

Researchers:

DR. JONG HUI YING

Professor Dato Dr. Jafri Malin Abdullah
Dr. Rozaida Abdul Rauf
Dr. Garry Kuan
Dr. Faruque Reza
Dr. Jason Tye

▶ COPYRIGHT (LY2019000365)
▶ COPYRIGHT (LY2019000360)
▶ COPYRIGHT (AR2019000362)



DIAGNOSTIC LANGUAGE TOOL AND MUSIC INTERVENTION FOR ADOLESCENTS WITH DEVELOPMENTAL LANGUAGE DISORDER (DLD)



Introduction

This research introduces language diagnostic tool in educational settings, with particular reference to the needs of adolescents with Developmental Language Disorder (DLD). It summarises the objectives and functions of language diagnostic, including formative assessment. The diagnostic language tool (syntactic test) included syntactic structures and tasks that proved to be the most sensitive for the detection of syntactic DLD in previous studies. This research also illustrates some ways in which music intervention can be used to engage adolescents with DLD and suggest that music intervention is a crucial medium that enables positive transfer from music to language impairment.

Problem statement

- Developmental Language Disorder is an invisible, under diagnosed condition that affects over 70% of children
- 2 in 30 children have Developmental Language Disorder, that's two kids in every classroom.
- Between 5-7 million children in the US are affected.
- 15-20% of 2-year-old children show speech delay but they show the proficiency after reaching 4-5-year-old. However, 5-8% of the children still display the language disorder.

Novelty & Inventiveness

- Modify and develop diagnostic language tools for adolescents with DLD.
- New techniques, activities and processes within the music therapy are designed to meet their needs.
- Music therapy applied within a supportive relationship is an effective tool that has the potential to be used therapeutically by matching rhythmic patterns with speech patterns.

Applicability

- The existing application can be used by educators in either primary or secondary school and by speech therapists in either clinic or hospital settings.
- The diagnostic language tools can help the educators or therapists to identify their language difficulties.
- To overcome this language impairment music therapy is an effective tool that has the potential to be used therapeutically by matching rhythmic patterns with speech patterns.
- The diagnostic language tools and the modules of music therapy are also useful to others, especially patients with expressive aphasia.

Product/Technology Readiness

The prototype had been developed and tested in relevant environment such as clinical setting and school.

Research Achievement

(i) Publication

Nurul Nazihah Zaidil, Tahamina Begum, Rozaida Abdul Rauf, Jong Hui Ying, Faraj Al-Marri, & Faruque Reza. (2018). Syntactic Language Processing among Women- An EEG/ ERP Study of Visual Pictorial Stimuli. *2018 IEEE-EMBS Conference on Biomedical Engineering and Sciences (IECBES)*. ISBN: CFP1826K-POD978-1-5386-2472-2.

Jong Hui Ying dan Rozaida Abdul Rauf (2015). Pemahaman Klausa Relatif Tanpa Tikas dalam kalangan Pesakit Afasia Broca Agramatik dan Wernicke Bahasa Pertama Bahasa Malaysia, in Rogayah Rajak & Radiah Yusoff, *Teori Sintaksis Bahasa Melayu*, Dewan Bahasa dan Pustaka.

Jong Hui Ying dan Rozaida Abdul Rauf (in press)(2019). Kesan Minimaliti dalam Pemahaman Kecelaruhan Bahasa Spesifik Sintaksis, In Rozaida Abdul Rauf (ed.), *Neuropsikolinguistik*, Penerbit Universiti Sains Malaysia.

(ii) Research innovation fund

SCHMIDT BioMedTech Sdn Bhd.

(iii) Talent development

1 Master student graduated

(iv) Recognition

Winner of 'Information Technology and Communication' with project entitled 'Creating self-assessment in Psychology Software Tools to Student with Visual and Hearing Impairments in e-Novel Research and Innovation Competition 2019 on 10th – 21st April 2019

Intellectual Property

- Copyright : Modul Pengajaran & Pembelajaran Terapi Muzik (LY2019000365)
- Copyright : Model Tiga Tahap & Tiga Prosedur dalam Muzik & Linguistik (LY2019000360)
- Copyright : Tugasan Pemanduan Ayat dengan Gambar (AR2019000362)

Industry/Business Partner

- DanMedik Sdn Bhd

Commercialization Potential

- Study being carried out, feedback from clinical staffs, teachers, and students.

Level of Impact

- Impact of the invention may contribute to the improvement of community, especially the language development among children or adolescents with developmental language disorder (as well individuals with Broca's aphasia).



Contact Person:
DR. JONG HUI YING

School of Humanities, Main Campus
Universiti Sains Malaysia, Penang, MALAYSIA

Tel: +604-653 6035 Fax: +604-656 3707 E-mail: jonghuiying@usm.my