BSquared

Introduction to the Communication & Interaction Framework

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Introduction

The Four Broad Areas of Development

The SEND Code of Practice: 0–25 years (DfE & DoH, 2015) suggests that the range of needs and difficulties experienced by children and young people can be broadly categorised into four areas, which are:

- communication and interaction;
- cognition and learning;
- social, emotional, and mental health; and
- sensory and/or physical needs.

This is not to say that an individual will fit into one of these categories; but rather, that a specific aspect of their impairment will affect one or more of these areas.

> *The purpose of identification is to work out what action the school needs to take, not to fit a pupil into a category. In practice, individual children or young people often have needs that cut across all these areas and their needs may change over time.*
>
> **(DfE & DoH, 2015)**

These areas are useful distinctions because child development, on the whole, can be broadly categorised as enhancing an individual's communicative, cognitive, affective (social and emotional), or operative (sensory and physical) abilities. Historically, B Squared's assessment frameworks have focussed on academic achievement which has broadly centred around skills in the cognitive domain. However, one of the recommendations of 'The Rochford Review: Final Report' was that schools assess pupils' development in all four areas (STA, 2016) and this was subsequently supported by the DfE in their response to the open consultation on the matter.

> *It is important that schools continue to monitor and support pupils' development in all 4 areas to foster engagement with the world and to encourage autonomy.*
>
> **(DfE, 2017)**

We decided that, alongside the cognition and learning frameworks, we would begin to develop content for the other three areas in order to help teachers to assess these important aspects of their pupils' development. The first of these four areas to be completed is the Communication and Interaction framework.

Communication and Interaction

The study of human communication, as with many of the social sciences, is hugely complex. There are a great many sub-disciplines and domain-specific approaches, but for the purpose of this framework and the work that teachers undertake with their pupils, communication will be defined as the act of sharing information between two or more people.

There is incredible variety in how we can communicate. We generally communicate through behavioural and symbolic forms. Individuals can lash out when they are angry with others (behavioural) or can use language to tell others about their unhappiness (symbolic). Whilst the latter clearly allows for greater nuance and complexity within the message, the former can be a very effective way of sharing an intended message, albeit blunt and often unacceptable.

Symbolic communication can be conveyed in a variety of ways. The use of these is often determined by an individual's cognitive, sensory, or physical abilities. For example, the majority of people share spontaneous messages verbally through an oral-aural mode when they talk and listen to each other. However, someone who can neither hear, nor speak may communicate verbally through a manual-visual mode, for example, sign language. At this stage, it is important to note that verbal communication means communicating with language in whichever mode it is expressed (speech, key word signing, sign language, tactile signing, writing, graphic symbols, tactile symbols, tactile writing, and many more). It should not be used solely to refer to communication with voice—the term for that would be oral or vocal communication. Often when people use the term 'non-verbal', they actually mean 'non-vocal'.

Verbal communication is the use of words to share information with other people. It includes not only spoken and written communication, but also key word signing, sign language, tactile signing, writing, graphic symbols, tactile symbols, tactile writing, and more.

Society has developed technologies in order to record communication for improved accuracy over longer distances and longer periods of time. Whilst the majority of people in the United Kingdom use a Graphophonemic-Visual recorded communication system (the written alphabet) to communicate, younger individuals or those with cognitive or motor difficulties may use Ideographic-Visual systems (such as PECS) which simplify the process of communication by representing ideas and concepts rather than individual phonemes (letters of the alphabet). Other individuals with visual impairments may not be able to use any form of recorded communication that rely on visual stimulus, and thus may express or receive recorded communication through aural or tactual modes, such as digital audio recordings, braille or tactile symbols.

There are many elements of non-verbal communication that humans use in every conversation in order to express or understand intentional or emotional messages. These can include facial expressions, gestures, proximity, body language and vocal intonation. When using digital messaging systems non-verbal elements can make the difference between an argument and a lol (Laugh Out Loud).

Many forms of communication can be used to share meaning or make a statement and do not fall under the remit of language. Some of these include the visual arts, performing arts, our presentation of work, and our presentation of self. Many of these signal messages to, or allow us to draw meaning from, others and not all are necessarily intentional.

Communication is a wide and varied medium; and, depending on the strengths and needs of the individual, maybe undertaken in many more ways than just speaking, listening, writing, and reading.

The SEND Code of Practice: 0–25 years (DfE & DoH, 2015) identifies two main groups who may have difficulties with communication and interaction, which are:

> *Children and young people with speech, language and communication needs (SLCN) have difficulty in communicating with others. This may be because they have difficulty saying what they want to, understanding what is being said to them or they do not understand or use social rules of communication. The profile for every child with SLCN is different and their needs may change over time. They may have difficulty with one, some or all of the different aspects of speech, language, or social communication at different times of their lives.*
>
> *Children and young people with ASD, including Asperger's Syndrome and Autism, are likely to have particular difficulties with social interaction. They may also experience difficulties with language, communication, and imagination, which can impact on how they relate to others.*
>
> **(DfE & DoH, 2015)**

However, individuals with cognitive difficulties, social and emotional difficulties, and sensory and physical difficulties can all struggle with sending and receiving accurate messages for various reasons.

Speech, Language and Communication Needs in schools, and its Impact on Learning

It is reported that 10% of all children have a long-term speech, language, or communication need (SLCN); but yet, only 3% of school pupils are identified with SLCN as their primary need (RCSLT, 2019). Long-term outcomes for people with SLCN can be poor.

- People in the criminal justice system are ten times more likely to have SLCN than the general population (Coles et al., 2017), yet it is a common story to hear offenders who did not receive any support for their communication in childhood or adolescence.

- People with a primary communication impairment are at greater risk of a secondary mental health disorder (Botting et al., 2016). 81% of children with emotional and behavioural disorders have significant language disorder (Hollo, Wehby and Oliver, 2014).

Language is usually our primary means of delivering learning and observing and recording progress. Early language skills are the building blocks of literacy. For learners with SLCN, this means that they can be impacted in a range of ways. They may:

- be unable to access classroom materials, whether spoken or written;

- be unable to demonstrate their knowledge, leading to assumptions being made about their learning capacity;

- struggle in peer relationships; and

- struggle with life skills such as planning, memory, and organisation.

Many difficulties in accessing the curriculum have their roots in an underlying communication need.

Children are reliant on schools to identify and support them in their communication skills. Schools and Speech and Language Therapists (SLTs or SaLTs) are partners in supporting children to reach their communication potential.

What is the role of the SaLT?

Speech and Language Therapists have specialist training in assessing and treating a wide range of communication disorders, for example, children may have difficulties in:

- speech—intelligibility of spoken language;
- expressive language—vocabulary, whether words are combined in sentences, and the grammatical complexity of these sentences;
- receptive language—whether vocabulary, sentences and grammar are understood
- social communication—the appropriate use of non-verbal and verbal communication in the full range of social contexts in which we communicate;
- stammering; or
- using spoken language as a primary means of communication owing to physical disability.

Communication disorders may co-occur with other conditions such as Autism Spectrum Disorders (ASD) or learning difficulties, or they may stand alone.

Treatment may involve remediating difficulties; however, it may also focus on functional skills that reflect an understanding that the child's difficulties are long-term. Working with their difficulties may be as necessary as working on them.

Speech and Language Therapists can work with teachers to support differentiation that meets the learning needs of pupils with SLCN. They are also interested in developing schools to become positive communication environments for young people. Whole-school approaches that work to the strengths of children with SLCN tend to be of benefit to all children and are a crucial backdrop to more targeted and specialist approaches.

Using the Framework

B Squared worked with a group of Speech and Language Therapists to review the Communication and Interaction framework, we used their feedback and advice to adapt and update the framework. Angharad Welch from Find the Key Speech and Language Therapy provided guidance for schools on how to use this framework and how the framework can be used to improve how schools work with their SaLT.

Thoughts from a Speech and Language Therapist

Speech and Language Therapists can sometimes talk a 'different language' to schools and it can be difficult to find common ground for discussions. Below I have identified some ideas for using this framework effectively.

- Use the framework to identify where groups of children in the same class may have overlapping areas of need. This could support you to provide targeted interventions to these children or to evaluate your whole class teaching approaches. Effective universal and targeted teaching approaches mean that Speech and Language Therapists can be more effective when providing or guiding specialist interventions
- You will see that the framework is organised by levels and by age bands. This is likely to be helpful in discussions with your SaLT whose training is focussed on the developmental progression of communication skill. I am delighted that this framework reflects that communication skills, including written skills, cannot be taken as standalone skills, and must build on a foundation of early interaction and language-rich experience. Whilst the curriculum may demand evidence of one skill in a child, the framework allows us to see that there may be many underlying skills needed to reach that goal.
- The communication framework's developmental approach is also likely to be helpful in transition discussions between Early Years settings and Primary schools, or between Primary schools and Secondary schools.
- NB Please use the developmental age bands with wisdom. A child with skills in the three-year-old level at the age of 7 will not present exactly like a three-year-old, because they have been exposed to seven years of experience and may have developed a range of coping strategies. Children have often become adept at using the skills they have to manage the implications of their communication disorder. The age bands are a useful point of reference but need to be shared carefully and thoughtfully, especially as young people get older.
- The framework can be used to support effective referrals into your NHS or independent SaLT. It may also support you in talking to parents about why referrals are needed. As referral criteria can change often and become more stringent to manage demand, an effective referral with strong evidence may be the difference between accessing a SaLT or not.
- Some children will show a delay in communication skills, that is, they are following a typical developmental path, but are not reaching expected goals 'on time'. Other children exhibit the classic 'spiky profile' of disordered communication, with gaps in some earlier areas, but apparent skills in later areas. This framework will allow you to clearly understand this.
- Ask your Speech and Language Therapist if they can help you to identify where their therapy goals will fit in alongside the descriptors in the framework. Communication progress can sometimes be difficult to identify, and shared use of descriptors may allow better recognition of a child's achievements.
- Try using the framework to promote shared target-setting between school, families, and SaLT e.g. at Annual Review.

- A gap in the framework does not imply that a child necessarily needs to work on that area as a target, but it may help you identify and refine developmentally appropriate goals for children. Best practise would be to take advice from a Speech and Language Therapist in developing goals for support, and not simply adapt descriptors into IEP targets.

Children and young people using Augmentative and Alternative Communication tend, intrinsically, to follow a less typical path to communication success. This means that the skills that are delineated in this strand, whilst organised in levels, do not necessarily reflect typical developmental steps, as is the case within the rest of the framework.

Speech and Language Therapists, alongside colleagues from other therapies like Occupational Therapy and Physiotherapy, will choose a range of goals for communication and access to AAC that reflect the individual needs of the child and constitute functional goals for them.

I am so pleased that the framework reflects throughout that physical skills are important foundations for communication success. Specifically, physical access to any device and how this is progressed or maintained is as much an issue to be considered as the communication content of any software. This is a true reflection of the complexities of AAC.

Speech and Language Therapists use an approach called 'Total Communication', a philosophy that aims to immerse children and young people in effective communication environments that model communication in a range of modalities e.g. signing, symbols, spoken language. The children then choose the unique blend of methods that work to their strengths and wishes.

For this reason, you may find that your goal setting and assessment using these areas will require you to take a more eclectic approach, as well as a more multi-disciplinary one.

Using the Communication and Interaction Framework with Evisense

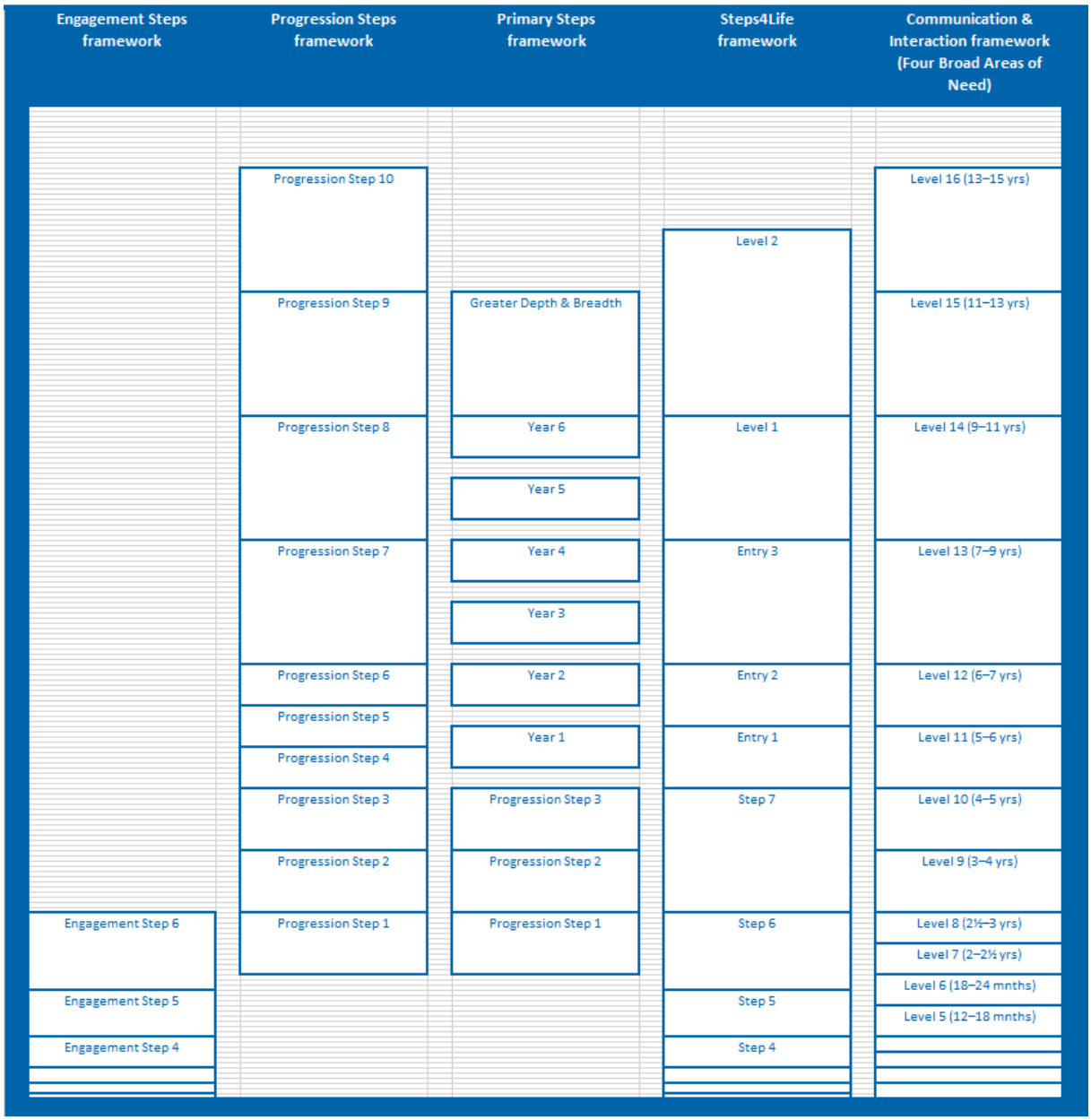
The Communication and Interaction framework works with our evidence platform, Evisense. Evisense is an extremely easy to use evidence system with a social-media style interface. As there are unlimited users with Evisense, you can give your SaLT access, without additional cost. The SaLT can then contribute to the child's story, sharing the progress they are making within their sessions.

It is important for child development that a SaLT has regular communication with the pupil's parents, teacher and support staff. This allows them to communicate how the pupil is progressing, the next steps and how staff and parents can help support the pupil's development. This could include practising/using sounds, intensive interaction, singing songs etc. Regular communication between the SaLT, parents, teacher and support staff sometimes doesn't happen as the SaLT is only in school for a short period of time or the pupil uses school transport, so face to face meetings aren't possible with parents. Evisense can overcome this challenge. The SaLT can record a selfie video, simply talking through what they worked on in the session and how the parents or staff can help support this work in school or at home. Staff and parents can use comments to talk about the successes they have or haven't had or record their own vides. This will give the SaLT a more holistic view and enable them to provide better support.

Framework Structure

Communication and Interaction is one of the Four Broad Areas of Need identified in the SEND Code of Practice. As such, the B Squared's Communication and Interaction framework is designed to sit alongside our other frameworks your school currently uses to assess Cognition and Learning. All the existing frameworks have unique levelling structures based on the statutory guidance that governs them and any other relevant departmental advice. The framework can also be used alongside other assessment systems.

The new frameworks from B Squared, covering the broad areas of need, will adopt their own structure rather than adhering to one of the age-specific frameworks for cognition and learning mentioned above. All three frameworks will share the same levelling structure and an approximate comparison of these areas to the existing frameworks can be seen below.



Framework Content

The new Communication and Interaction framework from B Squared aims to help members of staff to assess and monitor the developing abilities of the children and young people they work with in order for staff to be able to help those that need it. It does this by breaking communication down into the following areas:

- Spontaneous Verbal Communication
  - Communicating with Spoken Language
  - Communicating with Signed Language
  - Communicating with Symbols
  - Vocabulary, Parts of Words & Grammatical Structures
  - Creating & Understanding Shared Meaning
- Recorded Verbal Communication
  - Communicating with Symbols
  - Vocabulary, Parts of Words & Grammatical Structures
  - Creating & Understanding Shared Meaning
  - Spelling Appendix
  - Phonics Appendix
- Non-Verbal Communication
  - Communicating with Faces, Bodies & Sounds
  - Self-Expression
- Using Technology to Aid Communication
  - Using Technology to Aid Communication

By understanding more about the specific communicative strengths and needs of their pupils, teachers can plan specific interventions, personalise learning and communicate with Speech and Language Therapists in a way for which the National Curriculum programmes of study do not naturally cater.

Using Communication and Interaction with Other Frameworks

The Communication and Interaction framework will work best when used alongside our other frameworks. As we created the Communication and Interaction framework, we used appropriate content from existing frameworks. This has a number of benefits:

- When you start using the framework, it will be pre-populated with any skills a pupil has already achieved or is working towards.
- As skills are achieved or experienced within Communication and Interaction, they will automatically transfer to our other frameworks and vice versa. This can allow for improved collaboration between teachers and SaLT.
- Evidence and comments linked to achievements that are in multiple frameworks will be synced. Teachers can view evidence uploaded by the SaLT.

This will result in a more holistic view of a pupil's progress and achievements.

Spontaneous Verbal Communication

This area of the communication and interaction framework seeks to identify developmental milestones relating to the knowledge, skills and behaviours that enable individuals to undertake and understand impromptu or unplanned exchanges of information and ideas with language. The three mode-specific profiles allow members of staff to monitor the observable skills that the individuals in their care exhibit in relation to the development of spoken language, signed language, and communication with symbols. The two further profiles are concerned with the acquisition of language, the rules that govern it, and the messages signified by it.

Communicating with Spoken Language

This profile is sub-divided into expressive and receptive elements identified as the ability to either use or understand spoken language respectively. The former looks at the skills involved with the transmission of spoken English signals whilst the latter looks at those related to the acquisition of them.

> **Using Spoken Language**—this strand looks at speech clarity and intelligibility: the production of speech sounds (phonetics), and the rules of phonetic patterns that apply to them (phonology).
>
> **Understanding Spoken Language**—this strand looks at phonological awareness: the perception of speech sounds (phonetics), and the rules of phonetic patterns that apply to them (phonology).

Communicating with Signed Language

This profile is sub-divided into expressive and receptive elements identified as the ability to either use or understand signed language respectively. The former looks at the skills involved with the transmission of manual signals whilst the latter looks at those related to the acquisition of them.

There are a variety of manual-visual or manual-tactual systems available to individuals in the UK, and many more internationally. Some examples of these systems are British Sign language, Sign Supported English, Social Haptic Communication, and Makaton—to name a few. The choice of system will depend on the additional cognitive, sensory, and physical needs of the individual. To make matters more confusing, different systems may have their own grammatical rules, conversational conventions, and even signals; some systems even vary from region to region within the country itself. As such, this assessment framework requires a level of language system knowledge on the behalf of the assessor and identifies general milestones which may be disregarded if necessary.

> **Using Signed Language**—this strand looks at sign clarity and intelligibility: the production of signs, and the rules that apply to them.
>
> **Understanding Signed Language**—this strand looks at sign sensitivity: the perception of signs, and the rules that apply to them.

Communicating with Symbols

This profile is sub-divided into expressive and receptive elements identified as the ability to either use or understand communication with symbols respectively. The former looks at the skills involved with the transmission of messages with symbols whilst the latter looks at those related to the acquisition of them.

There are a variety of ideographic-visual or ideographic-tactual systems available to individuals in the UK, and many more internationally. Some examples of these systems are Widgit Symbols, Symbolstix, Blissymbols, Standardized Tactile Augmentative Communication Symbols—to name a few. The choice of system will depend on the additional cognitive, sensory, and physical needs of the individual. To make matters more confusing, different systems may have their own grammatical rules, conversational conventions, and even symbols. As such, this assessment framework requires a level of language system knowledge on the behalf of the assessor and identifies general milestones which may be disregarded if necessary.

> **Using Symbols**—this strand looks at the manual and mental requisites for using symbols to communicate with others.
>
> **Understanding Symbols**—this strand looks at the sensory and observational requisites for understanding symbol communication from others.

Vocabulary, Parts of Words & Grammatical Structures

This profile is sub-divided into expressive and receptive elements identified as the ability to either use or understand vocabulary, parts of words and grammatical structures respectively. The former looks at the structural skills involved with the transmission of spontaneous language whilst the latter looks at those related to the comprehension of them.

> **Using Vocabulary, Parts of Words & Grammatical Structures**—this strand looks at the individual's growing mental dictionary (lexicon); their ability to combine roots, prefixes, and suffixes to produce words (morphology); and their application of the grammatical conventions that govern the structure of sentences (syntax).
>
> **Understanding Vocabulary, Parts of Words & Grammatical Structures**—this strand looks at the examination of roots, prefixes, and suffixes when perceiving words (morphology), and comprehension of the grammatical conventions that govern the structure of sentences (syntax).

Creating & Understanding Shared Meaning

This profile is sub-divided into expressive and receptive elements identified as the ability to either create or understand meaning respectively. The former looks at the skills involved with the transmission of spontaneous messages whilst the latter looks at those related to the acquisition of them.

Creating Shared Meaning—this strand looks at the combination of words, phrase, and sentences into messages in order to express meaning (semantics).

Understanding Shared Meaning—this strand looks at the dissection of messages into component words, phrase, and sentences in order to understand the meaning (semantics).

Recorded Verbal Communication

This area of the communication and interaction framework seeks to identify developmental milestones relating to the knowledge, skills and behaviours that enable individuals to undertake and understand planned or documented exchanges of information and ideas with language. The mode-specific profile allows members of staff to monitor the observable skills that the individuals in their care exhibit in relation to the development of written English language. The two further profiles are concerned with the acquisition of language, the rules that govern it, and the messages signified by it.

Recorded verbal communication (e.g. writing, etc.) has its roots in spontaneous verbal communication (e.g. speaking, signing, etc.). Therefore, certain spontaneous language milestones are usually attained in advance of individuals developing their recording skills. Conversely, some children demonstrate skills and structures in written language that they do not evidence in receptive or expressive speech. Therefore, recording achievements in this area allows members of staff to think about communication in the round, make important distinctions regarding the communicative development of the individuals in their charge, and share this information with Speech and Language Therapists.

Communicating with Written Language

This profile is sub-divided into expressive and receptive elements identified as the ability to either use or understand written language respectively. The former looks at the skills involved with the transmission of English writing whilst the latter looks at those related to the acquisition of them.

Pre-Literacy Skills—this strand covers the first four levels and identifies a range of language, motor, and sensory skills that will help an individual develop early literacy skills.

Using Written Language—from level five onwards, this strand looks at mark-making, letter formation, spelling and handwriting: the motor skills involved in producing precise and fluent graphemes, punctuation, and word breaks (orthography) and the recognition of letters, the understanding of sound-symbol relationships, and spelling patterns (graphophonemics)

Understanding Written Language—from level five onwards, this strand looks at decoding graphemes: the individual's phonological awareness, identification of grapheme-phoneme correspondences, and sight recognition of words.

Vocabulary, Parts of Words & Grammatical Structures

This profile is sub-divided into expressive and receptive elements identified as the ability to either use or understand vocabulary, parts of words and grammatical structures respectively. The former looks at the structural skills involved with the transmission of recorded language whilst the latter looks at those related to the acquisition of them.

Pre-Literacy Skills—this strand covers the first four levels and identifies a range of language, motor, and sensory skills that will help an individual develop early literacy skills.

Using Vocabulary, Parts of Words & Grammatical Structures—from level five onwards, this strand looks at word, phrase, and sentence construction: the creation of sentences based on the number and kind of clauses in their syntactic structure.

Understanding Vocabulary, Parts of Words & Grammatical Structures—from level five onwards, this strand looks at language structures: the skills involved with identifying and understanding the denotations and connotations of sentences and literary devices.

Creating & Understanding Shared Meaning

This profile is sub-divided into expressive and receptive elements identified as the ability to either create or understand meaning respectively. The former looks at the skills involved with the transmission of spontaneous messages whilst the latter looks at those related to the acquisition of them.

Pre-Literacy Skills—this strand covers the first four levels and identifies a range of language, motor, and sensory skills that will help an individual develop early literacy skills.

Creating Shared Meaning—from level five onwards, this strand looks at the purpose and audience of recorded messages: the intent behind the creation of text and the individual's ability to adapt their message for increased efficacy in different situations.

Understanding Shared Meaning—from level five onwards, this strand looks at the individual's verbal reasoning skills: their ability to understand and reason using words by applying logic to deduce and surmise answers to questions about the recorded message.

Spelling Appendix

This partial profile identifies the specific grapheme-phoneme correspondences (GPC) which we use in order to enable us to encode language in its written form.

> **Spelling**—the solitary strand, within this profile, starts at level eleven and finishes at level fourteen. It seeks to identify whether the individual can read words which contain the range of GPCs used in the English language.

Phonics Appendix

This partial profile identifies the specific grapheme-phoneme correspondences (GPC) which we use in order to enable us to decode language from its written form.

> **Phonics**—the solitary strand, within this profile, starts at level eleven and finishes at level fourteen. It seeks to identify whether the individual can read words which contain the range of GPCs used in the English language.

Non-Verbal Communication

This area of the communication and interaction framework seeks to identify developmental milestones relating to the knowledge, skills, and behaviours that enable individuals to project and respond to messages expressed manually and without the use of language. The first profile allows members of staff to monitor the observable skills that the individuals in their care exhibit in relation to their awareness and use of facial expression, eye contact, body language (posture), body movement (kinesics), physical contact (haptics), spatial distance (proxemics), and a range of vocal dynamics (para-linguistics).

The other profile is concerned with how these messages express complex ideas and concepts through aesthetic means, whether they be the arts or presentation of work or self. This profile seeks to identify developmental milestones that allow individuals to project and respond to the signs and symbols portrayed through abstract expression.

Communicating with Faces, Bodies & Sounds

This profile is sub-divided into expressive and receptive elements identified as the ability to either use or understand faces, bodies and sounds respectively. The former looks at the skills involved with the transmission of non-verbal messages whilst the latter looks at those related to the acquisition of them.

Using Faces, Bodies & Sounds—this area looks at how the individual reinforces, contradicts, or substitutes verbal messages with features, such as, eye gaze, eye contact, facial expressions, posture, gesture, haptics, proxemics, prosody, pitch, pace, pauses, volume, and intonation.

Understanding Faces, Bodies & Sounds—this area looks at how the individual interprets features, such as eye gaze, eye contact, facial expressions, posture, gesture, haptics, proxemics, prosody, pitch, pace, pauses, volume, and intonation, and their interaction with verbal messages

Self-Expression

This profile is sub-divided into four elements identified as the ability to either use or understand less tangible forms of expression respectively. The former looks at the skills involved with the transmission of meaning whilst the latter looks at those related to the acquisition of them.

Expression of Information—this area looks at how an individual both organises and arranges text, images, and data to share clear and coherent messages; and reads these messages when presented them by others.

Expression of Ideas through Art—this area looks at how an individual expresses and infers meaning through and from the mediums of art.

Expression of Ideas through Performance—this area looks at how an individual expresses and infers meaning from a wide range of performance art disciplines.

Expression of Self through Personal Presentation—this area looks at how an individual projects an image of themselves through their personal hygiene and choice of apparel.

Using Technology to Communicate

Augmentative and Alternative Communication (AAC) is a term that covers a wide range of different communication systems or technologies that help individuals whose conventional communication does not allow them to fully express themselves. These systems and devices can vary hugely in the degree of prior knowledge required to maintain dialogue, the level of technical support required to access them, the way a user interacts with them, the language system they employ, and the output method of the end message. This area of the framework seeks to identify developmental milestones that allow individuals to express and receive information with their own AAC system.

This area looks at the basic technological skills that an individual might need to employ if they require a technological device to aid their communication.

Using Technology to Communicate

There are a variety of technological systems available to individuals to support their direct communication; however, they vary wildly in the ways they are accessed, the language system they use and the method of message output. Some systems track the individual's eye gaze, others allow for head pointing, joystick control, or switch access. Some systems allow users to interact freely whilst others require the user to access the device to stop it scrolling through options. Some systems provide ideographic language options whilst others may use graphophonemic language. Some systems generate speech, others do not. Some systems can be mounted on wheelchairs whereas others are carried around. The choice is near endless and depends on the budget of the provider and the additional needs of the individual. As such, this assessment framework seeks to identify general milestones which will support a user to accessing their device. If any points are not relevant to the AAC user, they may be disregarded if necessary.

> **Using Technology to Communicate**—this area looks at how an individual interacts with technological devices to help them communicate.

Glossary

AAC (also known as Augmentative & Alternative Communication)—is a broad term that is used to describe a variety of approaches or technological solutions which support or replace the expression or reception of spoken or written language.

Adjective—a word that modifies a noun, e.g. hot, tall, blue, busy.

Adverb—a word that modifies a verb, e.g. loudly, very, slowly.

Aesthetic Communication—communicating abstract concepts through sensory modes rather than solely with the use of a language or other paralinguistic features.

Alphabet—the written symbols or graphemes which represent the phonological units of language.

Applied Art—the application of design to practical objects for decorative purposes.

Augmentative & Alternative Communication (also known as AAC)—is a broad term that is used to describe a variety of approaches or technological solutions which support or replace the expression or reception of spoken or written language.

Aural Mode—sensory information which is received through the ear, e.g. in the context of language, this would apply to the hearing of speech.

Blissymbols—an ideographic-visual language system produced by Blissymbolics.

Block Alphabet—a manual-tactual communication system whereby letters are spelt out on the palm of the hand. It is used predominantly by people with hearing and visual impairments.

Braille—a tactual code by which many languages can be written. It is used predominantly by people with visual impairments.

British Sign Language (also known as BSL)—the most common form of sign language within the UK. As a full manual-visual language, it has its own grammar and syntax. It is used predominantly by people with hearing or speech impairments.

BSL (also known as British Sign Language)—the most common form of sign language within the UK. As a full manual-visual language, it has its own grammar and syntax. It is used predominantly by people with hearing or speech impairments.

Clause—a part of a sentence which express a complete thought with at least a subject and a main verb.

Co-Active Signing—a manual-tactual communication system whereby BSL signs are jointly carried out between the communication partners. It is used predominantly by people with hearing and visual impairments.

Communication Partner—anyone with whom you are interacting.

Communication—the act of sharing information between two or more people.

Complex Sentence—a sentence where one independent clause is joined to a subordinate clause, e.g. 'I cried when the rock hit the greenhouse'.

Complex-Compound Sentence—a sentence with many clauses where at least one is subordinate, e.g. 'I cried when I threw the rock, and it hit the greenhouse '.

Compound Sentence—a sentence with two independent clauses that are joined by conjunctions or punctuation, e.g. 'I threw the rock, and it hit the greenhouse'.

Communication Partner—the individual with whom you are communicating.

Conjunction—a word used to connect phrases, clauses, and sentences, e.g. because, and, so,

Connotations—associations drawn from a spontaneous or recorded message.

Deafblind Manual Alphabet—a manual-tactual communication system whereby BSL finger spelling carried out on the hand of the receiver. It is used predominantly by people with hearing and visual impairments.

Denotations—direct translations of a spontaneous or recorded message.

Dependent Clause (also known as Subordinate Clause)—a part of a sentence which adds meaning but does not express a complete idea, i.e. it does not have both a subject and a main verb.

DfE—The Department for Education is a ministerial department responsible for children's services and education, including early years, schools, higher and further education policy, apprenticeships, and wider skills in England.

DoH—The Department of Health was the former name of the Department of Health and Social Care prior to 8th January 2018. A ministerial department responsible for leading the nation's health and social care to help people live more independent, healthier lives for longer.

Expressive Communication—the act of transmitting spontaneous or recorded language, alongside other paralinguistic features, to convey feelings, thoughts, needs and other information to another person.

Fine Art—the application of creativity for imaginative, aesthetic, or cognitive purposes.

Gesture—a physical movement used to express meaning, e.g. waving goodbye.

Grammar—the language-specific rules for the composition of words, phrases, clauses, and sentences.

Grapheme-Phoneme Correspondence—the link between the smallest written unit (a grapheme or written letter) and the smallest unit of sounds (a phoneme or spoken letter).

Grapheme—the smallest written unit of a language, e.g. a letter symbol in a Graphophonemic language or a graphic symbol in Ideographic language.

Graphic Symbols—a physical cue which represents an idea or a concept used in an Ideographic-Visual communication system; these are usually used with increasing complexity, e.g. an actual toothbrush, a photograph of a toothbrush, a line drawing of a toothbrush, or a more obscure graphic symbol known to represent a toothbrush.

Graphophonemic Languages—any language in which the smallest written unit (grapheme) represents the smallest auditory/visual unit (phoneme).

Hands on Signing—a manual-tactual communication system whereby BSL signs are carried out on the body (usually the back) of the receiver. It is used predominantly by people with hearing and visual impairments.

Haptics—a form of non-verbal communication and interaction involving touch.

High-Tech AAC—are technological solutions that require the use of electricity to help support or replace the expression or reception of spoken or written language, e.g. mobile tablets, communication apps, speech-generating devices, reader pens, etc.

Ideographic Languages—any language in which the written unit (grapheme/ideogram) represents an idea or concept rather than a phoneme or a solitary word.

Independent Clause—a group of words which express a complete thought with at least a subject and a main verb

Interaction—social actions that occur when two or more people adapt their behaviour to express feelings, thoughts, and ideas.

Interjection—a word or phrase that expresses strong emotion, e.g. Ow! Hello! Well done!

Intonation—the change in pitch displayed in spoken language which often adds additional levels of meaning to the message.

Key Word Signing—an Oral and Ideomanual-Visual system whereby communication partners provide spoken messages and also use signs to represent the important ideas, unlike a full sign language which represents all words.

Language—a system of signs and symbols (sound, letters, gestures, etc.) used to represent objects, actions, feelings, and properties when exchanging information to other people.

Lip Reading—a technique of understanding speech through recognition of facial movements.

Literacy—the ability to produce and understand encoded communication, e.g. reading and writing.

Low-Tech AAC—are technological solutions that do not require the use of electricity to help support or replace the expression or reception of spoken or written language, e.g. communication boards, communication books, communication strips, graphic symbols, tactile symbols, etc.

Makaton—a multi-modal language programme in which a combination of speech, signs and graphic symbols are used to represent key words, usually used by individuals with cognitive difficulties.

Manual Mode—sensory information which is transmitted with movements, e.g. in the context of language, this would apply to visual or tactual signing.

Modality/Mode—is the particular way in which messages are transmitted between two beings through sensory means, e.g. a manual mode expresses meaning through the use of hands, a visual mode obtains meaning through sensory information received by the eyes.

Morpheme—the smallest unit of linguistic meaning, e.g. the word 'submarine' contains two morphemes: 'sub-' meaning under and '-marine' meaning of the sea.

Morphology—the knowledge and understanding of how words are formed.

Non-Verbal Communication—any form of communication that does not rely on the representation of words with sounds, symbols, or signs.

Noun—a word used to name people, places, objects, and concepts, e.g. people, Sarah, London, car, happy.

Object of Reference—a visual or tactile object which is used as a clue or to represent a concept to another person.

Oral Mode—sensory information which is transmitted through vocal sounds, e.g. in the context of language, this would apply to the spoken word.

Orthography—the study of the conventions of a written system of a language, covering letter-formation, spelling, punctuations, etc.

Pace—the speed of communication delivery.

Paralinguistic—additional levels of meaning given or received through the use of non-verbal cues such as body language, facial expression, intonation, etc.

PECS (also known as Picture Exchange Communication System)—an Ideographic-Visual communication system produced by Pyramid Educational Consultants, Inc. which helps users to communicate with graphic symbols.

Performing Art—the application of creative performance for imaginative, aesthetic, or cognitive purposes.

Phoneme—the smallest auditory/visual unit of a language, e.g. a letter sound in a spoken language or hand movement in a signed language.

Phonetics—the study of speech sounds.

Phonology—the study of the grammar of speech sounds.

Phrase—a group of words which act as a conceptual unit of meaning but either do not contain a verb or do not contain a noun.

Phrase—a part of a sentence which adds meaning but does not express a complete idea, i.e. it does not have both a subject and a main verb.

Picture Exchange Communication System (also known as PECS)—an Ideographic-Visual communication system produced by Pyramid Educational Consultants, Inc. which helps users to communicate with graphic symbols.

Pitch—the acoustic frequency of spoken communication.

Posture—the way in which a person holds their body.

Prefix—a string of letters that occur before other morphemes to change the meaning of the word, e.g. the noun 'happy' has the prefix 'un-' attached to it to create the new noun 'unhappy' meaning not happy.

Preposition—a word used to show the *relationship* between the noun and other words, e.g. on, in, under, without.

Pronoun—a word that is used to replace a noun that has already been identified, e.g. you, they, she, myself.

Prosody—the pattern of tones used in spoken language.

Proxemics—the use of space that people establish when interacting with others.

Receptive Communication—the act of acquiring spontaneous or recorded language, alongside other paralinguistic features, to comprehend the feelings, thoughts, needs, and other information provided by another person.

Recorded Communication—any mode of communication that has been documented for long-term communication, long-distance communication, or for another purpose, e.g. to pass a message without alerting others.

Root—a basic morpheme without a prefix or suffix.

Semantics—the study of the meaning of words, clauses, and sentences.

Sentence—a group of words which express a complete thought with at least a subject and a main verb.

Sign Language—a full manual-visual language with its own grammar and syntax. It is used predominantly by people with hearing or speech impairments.

Sign Supported English—a form of sign language which uses signs from BSL, but follows the syntactic conventions of English grammar

Simple Sentence—a sentence with only one clause, e.g. 'I threw the rock'.

Haptic Communication—an aspect of non-verbal communication whereby messages are communicated through the sense of touch.

Speech—an oral-aural mode of communication using language.

Spontaneous Communication—any mode of communication that has been instantly expressed for immediate response.

Subordinate Clause (also known as Dependent Clause)—a part of a sentence which adds meaning but does not express a complete idea, i.e. it does not have both a subject and a main verb.

Suffix—a string of letters that occur after other morphemes to change the meaning of the word, e.g. the noun 'paint' has the suffix '-ing' attached to it to create the new verb 'painting' meaning the act of using paint

Symbolstix—an Ideographic-Visual communication system originally designed and developed by News-2-You, Inc. which helps users to communicate with graphic symbols.

Syntax—a set of grammatical rules that govern the organisation of sentences within a language.

Tactile Signing—a full manual-tactual language with its own grammar and syntax. It is used predominantly by people with hearing and visual impairments.

Tactile Symbols—a physical cue which represents an idea or a concept used in an Ideographic-Tactual communication system; these are usually used with increasing complexity, e.g. an actual toothbrush, a miniature toothbrush, the head of a toothbrush, or a more obscure symbol tactile symbol known to represent a toothbrush.

Tactile Writing—a tactile writing system used by people with visual impairments in order to record and share meaning over longer distances and time periods.

Tactual Mode—sensory information which is received through the skin, e.g. in the context of language, this would apply to the sensation of tactile signing.

Tadoma—a form of oral-tactual communication whereby the hands are placed on the face of the speaker to allow a person with hearing impairment to be able to recognise vibrational clues in order to derive meaning.

Unaided AAC—are approaches that do not require the use of additional aids to help support or replace the expression or reception of spoken or written language.

Verb—a word used to show an action or a state of being, e.g. play, eat, fly.

Oral Communication—a form of verbal communication whereby messages are transmitted through sound waves created by speech.

Verbal Communication—communication involving words that can be transmitted through many different modes, e.g. orally spoken, manually signed, or visually represented through letters of graphic symbols.

Visual Mode—sensory information which is received through the eyes, e.g. in the context of language, this would apply to the reading of written language or the observation of signed language.

Volume—the loudness of communication delivery.

Widgit Symbols—an Ideographic-Visual communication system produced by Widgit Software which helps users to communicate with graphic symbols.

Word—the smallest unit of linguistic meaning, e.g. that can be expressed on its own.

Writing—a manual-visual mode of communication used to record language.