

Toward Understating the Real World Effectiveness of Augmentative and Alternative Communication (AAC) in the School Activity Settings

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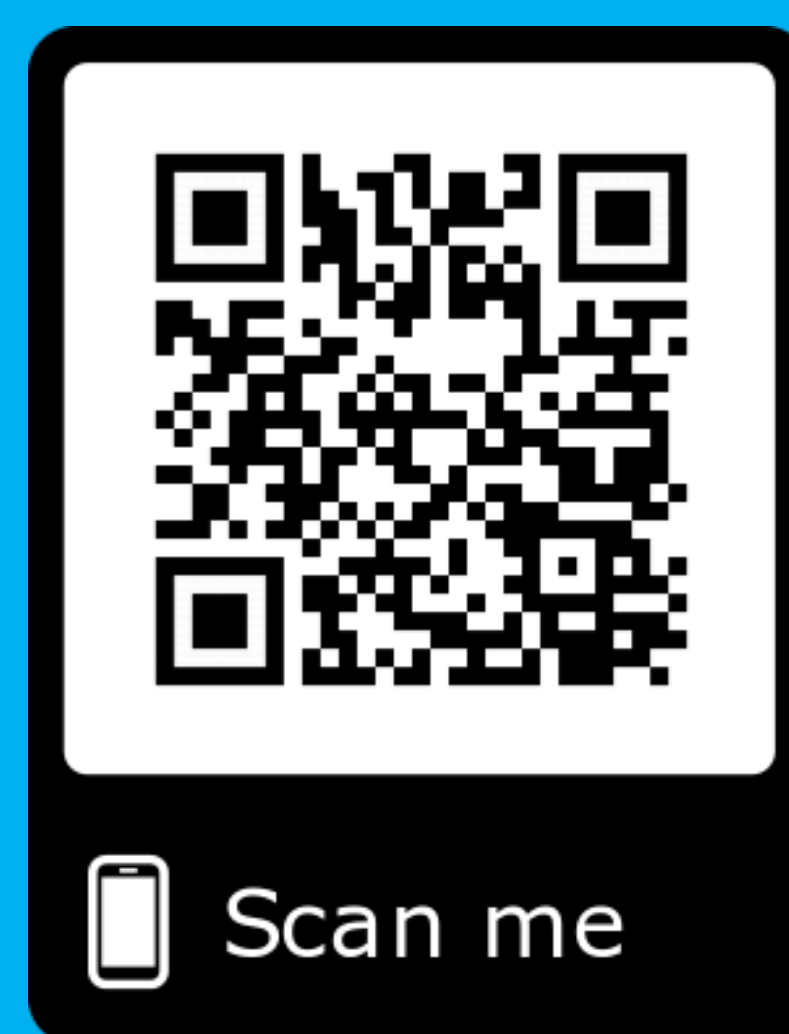
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RATIONALE: Students who cannot speak or whose speech is unintelligible may benefit from AAC devices to improve their everyday communication at school. **Functional Impact of Augmentative and Alternative Communication – Educator version (FIAAC-E)** is a preliminary measure of the effectiveness of AAC systems for students with complex communication needs between the ages of 3 and 18 years old. It has 11 dimensions and 104 items. Earlier research showed support for its content and face validity.

METHODS: Part I: Educators completed a background profile for a student with AAC needs, a global rating of the student's face-to-face communication performance, and the FIAAC-E. **Part II:** Respondents were invited to complete the FIAAC-E two weeks later for reliability analysis.

RESULTS: **Participants** Part I: 61 educators; Part II: 19 completed the FIAAC-E again.

Do we really know how well students with complex communication needs function in the classroom with their AAC system?



Item reduction Fifteen items were eliminated due to their weak associations with other items on the same scale. **Revised FIAAC-E had 77 items or 25% shorter than the original version.** The distribution of total FIAAC-E scores for n=61 educators varied from 26.3 to 70.4 (M=47.9; SD=10.4). **Internal Consistency** Cronbach's alpha for total FIAAC-E = 0.92.

Dimension	Alpha
Communication Effectiveness	0.88
Communication Function	0.89
Communication Opportunities	0.84
Communication Spontaneity	0.87
Expressive Language	0.88
Quality of Educator-Parent Collab	0.90
Quality of Educator-Commun Team Collaboration	0.92
Quality of Peer Interactions	0.88
Receptive Language	0.87
Social Validity	0.86
Supportiveness of School Environment	0.85

Test-retest Reliability ICCs for all scales exceeded threshold of > 0.7.

Convergent Validity Med-to-large, significant correlations btw global communication and total FIAAC-E (r=0.65, p<.001) + 7 dimensions

DISCUSSION / CONCLUSIONS: FIAAC-E has acceptable levels of reliability and validity for early clinical, educational, and research applications. It has potential to inform teams on important indicators to support communication using AAC at school.

Future research recommendations:

- estimate reliability with different modes of administration
- explore other forms of validity
- evaluate responsiveness as an outcome measure.