sup>1</sup> For an understanding of how the framework was developed, and background to the project see Denne, L.D., Hastings, R., Hughes, J.C., Bovell, B., & Redford, L.(2011). Developing a Competence Framework for ABA and Autism: What Can we Learn From Others? *European Journal of Behaviour Analysis* 12 (1) 217 – 230.

## Who is the Framework for?

The UK ABA Autism Education Framework is relevant to anyone who works with, provides services for, or is a recipient of services for children or young people with autism using ABA.

The Framework is also useful for training providers who may wish to identify, and develop assessments of, competencies.

The Framework may be used to inform the development of a curriculum and qualifications for those who work with children and young people with autism.

## Applied Behaviour Analysis

ABA.1 Definition, Characteristics and Scope of Applied Behaviour Analysis			
Knowledge		Demonstrable Behaviour	
K.1	You know that Applied Behaviour Analysis (ABA) uses an understanding of why behaviour occurs to address a wide range of social issues, including helping individuals to learn.	D.1	You give examples of the use of ABA with the <b>learners<sup>2</sup></b> you work with as well as applications from other populations and settings.
K.2	You know that ABA, like other applied sciences, has many applications. This means that it can be applied to a range of populations and settings (e.g., business and industry, education, gerontology, healthcare) and to a range of social concerns (e.g., anxieties, depression, phobia, addiction, behaviours associated with autism).		
K.3	You know that what distinguishes ABA from other disciplines with similar aims is not just that it focuses on behaviour and the context (environment) in which behaviour occurs, but that for behaviour analysts, behaviour and environment are broadly defined (see K.9 & K.17)		
K.4	You know that the primary focus of ABA is on behaviour that is important to individuals, in terms of enabling them to lead more fulfilling lives.	D.2	You describe behaviour only in terms of the characteristics that you observe.
K.5	You know that every <b>programme</b> and <b>intervention</b> within that programme is tailored to meet the needs of each learner, and changes over time using feedback from observed and measured changes in the behaviour of that learner.		
K.6	You know that the generation and use of evidence is integral to ABA and that this includes evidence of the basic principles of behaviour, evidence of the application of these principles in published intervention studies and, critically, that each intervention used with a learner is evaluated on an ongoing basis by gathering information about changes in behaviour.	D.3	You accurately and consistently follow the data collection procedures selected by your supervisor.
K.7	You know that to ensure an intervention works effectively it must be used by everyone	D.4	You accurately and consistently follow procedures selected by your

<sup>2</sup> Glossary items are shown in blue the first time they appear in the text.  
UK ABA Autism Education Competence Framework

K.8	<p>responsible for its delivery accurately and consistently across settings.</p> <p>You know that a number of interventions that are applied in a wide range of settings are based on ABA (e.g., <b>Picture Exchange Communication System (PECS)</b>; <b>Pivotal Response Teaching (PRT)</b>; <b>Precision Teaching</b>; <b>Functional Communication Training</b>; Self-Management; Modelling).</p>		supervisor.
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**ABA. 2: Principles, Processes and Concepts**

	Knowledge		Demonstrable Behaviour
	<u>Behaviour and Response</u>		
K.9	You know that behaviour is the activity of all living beings. Human behaviour is what people do, including actions, interactions, and movements.	D.5	You give examples of your own behaviour and the behaviours of the learners you work with.
K.10	You also know that language (what people think, say and remember) is behaviour.		
K.11	You know that many complex daily living skills can be broken down into a collection of more precisely defined behaviours (e.g., brushing one's teeth involves identifying and picking up the toothpaste, taking off the lid, identifying and picking up your own toothbrush, squeezing toothpaste on the toothbrush etc.).	D.6	You give examples of the behaviours that together make up common daily living skills.
K.12	You know that a response is a single instance of behaviour.	D.7	You give examples of responses from your own behaviour and the behaviours of the learners you work with.
K.13	You know that responses can share the same form but have different functions (e.g., waving one's hand can be used to say goodbye or to attract attention); and have the same function but different forms (e.g., waving your hand or shouting can both be used to attract attention).	D.8	You distinguish between the form and function of behaviour.
K.14	You know that behaviour is described and defined using observable and measurable dimensions.	D.9	You describe your own behaviour and the behaviour of those with whom you work in precise, observable, and measurable terms.
K.15	You know that the observable dimension of behaviour is its physical form – (physical form is also called topography).	D.10	You describe a response (a single instance of behaviour) in precise, observable, and measurable terms.
K.16	You know that the measurable dimensions of behaviour include: <ul style="list-style-type: none"> <li>the number of times it occurs</li> </ul>		

	<p>( i.e. it can be counted)</p> <ul style="list-style-type: none"> <li>• when it occurs (i.e. the time can be specified)</li> <li>• the length of time it occurs for (duration)</li> <li>• its intensity (the force with which it occurs)</li> <li>• its location (where it occurs)</li> </ul> <p><u>Environment and Stimulus</u></p>		
K.17	You know that the Environment is the collection of all stimuli that can have an influence on behaviour and that Environment includes internal states such as pain as well, as external stimuli such as the doorbell ringing.		
K.18	You know that a stimulus is any change in the environment that can affect behaviour.		
	<u>Relationship between behaviour and environment</u>		
K.19	<p>You know that most behaviour in applied settings has been learned: it occurs because of the event/s that have set the occasion for the behaviour to occur (antecedent/s), and because of the events that have typically followed in the past (consequence) that make it more or less likely for the behaviour to happen again:</p> <ul style="list-style-type: none"> <li>• the antecedent (e.g., <i>antecedent</i>: the phone rings; <i>response</i>: you pick it up)</li> <li>• and the consequence (e.g., <i>response</i>: you pick it up; <i>consequence</i>: you speak to someone).</li> </ul>	D.11	You give examples from your own behaviour and examples from the learners you work with of the relationship between an antecedent and a response.
		D.12	You give examples from your own behaviour and examples from the learners you work with of the relationship between a response and a consequence
		D.13	You seek to identify the reason why a particular behaviour occurs (using the procedures outlined by your supervisor) by reference to antecedents and consequences and without making assumptions about why a behaviour occurs.
K.20	You know that the consequences that lead to learned behaviour are either reinforcing (increasing behaviour) or punishing (decreasing behaviour).		
	<u>Reinforcement</u>		
K.21	You know that reinforcement is the most important principle of behaviour and that it is used in almost all behaviour change programmes, including the teaching of new skills.	D.14	You give examples of behaviours that have increased as a result of reinforcement, in yourself and in the learners you work with.

K.22	You know that reinforcement is the strengthening of a behaviour as a result of something that has followed that behaviour (a reinforcer) which increases the likelihood of the behaviour happening again.		
K.23	You know that reinforcers are defined functionally (i.e. a reinforcer is any stimulus that follows a behaviour and, as a result, the behaviour is more likely to occur in the future). A consequence is only a reinforcer if it has a strengthening effect upon a behaviour.		
	<i>Positive reinforcement</i>		
K.24	You know that positive reinforcement occurs when a behaviour is followed immediately by the presentation of a stimulus and, as a result, the behaviour occurs more often in the future.	D.15	You give examples of stimuli and/or events that are positive reinforcers for your behaviour and that of the learners that you work with.
K.25	<i>Negative reinforcement</i>		
	You know that negative reinforcement occurs when a behaviour is followed immediately by the withdrawal or termination of a stimulus and, as a result, the behaviour occurs more often in the future.	D.16	You give examples of stimuli and/or events that are negatively reinforcing for your behaviour and that of the learners you work with.
	<i>Unconditioned (primary) reinforcers and Conditioned (secondary) reinforcers</i>		
K.26	You know that unconditioned reinforcers (often called primary reinforcers) are those that require no previous learning (e.g., food, warmth, sensory stimulation) and that conditioned reinforcers (often called secondary reinforcers) are those that have acquired reinforcing properties as a result of an association (pairing) with an unconditioned reinforcer (e.g., praise, tokens, task completion).	D.17	You give examples of stimuli and/or events often considered to be unconditioned/primary reinforcers and provide examples of stimuli and/or events often considered to be <i>conditioned/secondary</i> reinforcers for your behaviour and that of the learners you work with.
K.27	<u>Punishment</u> You know that although punishment is an important principle of behaviour it should only be used to change behaviour under exceptional circumstances, only under supervision and only after appropriate ethical review.	D.18	You do not use punishment unless at the specific request of your supervisor <u>and</u> when you are satisfied that ethical guidelines have been adhered to.
K.28	You know that there are strict ethical guidelines surrounding the use of		

	<p>punishment, including the fact that alternatives to punishment must be tried before a punishment procedure is put in place.</p>		
K.29	<p>You know that punishment is the weakening of a behaviour as a result of something that has followed that behaviour (a punisher) which decreases the likelihood of the behaviour happening again.</p>	D.19	<p>You give examples of events that may be punishing for your behaviour and that of the learners you work with.</p>
K.30	<p>You know that punishers are defined functionally (i.e. a punisher is any stimulus that follows a behaviour and, as a result, the behaviour is less likely to occur in the future). A consequence is only a punisher if it has a weakening effect upon a behaviour.</p>	D.20	<p>You recognise when a consequence that you deliver (including your own behaviour) is inadvertently aversive (and is likely therefore to function as a punisher) and you change the consequence.</p>
K.31	<p>You know that some procedures commonly used in educational practice, such as time out and response cost, are punishment procedures.</p>		
K.32	<p>You know that, like reinforcement, punishment can occur when a behaviour is followed immediately by the <i>presentation</i> of a stimulus and, as a result that behaviour occurs less often in the future, or when a behaviour is followed immediately by the <i>withdrawal</i> or <i>termination</i> of a stimulus and, as a result that behaviour occurs less often in the future.</p>		
K.33	<p><i>Unconditioned (primary) punishment and Conditioned (secondary) punishment</i></p> <p>You know that unconditioned punishers (often called primary punishers) are those that require no previous learning (e.g., pain) and that conditioned punishers (often called secondary punishers) are those that have acquired punishing properties as a result of an association (pairing) with an unconditioned punisher (e.g., being told off).</p> <p><u>Motivating Operations</u></p>	D.21	<p>You give examples of stimuli and/or events often considered to be <i>unconditioned/primary</i> punishers and stimuli and/or events often considered to be <i>conditioned/secondary</i> punishers for your behaviour and that of the learners you work with.</p>
K.34	<p>You know that the effectiveness of a</p>		

	<p>reinforcer can change – something that has worked in one instance as a reinforcer may not work on another occasion.</p>		
K.35	<p>You know that this could be because of a motivating operation (MO): something which momentarily changes both the effectiveness of a consequence, and the frequency of the behaviour that has in the past resulted in that consequence.</p>		
K.36	<p>You know that common motivating operations are deprivation (when a learner has not had a reinforcer for a long time and therefore its value is likely to increase) and satiation (when a learner has had lots of a reinforcer in the recent past and therefore it is likely to be of less interest)</p>	D.22	<p>You recognise when a consequence is likely to be more effective (e.g., a snack before lunch) and when it is less likely to be effective (e.g., a break following unstructured play) and adjust your use of that consequence accordingly.</p>
	<p><u>Stimulus control</u></p>		
K.37	<p>You know that stimulus control is a situation in which some dimension of behaviour is altered by the presence or absence of a specific antecedent stimulus (e.g., Stimulus = green man shows at a pelican crossing; response = cross road)</p>		
	<p><i>Discriminative Stimulus</i></p>		
K.38	<p>You know that a discriminative stimulus (S<sup>D</sup>) is an antecedent stimulus that increases the likelihood that a response or pattern of responding will occur because in the past that response or pattern of responding has been reinforced in the presence of the S<sup>D</sup></p>	D.23	<p>You give examples of S<sup>D</sup>s that evoke responses in the learners you work with.</p>
	<p><u>4-term contingency</u></p>		
K.39	<p>You know that the 4-term contingency is the interdependent relationship between any motivating operations (MO), an S<sup>D</sup>, behaviour and consequence.</p>	D.24	<p>You identify the antecedent variables (S<sup>D</sup> and any relevant MOs) and consequences of any specified instance of behaviour.</p>
K.40	<p>You know that any consequence-based behaviour change programme designed either to increase or decrease behaviour must consider all 4 components of the 4 term contingency.</p>		
	<p><u>Generalisation and Maintenance</u></p>		
K.41	<p>You know that generalisation occurs where the effects of a procedure that was used to</p>	D.25	<p>You incorporate opportunities for generalisation and maintenance into all</p>

change a target behaviour spread, such that similar behaviour changes also occur in other situations (stimulus generalisation), other behaviours also change (response generalisation), or the effects endure over time in the absence of a continuing programme (maintenance).

programmes.



**ABA. 3: Increasing Behaviour: Rationale for targets, choosing and monitoring**

	Knowledge		Demonstrable Behaviour
	<p><u>Rationale for targets</u></p>		
K.42	You know that behaviour targets are identified through an assessment of a learner’s skills, are appropriate to the learner’s developmental level, and focus on behaviours that will be helpful to and/or are valued by them.	D.26	You contribute, under supervision, to the assessments carried out in your setting using the available tools.
K.43	You know that there are a number of specific assessment tools available to assess a learner’s existing level across all domains: daily living skills, social skills, imitation, play; and you are familiar with those used in your setting.		
K.44	You know that targets are prioritised in terms of the immediate benefits for the learner and developing the building blocks for longer term learning (i.e., teaching key or pivotal skills first).		
	<p><u>Defining performance criteria (Mastery)</u></p>		
K.45	You know that a target behaviour is described and defined using observable and measurable dimensions.		You use the specified performance criteria when working with identified targets for each of the learners with whom you work.
K.46	You know that the performance criteria specify observable or measurable dimensions.	D.27	
	<p><u>Monitoring and changing targets</u></p>		
K.47	You know that decision making should be data driven, and that this necessitates accurate data collection as specified for each intervention.	D.28	You accurately record data as specified by your supervisor.

ABA 4: Increasing Behaviour: Consequence based strategies - reinforcement			
	Knowledge		Demonstrable Behaviour
K.48	You know that the rationale for using specific positive reinforcers with learners is that you cannot assume any individual will be motivated by things that typically motivate others (praise, imitating peers, and task completion).		
K.49	You know that the aim when working with any learner is to move towards the use of naturally occurring reinforcers (e.g., task completion, praise, school/society based systems of reward).		
	<u>Establishing and choosing reinforcers</u>		
K.50	You know it is important to sample a wide range of potential reinforcers across a variety of different sensory modalities (e.g., tactile – hugs, tickling, heavy blanket; vestibular – rocking, swings; auditory – music, singing; gustatory – sweets, crisps; visual – lights, different colours).	D.29	You create opportunities for the learner to sample multiple potential reinforcers by providing items/activities on a non-contingent basis (i.e. items, activities, attention or downtime given to the learner that is not dependent on a specified response).
K.51	You know the importance of continuously establishing new reinforcers (i.e., because a learner’s interests can be transient and satiation may come into play).	D.30	You identify and use a variety of potential reinforcers for learners
K.52	You know how to pair established reinforcers with other items/activities/people to increase the range of potential reinforcers available.	D.31	You increase the range of potential reinforcers through pairing items/activities with established reinforcers as specified in the intervention/programme.
K.53	You know that activities learners engage in during their free time may be used as reinforcers because they are likely to be preferred activities. Such activities may include aspects of stereotypic/repetitive behaviour.	D.32	You choose a learner’s high preference items or activities as potential reinforcers during teaching.
		D.33	You choose as potential reinforcers items or activities that appear to have the same function as a learner’s preferred items or activities.
K.54	You know a range of procedures to identify what is potentially reinforcing for a learner at any time (e.g., asking, observing, formal preference assessments).	D.34	You use a range of procedures to select potential reinforcers.
K.55	You know the significance of varying reinforcers in a session (i.e., to reduce the chances of satiation).	D.35	You continuously assess the environment to inform the selection and use of reinforcers

K.56	You know the importance of maintaining the value of reinforcers and that if reinforcers are available at other times (i.e., when they are not contingent on a target behaviour) then they will become less effective	D.36	You ensure, where possible, that reinforcers are not available non-contingently other than if pre-determined by your supervisor (see section on Non Contingent Reinforcement K.167).
K.57	You know that primary reinforcers are most often used during the early stages of intervention and also understand the importance of fading their use as soon as possible.	D.37	You try to avoid relying entirely on primary reinforcers, and whenever possible you attempt to establish or use conditioned reinforcers
K.58	You know the ethical implications of using primary reinforcers such as the need to use them in moderation.	D.38	You abide by ethical guidelines as to what primary reinforcers are appropriate for use, when to use them, and in what quantities.
		D.39	You fade the use of unconditioned/primary reinforcers and increase use of conditioned reinforcers when appropriate under supervision.
K.59	You know that the advantages of using primary reinforcers include the fact that they do not depend on learning and can be very powerful.		
K.60	You know the disadvantages of primary reinforcers including the fact that they can be difficult to fade and that their use can seem strange in some environments to other professionals, family members, or the general public.		
K.61	You know that it is important to establish secondary reinforcers as a step towards more naturally occurring reinforcement contingencies.	D.40	You pair secondary reinforcement (praise/social attention/activities) with primary reinforcement on a contingent basis under supervision.
K.62	You know the importance of pairing your own presence with reinforcement: the learner comes to associate a teaching session with activities that are of interest to them, and your praise/social attention/activities become secondary reinforcers.	D.41	You create an environment that motivates the learner to interact with you by pairing your presence with established reinforcers (e.g., praise, smile, toy, tickle) on a non-contingent basis.
	<u>Delivering reinforcement: Schedules of reinforcement</u>		
K.63	You know that reinforcement can be delivered following every response (i.e. continuous reinforcement) or intermittently	D.42	You initially provide immediate reinforcement of each instance of the completed target response when teaching

	(i.e. after a fixed or variable number of responses, or fixed or variable amount of time) and that the way that reinforcement is delivered (the schedule of reinforcement) affects learning.		a new skill.
K.64	You know that, when working on a new skill, reinforcement should occur after each response (i.e., because it provides the strongest association between the response and the reinforcer) Providing reinforcers rapidly also reduces the chances that other inappropriate behaviours may be inadvertently reinforced.		
K.65	You know that once a skill has been acquired, it is important to gradually and systematically thin a schedule of reinforcement so the learner gets accustomed to more natural contingencies of reinforcement (i.e. reinforcers are increasingly delivered intermittently).	D.43	You thin a schedule of reinforcement as directed by your supervisor during a new skill teaching programme.
K.66	You know that on occasion it may be necessary to temporarily increase the frequency of reinforcement or return to tangible (i.e., something material) reinforcement to maintain motivation.	D.44	You follow an agreed protocol with respect to the temporary (within session only) relaxation of a schedule of reinforcement based on a learner's motivation, and discuss any such instances with your supervisor.
	<u>Delivering reinforcement: Differential reinforcement</u>		
K.67	You know that programmed differential reinforcement is the delivery of reinforcers to only those responses that meet a specified criterion whilst not reinforcing other responses.		
K.68	You know that differential reinforcement can be used to strengthen and shape desirable behaviour and weaken undesirable behaviour.		
K.69	You know to look for opportunities to reinforce a learner's appropriate behaviour even when it is not specifically targeted in a programme.	D.45	You consistently provide positive reinforcers when the learner is engaging in appropriate behaviour (e.g., remaining on task or using an appropriate communicative response rather than engaging in <b>problem behaviour</b> )
K.70	You know the importance of relying on the highest value reinforcers (those which appear to be most effective) for those behaviours that a learner finds most difficult.		
	<u>Delivering reinforcement: Token Systems</u>		
K.71	You know that a token system is a	D.46	You use various token systems to

	reinforcement system used when it is helpful to be able to delay the delivery of a chosen reinforcer until after a certain period of time has elapsed or an activity has finished, but in the meantime some form of reinforcement is necessary.		increase target behaviours.
		D.47	You deliver a token immediately contingent on a target behaviour and make sure the learner sees that a token has been obtained.
		D.48	You make clear the contingency (relationship) between the token system and back up reinforcers (e.g., the number of tokens required for exchange).
		D.49	You deliver tokens at a rate specified in the intervention programme.
K.72	You know that tokens are generalized conditioned reinforcement (i.e., that tokens can be exchanged for a number of reinforcers).		
K.73	You know that the “back up” reinforcer is the object or activity/experience that can be purchased by or exchanged for tokens.	D.50	You identify “back up” reinforcers
		D.51	You use preference assessments to identify potential “back up” reinforcers.
		D.52	You periodically reassess the value of the “back up” reinforcers
K.74	You know that strategies to ensure that a token system remains effective include adjusting the reinforcement schedule and reassessing the learner’s preferences.	D.53	You make use of the available strategies to ensure that a token system remains effective



**ABA. 5: Increasing Behaviour: Antecedent based strategies - Stimulus control and antecedent procedures**

	Knowledge		Demonstrable Behaviour
	<p><b>Stimulus control</b></p> <p><u>Establishing stimulus control</u></p>		
K.75	You know that a behaviour can be said to be under stimulus control when some dimension of it is altered by the presence or absence of a specific antecedent stimulus.	D.54	You give examples of established stimulus control in relation to your own behaviour and that of the learners you work with.
K.76	You know that establishing stimulus control is an important aspect of behaviour change, is widely used in teaching, and plays a critical role in most forms of learning.		
K.77	You know that a stimulus will not evoke behaviour change unless a contingency (relationship) has been established.		
K.78	You know that the way to establish stimulus control in the context of behaviour change programmes is through discrimination training.		
K.79	You know that discrimination training involves reinforcing a response in the presence of one stimulus; whilst in the absence of that stimulus, or the presence of another stimulus that same response is not reinforced.	D.55 D.56 D.57	You establish stimulus control through the effective use of reinforcement.  You present stimuli and reinforcers correctly to achieve discrimination.  You establish a stimulus to function as an S <sup>D</sup> by reinforcing a behaviour in its presence.
K.80	You know that there are a number of strategies that can be used to enhance stimulus control and that these include: prompting, prompt fading, instructions, and modelling and imitation.		
	<u>Prompting</u>		

K.81	You know that prompts are additional antecedent stimuli used to evoke a response in the presence of the S <sup>D</sup> that will eventually control that response.	D.58	You identify when to use a prompt.
		D.59	You identify prompts to be used in different situations.
		D.60	You use a (programmed) prompt to evoke a desired behaviour.
K.82	You know that when introducing a new skill, prompting is likely to be required.  <i>Using prompts</i>	D.61	You use regular prompts when introducing a new skill as specified in the intervention programme
K.83	You know that learners can come to rely on prompts and that therefore it is important to eliminate them as soon as possible so that the S <sup>D</sup> alone is sufficient to control the target response.	D.62	You note when a learner is, or is in danger of becoming, prompt dependent and raise it with your supervisor.
K.84	You know that there are many different ways of prompting within the parameters of physical, visual and auditory prompting and prompt fading procedures should be planned for.		
K.85	You know that the least intrusive or salient prompt that will evoke the target response is the most desirable one to choose.		
K.86	You know that it is important to use prompts that can be faded	D.63	You identify when to fade a prompt and give examples of how to achieve that.

K.87	<p>You know that there are several ways to fade prompts:</p> <ul style="list-style-type: none"> <li>the most-to-least prompting strategy begins by giving the highest level of assistance and systematically fades it.</li> <li>the least-to-most prompting strategy gives the opportunity to perform the behaviour with the least amount of assistance. The level of prompting is systematically increased if the learner is unsuccessful.</li> <li>stimulus fading involves the fading of an exaggerated dimension of a stimulus (e.g. starting off with larger than usual hands on a clock and moving gradually towards hands that are the right size).</li> <li>Time delay involves the insertion of systematically increased time delays between the S<sup>D</sup> and the prompt.</li> </ul>	D.64  D.65  D.66  D.67	<p>You progressively reduce the level of prompting in a most-to-least hierarchy depending upon the learner's response.</p> <p>You increase the level of prompting in a least-to-most hierarchy if the learner is unsuccessful at a particular prompt level.</p> <p>You progressively fade a dimension of a stimulus depending on the learner's response.</p> <p>You progressively increase the time delay between an S<sup>D</sup> and the prompt depending on the learner's response.</p>
K.88	You know that unprompted responses should be reinforced.	D.68	You reinforce unprompted responses.
K.89	You know that responses may be prompted inadvertently (e.g., by a tone of voice, by looking at the correct response).	D.69	You use team meetings and video recordings to identify inadvertent prompts in your behaviour and that of others, and you agree steps to reduce any identified problems.
K.90	<p>You know that the effectiveness of any prompt is influenced by the way in which it is delivered (e.g., your position in relation to the learner).</p> <p><u>Instructions</u></p>	D.70	You use team meetings and video recordings to identify any factors that might influence prompt effectiveness.
K.91	You know that instructions are verbal antecedent stimuli that can be used to induce behaviour that can then be reinforced.	D.71	You give effective verbal instructions (oral, written, or pictorial/symbol) to induce a target behaviour.
K.92	You know that instructions can be oral, written, or in pictorial/symbol form.		
K.93	You know instructions will be most effective if the learner has a history of being taught by instruction.		
K.94	You know that the first stage of using instructions is to teach the learner to	D.72	<p>You teach responding to instructions by:</p> <ul style="list-style-type: none"> <li>Inserting instructions before</li> </ul>

	respond to instructions.		naturally occurring behaviours <ul style="list-style-type: none"> <li>• Reinforcing behaviours taught under instruction</li> <li>• Prompting and reinforcing the correct response for new target instructions</li> </ul>
K.95	You know that instructions may be more effective when combined with other procedures such as modelling, prompting, and rehearsal.		
	<u>Modelling and Imitation</u>		
K.96	You know that models are antecedent stimuli that are topographically similar to the target imitative behaviour.		
K.97	You know that modelling consists of presenting a model that sets the occasion for the imitative response, which is then reinforced.	D.73	You accurately model target behaviour.
K.98	You know that attending and imitative skills are a pre-requisite to the successful use of modelling as a behaviour change strategy.	D.74	You use modelling only when appropriate pre-requisites are acquired.
K.99	You know that modelling will have the most successful outcomes for the learner when the model is similar to the learner, (i.e similar age/stature) when critical aspects of the model have been emphasised (i.e. prompts used to show which components are important), and when the model is accurate (i.e., completes an action successfully).	D.75	You choose models (e.g., peers) similar to, or respected by the learner where possible.
		D.76	You model actions from the perspective of the learner.
K.100	You know that modelling may be more effective when combined with other procedures such as instructions, prompting, and rehearsal.	D.77	You participate in the identification of the most appropriate procedures to enhance the effectiveness of modelling

**ABA. 6: Increasing behaviour: Combining antecedent (stimulus) and consequence strategies – 4-term contingency and teaching complex behaviours**

	Knowledge		Demonstrable Behaviour
K.101	<p><b>Using the 4 term contingency for effective teaching</b></p> <p>You know that the 4-term contingency underpins all behaviourally based teaching methods e.g. teaching methods often used with children and young people with autism such as: Discrete Trial Teaching (DTT), Natural Environment Teaching (NET) or Incidental Teaching (IT), Pivotal Response Teaching (PRT), Picture Exchange Communication System (PECS), Functional Communication Training, <b>Direct Instruction</b>.</p>	<p>D.78</p> <p>D.79</p> <p>D.80</p>	<p>You use the 4-term contingency to teach a new behaviour by identifying the target response; using a stimulus or stimuli that will cue that target response; and selecting a reinforcing consequence to increase the probability that the response will occur again in the presence of that stimulus or stimuli.</p> <p>You recognise in any teaching situation, any potential problems with the 4-term contingency: should the stimulus be changed; is the response too easy or too difficult; is the consequence effective?</p> <p>You use agreed strategies to adapt when extraneous variables appear to be influencing a learner's behaviour.</p>
K.102	<p>You know that a discriminative stimulus (<math>S^D</math>) selected in a teaching situation is the one chosen to evoke the target behaviour. This can be any change in the environment including objects, instructions (written or verbal), people, sound etc.</p>		
K.103	<p>You know that you must know the target response and its performance criteria prior to teaching.</p>		
K.104	<p>You know that if other behaviours occur at the same time as a response they may be inadvertently reinforced.</p>	D.81	<p>You do not reinforce a response if it is accompanied by inappropriate collateral behaviours that might inadvertently be reinforced.</p>
K.105	<p>You know that behaviours occurring at the same time includes "scrolling" which is the emission of several responses within the learner's repertoire that have been previously reinforced under similar stimulus conditions but with a different <math>S^D</math>.</p>	D.82	<p>You do not provide reinforcement for a "scrolled" response.</p>
K.106	<p>You know that a response should be emitted within a specified time as defined by the performance criteria.</p>		
K.107	<p>You know that the consequence in a teaching situation is a specified stimulus</p>		

	and that it follows and maintains the response.		
K.108	You know that the consequence must be delivered in accordance with the programme requirements	D.83	You deliver a consequence in accordance with the programme requirements.
K.109	You know that there are a number of procedures (error correction procedure) that can be followed in the event of an incorrect response or no response and that this will depend on the specified intervention programme.	D.84	You follow the error correction procedure specified in the intervention programme.
K.110	You know that Discrete Trial Teaching (DTT) is a structured teacher initiated instructional method in which a tutor sequentially presents an S <sup>D</sup> and provides a consequence for the response for a number of trials. Data are collected on the response.	D.85	You run a discrete trial effectively using any prompts and the error correction procedure specified in the behaviour programme.
K.111	You know that Natural Environment Teaching (NET) or Incidental Teaching (IT) is an instructional method similar to that of DTT which also uses the 4-term contingency. However in NET the teaching opportunity is learner rather than instructor initiated often by requests for preferred items which then become both the S <sup>D</sup> and the potential reinforcer. It is also less structured and takes place in the context of other activities.	D.86	You run an NET trial effectively using any prompts and the error correction procedure specified in the behaviour programme.
K.112	You know that all effective teaching procedures additionally require the effective management of teaching materials and appropriate data collection.	D.87	You keep the teaching area neat and clean.
K.113	You know that any teaching practice takes place within the context of a learner's entire programme and that therefore, in addition to the skills needed to run a single unit of learning effectively, good teaching practice also takes account of all	D.88	You organise all materials prior to the teaching session.
		D.89	You leave materials ready for the

<p>K.114</p>	<p>behaviour based principles to structure opportunities for learning both within teaching sessions and across teaching sessions.</p> <p><b>Teaching complex behaviours</b></p> <p><u>Shaping</u></p> <p>You know that shaping is a behaviour change procedure.</p>	<p>D.90</p> <p>D.91</p> <p>D.92</p>	<p>following session.</p> <p>You take data according to the intervention programme.</p> <p>You begin a teaching session promptly.</p> <p>You provide an appropriate mix of easy and difficult tasks.</p>
<p>K.115</p>	<p>You know that shaping is used to establish novel topographies or dimensions of behaviour.</p>	<p>D.93</p>	<p>You use shaping to establish novel topographies or dimensions of behaviour.</p>
<p>K.116</p>	<p>You know that shaping is the differential reinforcement of successive approximations of a target behaviour.</p>	<p>D.94</p>	<p>You follow instructions for any shaping procedure as part of a behaviour change strategy in accordance with the intervention programme under the direction of your supervisor.</p>
<p>K.117</p>	<p>You know that target behaviours are operationally defined.</p>	<p>D.95</p>	<p>You operationally define a target behaviour in preparation for shaping.</p>
<p>K.118</p>	<p>You know that successive approximations are behaviours that are increasingly similar to the target behaviour.</p>	<p>D.96</p> <p>D.97</p> <p>D.98</p> <p>D.99</p>	<p>You identify the starting behaviour.</p> <p>You identify approximations of the target behaviour.</p> <p>You reinforce successive approximations.</p> <p>You determine when to move to the next approximation.</p>
<p>K.119</p>	<p>You know that shaping is distinguished from differential reinforcement by changing criteria for reinforcement.</p>		
<p>K.120</p>	<p><u>Task Analysis and Chaining</u></p> <p>You know that a behaviour chain is a complex behaviour consisting of two or more responses that follow in sequence and time, each associated with a specific stimulus condition.</p>	<p>D.100</p>	<p>You give examples of complex behaviours that consist of a number of distinct responses (e.g., hand washing - turn on tap, put hands under water, pick up soap, rub hands on soap, put down soap, rinse hands, turn off tap, pick up towel, dry hands).</p>

K.121	You know that many daily living skills are complex behaviours (see K.11).	D.101	You break down a complex behaviour by describing the component skills in an appropriate order.
K.122	You know that a task analysis involves breaking down a behaviour chain into its component responses; that is, complex tasks are broken down into small teachable units.	D.102	You contribute to task analyses for complex target behaviours such as daily living skills, under the direction of your supervisor.
K.123	You know that in addition to knowing the component responses of a complex behaviour, to teach that behaviour you also need to assess the learner's pre-existing skill with each of those responses.		
K.124	<p>You know that the procedures used to teach complex behaviours include:</p> <ul style="list-style-type: none"> <li>• forward chaining: the first step in the chain is taught (using the 4-term contingency) until the mastery criteria are met. The rest of the chain is prompted. Subsequent steps are added in sequence step by step and also trained to mastery. Reinforcement is delivered contingent on the performance of all of the steps up</li> </ul>	D.103	<p>You demonstrate the ability to use forward, backward and total task chaining under the direction of the programme consultant or supervisor showing:</p> <ul style="list-style-type: none"> <li>• Effective prompting of new steps</li> <li>• Effective use of differential reinforcement (to train to criterion)</li> <li>• Highlighting any areas that need further shaping or modification.</li> </ul>

	<p>to the point of training.</p> <ul style="list-style-type: none"><li>• backwards chaining: all steps are performed by the tutor apart from the last which is taught (using the 4-term contingency). When the learner is able to independently complete that step to criterion, the second to last step is trained to criterion. Subsequent steps are added sequentially. Reinforcement is delivered when the last two steps are performed, then the last three and so on.</li><li>• total task chaining: each step of the chain is taught during each teaching session. Prompts are provided for any steps that the learner is unable to perform independently. The chain is taught until all behaviours can be performed independently to a pre-determined standard.</li></ul>		
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**ABA. 7: Increasing behaviour: the importance of developing a language repertoire**

	Knowledge		Demonstrable Behaviour
K.125	You know that language is behaviour and like all other behaviours happens for a reason.		
K.126	You know that the same language can be used for different reasons (e.g., a learner can say “biscuit” because they want a biscuit, or “biscuit” when asked “what did you have at break-time”).		
K.127	You know that verbal behaviour includes a learner’s generated language (speaker/expressive) as well as their understanding of language (listener/receptive).		
K.128	You know that verbal behaviour includes all forms of language use including spoken, signed, gesture, use of symbols, text, and thoughts.	D.104	You give examples of non-vocal verbal behaviour (e.g., gestures, signs, symbols) in your own behaviour and that of the learners with whom you work.
K.129	You know that there are a number of augmentative alternative communication systems (AAC) that can be incorporated into ABA interventions as a functional alternative to vocal production.	D.105	You seek to learn how to use and demonstrate proficiency using the communication systems for each of the learners you work with.
K.130	You know that there are a number of factors to consider before deciding which communication system is most appropriate for each learner (e.g., communication needs, physical ability, level of development).	D.106	You outline the reasons for the communication system chosen for each of the learners you work with
K.131	You know that increasing language, like any other behaviour is achieved through the 4-term contingency.		
K.132	<u>Classification of verbal behaviour</u> You know that verbal behaviour is		

	classified according to its function into: mands, echoics, tacts and intraverbals		
	<i>Mands</i>		
K.133	You know that a mand is a request for something, someone, or for someone to do or say something that is evoked by a motivating operation and specifies the reinforcer that maintains it. Food deprivation (hunger) may evoke “biscuit” or the presentation of a symbol for “biscuit”. Obtaining a biscuit increases the likelihood of the same mand occurring again under the same or similar circumstances.	D.107	You give examples of mands from your own behaviour and from the learners you work with.
K.134	You know that the development of mands is essential for any learner: <ul style="list-style-type: none"> <li>• manding is the first function of language that develops</li> <li>• manding is the only function of language that directly benefits the learner and therefore teaches the value of language (it allows a learner to get what they want/to get rid of what they do not want)</li> <li>• many problem behaviours function as mands (e.g., a tantrum to get a biscuit) and can often be easily reduced by teaching a more appropriate mand (e.g., biscuit)</li> </ul>	D.108	You contrive or capture motivating operations and use these as opportunities to teach manding (e.g., giving a learner a snack in a Tupperware box that is hard to open to contrive the MO for asking “help” or “open” or using a learner’s interest in a particular activity to work on target words/signs/picture exchange).
K.135	You know the importance in early mand teaching of using only mands that can be delivered immediately and that relate to specific items (e.g., “biscuit”, “ball”, “tickle” as opposed to “more”, “please” or “eat” that might become a default for many items).	D.109	You target mands that specify the individual/item/activity early on in mand teaching
	<i>Echoics</i>		
K.136	You know that an echoic or imitated response is evoked by a verbal stimulus and is exactly the same as that verbal stimulus (e.g., you say “Biscuit” and the learner says “Biscuit”) and is followed by reinforcement (e.g., praise for saying “Biscuit”).	D.110	You give examples of echoics in the learners you work with.
K.137	You know that echoics can be used to prompt other verbal responses.	D.111	You make effective use of echoics as prompts to teach other forms of verbal behaviour when it is appropriate to do so.

	<i>Tacts</i>		
K.138	You know that a tact is a verbal response (saying “biscuit”) evoked by a non-verbal stimulus (e.g., seeing a biscuit or a picture of a biscuit in a book) and followed by reinforcement (e.g., attention for talking about the object seen)	D.112	You give examples of tacts from your own behaviour and from the learners you work with.  You use items that are relevant to the learner when teaching tacts.
	<i>Intraverbals</i>		
K.139	You know that an intraverbal is a verbal response which is evoked by a verbal stimulus (e.g., a question/statement, including one’s own thoughts) and followed by reinforcement (e.g., teacher’s approval, an answer etc). For example, when asked the question “what do you like to eat at breaktime?” the learner responds “biscuit”.	D.113	You give examples of intraverbals from your own behaviour and from the learners you work with.
K.140	You know that having intraverbal skills is the basis of conversation and that it is best established by developing conversational skills relevant to the learner.	D.114	You use intraverbals to develop conversational skills appropriate to the age and interests of the learner

**ABA. 8: Decreasing Behaviour: Rationale for intervention, choosing and monitoring**

	Knowledge		Demonstrable Behaviour
	<p><u>Rationale for intervention</u></p>		
K.141	<p>You know that the criteria for whether or not you need to intervene to decrease a behaviour include:</p> <ul style="list-style-type: none"> <li>• Is there an impact on the quality of life of the learner or others?</li> <li>• Is there a risk of physical harm of the learner or others?</li> </ul>		
K.142	<p>You know that the rationale for any intervention that aims to decrease a behaviour will be based on obtaining a clear description of that behaviour and on an assessment of the factors that are maintaining that behaviour.</p>		
K.143	<p>You know that any programme that aims to decrease a behaviour should also target to increase an appropriate replacement behaviour.</p>		
K.144	<p>You know that a descriptive functional behaviour assessment is a systematic method of obtaining information regarding a behaviour under investigation.</p>		
K.145	<p>You know that the rationale for conducting descriptive functional behaviour assessments is to obtain information for developing hypotheses regarding the function of the behaviour. The intervention then tests the hypothesis, which is supported if it is effective</p>		
K.146	<p>You know that descriptive functional behaviour assessments can be direct or indirect but that both are based solely on observable or reported and measurable dimensions of behaviour.</p>	<p>D.115</p> <p>D.116</p>	<p>You contribute to the assessment procedures used within your setting.</p> <p>You give clear and objective information regarding behaviour.</p>
K.147	<p>You know that <i>Direct Assessment</i> can include:</p> <ul style="list-style-type: none"> <li>• “ABC” observations, used to</li> </ul>	D.117	<p>You accurately collect and record data collected to understand a behaviour as directed by your supervisor.</p>

	<p>indicate relationships between MOs, S<sup>D</sup>s , and consequences in relation to the target behaviour.</p> <ul style="list-style-type: none"> <li>• Scatter graphs, used to indicate if there are specific times at which a behaviour is more likely to occur</li> </ul>		
K.148	<p>You know that <i>Indirect Assessment</i> can include rating scales and interviews (e.g., Functional Assessment Interview)</p> <p><u>Defining target behaviour</u></p>		
K.149	<p>You know that, as with behaviours that are chosen to increase, a behaviour targeted for decrease is described in operational terms with specified performance criteria.</p> <p><u>Monitoring and changing targets</u></p>	D.118	You use the performance criteria when working with identified targets for each of the learners with whom you work.
K.150	<p>You know that as with behaviours targeted for increase, all decision making regarding behaviours targeted for decrease should be data driven and that this necessitates accurate data collection as specified for each intervention.</p>	D.119	You accurately record data for any intervention in place as specified by your supervisor.

**ABA. 9: Decreasing behaviour: Consequence based strategies - Using an understanding of reinforcement to reduce problem behaviour**

	Knowledge		Demonstrable Behaviour
	<u>Identifying a maintaining reinforcer</u>		
K.151	You know that all behaviours that have developed have been reinforced at some stage.		
K.152	You know that this also applies to “problem” behaviours and that they will have either been positively or negatively reinforced.		
K.153	You know that many problem behaviours such as self injury, aggression, property damage have been positively reinforced by attention, access to primary reinforcers, preferred items or activities or sensory stimulation.	D.120	You participate in the identification of instances where positive reinforcement is maintaining a behaviour.
K.154	You know that many problem behaviours such as self injury, aggression, property damage have been negatively reinforced by escape from demands, avoidance of unpleasant situations; avoidance of sensory stimulation including pain.	D.121	You can participate in the identification of instances where negative reinforcement is maintaining a behaviour.
K.155	You know that to decrease a “problem behaviour” you need to identify the maintaining reinforcer.		
K.156	You know that best practice when reducing problem behaviour is to teach a functionally equivalent appropriate behaviour. Under most circumstances this is known as DRA (Differential Reinforcement of Alternative behaviour)	D.122	You follow instructions for any differential reinforcement procedure as part of a behaviour reduction strategy in accordance with the schedule specified in the intervention programme.
K.157	You know that a DRA procedure is often accompanied by extinction (see section on Extinction K158-163)		
	<u>Extinction</u>		
K.158	You know that extinction (as a general	D.123	You give examples of an extinction

	principle) is the weakening of a behaviour as a result of withholding the consequences that have, in the past, reinforced that behaviour. Extinction is almost always used with a DRA procedure		procedure that has been used with a learner you have worked with.
K.159	You know that extinction (as a behaviour change procedure) is the withholding of a maintaining reinforcer.	D.124	You give an example of a potential extinction procedure for a problem behaviour in a learner with whom you work.
K.160	You know the difference between extinction and ignoring.		
K.161	You know that an extinction procedure could result in an extinction burst.	D.125	You give examples of events often considered to be an extinction burst.
K.162	You know the ethical considerations when using extinction and in particular the risks associated with an extinction burst.	D.126	You work with an extinction burst (if one occurs) as specified in the intervention programme.
K.163	You know that consistency is essential when using extinction procedures – all sources of reinforcement for the target behaviour should be identified and then withheld consistently by everyone in contact with the learner.		



**ABA.10: Decreasing behaviour: Antecedent based strategies**

	Knowledge		Demonstrable Behaviour
K.164	<p><u>Antecedent based strategies</u></p> <p>You know that antecedent interventions aim to prevent problem behaviour occurring and can therefore be very effective:</p> <ul style="list-style-type: none"> <li>• they are easy to implement,</li> <li>• there are no collateral effects of problem behaviour (e.g., injury, disruption)</li> <li>• problem behaviours are not further strengthened</li> <li>• there are increased opportunities for learning appropriate behaviours</li> </ul>		
K.165	<p>You know that antecedent interventions can involve manipulating motivating operations or stimulus control.</p>	D.127	<p>You give examples of stimuli (including your own behaviour) that may evoke problem behaviour in the learners that you work with and bring them to the attention of your supervisor.</p>
K.166	<p>You know that the disadvantage of antecedent based strategies used alone is that the learner is not being taught appropriate replacement behaviour.</p>		
K.167	<p><u>Non Contingent Reinforcement (NCR)</u></p> <p>You know that NCR can be used as an antecedent strategy by providing the maintaining reinforcer non-contingently (i.e., so that the learner does not have to engage in the problem behaviour to access reinforcement).</p>	D.128	<p>You implement an NCR procedure according to the specified intervention programme</p>

<b>ABA.11 Measurement of behaviour and data display</b>			
	Knowledge		Demonstrable Behaviour
K.168	<p><u>Procedures for measuring behaviour</u></p> <p>You know that there are a number of recording tools/devices that enable you to take accurate measurements and to record responses and that these include timers; tally counters; stopwatches; Computer assisted measurement devices; video; and pen and paper.</p>	D.129	You use the recording devices within your setting to accurately measure those target responses identified in the intervention programme.
K.169	<p>You know that there are a number of ways of recording data to measure different dimensions of behaviour including every instance and where a behaviour occurs (or not) within specified segments of time.</p>	D.130	You refer to the data collection guidelines established by your supervisor to collect data across sessions in an accurate and consistent way.
K.170	<p><u>Data display</u></p> <p>You know that the first set of data taken in any intervention is baseline data: a measure of the target behaviour before intervention begins. Thus, progress is measured against baseline data.</p>	D.131	You use the recording devices within your setting to accurately measure the baseline data prior to the implementation of an intervention programme
K.171	<p>You know that the behavioural measurements are used to assess whether an intervention programme is working, and that any decisions made in respect of that intervention are based on the measurements.</p>	D.132	You use information from data displays to raise questions regarding performance with your supervisor.

**ABA.12: Behaviour Change Procedures – Generalisation and Maintenance**

	Knowledge		Demonstrable Behaviour
K.172	<p><u>Maintenance</u></p> <p>You know that it is essential in any behaviour change programme to plan for both generalisation and maintenance.</p>	D.133	You incorporate opportunities for generalisation and maintenance into all teaching sessions if opportunities present.
K.173	<p>You know that maintenance is the extent to which a learner continues to perform a target behaviour after a part or all of the intervention has stopped.</p>	D.134	You collect and monitor maintenance data to ensure retention of skills.
K.174	<p><u>Generalisation</u></p> <p>You know that maintenance is best achieved through the transfer from contrived to naturally occurring contingencies of reinforcement; through thinning the reinforcement schedule; and by making the training environment as close to the natural environment as possible (generalisation).</p>	D.135	You progress from continuous and contrived schedules of reinforcement to more natural, intermittent schedules of reinforcement as directed by your supervisor.
K.175	<p>You know the importance of programming for generalisation to ensure that the effects of a behaviour change procedure result in a transfer across time, settings, individuals and behaviours.</p>	D.136	You include NET as directed by your supervisor.
K.176	<p><u>Types of generalisation</u></p> <p>You know that there are two types of generalisation: stimulus and response.</p>		
K.177	<p>You know that stimulus generalisation is the spread of effects over different stimulus conditions (e.g, being able to drive a mini after you have learned to drive a Renault; putting up your hand in a maths class after learning to do so in English) These different stimulus conditions include:</p> <ul style="list-style-type: none"> <li>• Setting</li> <li>• Materials</li> <li>• People</li> <li>• Time of day</li> <li>• Language</li> </ul>	D.137	You increase the range of stimuli presented to your learner and reinforce correct responses to new stimuli, as directed by your supervisor.
K.178	<p>You know that response generalisation is the spread of effects such that the learner emits a variety of responses to a given</p>	D.138	You reinforce appropriate examples of response generalisation as they occur.

K.179	<p>stimulus (e.g., saying “Hi” or “hello” or waving when someone comes into a room).</p> <p>You know that the aim of generalisation is for the learner to use a taught skill appropriately in the natural environment, or to apply the learning of one skill to other situations, and that training needs to increasingly approximate that of the natural environment</p> <p><u>Promoting generalisation</u></p>	D.139	You use appropriate prompting strategies to elicit response generalisation when necessary.
K.180	<p>You know that there are a number of strategies to promote generalisation. These include:</p> <ul style="list-style-type: none"> <li>• Teaching sufficient examples: both stimulus and response</li> <li>• Making the instructional setting as similar as possible to the natural setting</li> <li>• Maximising contact with naturally occurring reinforcement</li> <li>• Teaching self-management skills</li> </ul>	<p>D.140</p> <p>D.141</p> <p>D.142</p> <p>D.143</p> <p>D.144</p> <p>D.145</p>	<p>You introduce new examples of the teaching materials once the required response has been met with those used initially and vary them going forward.</p> <p>You vary tasks within teaching sessions and intersperse those on different levels of acquisition.</p> <p>You vary the setting for teaching when appropriate (e.g, use a visit to a shop as an opportunity to work on a maths skill)</p> <p>You incorporate teaching opportunities into everyday activities.</p> <p>You maximise teaching opportunities that have the potential to contact naturally occurring contingencies by capitalising on unexpected events.</p> <p>You teach a learner how to contact/look for or request natural contingencies of reinforcement.</p>

	Knowledge		Demonstrable Behaviour
K.181	You know that self management is the design, arrangement and implementation of behaviour change procedures to change one's own behaviour.	D.146	You support self management with learners: involving learners appropriately in the identification of targets; encouraging learners and reviewing progress of the procedure.
K.182	You know that self management strategies are an important part of promoting self help and independence.		
K.183	<p>You know that self management teaches a person to:</p> <ul style="list-style-type: none"> <li>• Identify and provide consequences for the behaviour targeted for change.</li> <li>• Arrange contingencies to support self management reinforcement.</li> <li>• Identify and display alternative responses that are competitive and/or incompatible with the target behaviour</li> <li>• Identify internal and external precursors to the target behaviour (e.g, S<sup>D</sup>s, MOs)</li> <li>• Identify the immediate and delayed positive and negative consequences of engaging in the target behaviour.</li> </ul>	D.147	<p>You help learners use appropriate antecedent and consequence based self-management procedures such as:</p> <ul style="list-style-type: none"> <li>• Behavioural contracts</li> <li>• Manipulation of MOs</li> <li>• Arranging the environmental stimuli to increase or reduce behaviour</li> <li>• Self administered reinforcers and punishers for desirable/less desirable behaviours.</li> </ul>

## GLOSSARY

### Behaviour Analyst:

Behaviour Analysts work to achieve positive behaviour change for individuals, groups of people, and for organizations and society as a whole. Behaviour analysts might be involved in helping to make a positive difference to behaviour change in any context in healthcare, public health, social care, education, or business. Behaviour analysts work with people to help achieve behaviour change by using ABA-based intervention approaches.

### B-Squared

B Squared is a commercial organisation that produces assessment tools that map onto the curriculum for P Levels, National Curriculum, Foundation and the Pre Entry Level Adult Curriculum.

<http://www.bsquared.co.uk>

### Child and Children and Young People:

For the purposes of the framework the definition of “child” is the legal definition of someone under and up to the age of 18. See “Learner” (below).

Every Child Matters defines Children and Young People in England as: Someone up to the age of 19, care leavers up to the age of 21 or beyond if they are continuing to be helped with education or training by their Local Authority or up to 25 if they have learning difficulties or disabilities.

### Curriculum:

A curriculum comprises all learning and other experiences that each setting plans for its children to develop socially, morally, culturally, physically and mentally and are prepared for the opportunities and experiences of adult life. (ABA Competencies project writing group)

### **Direct Instruction:**

Direct Instruction (DI) is a model for teaching that emphasizes well-developed and carefully planned lessons designed around small learning increments and clearly defined and prescribed teaching tasks. It is based on the theory that clear instruction eliminating misinterpretations can greatly improve and accelerate learning. (<http://www.nifdi.org>)

### **Educational Psychologist:**

An Educational Psychologist addresses the problems encountered by children in Education which may involve learning difficulties and social or emotional problems. Educational Psychologists carry out a wide range of tasks with the aim of enhancing children's learning and enabling teachers to become more aware of the social factors affecting teaching and learning. (ABA Competencies project writing group)

### **Functional Communication Training:**

An antecedent intervention in which an appropriate communicative behaviour is taught as a replacement behaviour for problem behaviour. (Based on Copper et al, 2007)

### **Intervention:**

For the purpose of the framework an intervention is the precise description of tactics in place to increase or decrease a specific behaviour for an individual, including a description of that behaviour. (ABA Competencies project writing group)

### **Learner:**

For the purposes of the framework the term "learner" is defined as any person engaged in learning a behaviour. (ABA Competencies project writing group)

## **Occupational Therapists (OTs):**

OTs promote health and well-being by enabling people to perform and participate in meaningful and purposeful occupations. These include (but are not limited to) schoolwork/work, play/leisure, self care, domestic and community activities. The main goal for OT is to help people to engage as independently as possible in the activities (occupations) of everyday life and this is achieved by developing the essential prerequisite skills (motor, sensory, cognitive and psychosocial skills), adapting the activity and/or modifying the environment. (ABA Competencies project Allied Health Professionals writing group)

## **Picture Exchange Communication System (PECS):**

Developed by a Behaviour Analyst and Speech and Language Therapist PECS is a form of augmentative and alternative communication. It is typically used as an aid in communication for children with autism and other special needs. Learners are taught to exchange single pictures for items or activities they really want. (<http://www.pecs.org.uk>)

## **PIVATs**

PIVATs is an assessment programme used nationally to measure pupil progress through the 'P' Scales and up to National Curriculum Level 4. As well as its use throughout the UK PIVATs is now being adopted by Local Authorities and District School boards across Canada, Australia, South Africa and other parts of the world. (<http://www.lancashire.gov.uk>)

## **Pivotal Response Teaching:**

Pivotal Response Intervention (PRI) is an approach to teaching individuals with autism spectrum disorders (ASD) that involves instruction in areas that, when targeted, result in progress in numerous related areas. PRI is based on applied behaviour analysis including collecting data as a basis for decision-making and strategy implementation. (<http://www.autismnetwork.org>)

## **Precision Teaching:**

Precision Teaching is “a method of measuring student performance regularly and frequently and using an analysis of the measurements to suggest instructional and motivational strategies capable of correcting failures to learn. Precision teaching is not as much a method of instruction as it is a precise and systematic method of evaluating instructional tactics and curricula.” (West, Young & Spooner, 1990, p.5)

## **Problem behaviour:**

For the purposes of the framework problem behaviour is defined as any behaviour that presents a barrier to a learner in terms of achieving his or her goals including barriers to learning as well as the following:

Behaviour can be described as challenging when it is of such an intensity, frequency or duration as to threaten the quality of life and/or the physical safety of the individual or others and is likely to lead to responses that are restrictive, aversive or result in exclusion. (<http://www.rcpsych.ac.uk>)

## **Programme:**

For the purposes of the framework a programme is a detailed outline of all of the behaviours targeted for increase and decrease and the interventions put in place to achieve these. A programme will include a person’s Individual Education Plan (IEP). (ABA Competencies project writing group)

## **SENCOs:**

The SEN co-ordinator (SENCO) is appointed within a school and takes day to day responsibility for the operation of SEN policy and co-ordination of the individual provision made for children with SEN working closely with staff, parents and carers, and other agencies. (ABA Competencies project Allied Health Professionals writing group)

## **Speech and Language Therapists (SALTs):**

SALTs assess speech, language, communication and swallowing difficulties. They plan and monitor intervention that will target:

- Early skills necessary to develop communication, language and speech such as: attention and listening skills, turn taking, initiating
- Non verbal communication e.g. use of gesture, pointing
- Understanding of Language e.g. vocabulary understood, how many words in a sentence are understood versus following other cues
- Expressive Language and a mode and means of communicating, may be assessing for best form of alternative augmentative communication or expanding vocabulary, words to phrases, and communicating to express needs and wants but then taking it further to comment etc
- Speech sounds i.e. pronunciation (articulation) of words
- Social Interaction e.g. ability to initiate communication

(ABA Competencies project Allied Health Professionals writing group)

## **Stakeholders**

All people or organisations with an interest in (in this case) the provision of ABA services including providers, consumers, commissioners, procurers and academics. (ABA Competencies project writing group)

## **Targets**

The response (single instance of a behaviour) selected for intervention. (Based on Copper et al, 2007)

## **Teachers:**

A qualified teacher is someone who has met a core set of professional standards which includes (but is not limited to) demonstrating knowledge and understanding of educational policy, pedagogy, teaching and learning, assessment and monitoring and the National Curriculum. Teachers may also have specialist knowledge in a particular area. (ABA Competencies project Allied Health Professionals writing group)

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