



# InDeLib

**RECONNECT AND  
DISCOVER**

# Extended Abstract

International Innovation & Design in Library &  
Information Science Competition (InDeLib2022)

*Organized by*  
Faculty of Information Management  
UiTM Kedah Branch



UNIVERSITI  
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MARA

**Editors**  
Asmadi Mohammed Ghazali  
Abd Latif Abdul Rahman



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## CONTENTS

1. DETECTIVE LOOKING CHART: PLUTCHIK EMOTION GAMES FOR KIDS THROUGH VARK MODEL FOR ASD CHILDREN .....	1
2. E-VIEW: LOW VISION READER ASSISTANT .....	4
3. WHERE IS YUYU?: DETECTIVE THEME AUGMENTED REALITY (AR) CHILDREN'S BOOK .....	7
4. DEVELOPMENT OF BIODEGRADABLE PLASTIC USING <i>CAULERPA LENTILLIFERA</i> 'S EXTRACT FOR A SUSTAINABLE ENVIRONMENT .....	9
5. DEVELOPMENT OF BIODEGRADABLE PLASTIC USING <i>METAPENAEUS INTERMEDIUS</i> 'S SHELL EXTRACT TOWARDS A SUSTAINABLE FUTURE .....	11
6. LITTLE MATES BUSY BOOK .....	13
7. PHYTOPLANKTON MAP .....	15
8. SAMUDERAMAPS: WATER QUALITY MANAGEMENT LIBRARY FOR CONSERVATION AND SUSTAINABLE USE OF MARINE RESOURCES AND ECOSYSTEMS .....	17
9. VIRTUAL REFERENCE CONSULTATION SERVICES .....	19
10. ZOOPLANKTON MAP .....	21
11. CASUAL BOOK WRAPPER .....	23
12. FRAMEWORK: VISUAL-SPATIAL: A MEDIATOR EFFECTS ON THE AUTISM SPECTRUM DISORDERS (ASD) ACHIEVEMENT IN SPEECH UTTERANCE .....	26
13. Sec-CompFY: SECURE COMPARTMENT FOR YOU .....	28
14. SMART LeoBOT .....	31
15. SMART SEIRS .....	33
16. IMPROVISE THE INTERLIBRARY LOAN SYSTEM: DEVELOPMENT OF INTERLIBRARY LOAN ONLINE SYSTEM (iNTeLS) .....	35
17. REDISCOVERING WISDOM THROUGH ANIMATED DA'WAH SERIES FOR CHILDREN .....	37
18. BATEEQ PACKERS .....	40
19. BAMBOO RAINDROP DRAINAGE SYSTEM .....	42
20. MY BOOK .....	44
21. IDOL: INTERACTIVE DIGITAL OUTDOOR LIBRARY .....	46
22. THE SNOWMAN .....	49
23. UUM IN4SHARE AS INFORMATION SHARING PLATFORM .....	52
24. INFOADVISER .....	54

## DETECTIVE LOOKING CHART: PLUTCHIK EMOTION GAMES FOR KIDS THROUGH VARK MODEL FOR ASD CHILDREN

Muhamad Hafiz Bin Hassan<sup>1</sup>, Rainal Hidayat Bin Wardi<sup>2</sup>, Noraziah Mohd Razali<sup>3</sup>, Amy Azura Hishamuddin<sup>4</sup>, Abdul Jalil Taha @ Tohara<sup>5</sup>, Muhammad Fakhruddin Bin Ahmad<sup>6</sup> & Clement Jimel<sup>7</sup>

<sup>1,2,3,4,5,6</sup> Kolej Pengajian Seni Kreatif, UiTM Shah Alam

<sup>7</sup> Kolej Pengajian Seni Kreatif, UiTM Sarawak Branch

hafizhassan@uitm.edu.my, rainzwar@uitm.edu.my, aziarazali@gmail.com, amyazura23@gmail.com, thealeng@gmail.com, muhammad.fakhruddin@pms.edu.my, clementjimel@uitm.edu.my

### Abstract

The visual teaching resources utilized to support children with Autism Spectrum Disorder (ASD) from the perspective of the ASD instructors were investigated in this study by using the qualitative research approach. Besides, realizing the development of a teaching aid for children with ASD by implementing the VARK Model of learning styles based on four main types of learners: visual, auditory, reading/writing, and kinesthetic. In addition, the construction of this game board is based on the idea that ASD children can express emotions based on Plutchik's wheel theory, which highlights emotions that help ASD children visualize the spectrum of emotions and how they relate to each other. Besides, this innovation can be linked to the development and behavioural interventions for ASD in shaping learning that affects cognitive and affective aspects.

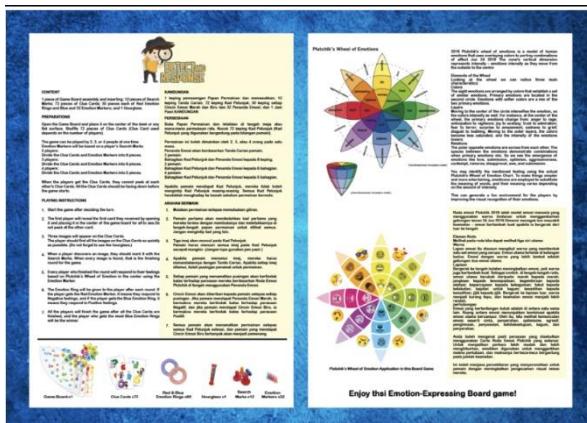
### Keywords

Autism Spectrum Disorder, VARK Model, Plutchik's Wheel Theory, Learning Cognitive and Affective Aspects.

### Product Description

This game is a medium that was innovated as a teaching aid for autistic children and is a platform to measure their emotions through the Plutchik wheel of emotions. This game is also built based on the research needs of autistic children in receiving learning through the VARK (visual, auditory, reading/writing, and kinesthetic) model. The results of this game can affect the cognitive and affective aspects of children with autism. Learning-based games for autistic children are significantly reduced in the design of teaching aids for the development of special education curriculum. The lack of specific games for autistic children causes teachers to buy existing tools and process them according to the learning needs of autistic children. This game was also created because autistic children lack exposure and experience using board games as a medium to explore knowledge.





 <b>PERBADANAN HARTA INTELEK MALAYSIA</b> Unit 1-7 Aset Sastera Tower B Menara UOA Bangsar No 5 Jalan Bangsar Utama 1, 59100 Kuala Lumpur, Malaysia. Tel: 603-2299 8400. Fax: 603-2299 8869					
 <b>RESIT RASMI</b>					
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## Novelty and Uniqueness

This product is a learning innovation for autistic children and can be marketed to all educational platforms. The primary target users are teachers (teachers, educators, Special Education Schools, counsellors, therapists, and parents dealing with children with ASD). Commercial value is for educational centres (government and private), hospitals/therapy centres, Autism Rehabilitation Centers and organizations with special needs. This product is an interactive medium that follows the requirements of autism learning tools by following the conditions based on design elements and principles.

## Benefit to Mankind

This innovation is a game known as an "Emotion-expressing board game", which is built as a game based on education. This game also implements a picture method through recognition of the type of Alphabet and Numbers and simultaneously as a game that can measure the level of expression of the emotions of children with autism. The game also forms an innovative and always searching mind for new ways to solve problems and express the feelings of autistic children in improving responsiveness, observation, quick thinking training and emotional intelligence. The game board is also a medium for autistic children to learn how to get along with others, talk to them and give attention to their level of intelligence and analytical computing capacity.

## Potential Commercialization

This product can be marketed in all educational centres in Malaysia. In addition, other modern countries are also looking at innovation to help the autism group. Therefore, this product also has the opportunity to be expanded to other countries because this innovation is in line with the development of the Industrial Revolution 4.0 in forming a large-scale industrial economy in developing and helping the education sector to be more sustainable.

### **Acknowledgement**

*‘Dua juta kanak-kanak berusia 5 hingga 18 tahun di Malaysia mengalami masalah kesihatan mental seperti kecacatan perlumbangan, gangguan emosi dan tingkah laku berdasarkan Laporan Kesihatan Mental Kanak-Kanak Remaja Negara Malaysia bagi tahun 2014. Data kajian yang dibentangkan pada Kongres Persatuan Psikiatri Kanak-Kanak & Remaja dan Profesjon Bersekutu Asia (ASCAPAP) 2015 itu turut mendedahkan seramai 100,000 kanak-kanak daripada jumlah berkenaan memerlukan rawatan klinikal daripada pakar’ – Harian Metro, 15 April 2018 -*

This press statement is strong proof that our country now needs designers who are aware of the learning of autistic children. The innovation of this product is a necessary tool for them to explore knowledge like other normal children. This is also in line with the requirements of the Sustainable Development Goals (Sustainable Development Goals), which are directed towards quality education by guaranteeing comprehensive education and equity and promoting lifelong learning opportunities for all. Therefore, products can be marketed based on the needs and demands in the particular education sector and can positively impact society.