



CURRENT POSTGRADUATE STUDENT

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PROGRAM	MPhil in Surgery	
DATE OF REGISTRATION	1 August 2015	
SUPERVISOR	Professor Michael TONG	
FIELD OF RESEARCH / INTENDED THESIS TITLE	Speech Analysis for Cantonese Speaking Children	
KEYWORDS FOR RESEARCH	Sound analysis, Cantonese speech, Speech sound disorders, Speech therapy, Speech assessment	
RESEARCH STUDY:		
<p>Speech sound disorders could be diagnosed by speech therapist using formal articulation tests and oral mechanism assessment. As children make age-appropriate and age-inappropriate mistakes during their development, it makes parent/ teacher difficult to identify the problem and bring the child to do a formal assessment. Thus, it may cause delay of adequate therapy. An articulation-screening test does not have to be formal. The purpose of the screening is to quickly identify those people who communicate within normal limits and those who may have a communicative disorder. (Shipley. K and McAfee J., 2008) People in the second group could be seen or referred for complete evaluation in an earlier time.</p> <p>In recent years, computerized digital sound analysers are widely used in speech sound analysis in detecting voice disorders, speech and audio-signal processing, etc. In order to make speech screening more accessible to parents and teachers, the development of a Cantonese speech sound analyzer can be one of the ways. Speech sound analyzer is a computer program for acoustic analysis of speech sounds input into the program according to the features of the sound spectrum. However, there is no speech sound analysis program available for Cantonese speech. And this makes the development of application of computerized program in Speech Therapy difficult.</p>		



The purpose of this study is to:

- 1) Building a computer system that could analyse and transcribe Cantonese speech sounds. Investigate if the accuracy of the screening test using this speech analysis software is high enough for screening children with speech sound disorders.
- 2) Compare the accuracy between a sound-analysing screening test and on-site speech screening by a speech therapist.
- 3) Investigate if the result of the screening test could be used as large-scale community service.

CONFERENCE TITLE / ABSTRACT / POSTER:

“Speech Analysis Software as a Clinical Screening Tool for Speech Sound Disorders in Cantonese-Speaking Children”