



Spanish Symboloud Grid Family Evidence and Design Rationale

Shared AAC evidence and the language decisions specific to Spanish

Purpose and conclusion

This report describes the eight Spanish Symboloud vocabulary grids, explains how the family grows from Easy Access 4 to Core Communication 90, and records the evidence and language decisions behind the design. It is intended for AAC professionals, Spanish-speaking reviewers, families, educators and product teams.

A separate Spanish rationale is necessary because the display evidence is shared with the UK English family, but the language system is not. Research on multilingual AAC cautions against translating an English core list word for word. Systems need to account for the vocabulary, morphology, syntax, speech and cultural context of the language being used (Amery et al., 2022; Soto and Tönsing, 2024) [2,9]. Spanish research also shows that frequent vocabulary includes articles, clitics, prepositions and verbs that do not map neatly onto an English list (Shivabasappa, Peña and Bedore, 2018) [12].

The family is evidence-informed, not clinically proven as a universal Spanish layout. It uses broadly understandable Latin-American Spanish as its starting variety and records regional alternatives where vocabulary commonly differs. The exact words, positions and transition points remain Symboloud design decisions and require review with the communicator, family and Spanish-speaking professionals.

The completed Spanish family

The eight files form one planned pathway. Each larger source grid retains the established visible vocabulary from the preceding set. The family grows from 17 distinct labels in Easy Access 4 to 557 in Core Communication 90. Repeated placements provide useful anchors inside topic folders, while Home expands from four large positions to a 10 × 9 display with 70 words and all 20 topic routes visible.

Vocabulary set	Grid	Description	Tile placements	Distinct labels
Easy Access 4	2 × 2	Four large choices per screen, with immediate access to wanting, refusal, help and More, plus linked language for people, basic actions, urgent support and personal information.	19	17
Easy Access 6	3 × 2	A spacious set for simple requests, refusal, feelings, body vocabulary and asking for help.	41	39
Easy Access 12	4 × 3	Eleven words on Home, with linked vocabulary for everyday communication, health, support and personal information.	155	104
Easy Access 18	6 × 3	Direct access to questions, needs and	332	214



Vocabulary set	Grid	Description	Tile placements	Distinct labels
		feelings, with a broader range of everyday topics.		
Easy Access 24	6 × 4	More immediately available language and greater depth across everyday topics, personal information and support.	439	313
Core Communication 30	6 × 5	Twenty-four words and six direct topic routes on Home, with broader sentence-building and everyday vocabulary.	532	402
Core Communication 50	10 × 5	Forty words and ten direct topic routes on Home, with expanded pronouns, questions, Spanish verb forms, connecting words and topic vocabulary.	743	523
Core Communication 90	10 × 9	Seventy words and all 20 topic routes on Home, providing the fullest Spanish core, grammar, personal, support and everyday vocabulary in the family.	805	557

Tile placements count repeated uses of vocabulary across linked folders; distinct labels count different visible Spanish words and phrases. The numbers are verified product records from the accompanying workbooks, not research findings.

Evidence shared with the UK English family

Several field sizes

Symboloud does not assume that one grid size will suit every communicator. Target size, choice count, motor control, visual access and available language interact. Bertuccio and Sanger's individualised touchscreen model produced different optimal layouts for different children, including estimates from 4 to 24 buttons (Bertuccio and Sanger, 2018) [3]. The study did not test Symboloud or Spanish vocabulary, but it supports offering a range rather than one universal field size.

Core and topic vocabulary

Every grid combines reusable words with personal, support and topic vocabulary. This supports communication beyond requesting and avoids a noun-only system. Core-vocabulary and professional guidance support pronouns, verbs, descriptors and questions alongside personalised and context-specific words (ASHA, n.d.; Erickson et al., 2019; Project Core, 2019; RCSLT, 2026) [1,4,6,7]. Spanish narrative research also found that frequent Spanish vocabulary included function words, nouns and verbs, reinforcing the need for a grammatical and lexical mix (Shivabasappa, Peña and Bedore, 2018) [12].

The smaller grids contain genuinely smaller vocabularies; they do not hide the entire Core Communication 90 set behind extensive navigation. This preserves the access benefit of fewer choices and creates real growth between sets. Any grid can remain a long-term option.



Stable organisation and vocabulary inheritance

Stable locations and predictable grouping can reduce visual search and support repeated learning. AAC display research supports deliberate spatial organisation, reduced crowding and consistent symbol locations, while showing that performance depends on the individual and task (Light et al., 2019; Wilkinson, Gilmore and Qian, 2022) [5,11]. Exact coordinates cannot remain identical when a display changes from two to ten columns, so the family preserves vocabulary, broad grammatical direction and familiar routes rather than claiming coordinate-level motor-plan continuity between every size.

Colour and the Modified Fitzgerald Key

All eight grids use the same Modified Fitzgerald Key as the UK English and Romanian families. This provides a familiar grammatical cue for UK-based teams and consistency across Symboloud sets. Smartbox documents a related UK implementation convention in Super Core (Smartbox, 2022) [8].

Colour	Purpose
Yellow	People and pronouns
Green	Actions and verbs
Orange	Naming words
Blue	Describing words
Purple	Question words
Grey	Little words and navigation
Pink	Social language and complete phrases
Red	Important function words

Colour is a secondary cue. Thistle and Wilkinson found a benefit from word-class arrangement but not from background colour in their study, while wider display research indicates that grouping, spacing, crowding and colour interact (Thistle and Wilkinson, 2017; Light et al., 2019) [5,10]. The printed Spanish label, symbol, grouping and learned position remain primary.

Consistent symbols

Shared concepts should use consistent SymbolStix choices across all eight grids. Symbol consistency reduces unnecessary visual relearning when a word appears in more than one folder or when a person moves to a larger set. Homographs such as trabajo, bajo, naranja and baño can require different symbols according to meaning, even when the written form is identical. Symbol choice must be reviewed in context rather than accepted from an automatic search alone.

Spanish language decisions

A Spanish system rather than a translated English list

English and Spanish do not organise meaning and grammar in the same way. Research on non-English AAC and bilingual AAC warns against direct translation of English layouts (Amery et al., 2022; Soto and Tönsing, 2024; AssistiveWare, 2019) [2,9,14]. The family keeps the communication purposes and growth principles of the UK set while rebuilding labels, speech and grammatical choices for Spanish.

Useful inflected verbs

Immediately useful first-person forms such as quiero, necesito, puedo, tengo, voy, hago, tomo and doy receive direct access. Dictionary infinitives remain in the symbol-search field so Maker can find the intended concept. This lets one selection communicate something useful while still allowing larger grids to build longer messages.

Pronouns, omitted subjects and person

Spanish commonly omits a subject pronoun when verb agreement makes the person clear. The grids therefore do not force yo before every first-person verb, but yo, tú, él, ella, nosotros, ustedes, ellos and ellas remain available for emphasis, contrast and reference. The Latin-American starting variety uses ustedes for plural “you”; a Spain-focused adaptation may add vosotros/vosotras and matching verb forms. Spanish pro-drop patterns and differences in core-word frequency are documented by Shivabasappa, Peña and Bedore (2018) [12], while RAE/ASALE describe the pronoun and agreement system [13].



Gender, articles, clitics and agreement

Larger grids provide contrasts such as un/una, este/esta and ese/esa. They also include complete high-value forms such as ayúdame, me gusta, no me gusta, me llamo and no me toques. These choices reflect Spanish gender agreement and the communicative importance of unstressed object pronouns. A single symbol cannot represent every grammatical use, so the printed label, speech output, colour and stable position work together.

Questions, accents and speech

Question words retain their written accents: qué, quién, cómo, cuándo, dónde, cuál, cuánto, cuántos and cuántas. Labels and speech preserve ñ and accented vowels because correct spelling supports readability and text-to-speech. The RAE/ASALE grammar is the normative reference used for pronouns, agreement and interrogative forms [13].

Regional variation

The base wording aims to be widely understood in Latin America, but Spanish varies across countries and communities. The workbooks flag examples such as computadora/ordenador, jugo/zumo, autobús/camión/colectivo/guagua, carro/auto/coche, plátano/banana/cambur and suéter/jersey/pulóver. These are prompts for local review, not claims that one term is universally preferred. Personalisation should follow the communicator's own variety and communication partners.

Personal and culturally relevant vocabulary

Names, relationships, foods, routines, places, schooling, work, faith, health information and preferred expressions must reflect the individual. ASHA guidance and the non-English AAC scoping review support language- and culture-relevant vocabulary and personalisation (ASHA, n.d.; Amery et al., 2022) [1,2]. Personalisation should add useful language without casually moving established high-frequency positions.

How the family grows

Transition	Vocabulary growth	What the added capacity provides
Easy Access 4 to 6	17 to 39 distinct labels	Adds explicit self-reference, yes, feelings, body vocabulary and additional support language.
Easy Access 6 to 12	39 to 104	Adds a compact Home vocabulary and broader everyday topic pages.
Easy Access 12 to 18	104 to 214	Adds direct questions, needs and sentence-building forms, while opening further topics.
Easy Access 18 to 24	214 to 313	Adds tengo, tomo, doy, aquí, ahí and cómo on Home and deepens established topics.
Easy Access 24 to Core Communication 30	313 to 402	Moves six high-value topic routes onto Home and expands sentence-building vocabulary.
Core Communication 30 to 50	402 to 523	Expands pronouns, questions, verbs, connecting words and topic vocabulary.
Core Communication 50 to 90	523 to 557	Places 70 words and all 20 routes on Home and completes the broadest grammar and topic architecture.

Text to speech and the device keyboard

Spanish speech uses a compatible Android text-to-speech voice installed on the device. Pronunciation and accent depend on the selected engine and voice. Test the actual device with names, accented questions, personal phrases and the communicator's regional vocabulary. A correct written grid cannot guarantee natural pronunciation from every voice.



The family does not duplicate a full spelling page because the Android keyboard provides alphabetic entry. This keeps the grids focused on symbol-supported communication while leaving spelling available when the keyboard is accessible and appropriate.

Evidence boundaries and intended use

No study establishes the exact Symboloud Spanish vocabulary, cell sequence or eight transition points. The family is not a clinically validated standard for every Spanish-speaking AAC user. Spanish-specific AAC evidence remains limited, and much of the shared display research uses small or diagnosis-specific samples.

Use the family as a coherent starting point, then personalise it. Selection should consider visual access, motor control, language variety, literacy, communication partners, environments and the person's priorities. Native-speaker and AAC-user review remains essential before public release and during use.

References

In-text citations use Harvard author-date form. Bracketed numbers link each claim to the corresponding numbered entry below. The accompanying Symboloud workbooks were used to verify the build but are not presented as research publications.

- [1] American Speech-Language-Hearing Association (n.d.) Augmentative and Alternative Communication (AAC). ASHA Practice Portal. Available at: <https://www.asha.org/practice-portal/professional-issues/augmentative-and-alternative-communication/> (Accessed: 19 September 2026).
- [2] Amery, R., Thirumanickam, A., Barker, R., Lowell, A., Theodoros, D. and Raghavendra, P. (2022) "Developing augmentative and alternative communication systems in languages other than English: A scoping review", *American Journal of Speech-Language Pathology*, 31(6), pp. 2900–2919. https://doi.org/10.1044/2022_AJSLP-21-00396
- [3] Bertuccio, M. and Sanger, T.D. (2018) "A model to estimate the optimal layout for assistive communication touchscreen devices in children with dyskinetic cerebral palsy", *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, 26(7), pp. 1371–1380. <https://doi.org/10.1109/TNSRE.2018.2840445>
- [4] Erickson, K., Geist, L., Hatch, P. and Quick, N. (2019) *The Universal Core Vocabulary: Technical Report*. Chapel Hill, NC: Center for Literacy and Disability Studies, University of North Carolina at Chapel Hill.
- [5] Light, J., Wilkinson, K.M., Thiessen, A., Beukelman, D.R. and Fager, S.K. (2019) "Designing effective AAC displays for individuals with developmental or acquired disabilities: State of the science and future research directions", *Augmentative and Alternative Communication*, 35(1), pp. 42–55. <https://doi.org/10.1080/07434618.2018.1558283>
- [6] Project Core (2019) *Universal Core Vocabulary: Facilitator Guide*. Chapel Hill, NC: Center for Literacy and Disability Studies, University of North Carolina at Chapel Hill.
- [7] Royal College of Speech and Language Therapists (2026) *Augmentative and Alternative Communication (AAC): Guidance*. London: RCSLT. Available at: <https://www.rcslt.org/members/clinical-guidance/augmentative-and-alternative-communication/augmentative-and-alternative-communication-guidance/> (Accessed: 19 September 2026).
- [8] Smartbox (2022) *Super Core: Getting Started*. UK edition. Smartbox Assistive Technology.
- [9] Soto, G. and Tönsing, K. (2024) "Is there a universal core? Using semantic primes to select vocabulary across languages in AAC", *Augmentative and Alternative Communication*, 40(1), pp. 1–11. <https://doi.org/10.1080/07434618.2023.2243322>
- [10] Thistle, J.J. and Wilkinson, K.M. (2017) "Effects of background color and symbol arrangement cues on construction of multi-symbol messages by young children without disabilities: Implications for aided AAC design", *Augmentative and Alternative Communication*, 33(3), pp. 160–169. <https://doi.org/10.1080/07434618.2017.1336571>
- [11] Wilkinson, K.M., Gilmore, R. and Qian, Y. (2022) "Judicious arrangement of symbols on a simulated augmentative and alternative communication display optimizes visual attention by individuals with Down syndrome", *Journal of Speech, Language, and Hearing Research*, 65(2), pp. 710–726. https://doi.org/10.1044/2021_JSLHR-21-00278
- [12] Shivabasappa, P., Peña, E.D. and Bedore, L.M. (2018) "Core vocabulary in the narratives of bilingual children with and without language impairment", *International Journal of Speech-Language Pathology*, 20(7), pp. 790–801. <https://doi.org/10.1080/17549507.2017.1374462>
- [13] Real Academia Española and Asociación de Academias de la Lengua Española (2009–2011) *Nueva gramática de la lengua española*. Madrid: Espasa. Online resources available at: <https://www.rae.es/gramática/> (Accessed: 19 September 2026).



[14] AssistiveWare (2019) Bilingual AAC. Available at: <https://www.assistiveware.com/blog/bilingual-aac> (Accessed: 19 September 2026).