Assistive Technology Specialist Role –Competencies Framework

Aim of this document

This document is intended to describe a framework of competencies that relate to the assistive technology specialist role within a specialised Augmentative Communication Aids (AAC) and specialised Environmental control (EC) service. This role is 'cross-profession' – i.e. can be either an SLT, OT or CS. The profile of competencies required varies according to the main component of a role – i.e. EC or AAC.

This document should be used for staff within training roles (Annex U) as a means of mapping the competencies they are required to meet. In this case, this document should be reviewed monthly as part of 121 review meetings. This framework should also be used by all staff as part of their Continuing Professional Development and should be reviewed annually as part of a Personal Development Review. In this case, the competency profile can be set according to the individual's interests and caseload mix (EC/AAC).

This competency framework does **not include elements of induction** to the team - for example, working practices, policies and procedures etc. These are documented separately in the AT team local induction checklist.

Other relevant documents, standards and frameworks

- Job Description – These competencies are within the limits of the role (detailed in the job description). The job description limits the extent of the competencies.
- CPD: Personal Development Review; NHS Knowledge and Skills Framework ;
- Professional standards: HCPC standards, profession specific standards;
- Other profession specific competencies: IPEM, RESMAG, RCSLT;
- Other competency frameworks: IPAACKS (AAC competencies for staff in AAC teams).

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Competence Measurement

Evidence: This framework describes a set of knowledge and skills that clinicians should evidence predominately through documenting experience. The type of evidence that can be provided is wide and the aim of this process is not to produce a formal portfolio document. Evidence could include documentation of: case studies; training delivered; 121 discussion with line managers relating to the competency; team meeting discussions; work outputs – e.g. reports, device setups, training presentations delivered; training (received) log and reflections; joint working and observation visits with peers; observation by senior staff; specific pieces of writing -e.g. a blog or specific self-directed learning reflection.

This framework should be regularly reviewed at 121 meetings with line managers to monitor progress and look for additional opportunities for progressing specific competencies. In addition to the evidence reported in this document, it would be expected that a staff member would:

- be shadowed and have senior and peer support/critique on assessment and other visit(s);
- receive senior and peer review/critique of a visit/assessment/other report.

Measures: The measure used is designed to be a **self assessment measure** based on experience and skills and/or knowledge. Descriptions of the measure are provided below – one or both of these descriptors may be relevant for a particular competency.

Level	Experience and skills	Knowledge
1	Observation / input to debriefing.	Theoretical knowledge.
2	Providing assistance under direct instruction.	Practical understanding.
3	Carry out the task with immediate supervision.	Application of information and knowledge.
4	Carry out the task with regular case review with line manager and peers but no immediate supervision.	Application of information and knowledge for day to day work.
5	Working independently for appropriate cases. Independently seeking peer support and reflection as appropriate (e.g. joint working, team meeting).	Train others and pass on knowledge and skills. Write resources and guidance.
6	Acting as a source of expertise within the team. Supervising others.	Train specialists, present at conferences. Write case presentations/papers.
7	Working on highly complex cases, act as source of expertise nationally.	Research and evaluate new techniques/topics. Write papers of studies.

The expected levels to achieve the full AT specialist role are shaded in grey on the framework below. In some cases, the levels vary according to the main component of the job role (EC or AAC).

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Competency Framework

	1.	Service Delivery and Commissioning *Understand and convey the healthcare economy and commissioning framework for AT. Support the care pathway within the region.*

	Competency	Level of Competency							Date, Comments, Actions.
		1	2	3	4	5	6	7	
a.	Describe the service specifications, referral & provision criteria related to AAC and EC provision.	☐	☐	☐	☐	☐	☐	☐	
b.	Describe the local service role/responsibilities as related to AAC/EC provision.	☐	☐	☐	☐	☐	☐	☐	
c.	Discuss the service with other people and explain the commissioning/service delivery issues relating to EC/AAC.	☐	☐	☐	☐	☐	☐	☐	
d.	Demonstrate understanding of the roles and boundaries of others in the team and multi/trans disciplinary working. Actively contribute to good team working and generating a supportive and effective team culture.	☐	☐	☐	☐	☐	☐	☐	
e.	Identify service improvements and actively contribute to service developments.	☐	☐	☐	☐	☐	☐	☐	

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2. *Understand and apply knowledge related to the system architecture of assistive technology devices.*

This is not about each individual device – but the 'architecture' of how AT is put together.

	Competency	Level of Competency							Date, Comments, Actions.
		1	2	3	4	5	6	7	
a.	Demonstrate and apply a detailed understanding of the component parts of an **AT system / the system 'architecture'** (*Device; Operating System; Software; Content etc*).	☐	☐	☐	☐	☐	☐	☐	
b.	Demonstrate and apply a detailed understanding of the characteristics/features that relate to the **devices/platform (either dedicated or mobile device based)**. Including: *Portability and user factors; Access options; Mounting; battery etc.* Provide examples within specific devices. E.g: *Accent; GridPadGo; I series etc…*	☐	☐	☐	☐	☐	☐	☐	
c.	Demonstrate and apply a detailed understanding of the characteristics/features of **AT software**. Including: *Access features; Sensory features; Usability etc…* Provide examples within specific AT software. E.g: *Grid3; Qwayo; Communicator; etc.*	☐	☐	☐	☐	☐	☐	☐	
d.	Customise a wide range of AT software according to a client's need. Provide case examples within specific AT software. E.g: *Grid3; Qwayo; Communicator; etc.*	☐	☐	☐	☐	☐	☐	☐	

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e.	Demonstrate and apply a detailed understanding of the features of **AAC vocabulary/language packages.** Including: *Language VS vocab packages ; Language/grammar elements (conjugations etc); representation method; language models (word and phrase prediction);Representation method (Symbolisation, Iconography, transparency, 'multi meaning VS single meaning'),* Provide examples within specific vocab/language packages. E.g: *Bliss, Minspeak, Unity, WordPower etc.*	☐	☐	☐	A A C ☐	E C ☐	☐	☐	
f.	Customise a range of AAC vocabulary/language packages and/or EC/AT content.	☐	☐	☐	☐	☐	☐	☐	
g.	Demonstrate and apply a detailed understanding of a wide range of **access** methods. Including: *Direct access; Switch scanning; alternative keyboards, alternative mice inc eyegaze;*	☐	☐	☐	☐	☐	☐	☐	
h.	Customise or specify a range of **access methods**.	☐	☐	☐	☐	☐	☐	☐	
i.	Demonstrate and apply a detailed understanding of **operating system accessibility.** Including: *Windows, IoS, and possibly - Android, Mac.*	☐	☐	☐	A A C ☐	E C ☐	☐	☐	
j.	Customise access methods to a range of operating systems.	☐	☐	☐	A A C ☐	E C ☐	☐	☐	
k.	Demonstrate and apply (within the limits of the role) a detailed understanding of the role of equipment **mounting** . Including: *Specification, Risks, human factors and other considerations*	☐	☐	☐	☐	☐	☐	☐	

		1	2	3	4	5	6	7	
l.	Demonstrate and apply (within the limits of the role) a detailed understanding of the role of **custom manufacture** within AAC/EC provision. Including: *Specification, Risks*	☐	☐	☐	☐	▣	☐	☐	
m.	Demonstrate and apply (within the limits of the role) an understanding of the role of AT **integration** options for AAC/EC/Wheelchair provision.	☐	☐	☐	☐	▣	☐	☐	
n.	Apply your understanding of the component parts of the AT system and system architecture to a **complex AT client**.	☐	☐	☐	☐	▣	☐	☐	
o.	Be **aware** of a wide **range** of devices, specialised and non-specialised, and be able to critically evaluate the market place (equipment, suppliers, approaches etc).Including: *AAC devices; EC devices; Access options.*	☐	☐	☐	☐	▣	☐	☐	
2.1	*Equipment Management* *Be aware of the legislation and requirements around safe and effective use of assistive technology and medical devices.*								
p.	Demonstrate and apply (within the limits of the role) an understanding of **equipment management** cycle. Including: *Device classification; Regulation; Evaluation (+cost benefit); stock management; PPM and repair; adverse incidents; cleaning; decontamination; life spans (recycling and WEEE).*	☐	☐	☐	▣	☐	☐	☐	
q.	Demonstrate and apply an understanding of the process of **risk evaluation** and assessment.	☐	☐	☐	▣	☐	☐	☐	
r.	Horizon scan for new equipment and techniques. Critically evaluate a new technology and disseminate this review.	☐	☐	☐	☐	☐	☐	☐	

	Person
3.	*Understand the range of aetiologies and presentations of individuals likely to use EC/AAC. Have an understanding of and apply knowledge relating to assessments of skills and abilities.*

	Competency	Level of Competency							Date, Comments, Actions.
		1	**2**	**3**	**4**	**5**	**6**	**7**	
a.	Demonstrate and apply a detailed understanding of **normal development /presentation & atypical development/presentation** as it relates to AAC and EC. Including: *Language; speech; postural management; social; cognitive.*	☐	☐	☐	☐	☐	☐	☐	
b.	Demonstrate and apply an understanding of common **conditions** relevant to the use of AAC/EC, their effect on an individual and the varying prognoses.	☐	☐	☐	☐	☐	☐	☐	
c.	Demonstrate and apply a detailed understanding of the '**environmental' factors** that may facilitate or inhibit the use and adoption of AAC/EC. Including: *Environments; life experience; support staff and skills; attitudes; means, reasons, opportunities. Relating this to AT models – e.g. MRO, Social Networks, MPT, etc.*	☐	☐	☐	☐	☐	☐	☐	
d.	Demonstrate and apply a detailed understanding of the 'human factors' that may facilitate or inhibit the use and adoption of AAC/EC. Including: Seating systems; posture; positioning of equipment/room.	☐	☐	☐	☐	☐	☐	☐	
e.	Demonstrate and apply a detailed understanding of the personal/contextual factors that may facilitate or inhibit the use and adoption of AAC/EC.	☐	☐	☐	☐	☐	☐	☐	
3.1	**Individual skills and abilities** *Have understanding of the skills and abilities pertinent to the use of AAC and EC. Know how to assess these skills, either formally or informally, or how they can be assessed by others.*								

					EC	AAC		
f.	Receptive language	☐	☐	☐	☐	☐	☐	☐
g.	Expressive language	☐	☐	☐	☐ EC	☐ AAC	☐	☐
h.	Non verbal communication (gaze, signing, gesture…)	☐	☐	☐	☐ EC	☐ AAC	☐	☐
i.	Vision	☐	☐	☐	■	☐	☐	☐
j.	Psychological state	☐	☐	☐	■	☐	☐	☐
k.	Cognitive ability and functioning. Including: *Attention/Listening, Memory, Turn taking, Play, Visual Processing, Information Processing, Visual Perception, Auditory Perception*	☐	☐	☐	■	☐	☐	☐
l.	Physical functioning. Including: *Tone; Muscle strength; Fatigue; Range of Movement; Contractures; Abnormal Movement Patterns; Proprioception; sensation.*	☐	☐	☐	■	☐	☐	☐

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Assessment, Decision Making and Goal Setting.

4. *Apply the knowledge and skills related to assistive technology equipment and individuals' skills and abilities to make (co-)decisions around the provision of EC/AAC. Demonstrate and apply a detailed understanding of the underlying factors relating to decision making in AAC/EC.*

	Competency	Level of Competency							Date, Comments, Actions.
		1	2	3	4	5	6	7	
a.	Demonstrate and apply a detailed understanding of the entire **process and procedures** related to the service delivery across the whole care pathway, including: Identification of need; local service roles; referral; assessment process; provision or onward guidance. Internal procedures including: data recording; provision and ordering procedure etc.	☐	☐	☐	☐	☐	☐	☐	
b.	Demonstrate and apply a detailed understanding of client centred **goal setting** as part of an AAC/EC assessment process.	☐	☐	☐	☐	☐	☐	☐	
c.	Demonstrate an ability to carry out a person centred assessment and an understanding of this concept and its relation to models of disability. Including: ICF, medical and social models of disability, disability studies and activism.	☐	☐	☐	☐	☐	☐	☐	
d.	Demonstrate the ability to communicate goals and plans of action to all those involved in an individuals' care - particularly in relation to stated expectations.	☐	☐	☐	☐	☐	☐	☐	
e.	Actively **involve** all appropriate individuals in the decision making process. Including : client, professionals, parents, carers).	☐	☐	☐	☐	☐	☐	☐	
f.	Demonstrate the ability to clinically **reason and make decisions** regarding the provision of AT for an individual, demonstrating an understanding of the overall process related to AAC/EC.	☐	☐	☐	☐	☐	☐	☐	

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g.	Demonstrate the ability to search for and **appraise a range** of appropriate AAC/EC devices as part of the clinical reasoning and decision making process	☐	☐	☐	☐	☐	☐	☐	
h.	Evaluate and **review** the effectiveness of the intervention and identify any further work required to improve effectiveness.	☐	☐	☐	☐	☐	☐	☐	
i.	Plan and facilitate work to promote the **implementation** of the chosen system. Including mitigation of factors related to abandonment of equipment. Incorporate appropriate support into your implementation plan, e.g. the role of the therapy assistant / electronics specialist / mechanical technician'	☐	☐	☐	☐	☐	☐	☐	
j.	Demonstrate confidence in working in the whole variety of **settings and individuals** referred to the service. Including across varying: settings; conditions; communication styles; age groups.	☐	☐	☐	☐	☐	☐	☐	
k.	Demonstrate confidence in **communication** in challenging situations and about challenging topics and in relationship building with all involved in the process.	☐	☐	☐	☐	☐	☐	☐	
l.	Demonstrate the ability to effectively **plan** workflow and manage a full and diverse caseload. Including: Prioritisation of workload; Task and time management; Effective travel and appointment management.	☐	☐	☐	☐	☐	☐	☐	

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Training

5. Develop, deliver and evaluate training that supports the care pathway of AAC/EC provision.

	Competency	Level of Competency							Date, Comments, Actions.
		1	2	3	4	5	6	7	
a.	**Develop** a formal training resource (or component) to support the care pathway related to AAC/EC provision	☐	☐	☐	☒	☐	☐	☐	
b.	**Deliver** a formal training resource (or component) to support care pathway related to AAC/EC provision	☐	☐	☐	☐	☒	☐	☐	
c.	Deliver informal training to professionals related to AAC/EC provision.	☐	☐	☐	☐	☒	☐	☐	
d.	Deliver informal training to the client and team around a client related to AAC/EC provision	☐	☐	☐	☐	☒	☐	☐	
e.	Evaluate the effectiveness of a formal and informal training package, plan and improve the training.	☐	☐	☐	☐	☐	☐	☐	
f.	Deliver teaching and take part in student evaluation as part of an accredited course.	☐	☐	☐	☐	☐	☐	☐	
g.	Deliver teaching session(s) as part of undergraduate course.	☐	☐	☐	☐	☐	☐	☐	

	Research, Research Methods and Evidence Base								
6.	*Understand a range of theoretical models of relevance to AT provision. Understand the process for critically appraising research evidence to apply to your practice.*								

	Competency	Level of Competency							Date, Comments, Actions.
		1	2	3	4	5	6	7	
a.	Demonstrate an understanding of **theoretical models** relating to assistive technology. Critically appraise the models through application to practice.	☐	☐	☐	☐	☐	☐	☐	
b.	Demonstrate active engagement in the current **literature** related to AAC/EC practice.	☐	☐	☐	☐	☐	☐	☐	
c.	Develop a research question of clinical relevance (i.e. related to a client) **and critically appraise** literature related to this.	☐	☐	☐	☐	☐	☐	☐	
d.	Actively contribute to the **grey literature**. Including: *blogging, articles, case study evidence etc.*	☐	☐	☐	☐	☐	☐	☐	
e.	Actively contribute to the **development** of products and resources. Including: Critique and feedback to developers on bugs, developments etc; consultation with developers as part of development programme; initiate innovation and product development / Intellectual Property.	☐	☐	☐	☐	☐	☐	☐	
f.	Write a paper for a national or international **conference**	☐	☐	☐	☐	☐	☐	☐	
g.	Contribute towards (UG, or PG) **student projects** related to AT. Including: Providing project ideas/specs; informal supervision/guidance; formal supervision.	☐	☐	☐	☐	☐	☐	☐	

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h.	Write a **paper** for a peer reviewed **journal**.	☐	☐	☐	☐	☐	☐	☐	
i.	Peer review a paper for a conference or journal.	☐	☐	☐	☐	☐	☐	☐	
j.	Demonstrate an understanding of research **methods** of most relevance to AAC/EC practice. Including: Qualitative methods; Case series; Quantitative methods; Descriptive statistics	☐	☐	☐	☐	☐	☐	☐	
k.	Actively be involved in a funded research project as a **clinician researcher**.	☐	☐	☐	☐	☐	☐	☐	

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Competency Log

This section should be used as a running log of competency development and actions for each individual in a post, this is intended to be filled in at 121 meetings.

Date	Competency	Action	Progress

Notes

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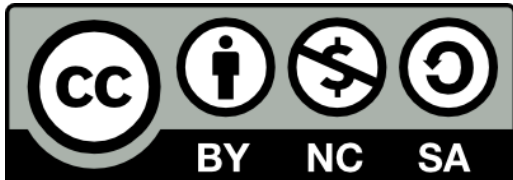
Acknowledgments

These competencies have been developed based on a number of sources including the ACT competencies.

Versioning

Version 1:   Internal (Barnsley AT) release.

Version 1.1:   External release – 11th Sept 2017 (Simon Judge)

Re-Use Licence

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