AAC research in Australia: Strengths, challenges, and future directions

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Short Abstract

In this research forum, we a panel of researchers will briefly present an overview of completed and ongoing AAC research projects from South Australia and the Northern Territory. We will discuss the facilitators and barriers to conducting AAC research in Australia, links to global research trends, opportunities, and ideas for the future.

The areas of research foci across the life span that have been investigated are:1) social collaborative intervention approaches for autistic children, 2) romantic and sexual relationships in people who have communication access issues, 3) use of e-mentoring to support social media use by young people with disabilities who use AAC, 4) building understanding and developing appropriate AAC systems with first nations people, and 5) communication access in mental health care for people who use AAC. Each of the above areas had limited previous research, and each project utilised unique and novel research approaches, and have created significant impact.

We will also address and discuss the following areas: 1) highlights of current AAC research globally, 2) importance of inclusive research, 3) strengths and challenges in conducting research with people with communication access needs, and 4) future areas of AAC research in Australia. This forum will provide an opportunity for a stimulating discussion around what we need to do to keep building evidence-based practice and developing supports for enhancing participation and quality of life with people with communication access needs.

Long Abstract

The field of AAC has developed and progressed over the past 40 years with many significant advances. However, there are still challenges that must be addressed to ensure all have right to communicate and participate in all environments. In this research forum, we will briefly present an overview of completed and ongoing AAC research projects from South Australia and the Northern Territory. We will also discuss the strengths and challenges to conducting AAC research in Australia, links to global research trends, opportunities, and ideas for the future.

Over the past ten years, there have been significant research outputs and impact from several doctoral research projects conducted in South Australia and the Northern Territory. They were:

1) investigating the use of video-based intervention for promoting conversational turn-taking in autistic children with communication access needs. Current ongoing research is exploring the use of games and co-designed game-based approaches as a cost effective, accessible platform for promoting skill development in autistic children and youth..

2) an exploration of the lived experiences of individuals with complex communication needs in developing intimate relationships, which highlighted the importance of AAC in facilitating social connections. It underlined the need for improvement in AAC design to better support the expression of romantic and sexual desires, along with improving sexuality education for individuals who use AAC.

3) investigating the use of e-mentoring to support social media use by young people with disabilities who use AAC, a project that demonstrated the feasibility of cross-age peer-e-mentoring for young people with disabilities, showing that mentors provided effective support and the differences afforded in interaction by online conversations. Current, ongoing research has continued this focus on real-world communication interventions; including perspectives on implementation of Pragmatic Organisation Dynamic Display (PODD); and investigating the vocabulary gap in mental health and well-being lessons at school.

4) understanding the communication needs and participation patterns of First Nations peoples living with Machado-Joseph disease and determining culturally responsive and collaborative processes to develop appropriate AAC systems. Ongoing research in this area is focusing on disseminating and evaluating these systems and transferring research methods to different linguistic and cultural contexts.

5) communication access in mental health care for people who use AAC. This project explored access to mental health care drawing on the perspectives of three groups: People with communication access needs, everyday communication partners, and mental health workers. A key outcome of the project was the development of policy and practice recommendations to promote equitable access to mental health care that responds to requirements of people with communication access needs.

Each of the above areas had limited prior research. Researchers drew on their lived and work experiences and passions to implement unique and novel approaches and contribute to AAC research in Australia. The geographic intensity of the above research was due to individuals who are passionate and motivated to make a difference, pursuing their doctoral degree, working and living in SA and NT. In this panel discussion, researchers will also reflect on their doctoral research learnings and contributions, link to existing global research trends in AAC. Honours and Doctoral scholars are necessary to build a strong research base. Additionally, we need ongoing funding, and high-quality researchers prioritising inclusive research.

The host of the panel A/P Pammi Raghavendra will share some of the current trends in AAC research globally and highlight some barriers and facilitators for AAC research. Examples of global AAC research are: 1) importance of inclusive research (Walsh et al., 2024), 2) experiences of speaking autistic adults who use AAC (Donaldson et al., 2021); 3) considerations for the development of multilingual and culturally responsive AAC systems and supports (Soto & Tönsing, 2023). 4) Advances in brain-computer interface technology allowing generation of synthetic speech by detecting and decoding brain electrical activity to output real-time speech (Moses et al., 2021).

The facilitators and barriers to conducting AAC research include funding, access to people with communication access needs, genuine collaborations with people with communication access needs, quality researchers and technical developers, and strategies to address gate-keeping and navigating high-risk ethics.

To progress AAC research, we need increased collaboration between various stakeholders and disciplines, such as collaboration with linguists and community cultural liaison personnel, and with mainstream technology developers. We can also embrace the possibilities of AAC powered by Artificial Intelligence (AI), Augmented Reality (AR) and Brain Computer Interfaces (BCI). All these have massive potential to advance the mission of AAC yet also pose complex technical and ethical issues. The panel will discuss the challenges and share their hopes and ideas for future research over the next

decade to create communication accessible environments and the right of everyone to be able to communicate.

References:

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