An Introduction to Augmentative and Alternative Communication (AAC)

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VÄSTRA GÖTALANDSREGIONEN

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AAC
Augmentative and Alternative Communication

- AAC includes systems, strategies, and tools that support or replace spoken or written communication for individuals with communication difficulties
  - Condensed version of the American Speech-Language-Hearing Association (ASHA) definition
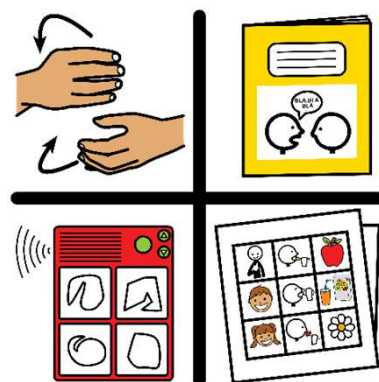- Includes both expressive and receptive communication

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Systems

Strategies

Tools
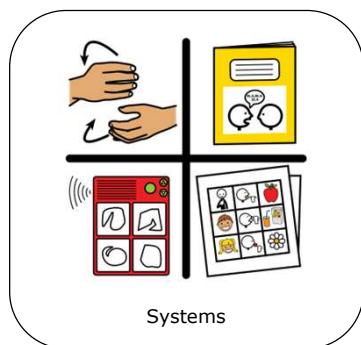
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AAC systems

- Provide a structure for vocabulary, grammar, and expression
- Can be visual (pictures, objects), auditory (speech synthesis) gestural (manual signs), or tactile (objects, physical touch)

Picture from arasaac.org

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Baby talk

- We talk A LOT to babies immediately when they are born

- We use many spoken words although we do not expect them to fully understand them or use them themselves

- First words: after about a year of rich exposure

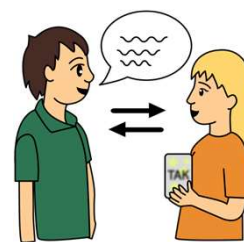- 3-year-old: knows 1,000–3,000 words

Photo from freepik.com

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Intellectual disabilities (ID) and language/communication

- Delayed overall development

- Motor difficulties

- Specific language disorders (in many genetic disorders)

- Social interaction difficulties (for example in autism)

- Impairment in body structures (for example cleft lip/palate)
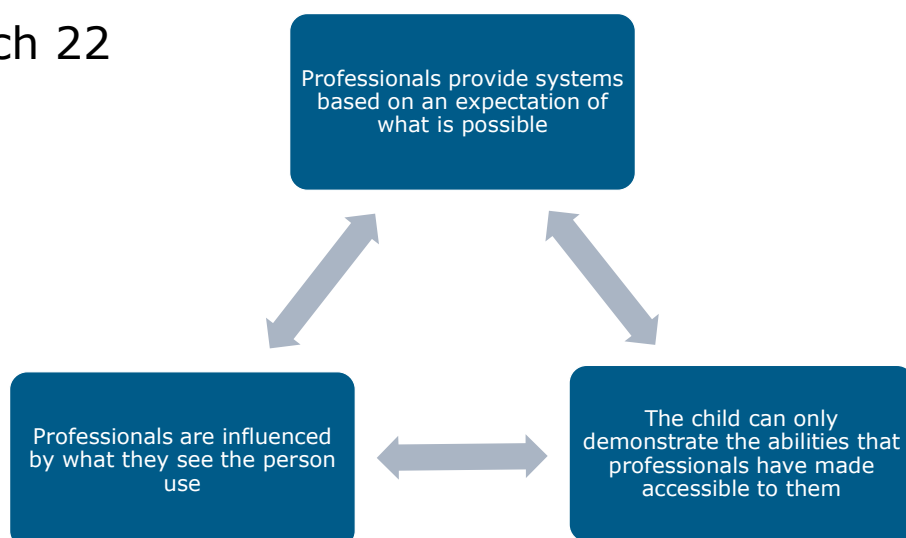
Picture from www.dimobi.org.ua

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AAC needs to be as rich as spoken language

- Children with intellectual disability need *more*, not less, support to develop language

- They require AAC systems that are equal to spoken language

- Yet, we often think AAC is too difficult and provide narrow systems

- We *mean* to help — but we end up reducing their opportunities to learn

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Catch 22

Professionals provide systems based on an expectation of what is possible

Professionals are influenced by what they see the person use

The child can only demonstrate the abilities that professionals have made accessible to them

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AAC systems needs to incorporate…

- The language the child already knows
- The language the child may need to understand and use in the future
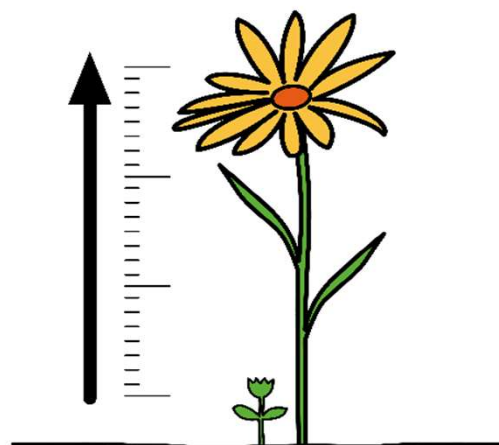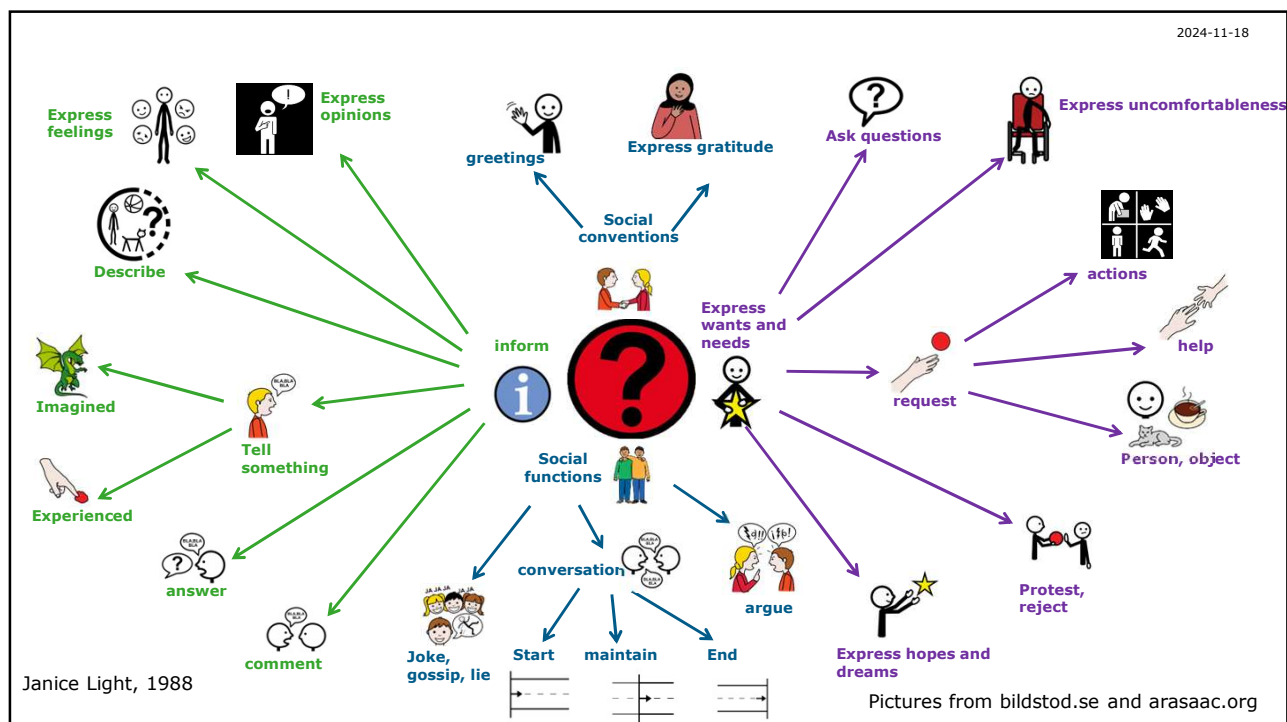
Picture from arasaac.org

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Communicative functions
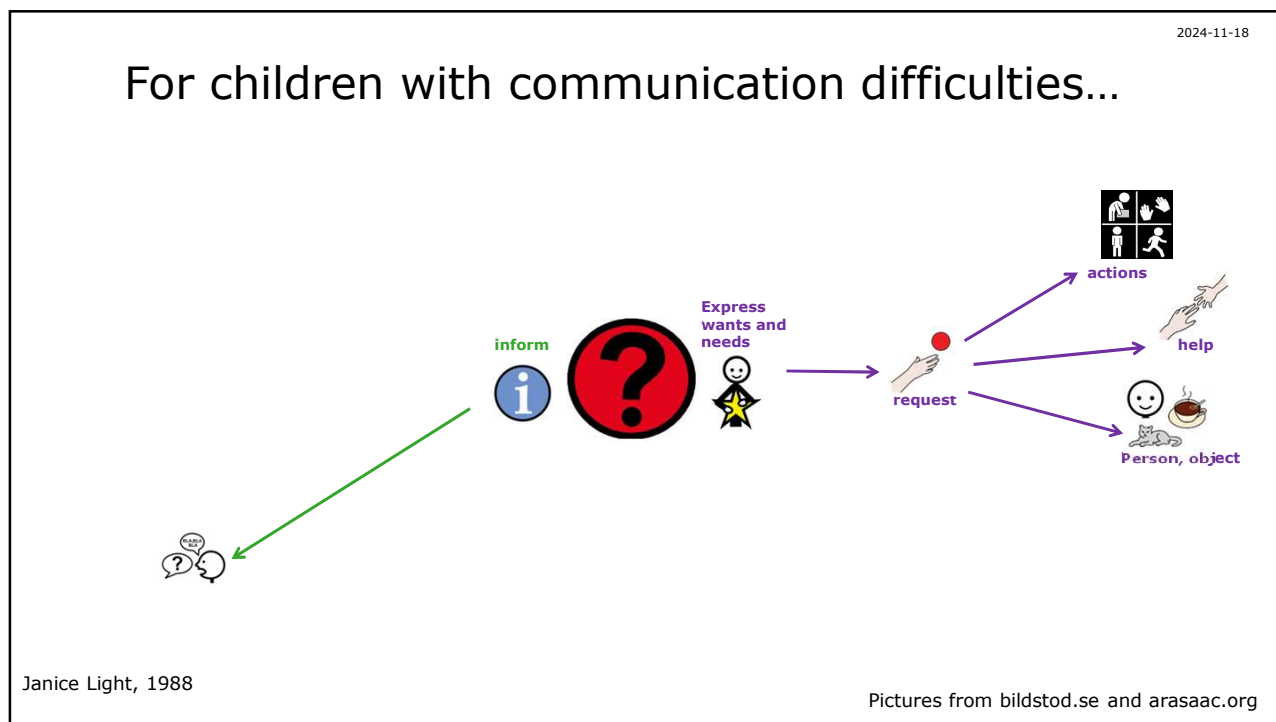# – Why we communicate

Pictures from bildstod.se and arasaac.org

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For children with communication difficulties…

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2025-06-13

2025-06-13

Systems: Take home message

- AAC systems must include a range of words that can be used in many communicative situations/functions throughout the day

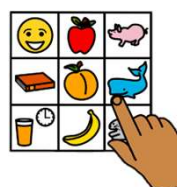- Therefore: A simple AAC system does not make it simple!


Picture by ChatGPT

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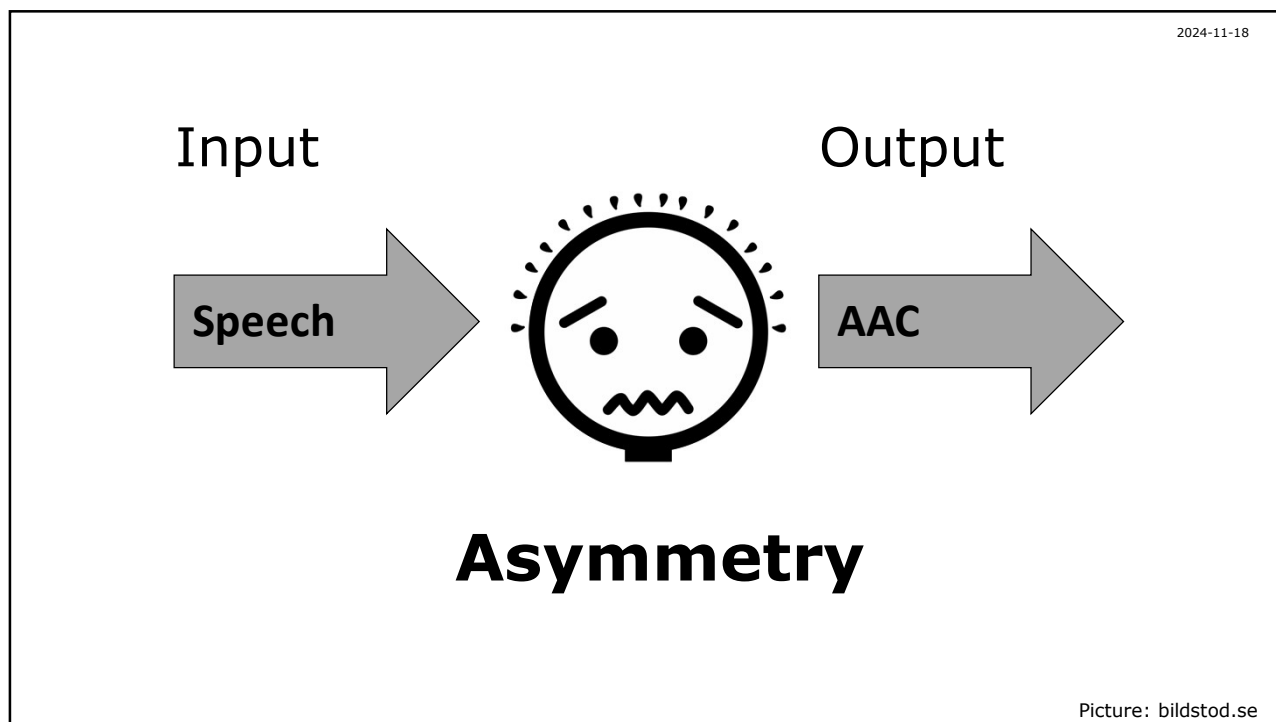
2025-02-20

Augmented input

- The communication partner reinforces their own speech using AAC

- May include pictures, speech-generating devices, and manual signs

1. To demonstrate that AAC can be used for communication
   (Biggs et al., 2018; Romski & Sevcik, 1996)

2. To increase vocabulary
   (Allen et al., 2017; Biggs et al., 2018)

3. To reduce the gap between receptive and expressive communication modes
   (Smith & Grove, 2003)

Picture: bildstod.se

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Symmetry

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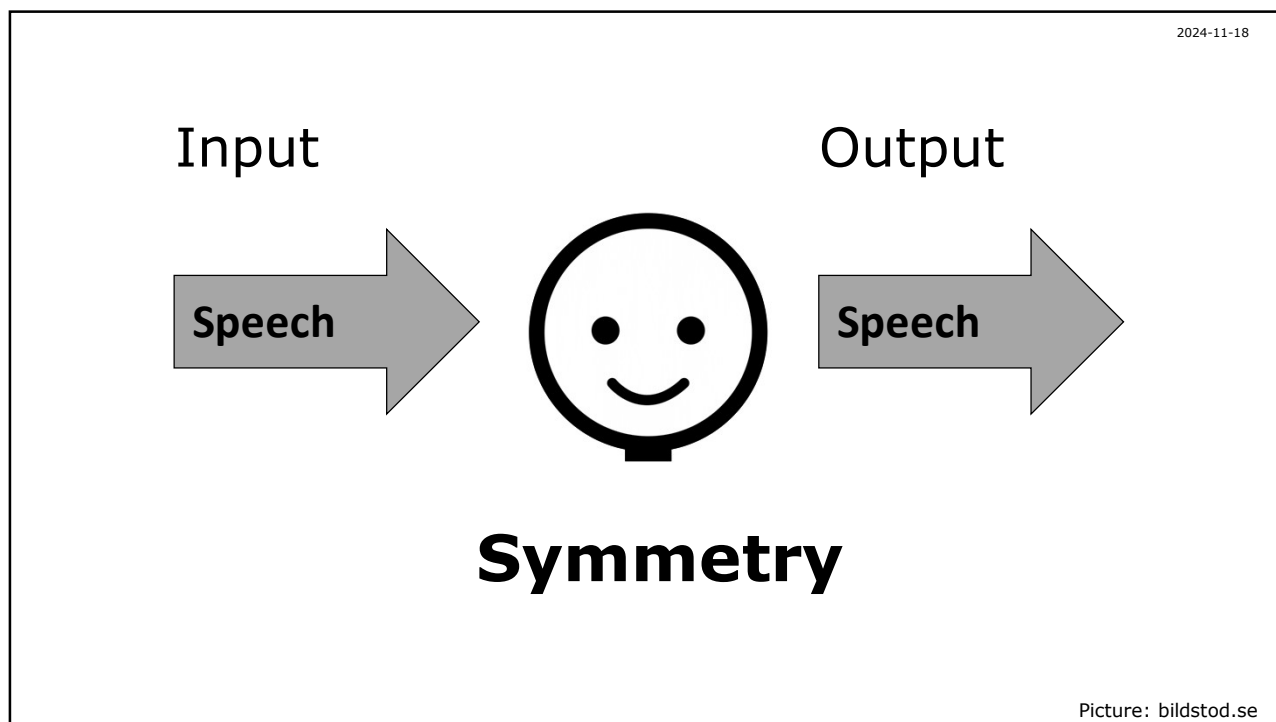
Asymmetry

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2024-11-18

Input   Output

AAC + Speech → 😀 → AAC

Symmetry

Picture: bildstod.se

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2025-02-20

Responsive strategies

- The adult adapts to the child's communicative level – without eliciting a response from the child
  (Broberg et al., 2012; Harwood, Kerri et al., 2002; Landry et al., 2006; Mahoney et al., 2006; Shalev & Hetzroni, 2020)

"To be like an owl" (AKKtiv.se, 2025)

1. Observe & Listen
2. Wait & Expect
3. Interpret & Respond

Picture: bildstod.se

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2025-02-20

Environmental Milieu Teaching (EMT)

- The adult embeds language strategies within everyday interactions
  (Kaiser et al., 1993; Kaiser & Wright, 2013)

- Responsive strategies

- Mand-model – prompts or asks a question, then models the target if needed

- Be cunning as a fox "foxing" (AKKtiv.se, 2025)
  1. Arrange a situation that you think the child will react to.
 2. Wait & Expect
  3. Interpret & Respond
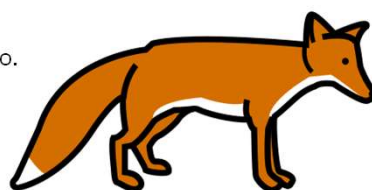
Picture: bildstod.se

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2025-06-13

Provide access to communication

- All the time—not just when the child is expected to respond

- About everything—not just what we consider appropriate

- Compare with speaking children:
  - They sometimes stay on topic and say what is expected, but also:
  - Take turns from others/respond to questions directed to someone else
  - Interrupt
  - Talk about things not on the agenda
  - Talk constantly/Go on and on about the same thing
  - Swear or use slang
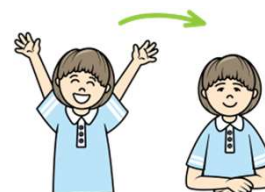
Picture from www.dimobi.org.ua

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Strategies: Take home message

- Communication partners can make a huge difference!
- Be a model
  - For multimodal communication modes
  - For multiple communication purposes throughout the day
    - NOT ONLY preplanned topics or lectures
    - During transitions, breaks and informal interactions too!
  - It's ok to struggle – be a model for that too!
- Expect communication

Picture from arasaac.org

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Tools and access methods

- Usually, what people think AAC is
- Examples:

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Tools

- Research consistently show that access to an AAC tool alone is not sufficient to support meaningful communication

  – Access to a language system and large vocabulary throughout the day
  – Models that uses AAC to communicate (not only to inform!)
 – TIME – don't give up!

Picture from arasaac.org

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Communication boards

- Core boards/General boards (words that can be used in many situations)
- Activity-specific boards (words tailored to specific activities)
- Recommendation: Combination

Strategies:

- Always carry a core board with you
- Place activity-specific boards within reach for the intended activity
- Use the boards yourself!
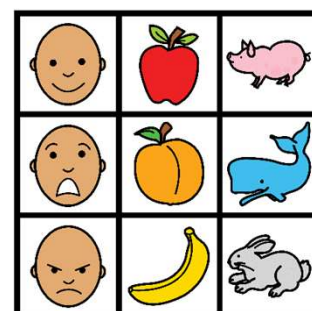
Picture from arasaac.org

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bildstod.se

- Download ready-made boards to edit/print
  - Search for "Ukrainska" – the Swedish word for Ukrainian
- Create your own communication board for print
- Its a Swedish free-of-charge online tool (the page can be automatically translated through google translate)
- Pictures are searchable in English (and Swedish)
- Ukrainian letters can be used in picture labels

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Docklek svenska-ukrainska
(ungefärligt uttal inom parentes)

docka	gå	ramla	säng	täcke	kudde
лялька	іти	падіння	ліжко	кришка	Подушка
(lalka)	(iti)	(padinnya)	(lizhko)	(krishka)	(poduszka)
gråta	trösta	sjunga	leka	flaska	hjälp
плакати	Комфорт	співати	грати	пляшка	Допомога
(placati)	(comfort)	(spivati)	(grati)	(plaszka)	(dopomoga)
tråkig	rolig	sova	blöja	kläder	något annat
нудний	Смішний	спати	пелюшка	одяг	дещо інше
(nudnii)	(smishny)	(spati)	(pelyushka)	(odyag)	(descho inshe)
äta	dansa	potta	tyst	färdig	inte
їсти	танець	Горщик	Мовчати	Закінчили	не
(isti)	(tanets)	(gorshchik)	(movchati)	(zakinchili)	(ne)

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Other resources – communication boards

- https://ittybittyspeech.com/core-word-vocabulary-communication-board-translation-library/
- https://www.tobiidynavox.com/pages/ukraine-refugee-communication-resources#s-d96ef7ac-8c33-41ff-9aaf-8549830bdf0e
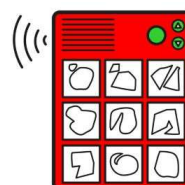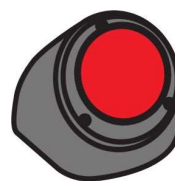- https://www.widgit.com/products/health/refugee-support/index.htm#Ukrainian
- https://thinksmartbox.com/news/ukrainian-communication-boards/
- https://arasaac.org/

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2022-11-29

Bunches

- A small set of communication boards
- Retractable keychain
- School staff carry these – for augmented input
- Also available at bildstod.se

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Speech-output technologies

- Also called speech-generating-devices or high-tech AAC

- Everything from simple speech-switches to computers and tablets

- Apps with comprehensive communication vocabularies are expensive and often lack multilingual support
  - Grid 3/Grid for iPad https://thinksmartbox.com/
  - TD snap https://se.tobiidynavox.com/pages/td-snap
  - Avaz https://avazapp.com/products/avaz-aac-app/

Pictures: bildstod.se, arasaac.org

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Digital inclusion app and symbols

- https://www.dimobi.org.ua/

- Huawei AppGallery, AppStore, Google Play

- Online version

- Free-to-use symbols

- Speech synthesis
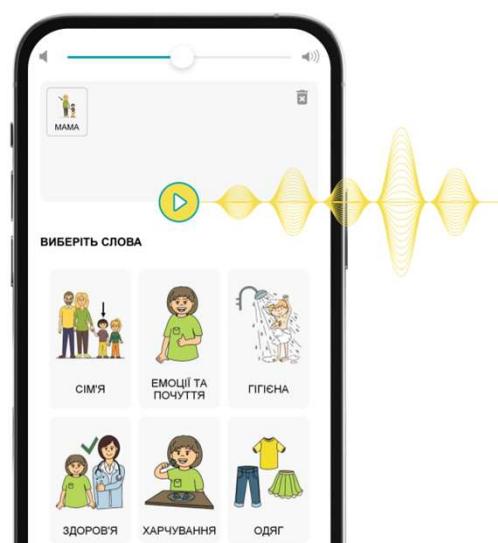
Illustration from www.dimobi.org.ua

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Spread the sign

https://www.spreadthesign.com/uk.ua

- AppStore, Google Play

- Online version

- Sign language dictionary (with videos)

- Multiple languages, including Ukrainian
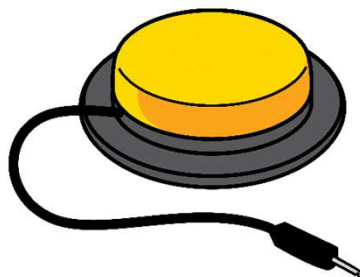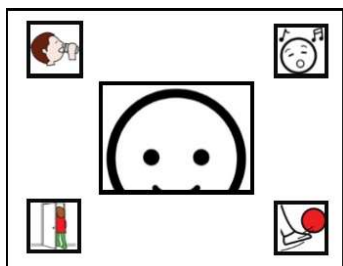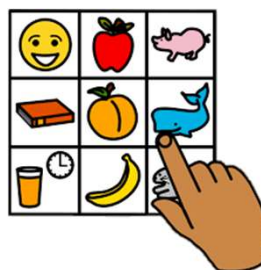

Screenshot from https://www.spreadthesign.com

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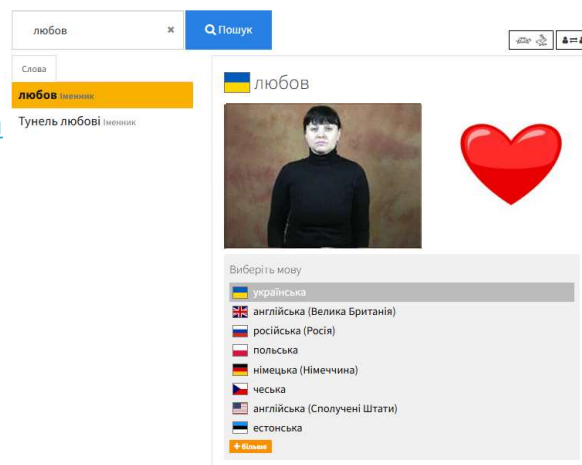
Access methods

- Not everyone can point with their fingers

- There are plenty of access methods

  – Optimally, a professional specialized in body functions take part in the assessment (for example, occupational therapist or physiotherapist)

Pictures: bildstod.se

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Eye pointing

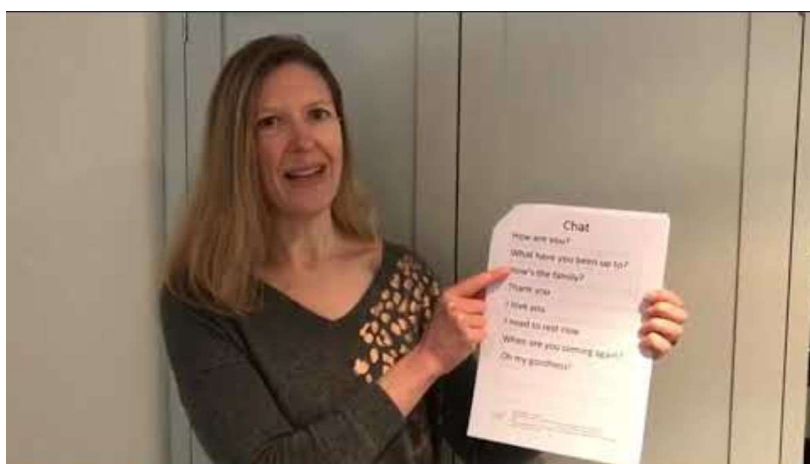https://www.youtube.com/watch?v=cuwgD8YZD3k

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Auditory scanning

https://www.youtube.com/watch?v=3I9DOHtB8Oc
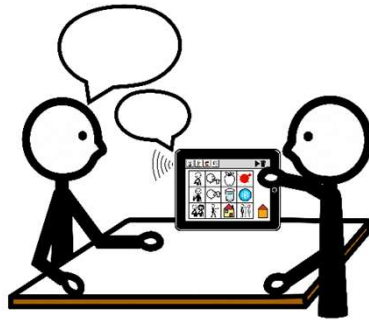
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Tools: Take home message

- There are no such thing as a "perfect solution" or "perfect match"
- Focus on using the tools, not on designing/developing them

Pictures: bildstod.se

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