Speech recognition software generated clinical interview transcripts: An effective tool to improve feedback outcomes

Shikino K^{1,2}, Ohira Y¹, Ikegami A¹, Noda K^{1,2}, Salcedo D², Ikusaka M^{1,2}

CHIBA

¹Department of Diagnostic Medicine, Graduate School of Medicine, Chiba University

Department of General Medicine, Chiba University Hospital

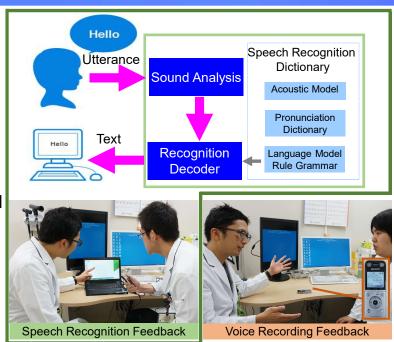
²Health Professional Development Centre, Chiba University Hospital

Background

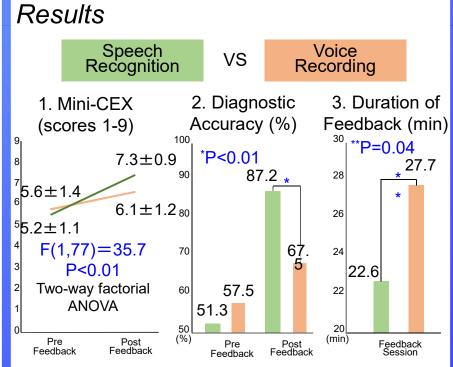
Speech recognition systems can instantly and accurately transcribe verbal interactions, enabling doctor-patient conversations to be analyzed in detail.

We introduced interview transcripts generated through speech recognition software using AmiVoice® to make feedback more specific and precise for the evaluation of medical history taking skills.

We investigated whether this methodology is superior to voice recording-only feedback for clinical skills training.



Methods Clinical Clerkship Students (n=79) Randomization Intervention Control (n=39)(n=40)CSA case scenario A1-A4 Mini-CEX Feedback Speech Voice Recognition Recording CSA case scenario B1-B4 Mini-CEX Main majors 1. Mini-CEX (overall clinical competence, scores 1-9) 2. Diagnostic accuracy (scenario B) 3. Duration of feedback (minutes)



Discussion and Conclusion

- Feedback based on speech recognition systems leads to:
 Improvement of Mini-CEX scores
 Improvement of diagnostic accuracy
 Reduction of total feedback time
- 2. Speech recognition-based feedback is an effective and efficient method to improve clinical performance.