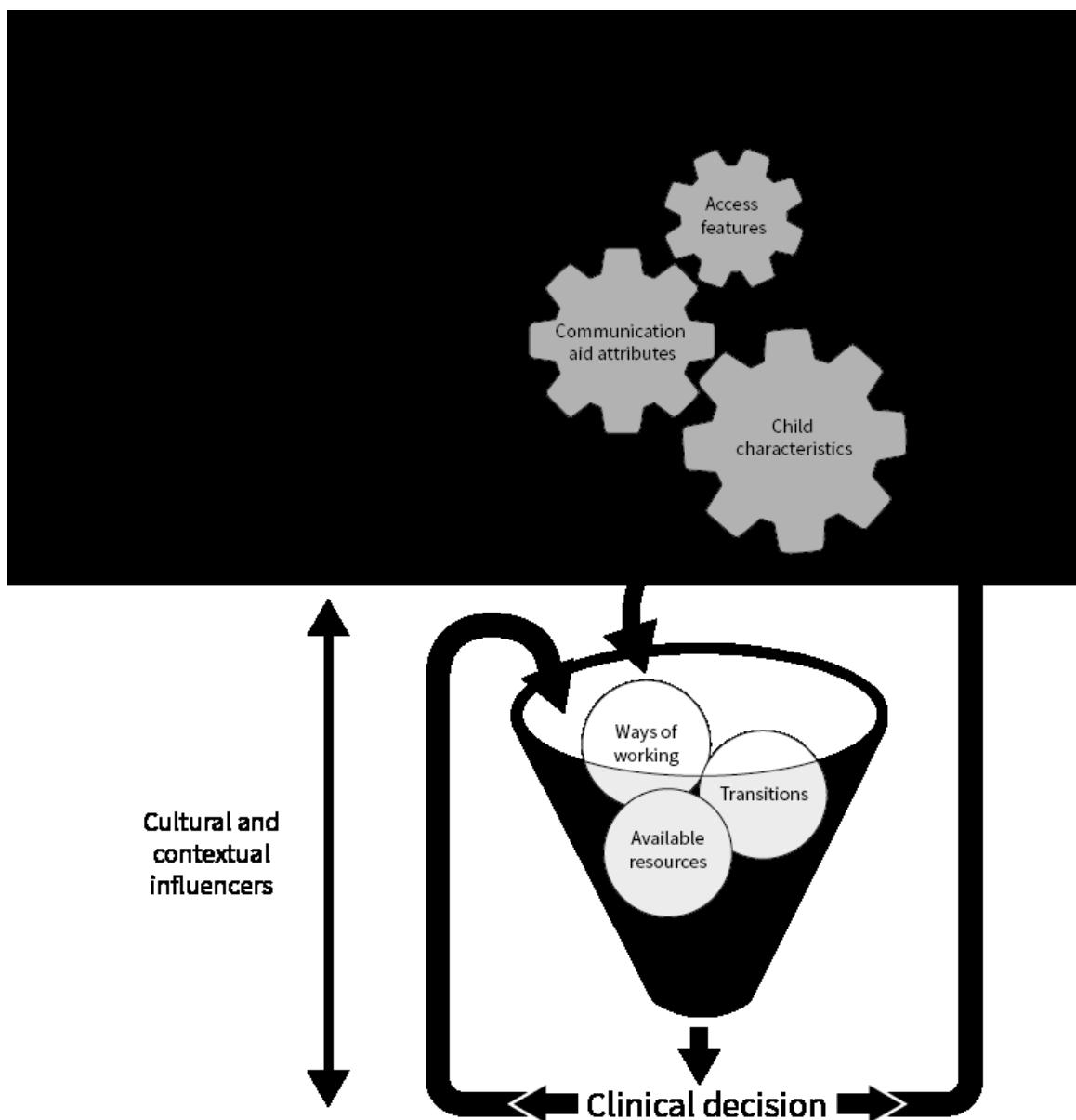




The I-ASC Explanatory Model of AAC clinical decision making

This schematic model represents a summary of the findings from the *Identifying Appropriate Symbol Communication (I-ASC)* research (Murray, Lynch, Moulam, Meredith, Goldbart, Whittle, Judge, Randall, Webb, Meads & Hess, 2019). It is presented here as an evidence based way of conceptualising the complexities of AAC decision making, recommendation and implementation processes.

The specific components of the model are detailed over the next few pages. We hope that they inform your decision making debates.





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Overview: The model is divided into two theoretical constructs encompassing the breadth of the decision making process. The top half of the model (**competing considerations**) illuminates the elements of the child and the technology, sometimes referred to as feature matching components; however, this model transcends features to suggest that there is an inherent interaction between the characteristics of the individual and the attributes of the systems available. In both instances, due to enhanced knowledge and medical interventions the child characteristics and the communication aid attributes are ever changing, and so are never a simple case of **feature matching** but are a complex interaction of an array of components that vary from individual to individual. This model attempts to offer the user flexibility to consider the nuances of the individual and the constantly changing technological options.

The schematic suggests that these options feed into the bottom half of the model.

The bottom half of the model (**cultural and contextual influencers**) considers those elements external to the child and the technology; it focusses on those components which may be influenced by policy, service delivery, knowledge and culture. The schematic suggests that these components may exist in isolation (in their own bubble) but that they cannot avoid impacting on each other, and yet they eventually have to be distilled through the funnelling process of a decision. The schematic implies the need for the team to recognise and reconfigure the isolated influencers which have to converge to support an agreed decision emerging.

The schematic model proposes an interaction between these two theoretical constructs (as suggested by the numerous arrows); both competing considerations and cultural and contextual influencers do not operate in isolation. Each interacts with the other and influences the final AAC decision making recommendation. The I-ASC Explanatory Model attempts to help us describe each isolated element and their interaction processes whilst we work towards an agreed recommendation.



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Detailed below are the definitions developed within the I-ASC research for Child characteristics, Access features and Communication aid attributes.

Child characteristics	
Age	Child's chronological age.
Assumed abilities	Where assumptions have been made about the child's level of functioning.
Child preference	The child's views regarding options of communication system or ways of communicating.
Cognitive skills	Information about the child's general cognitive skills including attention, memory, focus, learning style, and insight.
Communication ability	The view of the child's level of communication ability, both aided and unaided.
Diagnosis	Any medical or speech and language diagnosis for the child or young person.
Expectations and aspirations	The child's future journey with AAC. It includes predicted needs, goals for AAC, hopes, and expectations.
Linguistic level	The child or young person's existing level of language, literacy and graphic symbol knowledge.
Motor abilities and operational competence	The child or young person's physical skills, mobility, and speech intelligibility.
Personality and temperament	The child or young person's personality, temperament. It also includes motivation and frustration.
Progress and communication opportunities	Progress made with the child's communication to date, including the communication opportunities that have influenced rate of progress.
Access features	
Access method	The selection methods used to access the AAC system(s) to communicate.
Positioning and mounting	The positioning of the communication system for use. It includes mounting, the interface with other equipment as well as issues related to making the communication aid available.
Communication aid attributes	
Hardware aesthetics	Perceptions of visual appearance and voice qualities of the communication aid.
Hardware reliability	How frequently or easily the aided AAC system stops working.
Hardware data storage and processing	The ability of the communication aid to manage data and data processing.
Software consistency and intuitiveness of design	The consistency of page layouts, including the navigational functions to select a desired output.
Software ease of editing	How intuitive and easy is it to add, and change vocabulary and customise other features such as changing the volume, editing symbols, adding pages, etc.
Software graphic representation	Type of graphic symbol used.
Software vocabulary	Includes the size and organisation of vocabulary on the communication system.

For more detailed information on how to use this model visit the I-ASC website www.IASC.mmu.ac.uk



The I-ASC Explanatory Model of AAC clinical decision making

Detailed below are the definitions developed within the I-ASC research for Ways of working, Transitions and Available resources.

Ways of working	
Balancing decisions	The process of debating the important elements for the individual child and making trade-offs in the final decision.
Basis for referral	The reason why a referral for a communication aid assessment is instigated and the influence of referral information received.
Extraneous factors	Factors outside the immediate situation that influence the course to action, to include service access, awareness of rights, service perception, impact of chance.
How decisions are made	How decisions are made and includes the processes used to make decisions within AAC system recommendation.
Information brokering	The access to, and movement of, information across parties/people within the decision making process.
Inheriting decisions	How current actions that are influenced by previous decisions.
Policy	Any policies that influence access to AAC and funding.
Roles and responsibilities	Information about who does what in the communication aid recommendation process, and to what extent (including discord).
Service delivery model	Information related to the way a service is delivered that affects the resources and service available to a child.
Team theory	AAC theory that may have influenced decisions.
Transitions	
Future planning	Any future planning including expected change, how you intend the future AAC system to look and function, and how the child or young person may be communicating. It also includes changes in the environment or setting such as changes in service provision or staff providing service.
Technology change	The influence technology change has had, or may have in the future on decision making. Technology change includes obsolescence and technology advancement (as well as wishlists for advancement). It includes transitions across different AAC systems for the child or young person. It also includes society's awareness or understanding of technology and AAC and how it is changing over time.
Available resources	
Attitude	Any attitudinal influence on the AAC journey. Any perceptions expressed that influence decision making.
Cost	Financial cost incurred.
Intervention	Intervention which includes all implementation supports post-recommendation (who, what and where).
Support	The support needed to fulfil the recommendation, to include scaffolding, customisation, personalisation, supplier influence and available resources to support AAC.
Team knowledge and skill	The knowledge and skills of any team member in supporting AAC implementation including confidence with AAC, prior knowledge and experience, familiarity and training and continuing professional development needs.
Training	The development of communication partner knowledge and skill.

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