synthesized speech consisted of an EZ keys Reader with an Ellipse switch accessed using a SlimArmstrong switch, which was mounted to the wheelchair. The second study evaluated the attitudes of patients with ALS, their caregivers, and unfamiliar listeners toward one speaker with ALS who used three types of message formulation techniques (word-by-word, sentence-by-sentence, and complete narrative). The speaker would activate his switch to the desired formulation technique and the output came from the DECtalk Perfect Paul synthesized voice. In both studies, participants watched videos of the man speaking and assessed their attitudes toward the speaker on a 7-point Likert scale on a variety of elements needed for communication including competence, effectiveness, comfort, understandability, and willingness to participate in storytelling conversation. After the final video, participants were asked to rate the communication mode and message formulation technique that they preferred best. Both studies were counterbalanced to avoid any story or learning effect. For example in study one all listeners heard three separate stories told with a different type of communication mode.

To test group differences between listener and the independent variable (communication mode in study one and message formulation technique in study two), appropriate ANOVAs were performed. A bonferroni adjustment (because of the multiple test comparisons) and a Geisser-Greenhouse adjustment (due to lack of homogeneity) were calculated from the preference data. Appropriate post hoc t-tests were performed for the communication aspects and each of the three participation groups (patients with ALS, their caregivers and unfamiliar listeners).

The results of Ball et al. (2003) indicate a high level of agreement between all listener groups. Study one demonstrated a statistical difference favoring the communication notebook and synthesized speech over unintelligible natural speech. Study two revealed a statistical difference favoring sentence-by-sentence and complete narrative message formulation techniques over a word-by-word technique.

This study has several strengths including the use of counterbalancing (in both studies) and the method of obtaining natural speech from the speaker with ALS (in study one). Natural speech as a communication mode was recorded on the same day in order to keep intelligibility consistent. In addition to appropriate methods, the results of the study are based on appropriate use of statistical measures. One weakness in the study includes a lack of discussion

regarding recruitment of participants. There is usually an inherient bias of those who agree to participate for studies

level of internal consistency. Administration of the checklist was conducted face-to-face in the participants' home

of this study. The first author served as the "primary AAC interventionist" (Ball, Beukelman, & Pattee, 2004, p. 116) and therefore personal (i.e. ease of interaction, ability to accurately describe all AAC equipment, etc…) and professional (i.e. clinical experience, academic credentials, etc...) biases may have altered the results of the study. The notion that the authors took time to identify possible personal and professional confounding variables adds to the value of the results. One weakness of this study is the lack of discussion regarding recruitment of participants. Since, as mentioned previously, there is usually an inherent bias of those who agree to participate for studies, it is important to know how these participants were recruited.

communication disorders.