6th ICSE 2025

INTERNATIONAL CONFERENCE ON SPECIAL EDUCATION

TECHNOLOGY FOR DISABILITIES : A PATH TO INCLUSION

26th – 27th JULY 2025 | KUCHING, SARAWAK, MALAYSIA

PROGRAMME BOOK

CONCURRENT EVENT

2025 iDIEC

INNOVATION FOR DISABILITY-INCLUSIVE EDUCATION COMPETITION

ORGANISER

SEAMEO SEN
REGIONAL CENTRE FOR SPECIAL EDUCATIONAL NEEDS

SEAMEO

PARTNERS

KEMENTERIAN PEMBANGUNAN WANITA, KANAK-KANAK DAN KESEJAHTERAAN KOMUNITI

KEMENTERIAN PENDIDIKAN
JABATAN PENDIDIKAN NEGERI SARAWAK

UNIVERSITI PENDIDIKAN SULTAN IDRIS
SULTAN IDRIS EDUCATION UNIVERSITY

IN COLLABORATION WITH

MINISTRY OF EDUCATION MALAYSIA

ASEAN MALAYSIA 2025
INCLUSIVITY AND SUSTAINABILITY

SEAMEO SEN
SUSTAINABLE DEVELOPMENT GOALS
We support the Sustainable Development Goals

PREFACE

It is with great honor and enthusiasm that we welcome you to the 6th International Conference on Special Education (ICSE), held under the timely and impactful theme, **"Technologies for Disabilities: A Path to Inclusion."**

This year's theme reflects our shared commitment to harnessing the power of technology to advance inclusive education for learners with disabilities. In today's rapidly evolving digital world, technology holds immense potential not only to support learning but also to transform lives in offering new pathways to accessibility, participation and empowerment for all learners.

The ICSE 2025 brings together a diverse community of educators, researchers, policymakers, practitioners, and advocates from across the region and beyond. Through insightful keynote presentations, panel discussions, workshops, and paper sessions, we aim to explore how emerging technologies and assistive innovations can be integrated into educational practices to remove barriers and create environments where every learner is valued and supported.

This conference also serves as a platform for exchanging knowledge, sharing evidence-based practices, and forging collaborations that will shape the future of disability-inclusive education. It is our hope that the dialogues and ideas shared during this event will inspire sustainable actions and policies that ensure no learner is left behind.

We extend our deepest gratitude to all presenters, partners, and participants for your valuable contributions and dedication to this important cause. May this conference be a meaningful step forward on our collective journey toward equity, inclusion, and technological empowerment in education.

ICSE 2025

CONTENTS

SEAMEO SEN
REGIONAL CENTRE FOR SPECIAL EDUCATIONAL NEEDS

FOREWORD FROM:
DIRECTOR OF SEAMEO SEN

It is with great pleasure and a deep sense of purpose that I welcome you to the **6th International Conference on Special Education (ICSE 2025)**. This conference has grown to become a significant platform for knowledge exchange, regional collaboration, and advocacy in the field of inclusive education.

The theme for this year's conference, **"Technology for Disabilities: A Path to Inclusion,"** is both timely and forward-looking. As we witness an era defined by digital transformation, we are called to ensure that these advancements serve as tools for equity and empowerment, not exclusion. Technology, when harnessed with intention and compassion, holds immense potential to dismantle barriers and create learning environments that truly cater to the needs of all learners, especially those with disabilities.

Throughout this conference, we will hear from experts, innovators, educators, and advocates who are actively shaping inclusive futures through assistive technologies, accessible learning platforms, and disability-responsive policies. These efforts reflect a growing commitment across Southeast Asia and beyond to make inclusion not just a goal, but a lived reality.

I am especially proud that this year's ICSE is held in parallel with the **2nd Innovation for Disability-Inclusive Education Competition (iDIEC)**. This initiative provides a space for emerging talents and changemakers to showcase creative solutions that address the real-world challenges faced by learners with disabilities. It is inspiring to see how innovation can grow when grounded in empathy and driven by purpose.

On behalf of SEAMEO SEN, I extend my heartfelt appreciation to our collaborators, partners, speakers, judges and participants from across the region and beyond. Your presence here demonstrates your dedication to creating a more just and inclusive educational landscape for all.

I invite each of you to engage fully with the sessions, dialogue with peers, and carry the insights gained back to your institutions and communities. Let this conference be a catalyst for transformation, one that positions technology not as a luxury, but as a lifeline to inclusion.

Together, let us build a future where every learner, regardless of ability, has access to quality education and the tools to thrive.

MADAM JAMILAH KADIR
CHAIRPERSON OF THE 6th ICSE 2025 AND DIRECTOR OF SEAMEO SEN

THE THEME

TECHNOLOGIES FOR DISABILITIES: A PATH TO INCLUSION

6th ICSE SUB-THEMES

1. Innovative Assistive Technologies in Education.
2. Accessible Digital Learning Environments.
3. Inclusive Educational Practices.
4. Policy, Legislation and Advocacy.
5. Student Empowerment and Self-Advocacy.
6. Professional Development and Teacher Training.
7. Artificial Intelligence & Technology.
8. Accessibility Tools for Learners with Disabilities.
9. Women & Young Girls in Disability-Inclusive Education.

2nd iDIEC SUB-THEMES

1. Inclusivity in Education.
2. STEM (Science, Technology, Engineering & Mathematics).
3. TVET (Technical and Vocational Education).
4. New Discoveries.
5. Digital & Animation.
6. Assistive Devices for Learners with Disabilities.

6th ICSE CONFERENCE OBJECTIVES

1. **Policy and Advocacy**: To explore the pivotal role of policy in advancing Disability-Inclusive Education through technology. Advocate for policies that ensure equitable access to educational technology for individuals with disabilities.
2. **Knowledge Transfer:** To provide a platform for sharing insights into the benefits of current technologies in supporting learners with disabilities, including the application of advanced technologies like Generative Artificial Intelligence (AI) in teaching and learning.
3. **Promote Awareness and Understanding**: To increase awareness of how technology enhances educational opportunities for learners with disabilities. Showcase successful case studies, share personal experiences, and underscore the benefits of inclusive education.
4. **Foster Collaboration**: To facilitate collaboration among ministries, educators, technologists, policymakers, researchers, and advocates. Encourage the exchange of ideas, strategies, and best practices to enhance Disability-Inclusive Education at national, regional, and international levels.
5. **Highlight Technological Innovations**: To demonstrate cutting-edge technological advancements and tools designed to support the education of learners with disabilities, including assistive technologies, adaptive software, and accessible digital resources.
6. **Address Challenges and Barriers**: To identify and discuss the obstacles in implementing technology for Disability-Inclusive Education. Explore solutions to enhance accessibility, affordability, and training to overcome these challenges.
7. **Professional Development**: To offer opportunities for educators and professionals to enhance their skills and knowledge in utilizing technology for inclusive education through workshops, exhibitions, and networking events.
8. **Research and Evidence-Based Practices**: To highlight recent research findings and evidence-based practices in technology and Disability-Inclusive Education. Encourage further research to advance the field and inform policy and practice.

2nd iDIEC COMPETITION OBJECTIVES

1. Highlight the potential innovation teaching and learning model approaches/products that can be applied in Disability-Inclusive Education setting.
2. Share and showcase ideas and creativities in Disability-Inclusive Education among educators, advocates, and students.
3. Providing a platform for networking among the inventors of Disability-Inclusive Education.
4. Instil interest and awareness on the importance of innovation in Disability-Inclusive Education among educators, advocates, and students.

6th ICSE PARTICIPANTS

The 6th ICSE 2025 is attended by approximately 300 participants and delegates from Southeast Asia countries and all around the world. This diverse group comprises prominent speakers, teachers, educators, stakeholders, NGOs, parents, students, researchers, special education providers, policy makers, officials of Ministries of Education and interested individuals. The conference featured attendees from 18 countries, including Malaysia, Brunei, Indonesia, Philippines, Singapore, Thailand, Vietnam, India, Japan, Maldives, Republic of Korea, United Kingdom, Nepal, Australia, Hong Kong, Timor Leste, China and Ethiopia.

2nd iDIEC PARTICIPANTS

Embracing the spirit of innovation, the 2nd International Digital Innovation and Education Competition (IDIEC) welcomes a diverse spectrum of participants through two modes of participation, online and physical to ensure greater accessibility and inclusivity. This competition is open to forward-thinking educators from both public and private institutions, including teachers, professionals, and academicians, as well as innovative students from universities, colleges/institutes, polytechnics, and community colleges. It also extends its call to individuals affiliated with non-governmental organizations (NGOs), and representatives from private and government agencies or centers, all of whom are poised to contribute to the innovative evolution of education. By converging these varied innovation-driven stakeholders, the 2nd IDIEC aspires to ignite transformative change in education and skills development, fostering a progressive and inclusive future empowered by digital innovation. This year, the competition proudly received a total of **43 innovators groups**, each presenting forward-thinking ideas and solutions that reflect the dynamic intersection of education and digital transformation.

KEYNOTE AND PLENARY SPEAKERS

KEYNOTE 1

EMERITUS PROFESSOR CHARLES HULME

University of Oxford

KEYNOTE 2

DR. EDDY FAZLIN HAJI AMDAN

Ministry of Education, Brunei Darussalam

PLENARY SPEAKER

DR. MOHD ANUAR BIN ABDULLAH

Special Education Division, Ministry of Education, Malaysia

MULTI-STAKEHOLDERS PANEL DISCUSSION
SPEAKERS

SPEAKER 1
MR. MUHAMMAD NAZMI ROSLI
Global Teacher Prize Top 10 Finalist

SPEAKER 2
DR. FRANCES GENTLE
International Council for Education of People with Visual Impairment (ICEVI)

SPEAKER 3
ASSOCIATE PROFESSOR DR. HUSNIZA HUSNI
Universiti Utara Malaysia (UUM)

SPEAKER 4

MR. SANTOSH KHATRI

Chief of Education, UNESCO

MODERATOR

MS. IZZA ISMAIL

Regional Education & Skills Adviser

British High Commission Kuala Lumpur

2nd IDIEC 2025 PANEL JUDGES

ONLINE PANEL JUDGES

DR. DIOSDADO SAN ANTONIO
SEAMEO INNOTECH, Philippines

DR. RICHEAL PHIL THIEN KIM HOW
Institut Pendidikan Guru Malaysia Tawau Campus, Malaysia

MR. MUH DLIYAUL HAQ
Yogyakarta State University, Indonesia

DR. JOHANN HEINRICH P. MALONGO
Negros Oriental State University, Philippines

DR. KRSITIN LIU
TIES Center, University of Minnesota, United States

DR. HELMER BARIMBAO MONTEJO
Talisay City College, Philippines

DR. GINO CABRERA
Southern Luzon State University, Philippines

DR. RAYNER TANGKUI
Institut Pendidikan Guru Keningau, Malaysia

DR. MOHD ASNORHISHAM ADAM
Pasir Gudang District Education Office, Malaysia

MR. SAHARAT LAKSANASUT
Ministry of Education, Thailand

PHYSICAL PANEL JUDGES

PROFESSOR. DR. BUDIYANTO
State University of Surabaya, Indonesia

DR. MOHD AZLIS SANI MD JALIL
Universiti Tun Hussein Onn Malaysia

PROFESSOR FERNAN PENIERO TUPAS
Northern Iloilo State University, Philippines

DR. YOONKAP KIM
Global Education Research Institute (GERI), South Korea

MR. MUHAMMAD NAZMI ROSLI
Global Teacher Prize Top 10 Finalist, Malaysia

SEAMEO SEN

STEERING COMMITTEE

PATRON

HER EXCELLENCY FADHLINA SIDEK
Minister of Education, Malaysia

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Director, SEAMEO SEN

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Head, Research and Innovation Division SEAMEO SEN

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Programme Officer, Research and Innovation Division SEAMEO SEN

MS. MIZANINA MOHAMAD MADON
Programme Officer, Research and Innovation Division SEAMEO SEN

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DATIN ERA ZAFFURA MD. SIN
Head, Management Division SEAMEO SEN

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Head, Strategic Planning and Communication Division SEAMEO SEN

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Manager, Strategic Planning and Communication Division SEAMEO SEN

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Information and Communication Technology Officer, SEAMEO SEN

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Programme Officer, Strategic Planning and Communication Division SEAMEO SEN

MS. NADIA NATASHA ARSHAD
Programme Officer, Strategic Planning and Communication Division SEAMEO SEN

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Programme Officer, Training and Capacity Development Division SEAMEO SEN

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MR. MUHAMMAD KHAIRUL AZHAN ALI

MS. NORASHA SYUHADA MAZLAN

MS. NUR AMIRAH HANI SENIN

MR. MOHD KHAIROL JOHAR

MR. ARIS MAMAT

SARAWAK STATE EDUCATION DEPARTMENT & MINISTRY OF WOMEN, EARLY CHILDHOOD AND COMMUNITY WELLBEING DEVELOPMENT, SARAWAK

STEERING COMMITTEE

ADVISOR

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Director of Sarawak State Education Department

CO-CHAIRPERSON

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Senior Chief Assistant Director of Special Education, Sarawak State Education Department

MADAM SALINA BINTI BUJANG
Head of Division, Early Childhood Development
Ministry of Women, Early Childhood and Community Wellbeing Development

WORKING COMMITTEE

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MS. CLAREENA JONG EE FEN

MS. MIDAH ZAINORIN

MS. HUSZAIDA HUSSAIN

MS. NURUL SHIEMA SHAHADAN

MR. YA'AKUB ZAMAWI

MR. DANIEL ANAK NYALLA

MR. MOHD ADI ABDULLAH @ ERIC TAN TUAN SWEE

MR. RUDY ANAK PETER DAUN

MR. KENNETH ARMOLD JULONG

MR. AWANG SHAHREL SALLEH

MS. SIOW SHU CIN

MS. NUR ASYIQIN KHAIROL AZMI

MS. AIKA HAZIQAH NORANI

MR. GERALD ANAK UBONG

DR. HAJI MOHAMAD TAHA

MS. ENDVYAN ANAK PIUH

MR. AWANG KASUMA AWANG ASIN

MS. CHRISTINA ANAK ANTHONY

MR. THANABALA SINGGAM A/L LOGANATHAN

MS. CHANG SZE PING

MR. MUHAMMAD NAJIB BIN AHMAD

ENCIK BADRULISHAM AMERAN

MS. ROSNAH HAJI JALI

MS. DAYANG KAMALIAH ABG ABDILLAH

MS. NAJWA AHMAD TARMIZI

MR. AHMAD MUHIBBUDDIN ZAMANI MOHAMMAD

MS. NELTALIE CHONG

MS. GLORIA ANAK MU'AT

MR. CHONG CHIAT YEE

MS. MARITZA MARSYA SAHAT ABDULLAH

DR. SURAS A/L KANAGASABAI

MR. AHMAD NADZLEE FITRI BIN MOHAMMAD

MS. AZLIANA BINTI MASHURI

ICSE 2025 CONFERENCE SCHEDULE

DAY 1: 26th JULY 2025 (SATURDAY)

Table 1-DAY 1: ICSE 2025 CONFERENCE SCHEDULE

TIME	PROGRAMME	VENUE
07:00 - 08:15	**Registration for ICSE and iDIEC**	Hotel Lobby
08:15 - 17:30	iDIEC Exhibition	Ballroom Foyer, Level 4
08:15 - 10:00	**Parallel Sessions**	Isthmus Room 1 – 4, Level 4
10:00 - 10:30	Morning Tea Break Speaker's Corner	Ballroom 3, Level 4 & HYY Restaurant, Lobby Ballroom Foyer, Level 4
10:30 - 11:15	**Keynote Session I** **Speaker: Emeritus Professor Charles Hulme** *University of Oxford, UK*	Ballroom 1 & 2, Level 4
11:15 - 11:25	**Welcoming Speech by Mdm. Jamilah Kadir,** *Director of SEAMEO SEN*	Ballroom 1 & 2, Level 4
11:30 - 11:45	**Plenary Session** **Speaker: Dr. Mohd Anuar Abdullah** *Special Education Division, Ministry of Education, Malaysia*	Ballroom 1 & 2, Level 4
11:45 - 13:00	Lunch Speaker's Corner	The Quad Restaurant, Level 3 & HYY Restaurant, Lobby Ballroom Foyer, Level 4
13:00 - 15:00	**Workshop Session** **2nd iDIEC 2025 Judging Session Commences**	Isthmus Room 1 – 4, Level 4 Ballroom Foyer, Level 4
15:00 - 15:30	Afternoon Tea Break Speaker's Corner	Ballroom 3, Level 4 &HYY Restaurant, Lobby Ballroom Foyer, Level 4
15:30 - 17:30	**Workshop Sessions**	Isthmus Room 1 – 4, Level 4
17:30	Conference Adjourned for Day 1	

DAY 2: 27th JULY 2025 (SUNDAY)

Table 2-DAY 2: ICSE 2025 CONFERENCE SCHEDULE

TIME	PROGRAMME	VENUE
07:45 - 16:30	iDIEC Exhibition	Ballroom Foyer, Level 4
07:45 - 10:00	**Parallel Sessions** **2nd iDIEC 2025 Judging Session Commences**	Isthmus Room 1 – 4, Level 4 Ballroom Foyer, Level 4
10:00 - 10:30	Morning Tea Break Speaker's Corner	Ballroom 3, Level 4 & HYY Restaurant, Lobby Ballroom Foyer, Level 4
10:30 - 11:15	**Keynote Session II** **Speaker: Dr. Eddy Fazlin Haji Amdan** *Ministry of Education, Brunei Darussalam*	Ballroom 1 & 2, Level 4
11:15 - 12:45	**Multi-Stakeholders Panel Discussion** **Theme:** Advancing Inclusive Technology: The Role of Stakeholders and Its Impact on Disability-Inclusive Education **Speaker 1: Mr. Muhammad Nazmi Rosli** *Global Teacher Prize Top 10 Finalist* **Speaker 2: Dr. Frances Gentle** *International Council for Education of People with Visual Impairment (ICEVI)* **Speaker 3: Associate Professor Dr. Husniza Husni** *Universiti Utara Malaysia (UUM)* **Speaker 4: Mr. Santosh Khatri** *Chief of Education, UNESCO* **Moderator: Ms. Izza Ismail** *British High Commission Kuala Lumpur*	Ballroom 1 & 2, Level 4
12:45 - 14:00	Lunch Speaker's Corner	The Quad Restaurant, Level 3 & HYY Restaurant, Lobby Ballroom Foyer, Level 4
14:15 - 16:30	**Closing Ceremony**	Ballroom 1 & 2, Level 4
16:30 - 17:00	Afternoon Tea Break	Ballroom 3, Level 4 & HYY Restaurant, Lobby
17:00	End of Program	

2nd INNOVATION FOR DISABILITY-INCLUSIVE EDUCATION COMPETITION (IDIEC) 2025 SCHEDULE

DAY 1: 26th JULY 2025 (SATURDAY)

Table 3-IDIEC 2025 SCHEDULE 26th JULY 2025

TIME	PROGRAMME	VENUE
07:00 - 08:15	iDIEC 2025 Finalists Registration	Ballroom Foyer, Level 4
08:15 - 10:00	Booth Preparation	Ballroom Foyer, Level 4
10:00 - 10:30	Morning Tea Break & Speaker's Corner	Ballroom 3 & Ballroom Foyer Level 4
10:30 - 11:15	Keynote Session I	Ballroom 1 & 2, Level 4
11:30 - 11:45	Plenary Session	Ballroom 1 & 2, Level 4
11:45 - 13:00	Lunch & Speaker's Corner	The Quad Restaurant, Level 3
13:00 - 15:00	2nd iDIEC 2025 Judging Session Commences	Ballroom Foyer, Level 4
15:00 - 15:30	Afternoon Tea Break & Speaker's Corner	Ballroom 3 & Ballroom Foyer Level 4
15:30 - 17:30	Workshop Session	Isthmus Room 1-4, Level 4
17:30	Adjourned for Day 1	

DAY 2: 27th JULY 2025 (SUNDAY)

Table 4-IDIEC 2025 SCHEDULE 27th JULY 2025

TIME	PROGRAMME	VENUE
07:30 -10:00	2nd iDIEC 2025 Judging Session Commences	Ballroom Foyer, Level 4
10:00 - 10:30	Morning Tea Break & Speaker's Corner	Ballroom 3 & Ballroom Foyer Level 4
10:30 - 11:15	Keynote Session II	Ballroom 1 & 2, Level 4
11:15 - 12:45	Multi-Stakeholders Panel Discussion	Ballroom 1 & 2, Level 4
12:45 - 14:00	Lunch & Speaker's Corner	The Quad Restaurant, Level 3
14:15 – 16:30	Presentation of Award for 2nd iDIEC 2025	Ballroom 1 & 2, Level 4
16:30 - 17:00	Afternoon Tea Break	Ballroom 3 & Ballroom Foyer Level 4
17:00	End of Program	
07:30 -10:00	2nd iDIEC 2025 Judging Session Commences	Ballroom Foyer, Level 4
10:00 - 10:30	Morning Tea Break & Speaker's Corner	Ballroom 3 & Ballroom Foyer Level 4

ICSE 2025

PARALLEL SESSION SCHEDULE

DAY 1 : 26th JULY 2025 (SATURDAY), TIME: 08:15 – 10:00

Room : Isthmus 1, Level 4

Sub-Theme : Accessibility Tools for Learners with Disabilities
: Policy, Legislation and Advocacy
: Innovative Assistive Technologies in Education

Table 5- DAY 1: 26th JULY 2025 (SATURDAY), TIME: 08:15 – 10:00, Room: Isthmus 1, Level 4

No	Paper ID	Paper Title & Author(s)	Presenter(s)
1	ICSE 2025: 128-085	Development of "Intelligent Ruler" to Enhance Measurement Skills of Special Education Needs (SEN) Students in the Subject of Specific Vocational Skills: Basic Clothing Sewing *Che Wan Husna Syahirah C.W.R & Ma Sharipah Y*	Ms. Ma Sharipah Yusof
2	ICSE 2025: 152-107	Feasibility Study on Supporting Deafblind Individuals in Malaysia: Challenges, Opportunities, and Recommendations *Jalil Azlis-Sani, Mohd Anis Abdul Razak, Jamilah Kadir, Mohd Zulkarnain Abdul Wahab, Monishah Md. Shah, Mohamad Faris Idham Zainurin, Mizanina Mohamad Madon & Fezny Othman*	Dr. Mohd Azlis Sani Md Jalil
3	ICSE 2025: 096-051	Challenges in Assessing the Receptive Language Abilities of Children with Cerebral Palsy *Susheel Joginder Singh, Suvalaxmi Raman, Vinitaa Rajakumar, XinTong Lim, Rogayah Abdul Razak & ShinYing Chu*	Dr. Susheel Joginder Singh
4	ICSE 2025: 015-008	Enhancing Literacy: Innovative Strategies for ALS Learners with Disabilities *Dionito F. Mangao Jr., Al Jerald V. Leyson, Ana Rose B. Atendido, Elma P. Aure & Felisa C. Matel*	1. Mr. Dionito F. Mangao Jr. 2. Mr. Al Jerald V. Leyson 3. Ms. Ana Rose B. Atendido 4. Ms. Elma P. Aure 5. Ms. Felisa C. Matel
5	ICSE 2025: 080-036	The Effectiveness of Early Detection and Intervention Programme for 4-6 Years Old Children with Developmental Delays in Malaysia *Mahfuzah Zainol, Iffah Rashida Mazlan, Che'Rozaniza Azizan, Solehah Misron & Rodiah Idris*	Dr. Mahfuzah Zainol
6	ICSE 2025: 141-097	Tajweed Game for Autism Children: An Interactive Game for Autism Children to Learn Tajweed *Nadiah Ramlan, Maisarah Saidin & Hayati Hussin*	Dr. Nadiah Ramlan

Room : Isthmus 2, Level 4

Sub-Theme : Accessibility Tools for Learners with Disabilities
: Policy, Legislation and Advocacy
: Innovative Assistive Technologies in Education

Table 6- DAY 1: 26th JULY 2025 (SATURDAY), TIME: 08:15 – 10:00, Room: Isthmus 2, Level 4

No	Paper ID	Paper Title & Author(s)	Presenter(s)
1	ICSE 2025: 017-009	An Effective Teaching Methods to Increase Deaf Student's Motivation in Higher Education Setting *Siti Suhaila Samian & Nur Adiba Rosle*	Mrs. Siti Suhaila Samian
2	ICSE 2025: 059-067	Breaking Barriers: Harnessing Project-Based Learning to Empower Students with Learning Disabilities *Bong Lie Chien & Vestly Kong Liang Soon*	Mrs. Bong Lie Chien
3	ICSE 2025: 081-058	Emotional Dependency in Student-Teacher Relationships: Enhancing Inclusive Education Services for Preschool Students *Nur Amira & Mohd Syazwan Zainal*	Ms. Nur Amira
4	ICSE 2025: 170-113	Examining the Current Situation of Individualized Curriculum Plan (ICP) Formulation in Maldivian Schools *Aishath Wadheefa, Adhila Rushdhee, Aishath Zaeema, Anula Saleem, Haleemath Hussain & Zuleykha Abdul Sattar*	1. Dr. Aishath Wadheefa 2. Mdm. Adhila Rushdhee
5	ICSE 2025: 116-079	Comprehensive Support Ecosystem for Children with Disabilities and their Families in Vietnam *Dinh Nguyen Trang Thu, Pham Thi Thuan, Nguyen Thi Thanh Hoan & Pham Thi Hong Mai*	Mrs. Dinh Nguyen Trang Thu
6	ICSE 2025: 036-022	Enhanced Learning, Empowering Lives: A Community-Based Learning Approach for Students with Special Needs *Adron Wee Yijie, Serene Yong Lee Lian, Florence Loh Seow Wei & Arumugam Prasanna Priya*	*1. Ms. Serene Yong Lee Lian* *2. Ms. Florence Loh Seow Wei* *3. Ms. Arumugam Prasanna Priya*

Room : Isthmus 3, Level 4
Sub-Theme : Inclusive Educational Practices

Table 7- DAY 1: 26th JULY 2025 (SATURDAY), TIME: 08:15 – 10:00, Room: Isthmus 3, Level 4

No	Paper ID	Paper Title & Author(s)	Presenter(s)
1	ICSE 2025: 099-057	Inclusive Education: How to Upgrade from a Technology Porter to a Demand Translator *Ma Ying & Rosila Bee Mohd Hussain*	Mrs. Ma Ying
2	ICSE 2025: 078-035	Inclusive Educational Practices in Sarawak: A Decade of Progress (2015-2025): An Analysis of Published Journal Articles *Dayang Dayana Abg Abd Nasir*	Ms. Dayang Dayana Abg Abd Nasir
3	ICSE 2025: 093-060	Inclusive Mathematics Teaching in Primary Schools: Issues and Challenges *Ariff Mu'azzam Ab Halim, Mohd Norazmi Nordin & Muhammad Sofwan Mahmud*	Mr. Ariff Mu'azzam Ab Halim
4	ICSE 2025: 062-024	Inclusivity at the Workplace: An Inquiry on the Environment of a Person with Special Needs in a Stem-Based Workplace *Jarina Peer & Lisa Ho*	1. Dr. Jarina Peer 2. Dr. Lisa Ho
5	ICSE 2025: 148-103	Integration of Digital Technology in Inclusive Education Program: Challenges and Solutions *Abdul Aziz Busri & Halimah Jamil*	Mr. Abdul Aziz Busri
6	ICSE 2025: 031-054	KOKALI: An Innovative Method for Teaching Multiplication in Remedial Programs *Siti Hadijah Rahamat*	Mrs. Siti Hadijah Rahamat

Room : Isthmus 4, Level 4
Sub-Theme : Inclusive Educational Practices

Table 8- DAY 1: 26th JULY 2025 (SATURDAY), TIME: 08:15 – 10:00, Room: Isthmus 4, Level 4

No	Paper ID	Paper Title & Author(s)	Presenter(s)
1	ICSE 2025: 087-053	Navigating Narratives: An Epistemological Exploration of Visually Impaired Graduates Through the Social Model of Disability and Labov's Analytical Framework *Visama Hassan, Fathimath Muna & Mcxin Tee*	*Mrs. Visama Hassan*
2	ICSE 2025: 168-112	Need Based Inclusive School Model: Redefining Inclusion for Children with Disabilities in Nepal *Kedar Prasad Adhikari, Babu Ram Dhungana & Niroj Giri*	1. *Mr. Kedar Prasad Adhikari* 2. *Mr. Babu Ram Dhungana* 3. *Mr. Niroj Giri*
3	ICSE 2025: 229-116	Parental Denial of Children with Special Educational Needs (SEN) in Preschool Setting: A Case Study *Aznan Che Ahmad, Salizawati Omar, Sivabala Naidu & Ranjit Singh Gill*	*Prof. Dr. Aznan Che Ahmad*
4	ICSE 2025: 108-068	Pre-Service Teachers' Attitudes Toward Inclusive Education: Impact of Exposure to Inclusive Education *Vernon Jeffery S. Ponce, Jeremy Adrian D. Guiang & May Flor C. Rivera*	1. *Mr. Vernon Jeffery S. Ponce* 2. *Ms. May Flor C. Rivera*
5	ICSE 2025: 101-059	Profiling Autistic Traits in Malaysian Boarding Schools: A Descriptive Analysis *Mariam Zahiah Tazali & Mohd Syazwan Zainal*	Mrs. Mariam Zahiah Tazali
6	ICSE 2025: 091-046	Teachers Embracing Inclusive Kindergarten Education: Best Practices in Addressing Challenges *Adora P. Zerrudo*	*Dr. Adora P. Zerrudo*

DAY 2 : 27th JULY 2025 (SUNDAY), TIME: 07:45 – 10:00

Room : Isthmus 1, Level 4

Sub-Theme : Inclusive Educational Practices
: Accessibility Tools for Learners with Disabilities

Table 9- DAY 2: 27th JULY 2025 (SUNDAY), TIME: 07:45 – 10:00, Room: Isthmus 1, Level 4

No	Paper ID	Paper Title & Author(s)	Presenter(s)
1	ICSE 2025: 057-027	The Teachers' Attitudes Towards Mnemonics Strategies in Improving the Basic Multiplication Facts Retrieval Among Inclusive Primary School Students *Verra Wulandary & Norimune Kawai*	Ms. Verra Wulandary
2	ICSE 2025: 109-069	"This is Me!": Creative Digital Storytelling with Teacher-Student and AI Collaboration *Julianah Ahmad, Sabariah Sharif & Rosy Talin*	Ms. Julianah Ahmad
3	ICSE 2025: 114-077	Towards Inclusion: Building Employability and Advocacy through the Special Educational Week Program *Zainoriza Zainun*	Mrs. Zainoriza Zainun
4	ICSE 2025: 086-043	Untrained but Undeterred: Challenges and Strategies of Receiving Teachers in Inclusive Education *Veia Mae D. Giger, Daisy M. Corpuz, Mariche C. Llanto & Susan Vicente D. Villarente*	1. Ms. Veia Mae D. Gige 2. Ms. Mariche C. Llant 3. Dr. Susan Vicente D. Villarente
5	ICSE 2025: 154-109	Voices Beyond Silence in Inclusion: An Inquiry into Secondary Teachers with Deaf Learners in Mainstream Classrooms *Susan Vicente D. Villarente & Everly Cosmod*	Ms. Mariche C. Llant
6	ICSE 2025: 130-098	Empowering Physical Activity Through 'Active Fun Play' *Malisa Haziqah Mohammad Haffizie, Teo Boon Sian, Chin Ngien Siong, Teng Kie Yin, Michelle Melini Ak Walter & Clarriechel Walter Lakun*	Ms. Malisa Haziqah binti Mohammad Haffizie
7	ICSE 2025: 152-106	Advancing Inclusive Education: Exploring the Potential of Inclusive Open Educational Resources (IOER) for Learners with Visual Impairments *Jamilah Kadir, Jalil Azlis-Sani, Fezny Othman, Mohd Zulkarnain Abdul Wahab, Mohamad Shabilullah Abd Hamid, Rusnedy Ruslan, Kway Zi Bin & Nur Alya Asyfa Abd Rahman*	Mrs. Fezny Othman
8	ICSE 2025: 091-065	The Effectiveness of 3D Manual Alphabet Model as a Manipulative Tool in the Acquisition of Alphabetic Knowledge of Kindergarten Deaf Learners *April Z. Posadas & Adora P. Zerrudo*	Dr. April Z. Posadas

Room : Isthmus 2, Level 4

Sub-Theme : Innovative Assistive Technologies in Education
: Accessible Digital Learning Environments
: Artificial Intelligence (AI) & Technology
: Inclusive Educational Practices

Table 10- DAY 2: 27th JULY 2025 (SUNDAY), TIME: 07:45 – 10:00, Room: Isthmus 2, Level 4

No	Paper ID	Paper Title & Author(s)	Presenter(s)
1	ICSE 2025: 083-039	Development of Mobile Application to Improve the Communication Ability of Autism Spectrum Disorder Children *Zulma Indra Rahmi Putri, Yanuar Khaldun, Toviyani Widi Saputri, Amat Jamaludin & Pujaningsih*	*Mr. Yanuar Khaldun*
2	ICSE 2025: 041-029	From Research to Classroom: A Narrative Review of Assistive Technology for Low-Functioning Pupils *Rosmalily Salleh & Vaikunthan Rajaratnam*	*Major Dr. Rosmalily Salleh*
3	ICSE 2025: 098-089	Project-Based Learning in Catering: Developing Skills, Confidence, and Employability among Students with Special Educational Needs (SENS) *Viknesvari Letchumanan, Fahrurrazi Ramdhan, Zulyanei Badoldin & Nornazira Suhairom*	*Mrs. Viknesvari Letchumanan*
4	ICSE 2025: 104-063	Revolutionising Tourism Accessibility for the Deaf and Hard of Hearing with XR Technology *Mohd Harith Syazwan Samsawi, Suriati Khartini Jali, Mohamad Imran Bandan, Syahrul Nizam Junaini, Sylvester Arnab, Lim Phei Chin, Kuryati Kipli & Sarni Suhaila Rahim*	*Mr. Mohd Harith Syazwan Samsawi*
5	ICSE 2025: 130-096	The Role of Digital Technologies in Enhancing Inclusive Education: A Systematic Review of Current Trends *Teng Kie Yin, Anthea Yulticia Liden, Cassandra Racha John Girrie, Jasnita Naja Dinggat & Lee Hou Yew*	Ms. Anthea Yulticia Anak Liden
6	ICSE 2025: 029-018	Using ChatGPT to Mentor Parents in Enhancing Language Development for Children with ASD 2-5 Years Old through Home-Based Daily Activities in The Vietnamese Context *Quyen Pham (Pham Thi To Quyen), Ha Mai (Mai Dang Ngoc Ha) & Ha Cao (Cao Thi Ha)*	*Ms. Mai Dang Ngoc Ha*
7	ICSE 2025: 013-006	Scaling Systemic Inclusion: The Perkins India Model Program as A Strategy for Transforming Mainstream Education *Sabah Saeed & Reeta Massey*	*1. Ms. Sabah Saeed* *2. Dr. Veena Tripathi*
8	ICSE 2025: 125-084	Application of the Viet Nam Corresponding Response Theory in Sensory Therapy for Children with Autism *Nguyễn Thị Lan Anh, Nguyễn Xuân Tuấn Anh, Nguyễn Thị Hường, Đỗ Thị Thao & Nguyễn Thị Lan*	Mr. Nguyễn Xuân Tuấn Anh

Room : Isthmus 3, Level 4

Sub-Theme : Inclusive Educational Practices
: Policy, Legislation and Advocacy
: Accessibility Tools for Learners with Disabilities
: Professional Development and Teacher Training

Table 11- DAY 2: 27th JULY 2025 (SUNDAY), TIME: 07:45 – 10:00, Room: Isthmus 3, Level 4

No	Paper ID	Paper Title & Author(s)	Presenter(s)
1	ICSE 2025: 140-099	Breaking Barriers from Classroom to Campus: Enhancing Higher Education Access for PWD Students with Learning Disabilities in Selangor *Fazlilawati Fadzil, Norazlin Adan & Afifa Hanim Mohamad*	Ms. Fazlilawati binti Fadzil
2	ICSE 2025: 069-028	Historical Evolution and Conceptual Definition of Differentiated Instruction through Scholarly Lenses *Mariyam Shareefa*	Ms. Mariyam Shareefa
3	ICSE 2025:107-078	S.A.L.A.M. An Inclusive Sensory Intervention Framework with Lego, Art and Mood Board for Special Needs Students in Malaysian Classroom *Geh Cheow Lin, Philip Lew Chun Foong, Normazlinda Mohamed Zi, Rossaidi Ngah & Shamsudin Mohamad*	Mrs. Geh Cheow Lin
4	ICSE 2025: 102-061	The Language Vitality among the Different Ethnolinguistic Groups in Higher Education Institutions in Region XII: A Multiple Case Study *Eden Stephanie B. Bolido*	Dr. Eden Stephanie B. Bolido
5	ICSE 2025: 084-040	The Role of School Leadership in Inclusive Education: A Policy Framework Towards Academic Success *Susan Vicente D. Villarente, Vania Mercy N. Durante*	Dr. Susan Vicente D. Villarente
6	ICSE 2025: 079-037	Development of "Didik Inklusif" E-Learning as An Educational Platform for Caregivers on Sex Education for Children with Special Needs *Nur Azizah, Ratih Muharina & Muhammad Fachrul Hasan Mujtahid*	Ms. Nur Azizah
7	ICSE 2025: 066-026	Capacity Building for In-Service Teachers in Integrated Special Education Programs (PPKI): Advancing Implementation of Specific Vocational Skills (SVS) *Fatin Nur Amira Kamisan, Nornazira Suhairom & Mohd Asnorhisham Adam*	Dr. Nornazira Suhairom
8	ICSE 2025: 130-094	Exploring Preservice Teachers' Affective and Behavioural Responses Towards Inclusive Education: A Qualitative Inquiry *Syafiqa Qadrina Mohamad Izan, Nurul Asyhmeera Mohammad Zaidi, Amalia Aina Rusli, Teng Kie Yin & Lee Hou Yew*	Ms. Syafiqa Qadrina binti Mohamad Izan

Room : Isthmus 4, Level 4

Sub-Theme : Inclusive Educational Practices
: Professional Development and Teacher Training
: Student Empowerment and Self-Advocacy
: Accessibility Tools for Learners with Disabilities

Table 12- DAY 2: 27th JULY 2025 (SUNDAY), TIME: 07:45 – 10:00, Room: Isthmus 4, Level 4

No	Paper ID	Paper Title & Author(s)	Presenter(s)
1	ICSE 2025: 153-108	Knowledge for Teaching Mathematics to Students with Special Education Needs with Learning Disabilities: A Need Analysis *Ainin Sofia Rasidi, Roslinda Rosli & Khairul Farhah Khairuddin*	Assoc. Prof. Dr Roslinda Rosli
2	ICSE 2025: 082-038	Pre-Kindergarten Transition Program (PTP) for Child Development Workers (CDWs) *Jeremy Adrian D. Guiang & Andrian A. Dela Cruz*	Mr. Jeremy Adrian D. Guiang
3	ICSE 2025: 117-082	The Effectiveness of Online Mentoring in Training the Competency of Special Education Teachers in Teaching Reading Skills Using the Basic Phonics Method *Wan Abdul Rahman Wan Ali & Hasnah Toran*	Mr. Wan Abdul Rahman Wan Ali
4	ICSE 2025: 060-023	Classroom Behavior Management: Evidence-Based and Strategies *Chinette Penaflor*	Dr. Chinette Penaflor
5	ICSE 2025: 033-012	21st-Century Learning Transformation for Special Needs Students: Redesigning Educational Spaces in Special Education Schools *Othman Zainon, Siti Radiaton Adawiyah Zakaria, Nurul Syakima Mohd Yusoff, Norhidayah Md. Yunus, Ainur Zaireen Zainudin & Nurul Hana Adi Maimun*	Dr. Othman Zainon
6	ICSE 2025: 042-056	Parental Awareness on Career Path for Special Educational Needs Students: Highlights from A Networking Program *Ayu Ashilla Mustapa, Enio Kang Mohd Sufian Kang, Norhayati Sulaiman, Juraiza Abd. Jamil & Nor Shazwani Mohamad Yakob*	1. Mrs. Ayu Ashilla Mustapa 2. Dr. Enio Kang 3. Mohd Sufian Kang 4. Mrs. Juraiza Abd Jamil
7	ICSE 2025: 117-083	Poultry Farming Skills as a Career Transition for Special Students (MBPK) *Rasidah Ismail*	Mrs. Rasidah Ismail
8	ICSE 2025: 038-015	The Effectiveness of Peer-Mediated LEGO-Based Intervention to Improve the Social Skills of Primary School Students with ASD *Daashwinni Vijaendren & Anne Noor Sri Juwaneeta Jamaludin*	Ms. Daashwinni Vijaendren

ICSE 2025

6th ICSE ABSTRACTS

(BITARA EDUCATION JOURNAL)

DEVELOPMENT OF "DIDIK INKLUSIF" E-LEARNING AS AN EDUCATIONAL PLATFORM FOR CAREGIVERS ON SEX EDUCATION FOR CHILDREN WITH SPECIAL NEEDS

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ABSTRACT

Sex education for children with special needs is still often considered taboo. Many people assume that they do not need sex education because of the assumption that children with special needs do not have an understanding or need for this aspect. In addition, many caregivers have difficulty in teaching it due to limited understanding of the concept, lack of knowledge about the right method, and restricted access to learning resources or opportunities. As a result, children with special needs are at higher risk of becoming victims or perpetrators of sexual abuse. This lack of accessibility becomes the foundation of our research, highlighting the need for E-learning as a solution compared to other methods. This study aims to develop "Didik Inklusif" E-learning as a learning platform for caregivers on sex education for children with special needs. The research method used is the Research and Development (R&D) method with the ADDIE (Analysis, Design, Development, Implementation, and Evaluation) approach. The results of this study reveal that caregivers need e-learning as a learning tool that makes it easier for them to understand sex education for children with special needs. "Didik Inklusif" answers this need by providing two types of classes namely Web Class and Live Class. Web Class allows caregivers to learn independently through modules, videos, and interactive activities related to sex education for children with special needs. Live Class is held online with speakers discussing specific topics, giving participants the opportunity to ask questions directly. In addition, "Didik Inklusif" provides counseling services for caregivers who need it as well as a community forum to share experiences and learning. Caregivers need the E-learning Didik Inklusif platform, which has a positive impact by providing a space for them to understand and implement sexual education for children with special needs.

Keywords: E-Learning, Sex Education, Children with Special Needs, Caregiver

EXAMINING THE CURRENT SITUATION OF INDIVIDUALIZED CURRICULUM PLAN (ICP) FORMULATION IN MALDIVIAN SCHOOLS

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ABSTRACT

This study highlights the current situation of schools in preparing Individual Curriculum Plans (ICP) for students with complex learning profiles (SCLP) in the Maldives, particularly after the redefinition of ICP in 2022. The study analyzed 2077 ICP documents from 213 schools and 622 of them were analysed in detail. It emphasizes the significant role ICPs play in supporting SCLP students, with over 80% of schools utilizing ICPs to offer support. However, several key issues in the ICP preparation process were identified, such as incomplete documentation, improper student placement in programs, and the lack of appropriate accommodations and assistive technology. The findings suggest that, while progress has been made in integrating ICPs into educational practices, there is still a need for further training, improved resources, and standardized guidelines to ensure the successful implementation of ICPs. By identifying the gaps in the current practices, this research offers the Department of Inclusive Education valuable insights to refine the ICP preparation process and improve educational support for students with complex learning profiles across the country

Keywords: Inclusive Education, Individualised Curriculum Plan (ICP), Students with Complex Learning Profiles, Maldivian Schools

INCLUSIVE EDUCATION: HOW TO UPGRADE FROM A "TECHNOLOGY PORTER" TO A "DEMAND TRANSLATOR"

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ABSTRACT

This article defines disability broadly to include physical, sensory, mobility, and cognitive impairments, and defines technology to include online learning (distance and blended learning); assistive technology (AT), such as screen readers and alternative keyboards; general-purpose technology, such as tablets and mobile phones; administrative applications, such as registration systems; social and networking applications; and application-specific technologies, such as statistical packages.In the past decade, technology has developed rapidly, which has both advantages and disadvantages for students with disabilities. On the one hand, technology can enable students with disabilities to "tame the chaotic aspects of the body with the value of technology, thereby promoting social integration." On the other hand, few people mention the negative impact of technological defects on disability education. This article explores the issues between technology and disability education through a qualitative study of disability education. The main research question is to explore how technology can contribute to the self-meaning and experience of education for people with disabilities rather than "holding" their disabilities hostage. This study aims to investigate the understanding, beliefs and experiences of technology among disabled learners and educators, determine their attitudes towards the application of specific technologies in the field of education, and identify factors that may inhibit or enhance inclusive education for people with disabilities. This article hopes to find a proactive path for inclusive education for people with disabilities through the analysis of the following four points:

1. How to popularize convenient technology for everyone so that all people with disabilities can participate equally in social life?
2. De-standardization: How to enable people with disabilities to control technology. Control means being able to do things when people with disabilities want to do them and making as many decisions as possible for people with disabilities to make without involving others. Technologies that give a sense of control and autonomy are inextricably linked to participants' notions of independence, and these technologies help people with disabilities connect with the "real world" rather than isolate themselves from it.
3. Cultivating professional teachers: Using technology to assist educators, how to upgrade from "technical porters" to "demand translators" so that professional teachers can be more tailor-made for the disabled rather than mechanical.
4. How to deal with emotions and needs: How should educators give more value beyond rationality in the process of accompanying the growth of disabilities, and use technology as an aid to respond to the real needs of disabilities instead of putting technology before "people".

Keywords: Inclusive education, control technology, "demand translator", real needs

INCLUSIVITY AT THE WORKPLACE: AN INQUIRY ON THE ENVIRONMENT OF A PERSON WITH SPECIAL NEEDS IN A STEM-BASED WORKPLACE

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ABSTRACT

People with special needs can be found increasingly in the workplace in recent years as there is greater acceptance of diversity, and inclusion. This research uses narrative inquiry to understand the factors/ conditions/ environment that promote or inhibit inclusiveness. This also gives an insight into the challenges faced by an individual who is presently in the laboratory-based workforce. Inclusion in the workplace is crucial for organizations that aim at creating a welcoming and supportive environment for all employees. Using in-depth semi-structured interviews, experiences of the subject were explored to gain a better understanding of the person's life and work environment. The individual in this research case study has been living with special needs and is now actively working in a research lab in Singapore. Individual experiences seek to understand how various factors interact and contribute to the work environment. The emphasis will be on understanding contextually how different variables and aspects influence the person's working life. The interview was transcribed and NVivo was used to organize and systematically code into themes or categories. The data was divided into various categories such as background, roles and perceptions of responsibilities, essential skills, support systems to accommodate workers' needs, communication and job satisfaction.

Keywords: Inclusion, Diversity, Supportive work environment, laboratory-based workforce

INTEGRATION OF DIGITAL TECHNOLOGY IN INCLUSIVE EDUCATION PROGRAM: CHALLENGES AND SOLUTIONS

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ABSTRACT

The development of digital technology has opened new opportunities in strengthening the implementation of the Inclusive Education Program (IEP). However, the integration of technology in the IEP is still facing various challenges that can affect the effectiveness of special needs student teaching and learning. This study aims to analyze key challenges in the use of digital technology in IEP as well as identify effective solution strategies based on the latest literature review and global best practices. A qualitative approach through systematic analysis of high -indexed articles is used to obtain findings based on empirical evidence. The results show that the main challenges encountered include infrastructure constraints, teachers' digital literacy levels, the effectiveness of inclusive technology design, and institutional support. To overcome this challenge, solutions such as ongoing training for educators, the development of adaptive technology, and strategic cooperation between stakeholders need to be strengthened. The findings of this study contribute to academic discussions in inclusive education as well as provide guidance to policy makers and educational practitioners in strengthening the use of digital technology in IEP.

Keywords: inclusive education, digital technology, challenges, solutions, professional development

NAVIGATING NARRATIVES: AN EPISTEMOLOGICAL EXPLORATION OF VISUALLY IMPAIRED GRADUATES THROUGH THE SOCIAL MODEL OF DISABILITY AND LABOV'S ANALYTICAL FRAMEWORK

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ABSTRACT

The research process allows thorough navigation and reveals new information about the studied problem. Thus, establishing the study's methodology early in the research process is crucial as it helps provide a clear framework for the study, ensuring consistency and reliability in data collection and analysis. This study presents the methodological framework employed to explore the perceptions and experiences of visually impaired and blind graduates from a higher educational institute in the Maldives. The study adopts an interpretivist epistemological stance by interpreting the knowledge using the narrative inquiry, focusing on people's stories about their experiences. This study uses Vygotsky's sociocultural theory and Mike Oliver's social disability model as a theoretical framework to put the stories in context, as well as the emancipatory paradigm to give marginalised groups a voice and empower them. Data is gathered from the purposefully selected participants through in-depth, semi-structured interviews. Labov's narrative analytics model is used to analyse the data and identify story themes. Ethical considerations are rigorously followed throughout the study, including informed consent, trusting the participants to tell truthful stories, confidentiality, integrity, sensitivity, and relationships with them. This methodological approach will help understand the participants' problems and the effects of social interaction, societal support, and attitudes toward visually impaired and blind students. This awareness of the knowledge enables the formulation of effective policies.

Keywords: Narrative inquiry, Higher education, Blind graduates, visually impaired graduates

THE EFFECTIVENESS OF EARLY DETECTION AND INTERVENTION PROGRAMME FOR 4-6 YEARS OLD PRESCHOOLERS WITH DEVELOPMENTAL DELAYS IN MALAYSIA

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ABSTRACT

Early detection and intervention for developmental delays in preschool children are crucial for fostering school readiness skills. In response to this need, the Ministry of Education (MOE), through its Special Education Division, initiated the Early Detection and Intervention Programme for Preschool Children also known as *Program Pengesanan Perkembangan dan Intervensi Murid Prasekolah* (ProsPIM) in 2024 to address this need systematically.This study aims to evaluate the effectiveness of ProsPIM in detecting and providing interventions for preschool children with developmental delays across Malaysia, focusing on motor skills, language development, personal-social skills, and cognitive development. A comprehensive developmental screening was conducted using the *Senarai Semak Pengesanan Perkembangan* (SSP) or Developmental Detection Checklist for children aged 4-6 years. Teachers underwent systematic training, with 9,411 preschool teachers (96.75% of the target population) trained through 96 nationwide workshops. Structured interventions were implemented using the Preschool Student Development Intervention Kit over a period of 3-6 months. Out of 215,920 preschool children screened, 4,134 (1.91%) were identified with developmental delays. The age distribution of affected children was; 4 years (3.7%), 5 years (38.8%), and 6 years (57.8%), with a gender distribution of 68% males and 32% females. Post-intervention assessments showed that 2,115 children (51%) achieved age-appropriate developmental milestones after 3-6 months of structured intervention targeting developmental delays. ProsPIM demonstrates significant effectiveness in early detection and intervention for developmental delays among preschool children. The 51% success rate in achieving age-appropriate development suggests that structured early intervention programmes can significantly improve developmental outcomes. These findings support the continued implementation and expansion of systematic early detection and intervention programmes in preschool settings.

Keywords: early intervention, developmental delay, preschool education, special education, Malaysia

THE EFFECTIVENESS OF PEER-MEDIATED LEGO-BASED INTERVENTION TO IMPROVE THE SOCIAL SKILLS OF PRIMARY SCHOOL STUDENTS WITH ASD

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ABSTRACT

Peer-mediated LEGO-based interventions have been a promising intervention to enhance the social skills of primary school students with ASD. This study examines the effectiveness of peer-mediated LEGO-based intervention in improving the social skills of primary school students in an integrated government school, looking into the findings, challenges, and recommendations. This LEGO-based intervention is a structured activity focusing on social initiations and responses. Ten students with ASD, along with 20 typically developing students, participated in a seven-week intervention that was facilitated by psychology students. The findings showed a significant improvement in social skills in terms of social responses and social initiations from the third week onwards. In addition, there was a slight decrease in the peer prompts by typically developing children post-intervention, which indicates that there are great opportunities for individuals with ASD to develop their independence. However, there are challenges faced during the intervention, which include limited resources, an unconducive environment, and time constraints. Regardless of the challenges, the findings showed a significant increase in social skills among primary school students with ASD. The results have implications that notify important authorities, such as educators and practitioners, to advocate for having a structured social skill intervention accommodated in government schools. Increasing the funds for necessary resources, such as intervention materials and teacher training, helps create an inclusive environment and support the social development of children with ASD.

***Keywords**:* peer-mediated, LEGO-based intervention, Autism Spectrum Disorder, integrated school, social skills

THE TEACHERS' ATTITUDES TOWARD MNEMONIC STRATEGIES IN IMPROVING THE BASIC MULTIPLICATION FACTS RETRIEVAL AMONG INCLUSIVE PRIMARY SCHOOL STUDENTS

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ABSTRACT

The current quasi-experimental comparative study investigated the teachers' attitudes toward Mnemonic Strategies (Visual Imagery and Story-Linking) compared to Traditional Strategies (Rote Learning, Multiplication Quizzes, Daily Multiplication Habit, and Repeated Addition Strategy) in enhancing basic multiplication fact retrieval among Grade 3 students with and without disabilities in 20 inclusive primary schools. A sequential explanatory mixed-methods design was adopted, prioritizing quantitative analysis to establish causal relationships, followed by qualitative exploration for more profound insight. The Non-equivalent Control Group Design (NECGD) was utilized in the quantitative phase, comprising 20 teachers: 10 in the experimental group (Mnemonic Strategies) and 10 in the control group (Traditional Strategies). In addition, the authors administered a pretest and post-test survey involving questionnaires and open-ended questions to measure changes in the attitudes of teachers before and after the intervention. Moreover, interviews were conducted with the teachers to gather more in-depth qualitative data. Besides, a Paired-Samples T-test revealed a statistically significant increase in teachers' positive attitudes toward Mnemonic Strategies following a one-day professional development program ($t(9) = 15.00$, $p < 0.001$), indicating that exposure to innovative teaching strategies positively influenced the teachers' attitudes. Although the control group (Traditional Strategies) also showed significant improvement in their attitudes ($t(9) = 9.80$, $p < 0.001$), the experimental group demonstrated a more substantial change, suggesting that Mnemonic Strategies were more effective in fostering a positive shift in teacher attitudes. The qualitative findings have also supported the quantitative results and highlighted the increasing confidence of teachers to use Mnemonic Strategies to assist students with diverse learning needs. These results contribute to the broader discourse on teacher cognition, instructional efficacy, and inclusive pedagogy, underscoring the necessity of sustained professional development programs in promoting adaptive instructional practices.

Keywords: Mnemonic Strategies, teacher attitudes, instructional efficacy, cognitive load theory, dual-coding theory, professional development, inclusive education

21ST-CENTURY LEARNING TRANSFORMATION FOR SPECIAL NEEDS STUDENTS: REDESIGNING EDUCATIONAL SPACES IN SPECIAL EDUCATION SCHOOLS

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[4]Norhidayah Md.Yunus, [5]Ainur Zaireen Zainudin, [6]Nurul Hana Adi Maimun

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ABSTRACT

The transformation of 21st century education emphasizes inclusivity, innovation, and adaptability to meet the diverse needs of students, including those with special needs. This study explores the impact of redesigning educational spaces in special education schools to enhance learning outcomes for students with unique learning requirements. By integrating principles of universal design, sensory-friendly environments, and collaborative spaces, the research identifies key elements that contribute to creating supportive and stimulating learning environments. According to the Malaysian Education Act 1996, integrated education programs with conducive infrastructure facilities and learning spaces are necessary for students with special needs in line with SDG4 of Education Quality and SSDG9 of UNESCO Infrastructure. Four sub-projects have been planned involving infrastructure, conducive learning spaces, quail farming and economic generation of the Herb Park. This project is implemented with community and industry network certificates. All projects have been implemented within 12 months involving surveys, knowledge transfer, preparation of 21st century learning spaces and communal work. The results of the project effectiveness evaluation showed that the participants had benefited from this project through the addition of knowledge on herb crops, quail farming, 21st century learning and entrepreneurship. On average, 65% of students strongly agree and 32% of students agree that this program is indispensable to them. This shows that programs like this can help students improve their learning performance in the classroom. Furthermore, 68% of students strongly agreed and 19% of students agreed that they really had knowledge of learning in the 21st century classroom. The study employs a quantitative analysis of student engagement. Findings reveal that thoughtfully designed learning spaces not only improve accessibility but also foster emotional well-being, creativity, and active participation among special needs students.

Keywords: Education; Learning; Transformation; Special Needs; Educational Spaces

HISTORICAL EVOLUTION AND CONCEPTUAL DEFINITION OF DIFFERENTIATED INSTRUCTION THROUGH SCHOLARLY LENSES

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ABSTRACT

This study examines the concept of differentiated education through a systematic review of literature. A total of 66 pertinent studies were identified by using a multi-step process that involved keyword selection, database searches, and article screening. The historical development of differentiated instruction reveals its roots in the 18th century's focus on individual needs and student-centereds learning. However, a lack of consensus on a single definition exists, with scholars offering various conceptualizations that emphasize catering to student diversity and maximizing learning growth. This emphasizes the necessity of a precise and uniform definition to direct efficient application. The paper concludes by suggesting further research on how educators translate these definitions into classroom practices and the impact of different differentiation strategies on student learning outcomes.

Keywords: Conceptual Definitions, Differentiated Instruction, Diverse Learners, Evolution, Historical Foundations

DEVELOPMENT OF MOBILE APPLICATION TO IMPROVE THE COMMUNICATION ABILITY OF AUTISM SPECTRUM DISORDER CHILDREN

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ABSTRACT

Children with communication disabilities have difficulty communicating with other people, which makes it difficult for them to socialize with the people around them. To address this issue, various assistive tools have been developed. However, most existing tools have several limitations, such as being traditional, non-portable, offering a limited selection of sentences, and being available only in English. These limitations hinder children from adding new sentences and make the tools inaccessible to non-English speakers, particularly Indonesian users. Therefore, this study aims to develop a mobile application, *Katakan yang Kamu Ingin (KKI)*, according to the needs of children with autism spectrum disorder and to assess changes in their communication skills after using the application. This study employed Richey and Klein's Design and Development Research method to develop the mobile application KKI. The participants were two nonverbal children with ASD from a special education school. The resulting product was an Android-compatible APK featuring customizable sentence categories and user-friendly audio-enabled communication options. The application also contains menu items such as a selection of sentences commonly used for communicating in a school environment and the function of adding sentences by the user. Following validation by three expert evaluators, the results indicate that the product is highly feasible, with revisions based on expert suggestions. Observational data on communication performance in subjects A and B show improvements in communication skills across the initial baseline, intervention, and final baseline phases. These findings demonstrate that the KKI mobile application can positively impact the communication abilities of nonverbal ASD children, making it an effective tool for supporting communication in a school setting.

Keywords: mobile application, augmentative and alternative communication, communication skills, children with communication disabilities, autism spectrum disorder.

REVOLUTIONISING TOURISM ACCESSIBILITY FOR THE DEAF AND HARD OF HEARING WITH XR TECHNOLOGY

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ABSTRACT

Extended Reality (XR) technology has emerged as a powerful tool for enhancing accessibility and inclusiveness across various industries, including tourism. Despite technological advancements, deaf and hard-of-hearing individuals continue to face significant challenges in fully engaging with tourism experiences due to communication barriers and the lack of tailored accommodations. This systematic review explores the potential of XR technologies to improve accessibility for this community, evaluates their effectiveness in addressing existing challenges, and examines their impact on travel experiences. A total of 16 studies were identified through a keyword search in the Scopus and Web of Science databases. The review analyses research methodologies, types of XR technologies utilised—including Virtual Reality (VR), Augmented Reality (AR), and Mixed Reality (MR)—and the advantages and limitations of their implementation. Findings suggest that XR can bridge communication gaps by providing immersive sign language translations, real-time captioning, and interactive visual guides, thereby enabling more engaging, informative, and independent tourism experiences for deaf and hard-of-hearing travelers. However, challenges such as high development and implementation costs, usability concerns, and the absence of standardised guidelines limit widespread adoption. This review highlights the need for user-centred design, active collaboration with the deaf and hard-of-hearing community, and further empirical studies to validate XR solutions. Future research should focus on improving long-term user engagement, enhancing the usability of XR applications, and expanding their integration across different tourism sectors. By addressing these gaps, XR technology can contribute to a more inclusive, accessible, and immersive tourism landscape for all travelers.

Keywords: Extended Reality; Augmented Reality; Deaf; Hearing; Tourism; Accessibility.

"THIS IS ME!": CREATIVE DIGITAL STORYTELLING WITH TEACHER–STUDENT AND AI COLLABORATION

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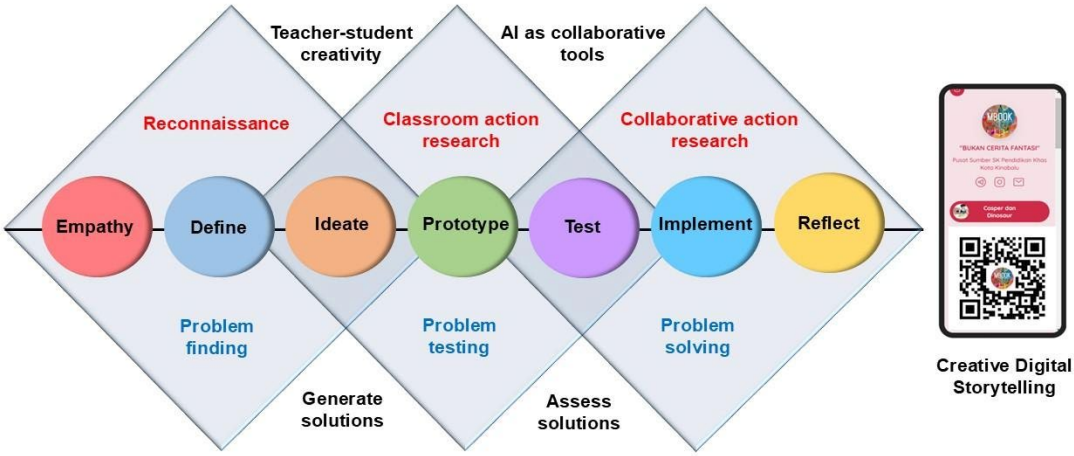
GRAPHICAL ABSTRACT



ABSTRACT

Deaf students often face significant challenges in language learning, resulting in reading literacy levels that consistently lag behind those of their hearing peers, creating barriers to quality education. To address this issue, this study implemented a digital storytelling project in which teachers and deaf students collaboratively crafted storybooks that are deeply rooted in their identities and experiences within the school community. This approach makes the storybooks both engaging and meaningful, ensuring that all teachers and deaf students feel included and valued in the storytelling process. Additionally, artificial intelligence (AI) was integrated as a collaborative tool, enriching the storytelling process with innovative resources and support for both teachers and deaf students. Findings from the study indicate significant improvements in teachers' pedagogical practices, as well as enhanced reading literacy and engagement among deaf students. Thus, this study proposes a replicable framework for creating digital storytelling project by blending teacher–student creativity and AI support, fostering literacy and cultivating a reading culture in schools. By emphasizing identity-driven narratives, the project bridges the gap in reading literacy outcomes, offering a practical and inclusive approach to deaf education.

Keywords: Artificial intelligence, creativity, deaf students, digital storytelling, reading literacy

EXPLORING PRESERVICE TEACHERS' AFFECTIVE AND BEHAVIOURAL RESPONSES TOWARDS INCLUSIVE EDUCATION: A QUALITATIVE INQUIRY

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ABSTRACT

This qualitative study explores preservice teachers' perceptions of inclusive education (IE), focusing on their preparedness, challenges, and emotional and behavioural responses during practicum, as well as strategies that support effective inclusion. Data was collected through semi-structured interviews with six preservice teachers and analysed thematically across two key domains: affective and behavioural. The affective domain highlights preservice teachers' emotions, attitudes, and values toward IE, while the behavioural domain addresses instructional practices such as differentiated instruction, peer support, and use of assistive technologies. Findings reveal themes including emotional preparedness, communication challenges, instructional adaptation, and classroom management. Although participants demonstrate a strong commitment to inclusion, many feel unprepared to manage classroom dynamics and engage students with special educational needs (SEN), particularly those with autism spectrum disorder (ASD) or hearing impairments. The study underscores the need for experiential learning in teacher education programmes and improved support systems to enhance effective and behavioural competencies in inclusive settings. Despite limitations such as small sample size and reliance on self-reports, this study contributes to ongoing discussions on inclusive teacher training and offers practical recommendations for future research and practice.

Keywords: Inclusive education, preservice teachers, affective, behavioural, practicum, special educational needs

THE ROLE OF DIGITAL TECHNOLOGIES IN ENHANCING INCLUSIVE EDUCATION: A SYSTEMATIC REVIEW OF CURRENT TRENDS

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ABSTRACT

The integration of digital technologies in inclusive education (IE) has gained significant momentum in recent years, enhancing accessibility, engagement, and personalised learning for diverse learners, including students with special educational needs (SEN). This small-scale systematic review explores the latest trends in digital applications supporting IE, drawing on studies published between 2020 and 2025. Five major academic databases—Scopus, Web of Science, Google Scholar, IEEE Xplore, and Wiley Online Library—were used to identify peer-reviewed literature aligned with the objectives of the review. Adherence to the PRISMA framework enhanced the transparency and replicability of the review process. Key emerging trends include assistive technologies such as speech-to-text and text-to-speech tools, AI-driven personalised learning systems, and game-based learning platforms that support students with SEN. Additionally, immersive technologies such as augmented reality (AR) and virtual reality (VR) are fostering interactive and differentiated instruction, enhancing learning experiences for students with SEN. Mobile learning and cloud-based platforms are also promoting universal design for learning (UDL) principles, ensuring flexibility in content delivery. However, challenges such as the digital divide, teacher training gaps, and concerns over data privacy remain. Addressing these challenges requires strategic investments in infrastructure, professional development, and ethical policies to optimise digital inclusivity. The findings suggest that a thoughtful integration of digital tools can significantly improve inclusivity in education, fostering equity and engagement for all learners. Future research should explore how emerging technologies, such as AI-driven adaptive learning and blockchain-based credentialing, can further enhance inclusive digital education. This review contributes to the growing body of literature on digital inclusivity and highlights implications for policymakers, educators, and researchers seeking to improve accessibility and learning outcomes in diverse educational settings.

Keywords: Inclusive Education (IE), Special Educational Needs (SEN), Universal Design for Learning (UDL), Augmented Reality (AR), Virtual Reality (VR), personalised learning

EMPOWERING PHYSICAL ACTIVITY THROUGH 'ACTIVE FUN PLAY'

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ABSTRACT

Active Fun Play (AFP) is an interactive multi-approach combining Roblox platform with exercise games designed to support children with Autism Spectrum Disorder through an engaging, interactive and inclusive digital learning experience in physical activity. The AFP also incorporates real-world physical activity embedded with exercise games through immersive storyboards creating a seamless blend of virtual and physical world. This purpose of this innovation is to adopt an interactive multi-approach to empower a fun gamified system to helps children with ASD to improve their motor skills by connecting their mind and body, encouraging them to plan and execute movements while responding to their environment. The AFP has been implemented within inclusive educational settings in schools which demonstrated a positive impact on the development of physical activity skills among ASD students. The AFP proves its value in inclusive education being more engaging, fun and interactive. Through its interactive capabilities, it provides a safe and stimulating environment where learners can learn and acquire vital physical activity skills at their pace by guaranteeing a enjoyable and accessible education experience for all.

Keywords: Active, Physical Activity, Autism Spectrum Disorder, Children

PARENTAL DENIAL OF CHILDREN WITH SPECIAL EDUCATIONAL NEEDS (SEN) IN PRESCHOOL SETTING: A CASE STUDY

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ABSTRACT

Parental denial of children with special educational needs (SEN) in preschool settings poses significant challenges to early intervention and inclusive education. While parental acceptance can facilitate timely support, many caregivers struggle with denial, often influenced by social stigma, fear of judgment, and skepticism toward professional assessments. This qualitative case study examines parental reluctance through semi-structured interviews with three mothers from a government-aided preschool in North Malaysia. The findings reveal two overarching themes: denial and social stigma. The findings show that the respondents justified their child's behaviours by comparing them to their family members, rejecting educators' concerns, and resisting formal diagnoses due to fear of labelling. Skepticism toward teacher assessments and personal doubts about SEN indicators further contributed to their hesitation. Moreover, social stigma played a critical role, as external perceptions from extended family and community discouraged them from seeking professional evaluations. This had delayed critical support, potentially impacting a child's developmental trajectory. Addressing these barriers requires psychoeducational programmes, parental support initiatives, and public awareness campaigns. Additionally, strengthening collaboration among parents, educators, and healthcare providers is crucial to bridging the acceptance gap. By promoting a more supportive and well-informed environment, families can be empowered to navigate their child's needs confidently, ultimately enhancing educational experiences and long-term well-being for children with SEN.

Keywords: Parental acceptance and denial, special needs

FROM RESEARCH TO CLASSROOM: A NARRATIVE REVIEW OF ASSISTIVE TECHNOLOGY FOR LOW-FUNCTIONING PUPILS

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ABSTRACT

Assistive technology (AT) is widely promoted as a pathway to meaningful inclusion for pupils with complex intellectual, motor and communicative disabilities, yet practical guidance remains fragmented. We conducted an AI-supported literature sweep across major scholarly and grey sources; two researchers then screened, appraised and cross-checked all eligible studies. Findings reveal that eye-gaze systems, speech-generating devices, tablet apps and speech-to-text tools consistently boost expressive communication, early literacy–numeracy skills and on-task classroom behaviour—but only when devices are individually calibrated, paired with explicit instructional routines and backed by sustained teacher coaching. Where these supports were weak, outcomes flattened irrespective of the technology's sophistication. AT also fostered greater learner agency and peer interaction, hinting at psychosocial ripple effects beyond measured academics. Short trial horizons and modest sample sizes temper certainty, yet the pattern is clear: implementation quality eclipses hardware novelty. Future multi-site, longitudinal studies should embed cost-effectiveness and participation metrics to inform scalable, equity-centred AT roll-outs in mainstream education.

Keywords: Assistive technology, low-functioning pupils, expressive communication, inclusive education, implementation quality

TAJWEED GAME FOR AUSTISM CHILDREN: AN INTERACTIVE GAME FOR AUTISM CHILDREN TO LEARN TAJWEED

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ABSTRACT

Teaching Tajweed faces specific hurdles during the delivery of education to children who have Autism Spectrum Disorder (ASD). Researchers developed a unique interactive system which was made for autistic students to learn the detailed specifications of Tajweed. The methodology utilizes multisensory learning principles as well as gamification techniques and adaptive technologies to implement visual, auditory and kinesthetic learning elements that optimize the mental and sensory processing needs of ASD children. The presented approach receives a detailed description, including design specifications and implementation details, which prioritize evidence-based methods for addressing sensory differences alongside user-specific learning requirements. A pilot test of the educational method produced substantial improvements among participants, ranging from their involvement to their ability to understand and memorize Tajweed principles. Research results demonstrate that customized interactive learning systems create better possibilities for autistic children to learn the Quran effectively and find pleasure in their education. The research adds major importance to inclusive education by developing a new framework which combines classical religious instruction techniques with modern educational reform strategies.

Keywords: Interactive game, Autism Children, Tajweed

BREAKING BARRIERS: HARNESSING PROJECT-BASED LEARNING TO EMPOWER STUDENTS WITH LEARNING DISABILITIES

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ABSTRACT

Project-Based Learning (PBL) holds great potential to improve educational outcomes for students with learning disabilities by fostering engagement, critical thinking, and hands-on learning experiences. This paper examines the effectiveness of PBL as an instructional approach for students with diverse learning needs, focusing on its role in promoting autonomy, collaboration, and problem-solving skills. The study explores essential design elements such as differentiated instruction, clear scaffolding, and the integration of assistive technology to support student engagement and cognitive development. Using a qualitative research approach, the paper reviews existing literature on PBL and learning disabilities, as well as case studies from schools that have implemented PBL strategies. Key sources include peer-reviewed journal articles, educational reports, and interviews with educators. The focus is on evaluating the impact of PBL in promoting critical thinking, collaboration, and self-regulation among students with learning disabilities. Challenges such as cognitive overload, executive function difficulties, and the need for individualized support are also discussed, with an emphasis on the role of technology in maintaining motivation and providing accessible learning tools. Results suggest that PBL can significantly enhance the learning experience for students with learning disabilities when thoughtfully structured and supported with appropriate resources. The paper concludes that with careful planning and the right tools, PBL can empower students to overcome barriers, develop essential skills, and achieve academic success in inclusive educational environments.

Keywords: Project-Based Learning, Learning Disabilities, Technology Integration, Differentiated Instruction, Student Engagement, Educational Empowerment

TEACHERS EMBRACING INCLUSIVE KINDERGARTEN EDUCATION: BEST PRACTICES IN ADDRESSING CHALLENGES

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ABSTRACT

The educational system and educational institutions recognize that learners with special educational needs have a right to an education in regular classes and an equitable distribution of resources. This study sought to answer the question of what are the best practices of Kindergarten Teachers in addressing challenges in the implementation of an inclusive kindergarten program. Specifically, it focused on teachers embracing the inclusion of early learners with special educational needs. This would help open awareness for professional development. It may encourage enhancing effectiveness in teaching. It would serve as the basis for intervention that would help create positive attitudes and active participation. Furthermore, it would inspire, foster greater awareness, and be more open-minded to collaborate with the school personnel and parents toward the development of early learners with special educational needs. This research employed the qualitative type to examine best practices observed in implementing an inclusive kindergarten program through an interview and a focus group discussion with kindergarten teachers who are implementing inclusive programs. Results showed that the best practices in addressing challenges include maintaining communication with the parents, the strong commitment of the teachers, building linkages with the community and other stakeholders, attending in-service training, team teaching with the receiving teachers, and ensuring a well-structured workload given to the teachers. Based on the findings of the study, there is still a need to enhance intensive training and seminars on special education-related topics for both regular and special education teachers; intensify support to kindergarten teachers in terms of professional and financial needs to help them perform their best and school may regularly conduct educational and moral support to the parents having children with special needs.

Keywords: Inclusive kindergarten; Best practices; Learners with special educational needs; Kindergarten teachers

THE EFFECTIVENESS OF 3D MANUAL ALPHABET MODEL AS A MANIPULATIVE TOOL IN THE ACQUISITION OF ALPHABETIC KNOWLEDGE OF KINDERGARTEN DEAF LEARNERS

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ABSTRACT

This study examines the effectiveness of a 3D Manual Alphabet Model as a manipulative tool in improving alphabetic knowledge among kindergarten deaf learners. Specifically, it sought to answer if there is a significant improvement in alphabet recognition performance of Kindergarten Deaf Learners after using the 3D Manual Alphabet as a manipulative and self-correcting tool. Alphabetic knowledge is a critical foundation for literacy, yet deaf learners often face challenges in acquiring reading and writing skills due to limited access to phonological cues. This research employs a quasi-experimental one-group pretest-posttest design to assess the impact of the 3D Manual Alphabet Model on learners' ability to recognize letters, match uppercase and lowercase letters, associate letter signs with their English equivalents, and identify the initial letters of common words. Participants consisted of kindergarten Deaf learners enrolled in a special education program in South Cotabato Province. Data was analyzed using the Wilcoxon signed-rank test, which revealed a significant increase in posttest scores compared to pretest results, indicating the tool's effectiveness in enhancing alphabetic knowledge. The results suggest that using a 3D Manual Alphabet Model provides an interactive, multisensory approach that supports literacy development for deaf learners by reinforcing letter recognition through hands-on engagement. This study contributes to the field of special education by providing an evidence-based approach to enhancing early literacy skills among deaf learners. It underscores the importance of integrating multisensory tools in specialized teaching strategies.

Keywords: 3D Manual Alphabet, Alphabetic Knowledge, Deaf Learners, Kindergarten, multisensory tool

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6th ICSE ABSTRACTS

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AN EFFECTIVE TEACHING METHODS TO INCREASE DEAF STUDENT'S MOTIVATION IN HIGHER EDUCATION SETTING

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ABSTRACT

This study investigates efficient teaching strategies for improving deaf students' motivation in a higher education setting. In conventional educational environments, deaf students frequently encounter additional difficulties, especially in communication and engagement, which may have an effect on their academic performance. This study used a quantitative descriptive design to survey deaf students in a higher education setting to assess the effectiveness of different teaching strategies, such as lectures based on sign language, collaborative work, and visual aids, and to examine how these approaches differ in their effects among deaf students. The results indicate that lectures that integrate sign language and cooperative group activities greatly improve motivation and attentiveness in both genders. However, while female students responded more favorably, male students showed a preference for visual-spatial instructional methods that helped reduce external distractions. Furthermore, having qualified sign language interpreters on hand proved to be essential for helping the students stay focused and increase motivation. By highlighting the significance of gender-sensitive teaching strategies for deaf students, this study adds to the body of literature on inclusive education. According to the information acquired, educational institutions require to use adaptable, differentiated teaching methods that accommodate the various learning requirements and preferences of deaf students. Such specialized methods improve educational equity and inclusivity in addition to creating a positive learning environment. To build on these findings and investigate other motivating elements that can help deaf adolescents succeed academically, more research is needed.

Keywords: Deaf education, Inclusive teaching, Sign language, Motivation, Teaching methods.

INCLUSIVE MATHEMATICS TEACHING IN PRIMARY SCHOOLS: ISSUES AND CHALLENGES

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ABSTRACT

Inclusive Inclusive mathematics teaching aims to integrate students with special educational needs (SEN) and mainstream learners in the same classroom to ensure equitable access to education. Despite policy efforts in Malaysia through the Inclusive Education Programme (IEP), many Mathematics teachers still face significant challenges in catering to diverse student needs. This study employed a qualitative case study approach involving semi-structured interviews with ten primary school Mathematics teachers experienced in inclusive classrooms. Data were analysed using thematic analysis, guided by the Community of Inquiry (coi) framework, and validated through coder triangulation and member checking. The study identified five key challenges: managing diverse learning abilities, lack of pedagogical knowledge and inclusive resources, time constraints due to syllabus pressure, behavioural disruptions, and limited collaboration with support staff. These issues reveal gaps in professional preparedness and systemic support for inclusive practices. The findings highlight the urgent need for targeted teacher training, collaborative teaching models, and inclusive pedagogical strategies to ensure effective implementation. Embedding inclusive teaching within the coi framework can enhance teaching, cognitive, and social presence in classrooms. This study contributes to understanding the real-world challenges of inclusive mathematics teaching and calls for the development of a competency-based framework to support inclusive practices in Malaysian primary schools.

Keywords: Inclusive Mathematics, Teaching Challenges, Special Educational Needs (SEN), Primary Education, Teacher Competencies

PARENTAL AWARENESS ON CAREER PATH FOR SPECIAL EDUCATIONAL NEEDS STUDENTS: HIGHLIGHTS FROM A NETWORKING PROGRAM

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ABSTRACT

Students with Special Educational Needs (SEN) also referred to locally in Malaysia as MBPK (Murid Berkeperluan Pendidikan Khas) are students requiring educational adaptations due to learning difficulties, disabilities or other developmental needs. Parents' understanding and awareness of the future potential of SEN students remain limited, often constrained by traditional beliefs that their children do not have the same promising future as typical students. This study aims to evaluate the effectiveness of a networking and collaboration program designed to enhance parents' awareness and understanding of the educational and career pathways available to SEN students secondary school graduates in the Kuala Langat district, Selangor. This study employed a quantitative survey approach, supported by qualitative feedback to enrich and contextualize the findings. A career fair and networking event was carried out involving private and governmental agencies as well as education providers. This program was attended by SEN students and their parents. A total of 56 respondents were selected to answer the survey questionnaire at the end of the program. The findings indicate that this program has succeeded in increasing parents' understanding of educational opportunities such as skills certificate programs, as well as industry-to-career training which directly increases parents' confidence in guiding SEN students towards an educational path that is more suitable for their children's interests and abilities after graduating from school. Overall, this study is important in providing a platform for collaboration between schools, parents and post-secondary institutions in helping to shape a more secure direction for their future. This study also suggests the need for more comprehensive programs like these to be held across the nation. The findings may assist policymakers and education practitioners in developing a holistic approach to address the issue as well as improving the special education support system in Malaysia.

Keywords: networking program, parental awareness, Special Educational Needs (SEN), career path, career training

KNOWLEDGE FOR TEACHING MATHEMATICS TO STUDENTS WITH SPECIAL EDUCATION NEEDS WITH LEARNING DISABILITIES: A NEED ANALYSIS

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ABSTRACT

Teaching mathematics to students with special educational needs (SEN) demands specialized pedagogical competencies beyond general teaching skills. However, previous studies indicate that many special education teachers lack sufficient training specifically in mathematics pedagogy, hindering their ability to address the learning challenges of SEN students. This study addresses the identified gap in understanding teachers' perceptions regarding the specific pedagogical knowledge necessary for effective mathematics instruction for SEN students, alongside evaluating teachers' actual knowledge and experience levels in this domain. Employing a quantitative survey research design, data were collected through an online questionnaire involving 30 Special Education Integration Program (SEIP) teachers from various schools in Sarawak selected through convenience sampling. Data were analysed using descriptive statistics in SPSS, and the reliability of the instrument was assessed using Cronbach's alpha coefficient. Findings highlight that, despite adequate general pedagogical preparedness, teachers remain less confident in their mathematics-specific instructional competencies. Therefore, the study concludes with a recommendation for more structured and targeted professional training in mathematics pedagogy. This research offers valuable insights to stakeholders aiming to enhance special education training programs, thereby improving instructional effectiveness for SEN students.

Keywords: Special Education, Mathematics Instruction, Students with Special Educational Needs, Teacher Knowledge, Mathematics Pedagogy

S.A.L.A.M.
AN INCLUSIVE SENSORY INTERVENTION FRAMEWORK WITH LEGO, ART AND MOOD BOARD FOR SPECIAL NEEDS STUDENTS IN MALAYSIAN CLASSROOM

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ABSTRACT

Previous studies had highlighted that special need individuals have unique sensory sensitivity and may perceive stimulation towards sensory differently, which may lead to maladaptive behaviours and emotions when experiencing sensory discomfort. This phenomenon may also be observed in the classroom setting of special need students, as some of them may have difficulties in adapting to the physical and social conditions. A Multi-Sensory Environment was commonly used in special-needs school, however empirical investigations into how to best use this facility and its effectiveness was limited, especially in Malaysian setting. To address some of the challenges that the students encountered, a specially designed area and integrated with LEGO, art and Mood Board approaches were introduced in a classroom setting to the students. The area was named as S.A.L.A.M., which is an acronym for Sensory Area with Lego, Art and Mood Board. Specific activities were conducted in the S.A.L.A.M. and the Completion of Activity Response Evaluation (CARE), was administered to all the students who participated in the activities. It was acknowledged that students enjoyed the learning processes of the S.A.L.A.M., and they had better understanding of their physical and psychological status when experiencing disturbance in life. Through the activities, it was observed that they become more confident and calmer towards distractions and learned to have more positive behavioural reaction. As a conclusion, the introduction of SALAM in classroom setting for special need students may provide the unique conditions for learning and valuable opportunity for them to live and develop to their maximum potential in education and life.

Keywords: Sensory, LEGO, Art, Mood Board, Special Needs, Students

PROFILING AUTISTIC TRAITS IN MALAYSIAN BOARDING SCHOOLS: A DESCRIPTIVE ANALYSIS

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ABSTRACT

Autism Spectrum Disorder (ASD) is characterized by distinct neurological and behavioural traits that can influence learning adaptation and social interaction. Understanding autistic traits (ATs) in structured educational settings such as boarding schools, is crucial for developing effective support strategies. This study provides a descriptive analysis of ATs patterns among boarding school students in Malaysia using the translated Malay version of the Autism Quotient Short (AQ-28). A total of 966 students from various boarding schools across Peninsular Malaysia participated in the study. The findings revealed a mean AQ-28 score of 62.66 (*SD* = 6.94), indicating varying levels of ATs among students. The descriptive analysis highlights notable patterns in ATs distribution, suggesting that autistic characteristics may influence students' academic engagement, peer relationships and overall adaptation to the boarding school environment. Given the structured and socially immersive nature of boarding schools, students with higher ATs levels may face unique challenges in both academic and social contexts. These findings underscore the importance of implementing inclusive educational practices such as differentiated instruction, social skills development and tailored support systems to enhance student well-being. By providing a comprehensive overview of ATs prevalence, this study contributes to a deeper understanding of neurodiversity in Malaysian boarding schools and informs proactive educational strategies. Recognizing and addressing the diverse needs of students with ATs can help create a more supportive and inclusive learning environment. Overall, giving them the opportunity to grow academically, socially and emotionally, it will help to increase their self-confidence, motivation to learn, and their interaction skills in the school community and society.

Keywords: Autistic Traits, Boarding School, Inclusive Education, Malaysia, Malay AQ-28

APPLICATION OF THE VIETNAM CORRESPONDING RESPONSE THEORY IN SENSORY THERAPHY FOR CHILDREN WITH AUTISM

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ABSTRACT:

Autism is a neurological disorder that occurs in childhood and can continue into adulthood. Common manifestations in children with autism include repetitive or restricted patterns of behavior, interests, or activities, which may include hyperreactivity and impaired response to sensory input. Therefore, sensory treatment issues need to be addressed to support children with ASD symptoms. Based on this need, the research team from Hai Duong Special Education Center has researched, practiced, and applied the Theory of Viet Nam Corresponding response (VCRT) and Occupational Therapy (OT) in child intervention. The VCRT-OT therapy has been applied to hundreds of children and has yielded promising results. A sample study was conducted on 30 children at the Hai Duong Special Education Center from 2022 to the present. During the implementation process, the expert team utilized the following methods: observation, the Sensory Processing Disorder Screening Checklist, the Age-Based Developmental Checklist, and Neurofeedback to evaluate the intervention process using VCRT-OT for the children.

KOKALI: AN INNOVATIVE METHOD FOR TEACHING MULTIPLICATION IN REMEDIAL PROGRAMS

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ABSTRACT

Multiplication remains a significant challenge for remedial students, particularly in understanding and applying its concepts due to complex representations that hinder comprehension. Furthermore, parents often expressed being unable to teach the concept at home. To address these challenges, the KOKALI technique—an acronym for "ko" (*kotak*, meaning box), "ka" (*kali*, meaning times), and "li" (*lidi*, meaning sticks)—was developed to simplify multiplication using simple and consistent representations. This innovative approach aims to facilitate learning comprehension and parents' involvement in teaching multiplication concept by utilizing boxes and sticks to represent multiplication factors. This classroom action research explores the efficacy of the KOKALI technique in enhancing students' understanding. Data were collected from classroom observations, diagnostics test and post-tests using single-blind testing methods among 20 remedial students (aged 8–9) at SK Membedai, WP Labuan, over 12 sessions. Feedback from 25 parents was gathered via a digital survey during a KOKALI workshop to assess the technique's effectiveness. Results indicated a significant improvement, with over 90% of students successfully solving single-digit by two-digit and three-digit multiplication sentences without regrouping using the KOKALI technique. Classroom observations revealed that students displayed increased confidence in their mathematical abilities, as they were able to complete multiplication tables from 1 to 9 using KOKALI. Additionally, over 90% of parents surveyed strongly agreed that KOKALI is highly beneficial in helping children understand multiplication, as its simplicity makes it easy to apply and explain at home. The findings show that the KOKALI technique is useful not only for remedial students but also for early mathematics education. By incorporating this approach, educators can overcome barriers to mastering multiplication and emphasize the need for innovative teaching methods to support students' mathematical development.

Keywords: Multiplication, remedial, innovative strategy, KOKALI

SCALING SYSTEMIC INCLUSION: THE PERKINS INDIA MODEL PROGRAM AS A STRATEGY FOR TRANSFORMING MAINSTREAM EDUCATION

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ABSTRACT

Children with disabilities in India continue to be excluded from education, with over 27% never attending school and from those who attended, a staggering 12% dropped out (Reddy, 2022; Livewire, 2022). Addressing this gap requires scalable, systemic solutions to empower schools, equip educators, and eliminate social barriers for children with disabilities. This paper presents the Perkins India Model School Program, launched under Project Prayaas in 2023, as a scalable framework for inclusive education embedded within existing school systems (Gleason, Hudson, & Jacobs, 2024; Gloria, Maria 2023 – Perkins School for the Blind). This exploratory paper offers early evidence of potential for transformation on a systemic level while discussing implications for sustainability and further research.

Keywords: Disability, Model School Program, Perkins India, Project Prayaas, Inclusive Education, Systemic Solutions

THE LANGUAGE VITALITY AMONG THE DIFFERENT ETHNOLINGUISTIC GROUPS IN HIGHER EDUCATION INSTITUTIONS IN REGION XII: A MULTIPLE CASE STUDY

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ABSTRACT

This investigation explores the experiences in terms of language interaction in mother tongue and description of language vitality of the tertiary ethnolinguistic tribal students in the selected Higher Education Institutions in Region XII. The primary objectives of the study are to determine the language vitality of the tribal language of the participants and the creation of language policies tailor-fit to the needs of the ethnolinguistic tertiary students. A qualitative-multiple case study design was employed to identify the cases. The sample size are the five cases who were purposely selected from the five major ethnolinguistic groups in Region XII area who are the Blaan from Sarangani, Manobo Arumanen from Kidapawan, Teduray from Sultan Kudarat, T'boli and Maguindanaon from Lake Sebu, South Cotabato. The experiences and the language vitality of the tribal language were examined using the validated in-depth interviews. Triangulation of the gathered data was done in each of the cases by interviewing the teachers of the students to verify and to confirm statements and claims. Data transcripts were analyzed using thematic analysis resulting to four emergent themes on their language experiences: difficulty in sharing ideas, enhanced self-dignity, adjustment in terms of belongingness and discrimination of the tribal origin. The emergent themes for the description of language vitality included: maintaining the use of tribal language, intergenerational ethnic transmission, constant practice of ethnolinguistic language skills and acknowledgement of the institution for cultural minority. The similarities and differences of the cases were conducted using a cross-case analysis where it was revealed that the five cases were similar in terms of their difficulty in sharing ideas using their tribal language and the aspect on the enhanced self-dignity. With regards to the description of experiences of their language vitality, three of the five cases signified to have different description of language vitality from the rest of the cases.

Keywords: Ethnolinguistics, Language vitality, mother tongue, multiple case studies, tertiary ethnolinguistic tribal students

BREAKING BARRIERS FROM CLASSROOM TO CAMPUS: ENHANCING HIGHER EDUCATION ACCESS FOR PWD STUDENTS WITH LEARNING DISABILITIES IN SELANGOR

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ABSTRACT

This study examines the systemic barriers faced by students with Specific Learning Disabilities (SLD) in accessing higher education in Selangor, Malaysia. Students with SLD, the transition to post-secondary education can be difficult, particularly for those who do not possess formal academic qualifications such as the Malaysian Certificate Education (*Sijil Pelajaran Malaysia*) (Sowell & Miller Scott, 2019). Their aspirations are limited by structural barriers, lack of institutional access and pathways into further study and employment. On the other hand, this study investigates the key obstacles that Person with Disabilities (PWD) especially focus on SLD students in Selangor experienced in accessibility, academic and institutional preparedness. It explores how far colleges and universities are prepared to admit and accommodate these students through such measures as alternative admissions policies and inclusionary practices. This is then followed up by a discussion on the extent to which the industry is prepared to welcome SLD graduates and an exploration of workplace inclusivity and perceptions of both employers and employment support systems. These issues are proposed to be addressed, among others, through the establishment and institutionalisation of alternative credentialing, bridging programme and skills-based educational pathways in higher education institutions in the state of Selangor. These programs are aimed at supporting PWD learners more effectively and enabling them to access higher education by following distinct pathways, thereby enhancing their employment outcomes. These findings aim to guide policymakers, educators, and industry leaders in transforming practices and policies.

Keywords: Learning Disabilities; Accessibility; Exclusive Education; SLD Students; Higher Education Selangor, Malaysia; Alternative Credentialing; Institutional Readiness

DEVELOPMENT OF "INTELLIGENT RULER" TO ENHANCE MEASUREMENT SKILLS OF SPECIAL EDUCATION NEEDS (SEN) STUDENTS IN THE SUBJECT OF SPECIFIC VOCATIONAL SKILLS: BASIC CLOTHING SEWING

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ABSTRACT

Skills in TVET (Technical and Vocational Education and Training) are an important aspect that needs to be instilled among students, especially for Special Education Needs (SEN) students. This skill requirement serves as an early preparation for SEN students to be involved actively and effectively in the industry upon completing their education. Therefore, one of the subjects that apply hands-on skills for SEN students is the subject of Basic Clothing Sewing**,** which involves fundamental technical tasks such as accurate measurement. Therefore, this study aims to identify the level of measurement skills among SEN students and the need for the development of Teaching Aids, namely "Intelligent Ruler". The study population was centered at Sekolah Menengah Kebangsaan Bandar Seri Putra. The sample of this study was focused on 20 SEN students who took the subject of Basic Clothing Sewing and 10 teachers who were directly involved in teaching SEN students. The data obtained from the teacher's feedback found that the skill level of the SEN students face serious challenges in measurement related skills. A total of 34% of students were categorized as "Very Weak", while 33% were at the "Weak" level. Meanwhile, the assessment of students' assignments is according to the range of the Sijil Pelajaran Malaysia (SPM) examination which is at grade G which is the lowest. Therefore, 100% of teachers also agree if this "Intelligent Ruler" is developed. In conclusion, the development of the "Intelligent Ruler" is very much needed and seen as a practical solution to help improve the level of measurement skills among SEN students, thereby increasing their mastery, confidence, and future employability in TVET-related fields.

Keywords: Level of measuring skills, Teaching Aids and Special Education Needs.

TOWARDS INCLUSION: BUILDING EMPLOYABILITY AND ADVOCACY THROUGH THE SPECIAL EDUCATIONAL WEEK PROGRAM

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ABSTRACT

This action research aimed at empowering the employability of students with special educational needs (SEN) and raising community awareness about their capabilities and potential through the implementation of the Special Educational Week Program. This study was conducted at SMK Khir Johari with the involvement of various parties, including government agencies, non-governmental organizations (NGOs), the local community, and the school community, to ensure an inclusive approach. The focus of this study is to build the self-confidence of students with SEN in social and vocational skills, while exposing them to real career opportunities through hands-on activities, career workshops, and collaborations with local industry employers. Additionally, the study evaluates the effectiveness of the program from the perspectives of teachers, participating agencies, and the community to measure the impact and level of awareness achieved regarding inclusive education practices. Through surveys, structured observations, and participant feedback, the findings reveal that the Special Educational Week Program successfully increased public understanding of Special Education and created more meaningful interactions between students with SEN and the local community. This program not only strengthens the collaboration between schools and external agencies but also empowers students to become independent and better prepared for the challenges of the working world. In conclusion, the Special Educational Week Program serves as a significant platform to promote an inclusive culture, strengthen community synergy, and provide equal opportunities for students to grow in social and economic aspects. Several improvement strategies are also suggested to ensure the sustainability and holistic success of this program in the future. As a teacher, I continuously strive to enhance and implement meaningful activities that can enrich the lives of my students and prepare them for the future. This reflective practice ensures that each initiative is aligned with the holistic development and long-term success of every student.

Keywords: Special educational needs, Inclusive education, Student empowerment, Communication, Employability skills.

ENHANCED LEARNING, EMPOWERING LIVES: A COMMUNITY-BASED LEARNING APPROACH FOR STUDENTS WITH SPECIAL NEEDS

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ABSTRACT

Community-Based Learning (CBL) integrates academic learning with community engagement, enabling students to apply theoretical knowledge to real-world projects while fostering civic responsibility, critical thinking, and personal growth. This concept paper explores CBL in the Service-Learning Project (SLP) initiative at MINDS Woodlands Gardens School (WGS), combining community service with curriculum learning to enhance inclusivity and support students with intellectual disabilities, including autism spectrum disorder (ASD) and high support needs. The initiative aligns with the Ministry of Education's Values-in-Action (VIA) framework to promote empathy, civic responsibility, and 21st-century skills. The paper examines the application and impact of CBL in a Singapore special education (SPED) school context through the SLP at WGS. It highlights the initiative's role in enhancing inclusivity, practical learning, and fostering key skills while addressing challenges in implementation. The SLP applies CBL theory and Kolb's experiential learning model, incorporating community projects and reflection using Driscoll's Model of Reflection. Data from observations, student journals, and teacher feedback were analyzed thematically to assess self-determination, social-emotional development, and community integration. The project engaged 79.5% of junior and senior students and 77.9% of high-support-needs students in tiered roles, in collaboration with four community partners. It strengthened community partnerships, integrated curriculum effectively, and provided authentic learning experiences. Feedback highlighted improvements in social-emotional skills, self- determination, and civic responsibility, though task suitability for students with high-support-needs requires further refinement. Building on 2024's achievements, the SLP will continue in 2025 with a focus on sustainability and addressing identified challenges to enhance its impact further.

Keywords: Service-learning, Community-Based Learning (CBL), Autism Spectrum Disorder (ASD), Self-determination, Social-emotional development, Inclusive Educational Practices.

RESEARCH ON PROPOSING A COMPREHENSIVE SUPPORT ECOSYSTEM MODEL FOR CHILDREN WITH DISABILITIES AND THEIR FAMILIES IN VIETNAM

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ABSTRACT

Children with disabilities and their families in Vietnam face numerous challenges in accessing education, healthcare, government policies, social integration, and psychological support. This paper analyzes the current situation and proposes solutions to improve the comprehensive support ecosystem for children with disabilities and their families, including five key elements: family, school, community, government policies, and support services. The study employs a sociological survey method involving 215 parents of children with disabilities in 05 provinces/cities in Vietnam (Hanoi capital, Vinh Phuc, Hai Duong, Quang Ninh, Nghe An). Based on the survey results, the research will highlight the realities of how parents' economic impact, knowledge, care, and education skills affect the quality of intervention for children with disabilities. In addition, the research also aims to further observe and assess the barriers in accessing inclusive education and support services for children and their families during the intervention, care, and education process. From this reality, the paper proposes solutions to raise awareness, knowledge, and skills for parents; train specialized teachers; develop inclusive education programs; disseminate and raise community awareness; improve policies and laws; and expand and enhance the quality of support services. The research results are expected to contribute to providing an overview of the support ecosystem for children with disabilities in Vietnam, thereby proposing solutions to improve this ecosystem, creating conditions for children with disabilities to fully develop and integrate into the community.

Keywords: Children with disabilities, Support ecosystem, Inclusive education, Government policies, Disability support services.

PRE-KINDERGARTEN TRANSITION PROGRAM (PTP) FOR CHILD DEVELOPMENT WORKERS (CDWs)

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ABSTRACT

Utilizing the descriptive research design, integrating the Research & Development (R&D) methodology, this study developed the Pre-kindergarten Transition Program (PTP) for Child Development Workers (CDWs) based on the identified the factors that affect common adjustment issues of pre-kindergartners and the various experiences of CDWs in handling adjustment issues during transition period. The study was conducted in the five districts of Child Development Centers (CDCs) in Laoag City. Using purposive sampling technique, this study involved 19 CDWs and three experts in the field of early childhood education (ECE). A structured interview guide for the Focus Group discussion (FGD) and a validation tool adapted from Valdez (2023) were used in gathering data. Data gathered from the FGD were analyzed using Braun and Clark's (2006) thematic analysis while mean was used to determine the validity of the PTP. Findings reveal that the factors that affect the common adjustment issues of pre-kindergartners during transition period are lack of social exposure, separation anxiety, time and routine adjustments, and excessive use of gadgets at home. On the other hand, the CDWs employ interactive learning activities, open communication, and parental involvement and support in handling adjustment issues during transition period. Findings also reveal that the developed PTP is highly valid in terms of objectives (3.77), content (3.88), staff/persons involved (3.66), duration (4.00), and assessment/evaluative technique (3.78) along with the overall mean of 3.82. Thus, the PTP is recommended to be implemented to capacitate the CDWs in managing effectively the common adjustment issues of pre-kindergartners during transition period.

Keywords: Child Development Workers (CDWs), Common adjustment issues, Pre-kindergarten Transition Program (PTP), Transition period.

VOICES BEYOND SILENCE IN INCLUSION: AN INQUIRY INTO SECONDARY TEACHERS WITH DEAF LEARNERS IN MAINSTREAM CLASSROOMS

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ABSTRACT

This study explored the experiences and strategies of teachers aimed at cultivating an inclusive and supportive learning environment for deaf learners in mainstream classrooms. Conducted within the Malaybalay City Division during the 2023-2024 school year, it employed a phenomenological research design. Nine receiving teachers were purposively sampled as participants and underwent in-person interviews. This study utilized thematic analysis to examine the interview data. Findings revealed teachers' emphasis on sign language communication, personal milestones, motivation, inspiration, and compassion for deaf learners, along with their fulfilment and continuous personal growth in teaching them—strategies encompassed seeking peer support, employing varied teaching methods, and utilizing multimedia resources. The themes included inclusion, equal treatment, and a diverse learning environment. Despite challenges, teachers embraced innovative pedagogical approaches, including sign language, visual aids, and gestures, to foster a positive learning environment for deaf learners. The researcher highlights the importance of a supportive, inclusive classroom environment for receiving teachers of deaf learners, advocating for visual aids, assistive devices, open communication, and ongoing education on deaf culture.

Keywords: inclusive education, mainstream classroom, experiences, challenges, coping strategies

ENHANCING LITERACY: INNOVATIVE STRATEGIES FOR ALS LEARNERS WITH DISABILITIES

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ABSTRACT

The Alternative Learning System (ALS) enables flexible and non-formal basic education for out- of-school children, youth and adult individual with diverse learning needs, abilities and capabilities. It provides vital educational opportunities to those who have not had access to or have dropped out in formal education. Nonetheless, those with disabilities in ALS encounter additional barriers to acquiring literacy skills, which makes it impossible for them to qualify for the A&E assessment on Elementary and Junior High School level. This stagnates their academic and certification advancement opportunities. To address these challenges, this action research used descriptive-quantitative analysis to gather insights from 30 ALS teachers on innovative strategies to support learners with disabilities. These strategies include the integration of Artificial Intelligence (AI) through assistive technologies, adaptive learning platforms, and differentiated instruction. Findings revealed that assistive technologies received the highest mean rating of 3.95, with teachers strongly agreeing on their value. Adaptive learning platforms and differentiated instruction also received high ratings, with mean rating of 3.89 and 3.87 respectively. Overall, ALS teachers strongly agree and support the use of AI- driven strategies to enhance learning for learners with disabilities. The results highlight the importance of investing in technology-based solutions and teacher training to effectively implement these approaches. This study offers practical recommendations for educators, policymakers, and curriculum developers, emphasizing the transformative role of AI in Alternative Learning System education.

Keywords: Alternative Learning System, Literacy, Adult Education, non-formal Education, Out- of-school children, youth and adult

ADVANCING INCLUSIVE EDUCATION: EXPLORING THE POTENTIAL OF INCLUSIVE OPEN EDUCATIONAL RESOURCES (IOER) FOR LEARNERS WITH VISUAL IMPAIRMENTS

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ABSTRACT

As educational technologies propel us towards a more advanced future, the foundational principle of 'leave no one behind, a transformative promise sealed in the 2030 Agenda of Sustainable Development Goals, becomes imperative. The 2019 UNESCO Recommendation on Open Educational Resources (OER) from the 40th UNESCO General Assembly emphasizes the need for member states to 'encourage inclusive and equitable quality OER. This call includes leveraging open educational practices to ensure greater access to educational materials and resources. In this evolving landscape, the spotlight is on Inclusive Open Educational Resources (iOER), a topic that has gained significant traction, particularly with the implementation of a national-level policy statement by Malaysia for its higher learning institutions. iOER stands as a beacon of accessibility, designed to cater to learners with disabilities, irrespective of their specific needs or abilities.Moreover, for persons with visual impairments, iOER provides materials in assistive devices like screen readers, while also incorporating features such as adjustable font sizes and contrast levels which can affect different level of visual impairments. These features empower learners with visual impairments to navigate educational content with ease, fostering a more independent and inclusive learning environment.However, despite the immense potential benefits, there are challenges hindering the widespread adoption of iOER. Misconceptions and barriers, including a lack of awareness, understanding of its value, technical skills, and support from educational and policy makers, persist within the OER advocacy community. Additionally, issues related to cost, copyright, and quality pose further barriers to adoption.In response to these challenges, iOER-enabled environments are deliberately designed to be flexible and adaptive. This flexibility allows learners to tailor their educational experience according to their needs, sharing content in various formats and across multiple platforms. SEAMEO SEN, as the regional center for special educational needs, stands at the forefront of this commitment. Expressing its dedication to being a referral center for iOER among its eleven SEAMEO Member Countries and beyond, SEAMEO SEN plays a pivotal role in championing and facilitating the adoption of inclusive practices.

Keywords: iOER, educational technology, learners with disabilities, disability-inclusive education, OER, SEAMEO

FEASIBILITY STUDY ON SUPPORTING DEAFBLIND INDIVIDUALS IN MALAYSIA: CHALLENGES, OPPORTUNITIES, AND RECOMMENDATIONS

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ABSTRACT

Deafblindness, a unique and complex disability characterized by dual sensory impairments, presents significant challenges for individuals, families, and societies. In Malaysia, despite legislative advancements such as the Persons with Disabilities Act 2008 and the ratification of the United Nations Convention on the Rights of Persons with Disabilities (CRPD), deafblind individuals remain one of the least recognised and underreported groups. This study examines the current status of deafblind individuals in Malaysia, identifying systemic, social, and economic barriers they face, including limited access to education, healthcare, employment, and social participation. The study also explores opportunities for improvement through technological innovations, community-based support, and policy reforms. By synthesising global best practices, local case studies, and stakeholder perspectives, this paper proposes actionable recommendations to create a more inclusive and supportive environment for deafblind individuals. Key findings highlight the urgent need to recognise deafblindness as a distinct disability category, improve data collection mechanisms, and foster collaborative efforts among government agencies, non-governmental organisations (NGOs), and international bodies. This research contributes to the broader discourse on disability rights in Malaysia and advocates for meaningful change to empower deafblind individuals to lead fulfilling and independent lives.

Keywords: deafblind, Malaysia, disability rights, assistive technology, disability-inclusive education.

PRE-SERVICE TEACHERS' ATTITUDES TOWARD INCLUSIVE EDUCATION: IMPACT OF EXPOSURE TO INCLUSIVE EDUCATION

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ABSTRACT

This qualitative study examined how field-based experiences influence pre-service teachers' attitudes and preparedness for inclusive education. Conducted with 321 pre-service teachers at a Philippine teacher education institution, the research explored how exposure to inclusive teaching strategies, direct classroom engagement, and limited access to assistive technologies shaped their professional growth. Thematic analysis revealed a clear progression from initial uncertainty and limited understanding to increased confidence, empathy, and commitment to inclusive practice. Key themes included transformative learning experiences, post-exposure attitudinal shifts, development of inclusive teaching strategies, and professional growth. While field experience and reflective practice proved central to attitudinal change, participants also identified a lack of preparation in using assistive technologies. These findings support the value of experiential learning in teacher education and highlight the need to integrate inclusive technologies into pre-service training. The study recommends embedding structured fieldwork, reflective practice, mentorship, and assistive technology modules in teacher preparation programs to promote inclusive competence.

Keywords: inclusive education, pre-service teachers, teacher preparation, transformative learning, professional development

THE ROLE OF SCHOOL LEADERSHIP IN INCLUSIVE EDUCATION: A POLICY FRAMEWORK TOWARDS ACADEMIC SUCCESS

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ABSTRACT

Inclusive education, a cornerstone of modern educational philosophy, strives to create learning environments where all students can flourish academically and socially, regardless of their abilities or needs. However, despite its widespread recognition, implementing inclusive education programs poses substantial challenges for school administrators. Hence, this study evaluated school administrators' challenges in implementing inclusive education and described their experiences managing these programs. Employing a qualitative design with a case study method, the research aimed to co-construct meaning with participants to understand their perspectives as leaders of inclusive schools. The findings highlighted that leadership vision and commitment, collaborative decision-making, and professional growth are critical factors influencing the success of inclusive education initiatives. These elements together serve as core pillars, forming a policy framework for inclusive education programs within educational institutions and impacting their efficacy and sustainability. Leadership vision and commitment ensure that inclusive practices are prioritized and integrated into the school's culture. Collaborative decision-making fosters a shared responsibility among stakeholders, enhancing the implementation process and ensuring that diverse perspectives are considered. Professional growth opportunities enable educators to develop the necessary skills and knowledge to support all students effectively. The study describes a policy framework that promotes the essential roles of leadership vision, collaborative decision-making, and professional growth in supporting academic success in inclusive education environments. By focusing on evidence-based strategies, stakeholder engagement, and a commitment to quality, inclusive education can enhance academic achievements for all students.

Keywords: inclusive education, school leadership, policy framework

USING CHATGPT TO MENTOR PARENTS IN ENHANCING LANGUAGE DEVELOPMENT FOR CHILDREN WITH ASD 2-5 YEARS OLD THROUGH HOME-BASED DAILY ACTIVITIES IN THE VIETNAMESE CONTEXT

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ABSTRACT

ChatGPT has been rapidly and wisely applied in many areas of education. With an aim to explore the mentor's function of ChatGPT for parents of children with ASD to promote their language at home, this research investigates how ChatGPT supports parents in designing personalized, practical and readily applicable routines for their special-needs children while also assisting them in addressing unexpected obstacles that arise during the implementation of ChatGPT's recommended tasks. 50 volunteers were divided into two groups whose were examined to compare and analyze the benefits and challenges of language development for children with ASD 2-5 years old via home-based experiences in Haiphong City, Vietnam. One group involved the use of ChatGPT at least 3 hours a day for mentoring purposes, whereas the other group had no ChatGPT intervention. Parents participated in two sessions. The first session focused on parents' self-discovery with ChatGPT. After two weeks, semi-structured interviews were conducted on five topics: applicability, accuracy, accessibility, diversity, and cost-effectiveness to explore the potential of the universal function of ChatGPT. In the second session, held four weeks later, based on the reflection of prior experiences from the first stage, an appropriate plan was developed to train parents on applying effective commands and fostering creativity in their interaction with ChatGPT. Input and output data on children's language development levels were collected using the MacArthur-Bates Communicative Development Inventories test. The findings reveal that while parents demonstrate a clear understanding of the study's objectives, certain specific requirements still need to be addressed to develop effective learning and mentoring skills. Proved to be a valuable mentoring tool, ChatGPT enables parents to overcome communication barriers, improve the quality of social interactions, support learning, and foster independence. Overall, this AI contributes significantly to empowering parents to raise their children in a linguistically enriched environment within the Vietnamese context.

Keywords: Children on the Autistic Spectrum, language, daily activities, Artificial Intelligence tools, mentor, parenting.

CAPACITY BUILDING FOR IN-SERVICE TEACHERS IN INTEGRATED SPECIAL EDUCATION PROGRAMS (PPKI): ADVANCING IMPLEMENTATION OF SPECIFIC VOCATIONAL SKILLS (SVS)

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ABSTRACT

This study investigates the capacity building of in-service teachers in Malaysia's Integrated Special Education Program (PPKI), with a particular focus on the implementation of Specific Vocational Skills (SVS) aimed at enhancing the employability and independence of students with special educational needs (SEN). The study is situated within the broader educational reform that marks the shift from a school integrated-based curriculum to a competency-based curriculum, which places greater emphasis on both basic and specific vocational skills tailored to students' functional capacities. While this shift is aligned with global inclusive education goals, its successful implementation depends heavily on the preparedness and capabilities of educators. Utilizing a qualitative design with series of focus group discussions using semi-structured group interview protocols and thematic analysis, the study uncovers educators lived experiences, attitudes, and professional development needs. Findings suggest that teacher self-efficacy, institutional support, and collaborative professional learning are critical to successful SVS integration. By exploring teachers' training needs analysis, this study aims to pinpoint gaps in educator competencies and propose targeted professional development initiatives. Ultimately, the findings aim to inform strategies that enhance teacher effectiveness, ensuring that vocational training within PPKI programs is aligned with labor market demands and facilitates meaningful societal participation for students with disabilities. The study concludes with recommendations for policy, training, and cross-sectoral collaboration to optimize vocational training within PPKI and support inclusive, competency-based education in line with Malaysia's educational reforms.

Keywords: dual certification, professional learning, training needs analysis, vocational education and training

NEED BASED INCLUSIVE SCHOOL MODEL: REDEFINING INCLUSION FOR CHILDREN WITH DISABILITIES IN NEPAL

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ABSTRACT

Many countries, including Nepal, face challenges in providing equitable access to quality education for children with disabilities. Even with concerted efforts being made, gaps still. It lays out a comprehensive model that meets individual requirements for developing an inclusive school but without these shortcomings in offering quality education and promotes holistic inclusion of children with and without disabilities in ensuring their rights to education. The model presented in this study is a model of inclusive school. It houses special needs children, having diversified disabilities like deafness, visual impairment, cerebral palsy, autism, intellectual disability, and multiple disabilities along with functional limitations, marginal, and orphan children, and integrates children without disabilities. This is done using individualized education programs and creating inclusive learning environments to take all children, regardless of ability, through learning effectively. The plan provides inclusive infrastructural setup, innovative teaching techniques, and a blended education that promotes the inclusion of people with disabilities. A team of specialists in special education, medical doctors, psychologists, counselors, physiotherapists, and occupational therapists will be formed to deal with the support services. Accessible means of communication, teaching-learning materials, physiotherapy, and vocational training are the approach which will be used. This school is located at Aanboo khaireni, Tanahun, Gandaki Province, Nepal. There will be governments participating through a specialized NGO, with national and international support. The school will also become a national training center for people with disabilities, as well as a research hub, having an outlook for duplication of the model in all seven provinces. Additional livelihood skills opportunities geared to students, siblings, parents, and caretakers are also expected to further facilitate a sense of self-reliance among the beneficiaries while transferring skills. It is based on a community model targeted toward SDG, which ensures measurable progress in education, fostering inclusive societies, leaving no child behind.

Keywords: Inclusive Education, Disability Rights, Individualized Education Program (IEP), Multidisciplinary Support, Nepal

THE EFFECTIVENESS OF ONLINE MENTORING IN TRAINING THE COMPETENCY OF SPECIAL EDUCATION TEACHERS IN TEACHING READING SKILLS USING THE BASIC PHONICS METHOD

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ABSTRACT

Special education teachers often face challenges such as limited training opportunities and lack of effective resources when teaching reading skills to students with special educational needs (SEN). This action research study investigates the effectiveness of structured online mentoring in enhancing teachers' competencies in delivering reading instruction using the basic phonics method. Utilizing Kemmis and McTaggart's Action Research model (1988), the study involved 25 PPKI (Special Education Integration Program) teachers from various regions of Malaysia with 3 to 15 years of teaching experience. The intervention consisted of two action research cycles, each including planning, implementation, observation, and reflection. Teachers participated in a six- week online mentoring program featuring theoretical modules, guided practice, and video-based feedback. Findings revealed a substantial improvement in teacher knowledge—post-intervention, 44% reported strong understanding compared to 0% before—and a complete increase in practical implementation, rising from 16% to 100% adoption of phonics strategies in classrooms. Moreover, student reading outcomes improved, with teachers reporting enhanced letter-sound recognition and syllable reading skills. The results underscore the potential of structured online mentoring to significantly enhance teacher competencies and student literacy outcomes.

Keywords: action research, online training, PPKI teachers, basic phonics module, special education, reading skills, MBPK.

UNTRAINED BUT UNDETERRED: CHALLENGES AND STRATEGIES OF RECEIVING TEACHERS IN INCLUSIVE EDUCATION

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ABSTRACT

Inclusive education seeks to integrate learners with special educational needs (LSENs) into mainstream classrooms, yet many receiving teachers lack formal training in special education, creating challenges in curriculum adaptation, assessment, and behavioral management. This study examines the experiences, strategies, and support needs of receiving teachers who educate learners with special needs without specialized training. Using a qualitative phenomenological approach, data were collected through focus group discussions and individual interviews with receiving teachers from various schools in Davao Region, Philippines. Findings reveal significant difficulties in modifying curricula to meet diverse learner needs, uncertainty in implementing fair assessment methods, and struggles with managing LSEN behaviors, which contribute to teacher stress and feelings of inadequacy. Despite these challenges, teachers demonstrate resilience by employing self-directed learning, Universal Design for Learning (UDL), and peer collaboration. However, inequitable resource distribution and a lack of structured professional development hinder the effective implementation of inclusive practices. Teachers emphasized the urgent need for targeted training programs, structured mentoring, and institutional support to enhance their instructional effectiveness. The study concludes that equipping receiving teachers with specialized training and adequate resources is critical to strengthening inclusive education. It highlights the necessity for education policymakers to develop comprehensive training and support systems to address the pressing needs of receiving teachers. By bridging these gaps, schools can create a more inclusive learning environment, ensuring that learners with special needs receive appropriate support to thrive academically and socially. These findings contribute to the ongoing discourse on inclusive education and provide insights into enhancing teacher preparedness and institutional support.

Keywords: Inclusive education, receiving teachers, special educational needs, curriculum adaptation, behavioral management, professional development

EMOTIONAL DEPENDENCY IN STUDENT-TEACHER RELATIONSHIPS: ENHANCING INCLUSIVE EDUCATION SERVICES FOR PRESCHOOL STUDENTS

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ABSTRACT

Emotional dependency in student-teacher relationships (STR) is often overshadowed by the focus on closeness and conflict, leading to limited conceptual clarity, particularly in inclusive classrooms. Teachers frequently interpret dependency through behaviors perceived as disruptive or developmentally inappropriate, making it a complex phenomenon to navigate. Emotional dependency is important for special educational needs (SEN) students as it provides emotional security, supports self-regulation, promotes social and academic engagement and bridges communication gaps. This qualitative case study examines the perspectives of three preschool teachers on emotional dependency and the strategies they employ to manage it. Data were gathered through semi-structured interviews, guided by the Student-teacher Relationship Scale, the Classroom Assessment Scoring System, and relevant literature. Findings reveal that emotional dependency manifests as a child's need for emotional support, reassurance, and warmth from a trusted adult. Teachers foster secure relationships by acknowledging emotions, promoting self-regulation, and gradually encouraging autonomy through choice-based interactions. Notably, students with special educational needs exhibit heightened emotional dependency, necessitating adaptive and individualized strategies. This study highlights the critical role of educators in balancing emotional security and autonomy to create an inclusive and supportive learning environment, ensuring that all preschoolers, particularly those with special educational needs, receive the necessary emotional scaffolding for their development.

Keywords: Emotional Dependency, Inclusive Education, Student-teacher Relationship

INCLUSIVE EDUCATIONAL PRACTICES IN SARAWAK: A DECADE OF PROGRESS (2015-2025) - AN ANALYSIS OF PUBLISHED JOURNAL ARTICLES

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ABSTRACT

This study examines the development of special education and inclusive educational practices in Sarawak from 2015 to 2025 through a systematic review of published journal articles. The research aims to identify key trends, challenges, and innovations in the implementation of special and inclusive education policies, early intervention programs, special education services, teacher training initiatives, resource allocation, and instructional strategies. Using a qualitative content analysis approach, relevant academic publications were analyzed to assess the effectiveness of various initiatives in supporting students with special educational needs (SEN). Findings indicate that Sarawak has made significant progress in integrating students with disabilities into mainstream classrooms, driven by policy reforms, increased awareness, and professional development efforts. However, challenges such as inadequate teacher preparedness, limited resources, and socio-cultural barriers persist. The study highlights the role of individualized education plans, differentiated instruction, collaborative teaching strategies, and early intervention programs in enhancing student learning outcomes. This analysis provides insights into the successes and limitations of special and inclusive education implementation, offering recommendations for future policy improvements, teacher development programs, and the expansion of special education services in Sarawak.

Keywords: Special Education, Inclusive Education, Early Intervention, Special Education Services, Sarawak.

PARENTAL AWARENESS ON CAREER PATH FOR SPECIAL EDUCATIONAL NEEDS STUDENTS: HIGHLIGHTS FROM A NETWORKING PROGRAM

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ABSTRACT

Students with Special Educational Needs (SEN) also referred to locally in Malaysia as MBPK (Murid Berkeperluan Pendidikan Khas) are students requiring educational adaptations due to learning difficulties, disabilities or other developmental needs. Parents' understanding and awareness of the future potential of SEN students remain limited, often constrained by traditional beliefs that their children do not have the same promising future as typical students. This study aims to evaluate the effectiveness of a networking and collaboration program designed to enhance parents' awareness and understanding of the educational and career pathways available to SEN students secondary school graduates in the Kuala Langat district, Selangor. This study employed a quantitative survey approach, supported by qualitative feedback to enrich and contextualize the findings. A career fair and networking event was carried out involving private and governmental agencies as well as education providers. This program was attended by SEN students and their parents. A total of 56 respondents were selected to answer the survey questionnaire at the end of the program. The findings indicate that this program has succeeded in increasing parents' understanding of educational opportunities such as skills certificate programs, as well as industry-to-career training which directly increases parents' confidence in guiding SEN students towards an educational path that is more suitable for their children's interests and abilities after graduating from school. Overall, this study is important in providing a platform for collaboration between schools, parents and post-secondary institutions in helping to shape a more secure direction for their future. This study also suggests the need for more comprehensive programs like these to be held across the nation. The findings may assist policymakers and education practitioners in developing a holistic approach to address the issue as well as improving the special education support system in Malaysia.

Keywords: Networking Program, Parental Awareness, Special Educational Needs (SEN), Career Path, Career Training

POULTRY FARMING SKILLS AS A CAREER TRANSITION FOR SPECIAL STUDENTS (MBPK)

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ABSTRACT

Despite the Malaysian government's target of a one percent employment rate for Persons with Disabilities (PWD) in the public sector, the current rate remains low at approximately 0.31 percent. Therefore, career transition programs are crucial in preparing Students with Special Educational Needs (SEN) for the workforce, post-school education, and independent living. To support this objective, a Poultry Farming Skills Project was conducted by SEN students from SMK Dato' Abu Bakar Baginda, Sepang, Selangor, in collaboration with Universiti Putra Malaysia (UPM). The five-month study involved 24 SEN students and was carried out in two phases. The first phase focused on knowledge transfer through both theoretical and practical training at the Institute of Tropical Agriculture and Food Security. The second phase involved monitoring (both virtual and on-site) and reporting. The aim of this study was to provide students with a solid understanding and practical skills in poultry farming, enabling them to apply their knowledge in managing a poultry farm. Moreover, the study sought to nurture individuals who are capable, independent, and productive, thereby contributing to national economic development. The project also aimed to enhance the overall well-being of SEN students, while reflecting UPM's commitment to sharing agricultural knowledge with underserved communities. Additionally, this initiative has supported teachers in guiding students' career pathways more effectively. Overall, the study has had a positive impact on strengthening the relationship between the university and the school, while equipping SEN students with relevant skills to improve their future employment prospects.

Keywords: Poultry Farming, Career Transition, Students with Special Educational Needs

CHALLENGES IN ASSESSING THE RECEPTIVE LANGUAGE ABILITIES OF CHILDREN WITH CEREBRAL PALSY

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ABSTRACT

The language comprehension of children with disabilities is often assessed by speech-language therapists by using standardized receptive language assessments. These assessments often require the child to point at a picture that corresponds with the referent after it is named by the SLT (e.g., point to the ball). Children with cerebral palsy (CP) often struggle to participate in traditional language assessments because of their limited mobility, leading to the need for alternative assessment methods and reliance on parental reports. Eye-tracking has emerged as a useful tool to be used with individuals who may be unable to provide traditional responses due to issues motor barriers. The purpose of this study was to identify the challenges faced by children with CP on traditional language assessment and assessments conducted using eye-tracking modality. Fifteen children with CP aged 6 to 14 were administered the Malay Preschool Language Assessment Test (MPLAT) via the traditional method and eye-tracking. The children attended two assessment sessions. During the first session, the receptive vocabulary assessment was administered via the traditional method and in the second session, the assessment was administered via eye-tracking. Parents also provided feedback about their child's receptive language skills. Children with CP were observed to struggle with both assessment methods. During the assessment via traditional methods, they struggled to point at the correct picture and had poor trunk and head control which limited their ability to scan the pictures presented to them. The assessment via eye-tracking presented other challenges. For some children, the lack of eye gaze on the screen prevented calibration of the eye-gaze equipment. Others struggled to fixate on an area of interest for a sufficient amount of time to indicated selection of an answer option during the assessment due to poor head control. These and other challenges suggest that no one assessment method is best suited for all children with CP and parental reports continue to play a crucial role in determining the receptive language abilities of these children.

CLASSROOM BEHAVIOR MANAGEMENT: EVIDENCE BASED STRATEGIES

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ABSTRACT

This quantitative study investigates the evidence-based behavior management strategies employed in selected special education (SPED) classrooms within Quezon City. The research aimed to identify the most commonly used strategies, evaluate their effectiveness, and explore how contextual factors such as teacher experience and student needs influence implementation. Participants included 25 SPED teachers selected through purposive sampling from public schools. Data were collected through validated questionnaires, classroom observations, and semi-structured interviews. Ethical protocols were observed through informed consent and confidentiality measures. Descriptive statistics and thematic analysis were used to analyze the data. Results revealed that positive reinforcement, visual supports, and structured routines were the most frequently applied strategies, with teachers reporting high effectiveness, of students with disabilities. The study highlights the importance of training and consistent application of strategies in maintaining classroom order and supporting student development. Findings provide practical insights for educators, administrators, and policymakers to enhance SPED practices across similar contexts.

PROJECT-BASED LEARNING IN CATERING: DEVELOPING SKILLS, CONFIDENCE, AND EMPLOYABILITY AMONG STUDENTS WITH SPECIAL EDUCATIONAL NEEDS (SENS)

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ABSTRACT

Project-based learning has gained recognition as an effective pedagogical approach that fosters practical skills and confidence among students. The Food Preparation and Production course offers the Malaysian Skills Certificate (SKM) Level 2 to Special Education Needs Students (SENs) with intellectual disabilities and learning difficulties. This action research study aimed to evaluate the effectiveness of project-based learning in catering activities in enhancing the skills and self- confidence of SENs. The study specifically addressed challenges associated with traditional buffet preparation, which was often less engaging and prone to food wastage. To mitigate these issues, the concept of a mini buffet was introduced, focusing on preparing small-sized dishes with diverse selections and creative plating techniques. Thirteen SENs participated in this study, divided into two sections: kitchen and restaurant. Data collection methods included observations, questionnaires, and students' self-assessments. The findings indicated notable improvements in students' technical skills, proficiency in handling kitchen equipment, time management, communication abilities, and self-confidence. Additionally, students gained a deeper understanding of the significance of preparing small-portioned dishes to minimize food waste. Regarding customer satisfaction, 95.2% of respondents agreed that the variety of small-sized dishes enhanced both visual appeal and presentation quality. Furthermore, the use of flowcharts and standardized recipes facilitated a more systematic comprehension of work processes, reducing students' reliance on teachers. In conclusion, integrating project-based learning through mini buffet activities effectively enhanced the skills, self-confidence, and employability of SENs in the catering industry while simultaneously improving teaching practices and enriching the Food Preparation and Production course.

Keywords: Project-Based Learning; Self-Confidence; Practical Skills; Employability

2025

iDIEC

INNOVATION FOR DISABILITY-INCLUSIVE EDUCATION COMPETITION

2nd iDIEC ABSTRACTS

(iDIEC_2025_004)

FOSTERING THE SOCIAL INTERACTION AND COMMUNICATION SKILLS OF AUTISTIC CHILDREN IN INCLUSIVE KINDERGARTENS WITH COLLABORATIVE PROJECT PLAY METHODE-BASED COMPUTER (CPPMC)

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ABSTRACT

The characteristic of autistic children is that they experience disorders in social interaction and communication with other children. The existence of autistic children in kindergarten needs attention on how to improve social interaction and communication skills in the inclusion kindergarten. The purpose of this study is to determine the effect of the application of computer-based project play methods on the communication skills and social interaction of autistic children in Inclusion Kindergarten. This is very much following the purpose of organizing inclusion education, namely the integration of social and academic. The study used a quantitative approach with a Single single-subject research Experiment – ABAB Model. Determination of subjects by purposive sampling in Inclusive Kindergartens at Makassar, Indonesia. The results of the study showed that the baseline observation results of subject A1 of autistic children still showed weak social interaction and communication when interacting with normal friends. In the intervention phase (B) in the form of a collaborative project play-based computer, there was a change in the position of the social interaction and communication graph, where there was an increase in social interaction and communication between A and his friends in a collaborative project play-based computer. At the end of the cycle (A2), the subjects showed an improvement in social interaction and communication skills with other normal children. The CPPMC model makes it easy for autistic children and normal children to collaborate on assignment projects using various types of computer software so that children's cognitive and social abilities develop. Autistic children and normal children work together to complete project tasks with software programs available on the computer such as coloring, constructing, placed, and modifying picture patterns with software artificial intelligence (AI) in the computer.

Keywords: collaborative project play-based computer, social interaction, and communication skills, autistic child, inclusion kindergarten

(iDIEC_2025_009)

H2GROW KIT: BRIDGING TVET AND STEM FOR INCLUSIVE LEARNERS

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ABSTRACT

The PeSTeC Hydroponic Kit, developed by Universiti Utara Malaysia in collaboration with a non-governmental organisation (NGO) for people with disabilities (PWD) and schoolteachers, is an innovative tool for disability-inclusive education. Seamlessly integrating TVET (Technical and Vocational Education and Training) with STEM (Science, Technology, Engineering, and Mathematics), it offers a project-based learning approach that is practical and engaging. Designed for learners of all ages and abilities—from early childhood to individuals acquiring job skills, the kit fosters inclusivity while enhancing curiosity, sensory development, and cognitive engagement. It is particularly effective for special needs students and individuals with disabilities yet remains accessible to general learners. The enhanced PeSTeC Hydroponic Kit incorporates sensory-rich activities and virtual reality (VR) components, creating an immersive environment that bridges hands-on hydroponic farming with advanced technology. These features stimulate sensory engagement, deepen understanding, and significantly increase motivation. Its adaptive design ensures suitability for students with varying functionality, as well as educators and carers seeking versatile tools. Portable and equipped with a comprehensive learning module, the kit provides a structured yet enjoyable experience that aligns with TVET and STEM goals. It prepares students for vocational opportunities while building life skills in an inclusive environment. With its focus on sustainable agriculture and technological innovation, the PeSTeC Hydroponic Kit is a valuable resource for schools, rehabilitation centres, and families. By blending adaptive design, VR integration, and practical applications, the PeSTeC Hydroponic Kit demonstrates strong commercialisation potential. Its appeal extends across the special education sector and beyond, offering an inclusive and transformative platform to empower learners in hydroponic farming and related STEM and TVET fields. This innovation shows how inclusive education can combine sustainability, technology, and vocational training to benefit learners of all abilities.

Keywords: inclusive education, hydroponic farming, TVET training, STEM integration, virtual reality learning

(iDIEC_2025_010)

PROFILE, ATTITUDE AND PORTFOLIO PERFORMANCE OF ALTERNATIVE LEARNING SYSTEM LEARNERS OF SELECT COMMUNITY LEARNING CENTERS: TOWARDS IMPROVING KEY PERFORMANCE INDICATORS

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ABSTRACT

This descriptive survey method research study delved to profile the Alternative Learning System completers, gather their attitudes toward presentation portfolio assessment and determine level of extensiveness on learners' performance along portfolio assessment in S.Y. 2019-2022 towards improving the key performance indicators in Alternative Learning System program in select Community Learning Centers. The respondents of the study were the ALS program completers in School Years 2019-2022. Findings of the study revealed that there is a significant increase in the Functional Literacy Test (FLT) after engaging themselves in the ALS program. The significant difference is associated to a significant increase in the FLT performance. Moreover, there is a positive attitude towards the presentation portfolio assessment in ALS. Further, portfolio assessment is highly extensive as a mechanism to assess ALS learners' performance. However, there is low transition rate from Elementary to Junior High School and Junior High School to Senior High School. Alternative Learning System program in select CLCs are challenged to explore strategies to improve the transition rate: Elementary- Junior High School and Junior High School to Senior High School including improving the efficiency rate among their Alternative Learning System learners.

Keywords: education, key performance indicators, portfolio assessment, transition rate, efficiency rate

(iDIEC_2025_014)

EMPOWERINGTHE INCLUSIVITY THROUGH ADAPTIVE BEHAVIOUR SCALE FOR LEARNING DISABILITIES (ABS-LD)

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ABSTRACT

Students with learning disabilities face unique challenges that require a culturally relevant and precise assessment of their adaptive behaviours to ensure effective support and intervention. However, existing tools to measure behaviour often fail to capture the specific needs of students in the Malaysian context. The Adaptive Behaviour Scale for Learning Disabilities (ABS-LD) addresses this gap by providing educators with a dynamic, flexible, and comprehensive tool to assess functional levels—severe, mild, or profound—across academic, social, and practical domains. The ABS-LD empowers teachers to identify students' strengths and needs accurately, enabling tailored interventions that support individual growth. By integrating advanced digital and artificial intelligence (AI) technologies, the ABS-LD ensures precise, efficient, and adaptable assessments, together with setting a new standard in inclusive education. This innovation not only promotes early detection of learning disabilities but also provides actionable insights to foster an equitable and supportive learning environment where every student can thrive. Beyond its educational application, the ABS-LD has the high potential for commercialization, making it scalable and adaptable for use within and beyond Malaysia, especially for stakeholders like the Jabatan kebajikan Masyarakat and the Bahagian Pendidikan Khas. This transformative tool bridges gaps in special education, enabling teachers to address the diverse needs of students while championing inclusivity and meaningful participation. With ABS-LD, all learners' abilities are recognized and celebrated, ensuring that no student is left behind in their journey toward achieving their fullest potential, in alignment with Sustainable Development Goal 4: Quality Education, which seeks to ensure inclusive and equitable quality education for all.

Keywords: adaptive behaviour, scale, learning disabilities, assessment, inclusivity, ABS-LD

(iDIEC_2025_015)

VISPROFILE: A TAILORED LEARNING ENVIRONMENT SYSTEM FOR STUDENTS WITH VISUAL IMPAIRMENT

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ABSTRACT

VISPROFILE is an innovative technological solution addressing the educational needs of visually impaired students through a tailored learning environment system. The system integrates clinical visual attribute parameters including visual acuity (VA), amplitude of accommodation (AA), contrast sensitivity (CS), and vergence status (VD) to automatically classify students' visual capabilities and generate customized classroom recommendations. Built on a web-based architecture, it employs a comprehensive three-phase methodology based on a hybrid cloud visual classification, learning environment adaptation, and information technology system development. The system comprises five key components: a user-friendly interface for teachers and administrators, secure data management for student protection, and a profiling engine that creates detailed individual student profiles, to generate optimized classroom recommendations. It automatically processes visual parameters to categorize students into four distinct visual ability levels (mild, moderate, severe, and blind), then provides specific adaptations including optimal seating position, lighting levels, contrast requirements, and text size modifications. Comprehensive analytics and reporting tools support these recommendations. This systematic approach ensures reliable, research-supported classroom adjustment, provides appropriate support measures, and significantly reduces the manual assessment burden on educators. Initial implementation demonstrates the system's effectiveness in streamlining special education adaptations, making it a scalable solution for special education. VISPROFILE significantly advances special education technology, offering schools nationwide a standardized framework for optimizing learning environments and improving academic outcomes for visually impaired students.

Keywords: visual impairment, adaptive learning, educational technology, classroom optimization, special needs education

(iDIEC_2025_016)

POP IT INCLUSIVE LEARNING MODULE: BREAKING BARRIERS IN NUMERACY EDUCATION

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ABSTRACT

Inclusive numeracy education remains a significant challenge for students with special educational needs (SEN), who often face cognitive and sensory barriers in understanding mathematical concepts. The POP IT Numeracy Module was developed as an innovative solution to address these challenges by combining tactile manipulatives and digital extensions to support engagement and learning. Rooted in Universal Design for Learning (UDL) principles, the module provides an interactive, multisensory approach to numeracy, catering to diverse learning styles. This study aimed to evaluate the module's effectiveness through a mixed-methods design, incorporating pre-test and post-test assessments alongside teacher feedback. A four-week pilot program involving SEN students and teachers in inclusive classrooms revealed statistically significant improvements in number concept mastery and working memory, with an average 45% increase in post-test scores. Teachers reported enhanced student participation and reduced frustration, highlighting the module's practical impact. While implementation challenges included resource constraints and varying teacher readiness, the program demonstrated strong potential for scalability and integration into national education systems. These findings affirm the POP IT Numeracy Module as a transformative tool for bridging learning gaps in numeracy and advancing inclusivity in STEM education. Policymakers and educators are encouraged to adopt and adapt this module to foster equity and innovation in SEN classrooms globally.

Keywords: inclusive education, numeracy innovation, special educational needs (SEN), universal, design for learning (UDL), interactive learning tools

(iDIEC_2025_018)

PEE PEE POTTY TIME: THE ROLE OF TOILET SOCIAL STORY MODULE TO ENHANCE CHILDREN'S WITH AUTISM SPECTRUM DISORDER COMMUNICATION SKILLS IN CLASSROOM LEARNING

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ABSTRACT

Children with Autism Spectrum Disorder (ASD) across the globe always prefer their own learning environment because they are special and unique in their own ways. They too, have their own learning preferences. There has been a lot of debate that discussed the issues and challenges common learners face in their own learning environment. Children with ASD could not portray accurate social skills especially in classroom learning. Along that, they have little daily routine which made them less excitement during learning. Hence, these children with special needs have limited social interaction with their teacher. However, Pee Pee Potty Time toilet social story module may have positive impacts on the learning, yet little is known regarding the type and impact of children's type of learning preferences. This module can be further used in classroom to improve children with ASD learning environment and social interaction between teacher. This innovation could be seen as one of potential commercialization as children with ASD are still new in Malaysia. Not only that, it can be one of the ways to help children with ASD in learning environment, not only it could save costs but user friendly to the users. Furthermore, teachers are seen as a vital role in ensuring the suitable type of toilet social story module, which is why this innovation will look into the suitable daily toilet routine and how it can empower children with special needs in their learning environment.

Keywords: toilet social story, children with autism spectrum disorder, communication skills, learning environment

(iDIEC_2025_020)

DISASTER PREPAREDNESS: EARLY WARNING SYSTEM (EWS) FOR LEARNERS WITH SPECIAL EDUCATIONAL NEEDS

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ABSTRACT

The Philippines has ranked number 1, for three consecutive years, as the highest risk of disasters from extreme natural events and negative climate change impacts, as measured by the 2024 World Risk Index. Disasters disproportionately impact persons with disabilities, leaving them more vulnerable to harm, loss, and disruption. Ensuring disability inclusive disaster preparedness and risk reduction (DRR) efforts is crucial to minimize these effects and enhance the overall resilience of the group. Disability inclusive disaster Risk Reduction is understood as the process of reducing barriers and strengthening enabling actions to ensure meaningful engagement of persons with disabilities, making them more visible and prioritized in disaster mitigation, preparedness, response and recovery initiatives and to ensure that all these are inclusive of persons with disabilities. The proponents conducted needs assessment with the teachers and the learners which yielded the following results; lack of training on disaster preparedness, lack of knowledge about early warning system, limited parent's involvement, lack of awareness of the community and other stakeholders on the plight of LSENs, and no involvement on community disaster preparedness. With this, the proponents proposed the innovation project titled Disaster Preparedness: Early Warning System (EWS) for Learners with Special Educational Needs. Thus, possible solutions were put forward to address the current situation; provided of early warning devices such as siren, megaphone, infographics, go-bags, emergency kit, first-aid kit, internet connectivity for faster and efficient communication and access, provided training for parents, guardians and caregivers in child handling in case of emergency or disaster, and conducted advocacy campaign.

Keywords: early warning system, inclusivity, disaster risk reduction and management

(iDIEC_2025_021)

PROJECT SUPERB (STRATEGIES IN UPSKILLING THRU PARTNERSHIP AND ENHANCING READING SKILLS OF ALS-SNED LEARNERS IN BRIGADE

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ABSTRACT

ALS Bambang I District recognizes the importance of providing equal educational opportunities to all learners, regardless of their socio-economic background or learning abilities. The school aims to create an inclusive learning environment where all learners feel valued and supported. We provide additional resources and interventions to help learners overcome their learning difficulties and reach their full potential. This may include specialized teaching methods, individualized learning plans, and access to support services such as counselling. After analyzing this problem PROJECT SUPERB is born with the aim of bridging the gap for last-mile learners. This project recognizes these learners often miss out valuable educational opportunities, which can hinder their personal and professional growth. This project seeks to address the issue by providing innovative solutions and support to ensure that the last-mile learners have equal access to quality education. Activities such as intensive home visitation, feeding program, e-library, Saturday reading habits and reading programs. This project was carefully crafted to suit the needs of all ALS-SNED learners of the school. This will delve into the mechanics and implementation strategies by PROJECT SUPERB to support these learners, ensuring access to education for all. The conduct of this project, through the different strategies and innovations, is deemed to be successful as it shows the learners increased performance and interest in all learning aspects and school activities.

Keywords: Alternative Learning System-Special Needs Education (ALS-SNED), home visitation, feeding program, e-library

(iDIEC_2025_023)

MODUL PINTAR EDU KHAS

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ABSTRACT

This comprehensive compilation of modules explores the multidimensional aspects of child development, special education, and the challenges faced by children with special needs. It begins with an overview of child development, highlighting physical, cognitive, social, and emotional growth milestones, and the factors influencing them, such as parental interaction, environment, and nutrition. The focus then shifts to children with special needs, addressing definitions, classifications, and detection methods for conditions like autism spectrum disorders, ADHD, learning disabilities, and social-emotional disturbances. The modules emphasize the importance of early detection, tailored interventions, and holistic support through integrated screening programs and evidence-based therapies such as speech therapy, physiotherapy, and sensory integration. Additionally, the modules explore the educational strategies and ethical responsibilities necessary for supporting special needs children in inclusive and specialized classroom settings. Topics include the roles of shadow teachers, classroom management techniques, curriculum adaptation, and the importance of fostering a positive, respectful learning environment. The modules also underscore the value of collaboration among educators, families, and communities to maximize the potential of children with special needs. The overall emphasis is on creating a supportive ecosystem that recognizes individual strengths and promotes holistic development, ensuring every child has access to quality education and care.

Keywords: child development, special needs education, early intervention, inclusive education, holistic support

(iDIEC_2025_024)

THE IMPLEMENTATION OF METIC BOARD FOR PUPIL WITH DYSCALCULIA: A CASE STUDY

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ABSTRACT

This study presents a single case study of how an instructional intervention tool, namely Metic Board being incorporated into the teaching practices to teach number sense and basic arithmetic skills to a pupil with dyscalculia. This new theory-driven intervention was developed by the authors of this study. Dyscalculia is a term refers to a specific learning disorder in mathematics. Pupils with dyscalculia face difficulties in acquiring basic arithmetic skills. Early supports such as interventions have great potential in helping pupils with dyscalculia to improve arithmetic skills. However, they remain a lack appropriate instructional scaffolds to help pupils with dyscalculia to bridge their assisting knowledge to the arithmetic skills. After the implementation of Metic Board, findings revealed that this innovation had improved the number sense, addition, subtraction, multiplication and division skills of the pupil. The copyright registration number for this product is LY2023WO2802. It is suitable for mathematics teaching to students who are concrete and hands-on learners. The potential customers for this product include parents, learning or therapy centers, and all teachers who are teaching mathematics, remedial education and special education in preschool and primary education. Future studies are recommended to integrate Metic Board into mainstream classrooms to a larger sample size, making mathematics education more inclusive and accessible for a broader range of pupils.

Keywords: arithmetic, dyscalculia, intervention, mathematics, number sense

(iDIEC_2025_025)

AI-TUTOR FOR INCLUSIVE LEARNING (AITIL): ENHANCING SPECIAL EDUCATION THROUGH NOTEBOOKLM

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ABSTRACT

The integration of artificial intelligence (AI) in education presents transformative opportunities for inclusive learning, particularly for students with special educational needs (SEN). This study focuses on the development and evaluation of an Intelligent Tutoring System (ITS) using NotebookLM, an AI-powered research assistant designed to deliver personalised, adaptive instruction for low-functioning students in inclusive education settings. The ITS incorporates assistive technology (AT) features, such as text-to-speech, simplified content presentation, multimodal feedback, and interactive question-and-answer mechanisms, to accommodate diverse cognitive abilities and communication needs. A design-based research (DBR) approach was employed, consisting of three iterative phases. In the first phase, the ITS prototype was developed using NotebookLM to generate context-aware AI tutoring responses, adapting instructional content to individual learning needs. The second phase involved expert validation using the Delphi method, where special educators, AI specialists, and assistive technology experts evaluated the accuracy, clarity, pedagogical relevance, and accessibility of AI-generated content. The third phase focused on usability testing and pedagogical evaluation, assessing the ITS's effectiveness in enhancing engagement, comprehension, and learning outcomes among students and educators. Preliminary findings indicate that AI-powered tutoring has the potential to significantly support inclusive education by offering real-time personalised feedback and adaptive scaffolding. However, challenges such as AI reliability, ethical concerns, and implementation barriers must be addressed. The study underscores the need for structured teacher training, institutional policies, and continued research on AI integration in inclusive learning environments. By refining best practices for AI-driven ITS, this research contributes to the advancement of AI-enhanced education and adaptive learning for SEN students.

Keywords: intelligent tutoring system, NotebookLM, assistive technology, inclusive education, special educational needs, AI in education, adaptive learning

(iDIEC_2025_027)

GEOMETRIA: REVOLUTIONIZING GEOMETRY LEARNING FOR DEAF STUDENTS THROUGH THE METAVERSE

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ABSTRACT

The rapid advancement of technology, especially the metaverse, presents unprecedented opportunity for educational innovation. Deaf and Hard-of-Hearing (DHH) students often struggle with abstract mathematical concepts like geometry due to communication barriers and the lack of appropriate instructional materials. Traditional methods rely heavily on text-based explanations and static diagrams, fail to support their cognitive and visual learning needs. The absence of multimodal and interactive resources worsens this gap and leads to comprehension and retention difficulties. GeoMETriA, as an innovative learning tool, leverages metaverse technology to provide an immersive and interactive learning experience for DHH students. By integrating 3D visualization, interactive simulations, sign language and avatars, GeoMETrIA enhances spatial reasoning and engagement in geometry learning. Its design is rooted in established learning theories, including Mayer's Cognitive Theory of Multimedia Learning (2005) and Vygotsky's Social Constructivism Theory (1978). Additionally, it is strongly guided by the Cognitive Affective Model of Immersive Learning (CAMIL) by Makransky and Petersen (2021), which emphasizes cognitive engagement, emotional impact, and motivation in immersive learning environments. GeoMETriA empowers students to learn independently at their own pace. By incorporating multimodal and interactive elements, it bridges gaps in special education, offering a technology-driven, inclusive approach to geometry learning. Regarding contribution and commercialization potential, GeoMETriA opens up exciting opportunities in the broader education and technology sectors. It serves special education schools, government agencies, private institutions, and EdTech companies, ensuring scalability and accessibility. Built on a Software as a Service (SaaS) model, schools and organizations can easily access its resources. Beyond the classroom, it advances inclusive, technology-driven learning, making high-quality education a norm, not an exception. GeoMETriA is more than just a learning platform— it is a movement to transform how geometry is taught and learn. By prioritizing inclusivity and innovation, every student has the tools to thrive, no matter their hearing ability.

Keywords: metaverse, deaf and hard-of-hearing (DHH), geometry, immersive learning, CAMIL

(iDIEC_2025_033)

LIVED EXPERIENCES OF SPECIAL NEEDS EDUCATION TEACHERS IN THE INCLUSION OF CHILDREN WITH SPECIAL NEEDS IN MAINSTREAM CLASS

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ABSTRACT

The study explored the lived experiences of special needs education teachers in the inclusion of children with special needs in mainstream classes at the Schools Division Office (SDO) of Laguna. Using a Husserlian Descriptive Phenomenological Approach, the study sought to explore the problems, strategies, and implications of inclusive education as perceived by eight special needs education teachers. In-depth interviews were conducted to collect data on themes such as different degrees of inclusion, the strategic importance of orientation and training, supportive environments and collaborative partnerships, behavioral and transitional dynamics, emotional impacts of inclusion, resource allocation, teacher resistance, parental concerns and misconceptions, individualized approaches and adaptive strategies, cooperation and assistance, effective communication and building rapport, specialized support services, comprehensive training and continuous professional development, and support and acceptance. The findings reflect a complex landscape in which teachers manage different degrees of inclusion, underlining the importance of intensive training and collaborative partnerships. Key topics include the importance of supporting the environment, managing behavioral problems, and the importance of effective communication. Teachers acknowledged substantial issues with resource allocation and acceptance of mainstreaming programs, emphasizing the significance of ongoing professional development and extensive training. The study discovered that inclusive education brings significant challenges and benefits teachers and students. The recommendations emphasize the importance of improving support services, developing policies, and conducting ongoing research to optimize inclusive practices. Based on these findings, the study suggests the SNED Model (Successful Network for Effective Development) for integrating children with special needs in the mainstream class. The SNED Model sought to provide a complete framework for successfully integrating children with special needs into mainstream education. This study contributes to the greater understanding of inclusive education by giving helpful perspectives for educators, policymakers, and stakeholders.

Keywords: children with special needs, inclusion, lived experiences, mainstream class special needs education teacher

(iDIEC_2025_037)

VISIONAID: AI-POWERED SMART MONO-GLASSES WITH CHATGPT FOR THE VISUALLY IMPAIRED

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ABSTRACT

Globally, it was reported that almost 2.2 billion people have a near or distance vision impairment where 1 billion of these could have been prevented if detected at an early age. As vision is one of the dominant of our senses, and plays a critical role in day to day lives, it is necessary to provide aid to these people in order for them to live their lives normally. Having visual impairments especially our students can hinder them from learning and communicating with other students as well. Traditional assistive devices including smart canes and screen readers offer limited functionality which fails to provide real time object recognition, obstacle recognition, and text reading. To address this, VisionAid is developed as an ChatGPT-powered smart monocle with integrated earpiece designed to provide visual data and real-time audio feedback utilizing Convolutional Neural Network (CNN) and Transfer Learning. These technologies help in detection and describing objects, recognizing text through Optical Character Recognition, and alerting potential hazards. Using pre-trained CNN Models (MobileNet or YOLO) fine-tuned with transfer learning for optimized performance, it was tailored to educational environments enabling recognition of usual classroom objects, school signs, and human faces. The model was evaluated on a custom dataset of classroom objects, school signs, and human faces, achieving 94.5% accuracy for object detection, 96.2% for text recognition, and a mAP of 92.3%, ensuring high detection reliability. Moreover, voice commands allow users to interact with the device to request information as needed. Target market of this device includes special education institutions, local government units, and technology startups which can be priced at less than
$400.

Keywords: transfer learning, assistive device, machine learning, CNN, ChatGPT

(iDIEC_2025_038)

BITESNAP - MOBILE APPS AS ASSISTIVE TECHNOLOGY FOR SPECIAL NEEDS

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ABSTRACT

In the 21st-century education era, the advancement of technology in learning has become a crucial agenda in education. Aligning with the School Transformation Programme 2025 (TS25) and Sustainable Development Goal 4 (SDG 4), there is a growing need for inclusive and equitable education in Malaysia, where 34,657 special needs students require tailored support. Therefore, due to the varying levels of acceptance among individuals, support in the form of assistive technology is essential for students with special needs and serves as an intermediary to enhance the teaching process in special education classrooms. Various assistive technologies have been developed at the school level to attract interest and enhance the knowledge of students with special needs. However, most assistive technologies are designed to support teaching and learning in elective modules. There is still a lack of innovation in assistive technology for teaching and learning in technical modules, particularly in the field of pastry. To further enhance more effective teaching and learning in technical fields, particularly in pastry, the use of assistive mobile technology (mobile apps) plays a crucial role in improving the quality of learning for students with special needs in the TVET sector, specifically in pastry. The development of the assistive mobile application BiteSnap Mobile Apps serves as a learning tool that facilitates and expands innovation in teaching and learning for students with special needs, particularly in the TVET field. This innovative product has the potential for commercialization and can be utilized by anyone interested in learning pastry modules. Beyond the education sector, this innovation also benefits persons with disabilities in Malaysia by enhancing their skills in TVET, particularly in pastry. Furthermore, the advantages of the BiteSnap Mobile App can help special needs students master the field of pastry more effectively while enhancing their skills and standard procedures in product preparation.

Keywords: assistive technology, special needs, pastry, TVET, learning strategy

(iDIEC_2025_040)

IREADY: A TEACHER-DRIVEN DIGITAL INTERVENTION PLATFORM FOR LOW-FUNCTIONING STUDENTS IN INCLUSIVE EDUCATION

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ABSTRACT

Teachers managing low-functioning students in inclusive education settings face significant challenges due to high student-to-teacher ratios, lack of structured intervention strategies, and outdated teaching methods. Findings from semi-structured interviews with five special education teachers and classroom observations highlight that educators are overwhelmed with managing 8-12 low-functioning students per class, which is far from the recommended 5-8 students per teacher ratio for effective intervention. Unlike therapists who provide one-on-one intervention, teachers in special education classrooms struggle to implement individualized education plans (IEPs) due to insufficient resources. Moreover, Malaysia's slow and outdated intervention framework is lagging behind developed countries, where structured programs start as early as two years old, ensuring higher success rates for inclusion in mainstream education. To bridge this gap, iReady is developed as a teacher-driven, no-code digital intervention platform using accessible online platforms, cloud storage, interactive design tools, and AI-powered support. This platform provides structured lesson plans, intervention strategies, instructional videos, and real-time teacher collaboration via an online community to support teachers in managing low-functioning students more effectively. iReady serves as an interactive and centralized hub for intervention planning, reducing the workload of teachers and ensuring evidence-based teaching approaches. The objective of iReady is to enhance special education intervention by equipping teachers with digital, structured, and customizable resources that support individualized instruction. By leveraging AI-powered guidance and teacher-driven content, iReady contributes to reducing inconsistencies in intervention implementation and improving the effectiveness of inclusive education programs. This aligns with United Nations Sustainable Development Goal 4 (SDG 4: Quality Education) by ensuring that all students, including those with disabilities, receive equitable and inclusive learning opportunities. With its strong commercialization potential, iReady can be scaled into a subscription-based digital repository for schools, NGOs, and government agencies, providing sustainable, data-driven solutions for special education. Future expansions may include AI-powered personalized intervention plans, interactive teacher training modules, and partnerships with ministries of education to ensure wider implementation. By integrating technology-driven tools and structured intervention plans, iReady is a transformative solution that bridges the intervention gap in Malaysia's special education system. It empowers educators to manage classrooms efficiently, ensuring that no child is left behind in their learning journey.

Keywords: inclusive education, digital intervention, low-functioning students, special education technology, SDG 4, teacher support

(iDIEC_2025_041)

QH DYSCREEN: BRIDGING SECTORS TO INCLUSIVE EDUCATION

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ABSTRACT

Ensuring inclusive education requires early identification and intervention for learning disabilities such as dyslexia. However, current dyslexia screening approaches often lack interdisciplinary collaboration, limiting their scalability, accessibility, inclusivity and effectiveness. This study introduces QH Dyscreen, a Quadruple Helix Model (QHM) as a transformative framework integrating academia, industry, government, and civil society to enhance dyslexia screening effectiveness. Academia advances research on dyslexia's neurobiological and cognitive underpinnings, develops evidence-based screening tools, and trains educators. Industry introduces artificial intelligence (AI), machine learning, and gamified platforms, making screening cost- effective and widely accessible. Governments play a pivotal role in implementing standardized screening protocols, policy frameworks, and funding mechanisms. Civil society promotes awareness, reduces stigma, and ensures cultural responsiveness, fostering grassroots support for early screening programs. This study also projects future developments in dyslexia screening. In the short term, AI-powered and mobile-based tools will enhance early detection accessibility and accuracy, especially in under-resourced areas. In the medium term, advancements in neuroimaging and eye-tracking technologies will refine diagnostics, while multilingual and culturally adaptive screening tools will reduce linguistic biases and cultural barriers. The long-term vision sees dyslexia screening becoming fully integrated into national education policies, supported by AI- driven personalized learning pathways and predictive diagnostics. Findings reveal that QH Dyscreen fosters a holistic, technology-enhanced screening tool development, enhances accessibility, and ensures community-specific adaptations. By bridging gaps in knowledge translation, policy implementation, and resource allocation, QH Dyscreen aligns with sustainable development goals such as SDG 4 (Quality Education) and SDG 17 (Partnerships for the Goals). This study highlights QH Dyscreen's potential to reshape dyslexia screening, fostering inclusive education and equitable learning opportunities. Future research should explore scalability and long-term sustainability to ensure effective dyslexia interventions across diverse socio-cultural contexts.

Keywords: quadruple helix model, dyslexia screening, academia, government, society, industry

(iDIEC_2025_044)

HYBRID POPUP CARDS (HiPOP): AN INNOVATIVE HYBRID POPUP CARD INTEGRATING TACTILE, DIGITAL, AND GAMIFIED LEARNING FOR CHILDREN WITH LOW VISION AND ADHD

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ABSTRACT

The Hybrid Popup Cards (HiPop) is an innovative educational tool containing 15 cards containing flora and fauna that integrates conventional pop-up books, DIY pop-up materials, tactile components, digital interactivity, and gamification to support children with diverse learning needs, particularly those with low vision and Attention-Deficit/Hyperactivity Disorder (ADHD). HiPop offers a tactile, multi-sensory learning experience for children with low vision through its three-dimensional structures, which enhance spatial awareness and shape recognition. Additional features, such as large fonts, high-contrast colors, and optional braille elements, ensure accessibility and inclusivity. Meanwhile, HiPop's interactive design combines hands-on activities with metaverse to maintain attention and engagement for children with ADHD. DIY pop-up components promote creativity and fine motor skills, while digital features, including augmented reality (AR) and app-based challenges, provide adaptive and goal-oriented learning experiences. HiPop's contributions extend beyond educational impact, as evidenced by its publication in a Scopus-indexed journal, copyright protection granted by MyIPO, and Letters of Intent (LoI) secured with schools and industry partners, marking its recognition within academic, educational, and industrial sectors. The tool holds significant commercialization potential through multiple pathways. In the educational sector, HiPop can be adopted into inclusive classrooms and special education programs, offering a practical resource for teachers and therapists. Its digital extensions, such as mobile apps and AR features, align with growing trends in the EdTech industry, meeting the increasing demand for interactive, gamified learning tools. Additionally, DIY pop-up kits can be marketed for home learning, creative workshops, and after-school programs, expanding their reach to a broader audience.

Keywords: hybrid popup cards, inclusive learning tools, ADHD and low vision education, gamification in special education, EdTech for children with disabilities

(iDIEC_2025_045)

DISASTER PREPAREDNESS: EARLY WARNING SYSTEM (EWS) FOR LEARNERS WITH SPECIAL EDUCATIONAL NEEDS

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ABSTRACT

The Philippines has ranked number one for three consecutive years as the country most at risk of disasters from extreme natural events and negative climate change impacts, according to the 2024 World Risk Index. Disasters disproportionately impact persons with disabilities, making them more vulnerable to harm, loss, and disruption. Therefore, ensuring disability-inclusive disaster preparedness and risk reduction (DRR) efforts is essential to minimize these effects and strengthen the resilience of this group. Disability-inclusive DRR refers to the process of removing barriers and enabling the active and meaningful participation of persons with disabilities, ensuring their inclusion in disaster mitigation, preparedness, response, and recovery initiatives. A needs assessment conducted with teachers and learners revealed several gaps: lack of training on disaster preparedness, limited knowledge about early warning systems, minimal parental involvement, low community and stakeholder awareness of the situation of learners with special educational needs (LSENs), and no participation in community-level disaster preparedness. In response, the proponents proposed an innovation project titled Disaster Preparedness: Early Warning System (EWS) for Learners with Special Educational Needs. Following its careful implementation, the project achieved several outcomes: provision of early warning devices such as sirens, megaphones, infographics, go-bags, emergency kits, and first-aid kits; improved internet connectivity for faster and more efficient communication; training sessions for parents, guardians, and caregivers on managing children during emergencies; and the execution of an advocacy campaign.

Keywords: early warning system, inclusivity, disaster risk reduction, management

(iDIEC_2025_048)

THE PEKOMIK MODULE

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ABSTRACT

The reading fluency of pupils with learning disorders (LD) varies widely, reflecting their diverse learning needs and abilities. Despite various instructional strategies, pupils with moderate learning disorders continue to struggle with reading fluency. Key contributing factors include unengaging reading materials, age-inappropriate content, complex language structures, text difficulty, and rigid presentation formats. To address these challenges, a structured intervention module, PEKOMIK was developed using the *Design and Development Research* (DDR) approach. The PEKOMIK module aims to enhance reading accuracy, speed, prosody, and comprehension through engaging and structured reading materials. Its instructional design follows the ADDIE model, while curriculum content is structured using the Taba Model. The module integrates LaBerge and Samuels' *Automaticity Theory* to develop reading fluency and Thorndike's *Operant Conditioning Theory* to establish a supportive learning environment. Additionally, McCloud's *Comic Creation Principles* were applied to design visually appealing reading materials that promote accessibility and engagement. The module's assessment framework is based on the *Neale Analysis of Reading Ability* for reading accuracy and speed, while prosody evaluation follows the Zutell & Rasinski rubric. This study significantly contributes to special education by integrating multiple theoretical and instructional frameworks into a structured reading intervention module for pupils with LD. PEKOMIK serves as a valuable reference for special education teachers, equipping them with effective materials to assess and improve reading fluency. Additionally, it offers broader educational applications, benefiting educators, parents, and researchers supporting both LD and mainstream pupils. From a commercialization perspective, PEKOMIK has strong potential for implementation in special education programs, teacher training, and literacy initiatives. Its innovative use of comic-based learning materials addresses a critical gap in reading interventions, particularly in Malaysia, where such approaches remain underexplored. By providing an engaging, research-backed solution, the module represents an advancement in special education, fostering improved reading fluency and comprehension among pupils with LD.

Keywords: learning disorders, reading fluency, accuracy, speed, prosody

(iDIEC_2025_049)

DEVELOPING COMMUNICATION SKILLS FOR CHILDREN WITH MILD INTELLECTUAL DISABILITIES AGED 5-6 IN PRESCHOOL THROUGH STEAM EDUCATION

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ABSTRACT

The number of children with intellectual disabilities in preschool is increasing. These children face many limitations in learning, communication, and peer interaction. Therefore, promoting equity and access to education for all children to learn science is crucial in preschool education today. Considering the benefits of STEAM education for children's development, integrating STEAM into preschool educational activities is an effective way to support communication for children with intellectual disabilities in inclusive classrooms. The purpose of this article is to investigate the current situation of communication support for children with mild intellectual disabilities, aged 5-6, through STEAM education in preschools. The primary method used is quantitative research, including observations and a questionnaire survey of 80 (n=80) preschool teachers from four provinces: Thanh Hoa, Lao Cai, Phu Tho, and Yen Bai. These teachers are working in inclusive classrooms with children aged 5-6 with mild intellectual disabilities. The research findings show that preschool teachers have used STEAM activities to support communication for children with intellectual disabilities through STEAM education. In addition, when participating in STEAM activities, children with intellectual disabilities have expressed their communication needs, using both verbal and non-verbal methods to interact with their peers, though they require support from teachers. The research also identifies several factors that affect the support for communication of children with intellectual disabilities, such as teachers' ability to organize STEAM activities and the design of STEAM activities in integrated classrooms. These research findings are the foundation for proposing measures to better support communication for children with intellectual disabilities in inclusive classrooms.

Keywords: communication skill, intellectual disability, STEAM, preschool teacher; children

(iDIEC_2025_051)

MEMS BOX 2.0

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ABSTRACT

MeMs. Box 2.0 is an innovative, interactive learning tool designed to enhance educational experience for autistic students, particularly those with mild autism. This multifunctional storage system integrates visual and kinesthetic learning theories to foster a fun, engaging environment where students can learn through play. Building upon the success of MeMs Box 1.0, which was tested in a pilot study, the innovation aims to expand on its features and impact. The tool offers a mobile, multi-themed flipchart, including Basic Safety, Daily Tasks and House chores, Self-care and Grooming, coupled with hands-on games and activities to capture the attention and support the development of autistic students as well as to instill independence and to practice basic daily chores and routines. The design includes interactive elements and colorful teaching aids, enhancing engagement and improving learning outcomes. With over 75 million individuals globally diagnosed with autism spectrum disorders, this initiative directly addresses the gap in quality educational resources for autistic children, ensuring a more inclusive and effective learning environment. Early feedback from teachers and students has been overwhelmingly positive, indicating that MeMs.Box 2.0 could successfully encourage participation and achievement through fun and interactive content especially in inclusive education.

Keywords: autism, visual and kinesthetic learning, inclusive learning, interactive learning, inclusive education

(iDIEC_2025_052)

WAFA'S INTEGRATED DEVELOPMENTAL MATRIX (WIDEM)

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ABSTRACT

Early childhood development is crucial in shaping one's life. It impacts individual's emotion, learning, and socialization in which later on affects individual's quality of life (Hatipoğlu Özcan et al., 2024). For children with risk of developmental delay, children with developmental delay, and children with special needs, early intervention plays important role. Good quality of early intervention provides better prognosis for the children and hence leads to better quality of life (Nelson et al., 2024). Children *Innovation for Disability-Inclusive Education Competition (iDIEC) 2025* who are at risk of developmental delay, children with developmental delay, and children registered as special need increasing every year (Girshovitz et al., 2023). In year 2021, Malaysia documented an increase of 4.9% of children registered as special need (Pejabat Ketua Perangkawan Malaysia, 2022). However, the human power in habilitation and rehabilitation has been proven to be insufficient in number (To Dutka et al., 2023). This has caused the intervention to be less detail, less focus, and less effective (Thampy et al., 2019). WIDeM© was developed by integrating four foundational theories - Parten's Social Stages of Play, Piaget's Cognitive Stages of Play, Trott's Pyramid of Learning Model, and Warren's Hierarchy of Visual Perceptual Skills, while aligning them with the typical developmental milestones of children aged 6 years old and below. The framework was designed and refined through forward and backward chaining methods to address its intended purpose effectively. WIDeM© was designed to address the need for an intervention and education in any child developmental context as it covers all crucial domain in child development which are gross motor, fine motor, communication, and cognitive. Its implementation promises significant improvements not only to interventions conducted by professional therapist but also in education and teaching by special need education by special need educators especially in early intervention program.

Keywords: early intervention, occupational therapy, child development, clinical reasoning, intervention plan

(iDIEC_2025_054)

INCLUSIVE DEAFEDUKIT

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ABSTRACT

Inclusive DeafEduKit is an educational tool designed to support students with hearing impairments and their family by integrating multimodal learning resources. It consists of booklets, posters and e-books to help teachers raise awareness among students and educators about the needs of hearing-impaired students who wear hearing aids in secondary schools. The kit includes Visual Learning Materials, Interactive Games, Daily Life Simulation Modules and a Teacher's Guide. These components enhance comprehension, engagement, and real-world application of knowledge. Interactive Games and Daily Life Simulation Modules encourage active participation and communication skill development. Study findings highlight positive reception, with suggestions for improvements. Participants recommended extending the program beyond a single day, increasing interactive activities and adding more visual materials related to hearing. They also suggested tailoring activities for different age groups, ensuring content is developmentally appropriate. Some emphasized the need for clearer explanations on ear anatomy and types of hearing loss. Expanding the program's reach to more schools and communities was also encouraged. Inclusive DeafEduKit fosters an inclusive learning environment by addressing communication challenges faced by students with hearing impairments. Through a structured and interactive approach, the kit enhances accessibility, awareness, and engagement in special education.

Keywords: inclusive, deafness, awareness, ear anatomy

(iDIEC_2025_013)

ECHOAID

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ABSTRACT

ECHOAID is a device designed to assist individuals with hearing impairments, commonly known as the deaf, while driving. This is because when they drive, they cannot clearly hear the sounds around them, especially emergency sounds like sirens, horns, and others. This device helps by providing visual signals to the driver. When a sound is detected, the LED and LCD will light up, and the servo will move to give a signal. This device also aligns with several Sustainable Development Goals. First and foremost, GOOD HEALTH AND WELL-BEING (SDG 3). This device can reduce the risk of accidents and ensure that deaf individuals are more aware of their surroundings. Furthermore, INDUSTRY, INNOVATION AND INFRASTRUCTURE (SDG 9). This device supports the development of safer, more inclusive infrastructure responsive to diverse user needs. Next, REDUCED INEQUALITIES (SDG 10). This device provides solutions tailored for the deaf community, bridging the gap in access to crucial auditory information. Finally, SUSTAINABLE CITIES AND COMMUNITIES (SDG 11). This device creates more accessible and safer cities for everyone, including individuals with disabilities, by improving road and public safety. ECHOAID offers numerous benefits, it helps reduce road accidents, makes it easier for users, assists the deaf and those with low awareness, accelerates the use of sirens (such as for ambulances), suitable for all users, and affordable. ECHOAID also has significant market potential, particularly among individuals with hearing problems. The high demand for such devices, combined with their affordability, makes ECHOAID a promising solution. Moreover, this device can significantly improve road safety for everyone. In summary, ECHOAID is not only a valuable tool for enhancing the safety of hearing-impaired drivers but also contributes to broader societal goals by promoting health, reducing inequalities, and supporting sustainable and inclusive urban development.

Keywords: hearing impairments, deaf, driving, visual, emergency

(iDIEC_2025_026)

LEARNING THROUGH BEE-BOT: EMPOWERING YOUNG LEARNERS AND SUPPORTING INCLUSIVE EDUCATION

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ABSTRACT

Learning through Bee-bot is a tool for introducing young children to STEM concepts, problem- solving, conceptual understanding and critical thinking. Designed for early learners, Bee-Bot offers a hands-on approach to coding through interactive activities such as themed mats, adventure worlds, and coding games, catering to different learning styles. This versatile device enhances digital learning while promoting inclusivity, particularly in special education, by supporting diverse learning needs. A unique aspect of Bee-Bot's adaptability is the ability to create custom mats tailored to specific learning objectives. Educators can design personalized mats featuring letters, numbers, maps, or storytelling paths to align with curriculum goals. These mats enable students to engage with familiar content creatively and interactively, making learning more relatable and enjoyable. Custom mats can incorporate cultural themes, subject-specific challenges, or sensory elements to enrich the learning experience. In special education settings, Bee-Bot's tactile buttons and visual feedback foster a sensory- friendly environment that encourages exploration, communication, and critical thinking. Through unplugged coding activities, movement-based exercises, and interactive worksheets, children with learning differences can develop fundamental math and literacy skills while enhancing spatial awareness and algorithmic thinking. Bee-Bot's structured, hands-on activities support decomposition, modelling, and directional language development. By integrating custom mats, educators can further personalize lessons to meet the unique needs of each learner, reinforcing STEM concepts through engaging, real-world applications. This flexibility makes Bee-Bot an invaluable resource for fostering critical thinking and ensuring an inclusive, interactive, and effective learning experience.

Keywords: STEM, inclusive, interactive, technology, early years

(iDIEC_2025_036)

LEXAR: RASPBERRY PI-BASED MULTIFUNCTIONAL LEARNING DEVICE UTILIZING CONVOLUTIONAL NEURAL NETWORK AND CHATGPT FOR IMPROVED LEARNING DEVELOPMENT SKILLS

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ABSTRACT

Alarming declines in literacy rates across various disciplines, including English, Mathematics, and Science, pose a significant challenge to educational progress and individual potential in the Philippines as shown in the result of Programme for International Student Assessment (PISA). To bridge the divide, LEXAR, a Raspberry Pi-based multifunctional learning device, was developed to enhance student learning through Optical Character Recognition (OCR), Machine Learning, and Gamification. This boast features such as Test and Learn mode providing quizzes and interactive learning experiences to different learning styles of students. Through the integration of ESP32 Camera Module and Recurrent Neural Network for the text recognition while ChatGPT aids in solving Mathematics and Science problem solving. The study employed a pre-test and post-test experimental design with 20 Junior High School students from Camarines Sur National High School where data were statistically analyzed using paired sample t-tests revealing significant improvement in spelling, reading comprehension, arithmetic, anatomy, and ecology. The t-statistics for English (-4.76), Mathematics (-3.93), and Science (-6.72) confirmed Lexar's positive impact (p-values < 0.05). Machine learning evaluations yielded an average accuracy of 96.69%, with an F1 score of 96.90%, demonstrating high precision and reliability in text and object recognition. User evaluations following ISO/IEC 25010 standards rated Lexar highly for reliability, interactive capability, functional suitability, and performance efficiency. In terms of commercialization, the device is currently undergoing a series of testing and looking for available grants which costs around $250 as compared to existing technologies. For the future improvement of the research, proponents suggested expanding the subject coverage, OCR performance, and offline accessibility for improved user experience.

Keywords: OCR, multifunctional device, machine learning, convolutional neural network, ChatGPT

(iDIEC_2025_039)

EXPANDING OPPORTUNITIES FOR DISABLED YOUTHS IN INDONESIA THROUGH COMMUNITY-BASED VOCATIONAL TRAINING

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ABSTRACT

This paper explores sociopreneurial approaches as an innovative community-based vocational education and training model for disabled youths in Indonesia. The study aims to highlight how we can lower barriers to education for disabled youths while creating opportunities for them to develop essential life skills. This insider research employed a qualitative method to study the initiative of Kedaibilitas, an inclusive community-based training institution, and its impact on disabled youths and community stakeholders. Testimonies from participants and volunteers, interviews with key stakeholders, field observations, and document analysis provided deeper insights for the study. Thematic analysis was conducted to identify the key components of the initiative and its contributions to inclusive vocational education. Kedaibilitas functions as a "living laboratory" for life skills and entrepreneurship, offering disabled youths hands-on vocational training in fields such as baking, culinary arts, craft production, and digital marketing. The training program incorporates mentorship support, peer collaboration, internship, and real-market exposure. Adaptive learning approaches, primarily tailored to youths with mental and intellectual disabilities, have been instrumental in enhancing the program's effectiveness. Key outcomes of the vocational training program include increased self-reliance and improved acceptance in the job market for participants. Additionally, it fosters greater community awareness of disability rights and showcasing the potential of persons with disabilities as valuable contributors to the workforce. The study recommends scaling similar initiatives across Indonesia, with policy backing to integrate community-based initiatives into national TVET programs.

Keywords: sociopreneurship, inclusive education, technical vocational education and training, disabled youths, sustainable development goals

(iDIEC_2025_043)

HOSPITALITY INCLUSIVE PROGRAMME@THE WESTIN LANGKAWI RESORT & SPA (HIP@TWL)

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ABSTRACT

This initiative explores a ground-breaking approach to fostering inclusivity and skill development among students with disabilities through Industrial Inclusive Experiential Learning. The initiative represents a synergistic collaboration between The Westin Langkawi Resort & Spa (TWL), Langkawi Tourism Academy @ *Kolej Komuniti Langkawi* (LTA) and *Pejabat Pendidikan Daerah* (PPD) Langkawi. By integrating specialized training, real-world exposure and holistic mentorship, this program bridges the gap between education and employability for students with disabilities in the hospitality and tourism industry. At the core of this initiative is the creation of an inclusive industrial training model. The program combines tailored curriculum development by LTA, workplace integration facilitated by The Westin Langkawi Resort & Spa, and participant selection and monitoring overseen by PPD Langkawi. Key features include adaptive learning modules, accessibility enhancements, and inclusive workplace practices, ensuring a supportive environment for diverse learners. This initiative has led to transformative outcomes, including enhanced employability, self-confidence, and independence among participants. The collaboration demonstrates how inclusive education and industry partnerships can address systemic barriers, empowering students with disabilities to contribute meaningfully to the workforce. The initiative sets a benchmark for inclusive industrial training by emphasizing sustainability and scalability. Recommendations include expanding the model to other sectors and advocating for policy changes to institutionalize inclusive practices.

Keywords: inclusive education, experiential learning, students with disabilities, industrial training, public-private partnership, accessible education

(iDIEC_2025_032)

BRIDGES: BUILDING READINESS, INTEGRATED DEVELOPMENTAL FUNCTIONAL EVALUATION FOR SPECIAL NEEDS STUDENTS

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ABSTRACT

The landscape of special education has long struggled with comprehensive assessment methodologies that effectively identify and support students with diverse developmental needs. Traditional screening tools often provide fragmented insights, limiting the ability to create targeted intervention strategies. Existing approaches typically fail to capture the complex, interconnected nature of developmental capabilities, resulting in delayed or inappropriate support for students with special needs. Current developmental screening methods lack a holistic, adaptive approach to assessing students' functional capacities across multiple developmental domains. This gap leads to ineffective intervention planning, missed early support opportunities, and inadequate understanding of students' true developmental potential. The primary objectives of the BRIDGES screening assessment are to (1) develop a comprehensive, multidimensional assessment tool (2) enable precise early identification of developmental support needs; (3) provide a flexible framework for individualised intervention planning; and (4) create a standardised yet adaptable screening methodology for the nation. BRIDGES offers a transformative solution for special education by (1) empowering educators with comprehensive developmental insights; (2) enabling early and precise intervention strategies; (3) supporting more effective educational support for students with special needs; and (4) promoting inclusive education through detailed functional capacity assessment. The innovation presents significant market opportunities in special education programmes, intervention centers, educational support services and professional development programmes for special education professionals. BRIDGES provides a cost-efficient solution by reducing long-term intervention costs through early, precise screening, offering a standardised yet adaptable assessment tool, minimising resource-intensive individual assessments, and enabling more targeted and efficient support strategies. The innovation has already gained traction in Malaysia, with several intervention centers adopting the BRIDGES screening assessment to allocate students with special needs according to their functional capacity. This initial implementation demonstrates the tool's practical value and potential for wider educational impact.

Keywords: developmental screening, special needs education, functional assessment, early intervention

(iDIEC_2025_057)

SCISSORS WITH 4 HANDLES (S4H)

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ABSTRACT

This study examines the effectiveness of the instructional material "Scissors with 4 Handles" (S4H) in enhancing the cutting skills of students with special educational needs (SEN). Cutting is a fundamental fine motor skill that supports the self-development of special needs students; however, many face difficulties in mastering this skill. The S4H teaching aid was specifically designed to facilitate the acquisition of basic cutting techniques through a structured learning approach. This study employed an Action Research design, involving a single SEN participant from an Integrated Special Education Program (ISEP) at a school in Tawau, Malaysia. Data collection methods included observations, interviews, and practical skill assessments conducted before and after the intervention. The findings indicate a significant improvement in the student's cutting abilities, particularly in terms of accuracy, hand stability, and cutting speed. Furthermore, the use of S4H enhanced the student's confidence in performing scissor-related activities. These results suggest that innovative instructional tools such as S4H can positively impact the learning experiences of special needs students. The study recommends the integration of specially designed teaching aids in daily instruction to strengthen fine motor skills and support the achievement of learning objectives in special education settings.

Keywords: scissors with four handles (S4H), special education, fine motor skills, cutting skills

(iDIEC_2025_065)

KINESTHETIC TRAVEL QUEST (KTQ)

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ABSTRACT

Kinesthetic Travel Quest (KTQ) is an innovative virtual reality (VR) game-based learning tool developed on CoSpaces Edu to enhance spelling proficiency and vocabulary retention among learners with Attention Deficit Hyperactivity Disorder (ADHD). ADHD impacts attention, impulse control, and executive functioning, making it difficult for learners to focus and engage in traditional classroom settings. KTQ addresses these challenges by integrating ADHD-friendly instructional strategies, including highlighted keywords, simplified questions, structured scaffolding, and reduced cognitive overload to create a low-stress, engaging learning environment. KTQ aligns with the Year 3 English language learning standard of accurately spelling high-frequency words in guided writing, a fundamental skill that supports reading fluency, vocabulary development, and written communication. The game offers an interactive, gamified VR experience where students explore three learning stations featuring drag-and-drop exercises, categorization tasks, and multiple-choice spelling activities. Visual storytelling, interactive challenges, and kinesthetic engagement reinforce learning, making spelling acquisition more accessible and effective. A real-time formative assessment system provides instant feedback and adaptive support, allowing learners to track progress, correct mistakes, and gain confidence. Additionally, a reward-based system—including virtual badges, points, and in-game character customisation—fosters motivation and sustained engagement. Designed for inclusive education (IE) classrooms, KTQ promotes active learning, sustained attention, and literacy development. Beyond ADHD learners, this scalable innovation is beneficial for all Year 3 pupils, supporting its integration into schools, language centers, and homeschooling environments. With a subscription-based model, KTQ offers a sustainable and technology-driven approach to modern literacy education.

Keywords: attention deficit hyperactivity disorder (ADHD), kinesthetic, virtual reality (VR), inclusive education (IE), spelling

(iDIEC_2025_067)

BATIKRIA MODULE

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ABSTRACT

Emotions are human nature from adults to children. Regardless of whether they are normal individuals or disabled, they need to navigate their daily lives with emotions. Emotions constantly change according to the situation. Sometimes happy, sad, angry, afraid and so on. Emotion regulation skills is requirement for cognitive and socialization development. However, some Special Education Needs Students (SEN) have difficulties understanding and managing their emotions. Therefore, the BatikRia Module innovation was developed to help students in primary schools, especially SEN Students, manage their negative emotions such as angry emotions, sad emotions and fearful emotions to foster a sense of calm before attend the learning and socialization processes. The BatikRia Module innovation was created from a combination of the Mayer and Salovey Four-Branch Model (1997) by practicing elements of batik art and psychology. The BatikRia Module was tested on 15 SEN Students with Learning Disabilities in Primary Schools for 7 sessions over a period of 2 months. In addition, 5 primary school students also volunteered to be involved in this initial study as a study participant. The finding disclosed that there was an improvement in students' skills to control their emotions before the learning and socialization processes. In general, BatikRia Module can be practiced by SEN and primary school students to learn the methods of managing emotions.

Keywords: batikria, module, emotion regulation method, special education need student, primary school

(iDIEC_2025_001)

DIGITAL FLASHCARD APPLICATION FOR MALAY-SPEAKING AUTISTIC CHILDREN: *TEROKAI DUNIA KECIL*

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ABSTRACT

Early intervention plays a vital role in improving outcomes for autistic children, yet current educational resources for Malay-speaking autistic children are often limited in interactivity and cultural relevance. Traditional flashcards, commonly employed in early intervention, fail to engage this population effectively, as they do not cater to the unique sensory and communication needs of autistic children. Addressing this gap, this study introduces "***Terokai Dunia Kecil***", an innovative and interactive mobile flashcard application tailored specifically for Malay-speaking autistic children. Designed with a culturally sensitive approach, the application provides a dynamic and inclusive learning environment aimed at fostering curiosity and supporting cognitive development. The development of *Terokai Dunia Kecil* followed the ADDIE model, a comprehensive instructional design framework encompassing five phases: analysis, design, development, implementation, and evaluation. This structured approach ensured that the application is both high-quality and user-friendly. *Terokai Dunia Kecil* includes 12 meticulously curated educational flashcard modules that emphasize age-appropriate content, visually engaging graphics, interactive elements, and auditory features. These components are specifically designed to support sensory and communication needs, enhancing learning engagement for autistic children. Evaluation results indicate that *Terokai Dunia Kecil* is a fully functional and effective learning tool, meeting the demands of both cultural appropriateness and usability. The application significantly outperforms traditional flashcards by offering engaging visual and auditory stimuli that align with the specific learning needs of Malay-speaking autistic children. Through its tailored approach, *Terokai Dunia Kecil* contributes to bridging the educational resource gap in early intervention, providing a meaningful and supportive educational experience for autistic children and their caregivers. This study highlights the potential of culturally responsive, interactive digital tools in transforming early intervention practices and enhancing the learning experiences of autistic children in diverse linguistic and cultural settings.

Keywords: *terokai dunia kecil*, autistic children, flashcard application, cultural, malay-speaking

(iDIEC_2025_017)

THE MALAY HEARING AID MANAGEMENT VIDEO

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ABSTRACT

Parents play a crucial role in supporting children with hearing impairments, yet many face challenges managing hearing aids due to limited knowledge, confidence, and resources. To address these challenges, this study introduces an innovative video module designed to empower Malaysian parents with practical skills and the confidence to manage their child's hearing aids effectively. The video features real-life demonstrations, offering step-by-step guidance on hearing aid usage, maintenance, and troubleshooting. Expert insights and culturally tailored content ensure that the module is accessible and relevant to the target audience. The video was rigorously validated through expert review and user feedback and evaluated in a study involving 35 parents aged 24 to 45 years (M = 37, SD = 4.84). Participants completed pre- and post-intervention questionnaires one month after viewing the video, measuring knowledge, confidence, perceptions, and hearing aid monitoring frequency. Results showed significant improvements in knowledge (pre-intervention M = 4.32; post-intervention M = 4.5; p = 0.025) and confidence (pre-intervention M = 4.11; post- intervention M = 4.31; p = 0.021). Although perceptions and monitoring frequency did not significantly change, parents reported feeling better equipped to support their children's hearing needs. This project demonstrates the potential of culturally tailored digital tools to bridge knowledge gaps and strengthen family-centered hearing care. By fostering parental confidence and equipping them with practical skills, the Malay Hearing Aid Management Video contributes to disability-inclusive education and better outcomes for children with hearing impairments. The findings highlight the importance of accessible and engaging resources in empowering parents to create a supportive environment for their children's growth and development.

Keywords: hearing aid management, parental empowerment, culturally tailored intervention, children with hearing impairments, disability-inclusive education

(iDIEC_2025_046)

MOBILE-BASED IMMERSIVE AUGMENTED REALITY LEARNING SYSTEM FOR SPECIAL EDUCATION USING UNITY WITH SHORT FORM ASSESSMENT

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ABSTRACT

In the Philippines, it has been recorded that almost 1.6 million children have disabilities where only 126, 598 students were enrolled in the Special Education (SPED) programs as of 2023, highlighting the significant gap with Sustainable Development Goal 4 (Quality Education). This issue is worsened by the high student-to-teacher ratio of 31:1 which is double the ideal ratio of 15:1 with the limited number of SPED centers nationwide. To address this issue, we propose an immersive mobile-based virtual learning environment, a Unity-powered mobile application designed to enhance accessibility and inclusivity for SPED learners. This application will allow learners to scan pages from an interactive book with target markers to trigger 3D models of daily objects, animals, and places to appear on their mobile screens. Learners can then engage with these models through touch and auditory feedback. This app also functions with both offline or online mode ensuring the uninterrupted learning regardless of internet connectivity. In addition, the students can answer a short form assessment at every end of chapter to gauge their knowledge as they move along the printed material. Our methodology follows a user-centered design approach which involves the feedback of SPED educators and students where initial testing involved 20 SPED learners measuring knowledge retention, engagement, and interaction levels. With 168.3 million users of mobile phones in the Philippines as of 2023, this solution is marketable and scalable. The book and mobile application will be distributed through SPED institutions and Non-Government Organizations making immersive learning accessible. Subsequently, since we are developing a device, we can have various mediums in order to gain profit whether through workshops and playstore. Moreover, by combining printed materials with digital interactivity, we aim to foster inclusive education and improve learning outcomes for SPED learners.

Keywords: unity, virtual reality, target markers, 3D, SPED

(iDIEC_2025_058)

STORYTELLING MEETS DIGITAL INNOVATION: ENHANCING NARRATIVE SKILLS IN SPECIAL NEEDS LEARNERS USING APPLE NATIVE APPS IN IPAD

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ABSTRACT

Storytelling is a powerful tool for cognitive and language development, yet many special needs learners struggle with traditional storytelling due to challenges in literacy, speech, and idea organization. Conventional teaching methods often lack flexibility and accessibility, limiting students' ability to express creativity and develop essential communication skills. This innovation leverages Apple native apps on iPad, including Pages, Keynote, and Clips, to create an interactive and inclusive storytelling platform for special education. These apps provide built-in accessibility features such as speech-to-text, voiceover, guided access, and multimodal content creation, ensuring that learners of all abilities can participate. The objectives of this initiative are to enhance narrative construction using Pages' guided templates, improve visual storytelling through Keynote's animations, and foster self-expression via multimedia creation in Clips. This multisensory approach integrates text, voice, images, and video, allowing students to develop and share cultural and personal narratives effectively. By incorporating cultural stories, students strengthen their sense of identity, heritage, and belonging while improving literacy and communication skills. This innovation applies Universal Design for Learning (UDL) principles, ensuring an inclusive and adaptable experience. Educators benefit from ready-made, customizable lesson plans, reducing preparation time and supporting differentiated instruction. The commercialization potential of this project is significant, as it can be expanded into a structured digital storytelling curriculum with interactive lesson kits, cloud-based student portfolios, and AI-assisted feedback tools. It can be marketed to schools, special education centers, publishers, and edtech companies through subscription-based or one-time purchase models. By bridging technology and special education, this approach enhances storytelling skills while empowering students with digital literacy and 21st-century competencies, preparing them for self-expression and future learning in an increasingly digital world.

Keywords: storytelling, special needs learners, iPad in learning, narrative skills

(iDIEC_2025_062)

SOCIO-PHYSICAL ACTIVE GAME (SPAG)

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ABSTRACT

Conventional teaching and learning environment have always been challenging for children with Autism Spectrum Disorder (ASD) in both communication and physical activity which often led to feelings of isolation and decrease in their overall mental and well-being. Thus, the Socio-Physical Active Game (SPAG) leverages through Minecraft can offer a unique and engaging way to practice social interactions and physical activity to support children with ASD. By combining the engaging elements of SPAG can create a low-stress learning environment for practising appropriate social interactions with virtual agents. The SPAG incorporates real-world physical activities, such as squats and stretching, through immersive storyboards, seamlessly blending digital gameplay with physical exercises to perform motor tasks. It helps to link sensory information from the body with information from the environment, plus the innate motivation in order to plan and execute motor movements among ASDs. Key features for SPAG include personalised gameplay, non-verbal communication tools like emojis and visual cues, adaptive feedback, and synchronised physical activities. These elements foster teamwork, emotional regulation, problem-solving, and physical coordination, building confidence in real-world scenarios. Early trials in schools showed that Minecraft's engaging nature boosts participation, skill retention, and physical activity, making it a promising game-based intervention for holistic development. By addressing the unique needs of ASD learners, SPAG promotes mental and physical well-being in an inclusive and enjoyable way.

Keywords: autism spectrum disorder (ASD), game-based intervention, social communication, physical coordination, minecraft.

(iDIEC_2025_068)

EFFECTIVENESS OF MULTIMEDIA GAME MODULE IN ENHANCING SYLLABLE READING SKILLS AMONG LOW-FUNCTIONING STUDENTS

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ABSTRACT

Mastering reading skills is one of the essential competencies in the Malaysian primary school curriculum. However, low-functioning students in special education classes continue to struggle with syllable reading, particularly for open syllables such as VKV, KVKV, and KVKVKV. Traditional teaching methods often fail to capture their attention or match their cognitive abilities, contributing to low reading proficiency. This study addresses the need for an innovative approach by developing and evaluating a Multimedia Game Module (MGM) specifically designed to enhance syllable reading mastery among low-functioning students. The background analysis revealed that existing instructional strategies lack interactive elements, gamification, and customisation for special needs learners, limiting their reading progress. Therefore, this study aims to analyse the needs of special education teachers in teaching syllable reading, design and develop a Multimedia Game Module based on Multimedia Learning Theory, Constructivism Theory, and Game-Based Learning Approach, and evaluate its effectiveness in improving the mastery of VKV, KVKV, and KVKVKV syllables among low-functioning students. The developed module incorporates visual animations, audio prompts, interactive challenges, and real-time feedback to engage students actively. Pre-test and post-test data are collected to compare the reading mastery between the treatment group (using the module) and the control group (conventional teaching). The findings are expected to show significant improvement in syllable reading among the treatment group, demonstrating that gamified multimedia content effectively supports cognitive processing and memory retention among low-functioning students. This study contributes to filling the gap in practical teaching tools for special education teachers, particularly in literacy intervention. Furthermore, the commercialisation potential of the module is promising, as it can be further enhanced into a comprehensive digital learning package tailored for the Special Education Integrated Program (SEIP) in Malaysian schools. The module's flexibility to integrate with various syllabus contents and its customisable interface for different student abilities increases its market value for broader educational technology platforms. Ultimately, this study not only benefits students and teachers, but also provides policymakers with data-driven evidence to support the adoption of gamified learning modules in national-level special education curriculums. The innovation directly aligns with Malaysia's Digital Education Transformation Plan, contributing towards inclusive, engaging, and effective learning experiences for students with diverse learning needs.

Keywords: multimedia game module, syllable reading skills, low-functioning students, special education, game-based learning

(iDIEC_2025_002)

ELECTRONIC EMBOSSER BRAILLER FOR EDUCATION SOLUTION

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ABSTRACT

Access to high-quality Braille educational materials remains a significant challenge for visually impaired students. This project introduces an electronic embosser brailler designed to address this gap by providing a portable, efficient, and cost-effective solution for producing Braille text in educational settings. Unlike traditional braillers, this electronic embosser leverages advanced technology to simplify and speed up the Braille embossing process, allowing for easy conversion of digital text into Braille. It supports seamless connectivity with computers and mobile devices, enabling educators to create Braille materials on demand. This portable device is designed for classroom adaptability, offering a user-friendly interface that enhances accessibility, independence, and engagement for visually impaired learners. By integrating modern digital tools, this solution represents a step forward in promoting inclusive education and supporting the diverse needs of students.

Keywords: brailler, classroom, digital text, electronic embosser, visually impaired learners

(iDIEC_2025_003)

AUDIBRAILLE: A DUAL-DIRECTIONAL BRAILLE TRANSCRIPTION DEVICE WITH AUDIO OUTPUT FOR BLIND AND VISUALLY IMPAIRED INDIVIDUALS

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ABSTRACT

The AudiBraille device aims to address the educational and accessibility gaps faced by blind and visually impaired individuals by providing a dual-direction Braille transcription system with audio output. This innovative tool transcribes visual Braille to regular text and audio, and reversely converts text to Braille, thereby supporting users who are either proficient in Braille or reliant on audio formats. The development of AudiBraille is aligned with significant legislative mandates, such as Senate Bill 8 MOV 26 A10, which mandates Braille instruction for legally blind children, Civil Service Commission MC No. 31 s. 2017, requiring Braille-formatted test materials, Republic Act 3562, promoting education for the blind in the Philippines, and RA 11650, the Inclusive Education Act. These laws underscore the necessity of assistive technologies to overcome barriers in education and communication for visually impaired individuals. However, the lack of accessible assistive devices has hindered the implementation of inclusive education, creating challenges for students and educators alike. AudiBraille addresses this by equipping blind students with tools for independent learning while enabling teachers who are unfamiliar with Braille to effectively support their learners. The device incorporates advanced features, such as Braille-to-text and text-to-speech transcription, navigation keys for format switching, and a user-friendly design. AudiBraille's objectives include enhancing Braille literacy, fostering inclusive learning environments, and empowering users through flexible accessibility options. Beyond its social impact, the device has significant commercialization potential as an affordable and portable tool for educational institutions, government programs, and individual users. AudiBraille represents a step toward inclusive education, bridging the gap between the Deafblind community and the broader society, while fostering equity and independence in learning.

Keywords: AudiBraille, inclusive education, braille transcription, assistive technology, accessibility

(iDIEC_2025_008)

POCKET-SIZED ELECTRONIC BRAILLE eREADER FOR THE VISUALLY IMPAIRED

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ABSTRACT

Braille literacy through the sense of touch is essential, especially for the educational needs of the visually impaired. The literacy level of the visually impaired community around the world is significantly low. Based on WHO. blindness and vision impairment (2021), 89 percent of 253 million visually impaired people in the world are from low- and middle-income countries. In light of fulfilling social obligations, UTM has taken the initiative to develop the world's first electronic Braille (eBraille) devices by addressing the issue of Braille printed books (thick and heavy) and facilitating an effective Braille learning system. The main barrier to customer acceptance is the price. It is necessary to lower the price of the product without compromising its features. In pursuit of this objective, a low-cost pocket-sized electronic Braille eReader prototype for the blind will be developed in this research. The research will focus on (i) the development of a small handy case design that uses the limited number of Braille cells (ii) configuring the Braille display to accommodate word display constraints (iii) the development of a new electronic board based on widely available compact open-source electronics in order to keep device costs low while assuring parts are readily available for mass adoption. The new device is designed to be cost-effective, portable, and compact. By addressing these aspects, this pocket-sized Braille eReader will be produced at a cost comparable to the price of a smartphone and this lower price may enhance technological penetration in the blind community worldwide. Since Braille text is universal and employs the same set of dots to represent all languages in the world. The development of this new eBraille device is in line with the government's strategy towards better quality education of learning modules through braille for the visually impaired by producing a more affordable braille device.

Keywords: visually impaired, refreshable braille display, electronic braille device, braille literacy

(iDIEC_2025_022)

SWIFTSPEAK: AUGMENTATIVE AND ALTERNATIVE COMMUNICATION (AAC) FOR SEVERELY AUTISTIC PERSON

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ABSTRACT

Autism Spectrum Disorder (ASD) is a complex neurodevelopmental condition characterized by challenges in social communication and behaviour. Individuals with severe autism often experience significant difficulties in expressing basic needs, leading to frustration and impacting their quality of life. This paper presents the development of SWIFTSPEAK, a user-friendly communication tool designed to assist non-verbal individuals with severe autism in conveying essential needs such as eating, sleeping, and toileting. Utilizing the ADDIE (Analysis, Design, Development, Implementation, and Evaluation) instructional design framework, SWIFTSPEAK was meticulously developed to address the specific communication challenges faced by this population. The tool features a colour-coded button interface that triggers notifications to caregivers' smartphones, enabling timely responses to the user's needs. The development process incorporated advanced technologies, including Arduino microcontrollers, Internet of Things (IoT) integration, and 3D design patterns, to ensure a robust and intuitive user experience. A pilot study demonstrated the effectiveness of SWIFTSPEAK in enhancing communication and reducing frustration for non-verbal autistic individuals and their caregivers. This research highlights the importance of early intervention and accessible communication tools in improving the lives of individuals with severe autism. Future development plans include refining the device's durability, expanding its features, and exploring broader applications in educational settings. The successful implementation of SWIFTSPEAK underscores the potential for technology-driven solutions to significantly enhance the quality of life for individuals with severe autism.

Keywords: Autism Spectrum Disorder (ASD), assistive technology, communication tool

(iDIEC_2025_029)

eBRAILLE 2.0

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ABSTRACT

Malaysia's National Education Philosophy and National Education Policy emphasize the holistic development of students' potential, including students with special needs such as Visually Impaired, in line with the Sustainable Development Goals (SDG4) for quality and inclusive education. However, the development of digital technology in Malaysian education, especially after COVID-19, does not fully benefit this group due to digital platforms and reading resources that are not friendly to the visually impaired individuals as well as the limitations of digital Braille technology. Statistics show that 3,480 disabled students (6-18 years old) were affected, especially during the pandemic. Conventional learning with printed Braille textbooks raises issues such as high cost, long print period, and outdated content, causing a huge educational gap. Therefore, the UTM eBraille research group has successfully developed eBraille 2.0, an innovative solution using the latest digital Braille technology. eBraille 2.0 is specially designed to facilitate access to knowledge for visually impaired students in Malaysia via mobile. UTM's eBraille research group, established since 2009, is committed to developing digital innovation for the visually impaired individuals and has successfully established seven eBraille teaching centers throughout Malaysia. Although previous eBraille innovations were well received, the high cost of the device was a barrier. eBraille 2.0 now offers a lower price (37% less) and advanced features such as multi-format digital reading, two-way communication, and internet connectivity, with upgraded software. eBraille 2.0 has the potential to revolutionize Braille education in Malaysia by providing easier, cheaper, and comprehensive access to reading materials and knowledge, bridging educational gaps and ensuring equal educational opportunities for all students.

Keywords: eBraille 2.0, visually impaired, digital braille technology

(iDIEC_2025_035)

KEMBARA DYSLEXIA

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ABSTRACT

This study aims to develop an early screening test for dyslexia using a gamification approach and an interactive eBook in Bahasa Melayu. The primary objective of this innovation is to establish a predictive model based on machine learning, capable of detecting dyslexia symptoms by analyzing game results and heuristic data. Additionally, an interactive Bahasa Melayu eBook is proposed as a supportive tool to enhance reading and learning for students with dyslexia. The system is designed to facilitate self-learning in children who may exhibit dyslexia symptoms. It incorporates a series of games and machine learning algorithms, implemented on handheld smart devices, to enable both dyslexia screening and Malay language reading practice. The screening mechanism consists of 15 levels of assessment parameters and two levels of learning activities, with screening parameters tailored according to age and gender. The findings of this project demonstrate the system's capability to generate outputs that indicate whether a child may have dyslexia based on their responses to the game. Furthermore, the interactive eBook serves as an intervention tool, providing reading support for dyslexic students and promoting literacy development in Bahasa Melayu.

Keywords: dyslexia, gamification, interactive ebook, machine learning, screening test

(iDIEC_2025_042)

EMRO: A RASPBERRY PI-BASED EMOTIONAL SUPPORT ROBOT UTILIZING VOICE AND FACIAL EXPRESSION RECOGNITION SYSTEM

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ABSTRACT

Between 2018 and 2023, the Philippines saw a significant decline in the mental wellness of the majority due to the COVID-19 pandemic and inadequate mental health policies affecting approximately 3.6 million Filipinos requiring psychosocial interventions as reported by the Department of Health. Even after the pandemic, it has been an issue for the younger generation where they tend to be isolated due to emotional distress and inability to seek companionship. In response to this, Socially Assistive Robots (SARs) have gained attention to a promising solution leading to the development of EmRo, a personalized emotional support robot designed for Special Education Learners, individuals with anxiety, and even elderly patients that need companionship. Unlike the usual task-oriented robots, EmRo prioritizes emotional intelligence, two-way communication, and interactive engagement. It features a small teardrop-shaped body making it more visually appealing and compact. It utilizes a multimodal approach to check the user's emotion through facial and voice recognition system with response generation using ChatGPT API. A dynamic lighting system in the teardrop's head enhances expressiveness which changes color depending on emotion such as blue for sadness, yellow for happiness, and red for distress creating a deeper emotional connection. Developed using a Python-based system, EmRo achieved 91% accuracy in detecting emotions such as happy and sad using the FER-2013 dataset with 30,000 grayscale pictures. A t-test was conducted with 70 respondents to further validate its effectiveness in delivering clear and emphatic responses with p-value <0.05. EmRo's potential market extends to Special Education Centers, therapy clinics, and even at home with growing commercial viability in enhancing emotional well-being and inclusivity. Future improvements will focus more on expanding emotion recognition, locomotion, and refining personalized interaction positioning EmRo as an innovative tool for emotional support in the Philippines and beyond.

Keywords: face recognition, SAR, anxiety, mental health, ChatGPT

(iDIEC_2025_047)

DYSLEXILEARN

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ABSTRACT

Dyslexia is a learning disorder that affects a child's ability to read, write, and spell, making early literacy development challenging, especially for children aged 5 to 7. Traditional teaching methods often fail to accommodate dyslexic learners, leading to frustration and hindered academic progress. PowerPoint, when designed effectively using a structured approach like the ADDIE model, can serve as a powerful learning aid by enhancing readability, comprehension, and engagement. Dyslexic children face difficulties with conventional PowerPoint slides, which often contain dense text, poor contrast, and inadequate visual aids. Without appropriate modifications, these materials may further impair their learning experience. This study aims to design dyslexia-friendly PowerPoint slides using the ADDIE model, incorporating clear fonts, high-contrast colors, and structured content to improve readability. Additionally, features such as audio narration and minimal animations are integrated to create an inclusive and engaging learning environment that supports diverse learning styles. The proposed framework contributes to inclusive education by providing teachers with a systematic approach to designing accessible digital learning materials. By enhancing the learning experience for dyslexic children, this innovation promotes literacy development and boosts their confidence in the classroom. Furthermore, it raises awareness among educators on the importance of adapting teaching materials to support different learning needs. With strong commercialization potential, this framework can be developed into a digital learning toolkit or integrated into existing e-learning platforms. Schools, special education institutions, and content developers can adopt this approach to create accessible educational materials. Additionally, it can be expanded into training programs for educators, ensuring widespread implementation and long-term impact. This study highlights the potential of structured PowerPoint design as an effective tool to support dyslexic learners, ultimately fostering a more inclusive education system.

Keywords: dyslexia, learning disorder, inclusive education, ADDIE model, accessible digital learning

(iDIEC_2025_050)

COMMUBOT (COMMUNICATION ROBOT)

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ABSTRACT

Individual with communication disabilities have consistently faced difficulties in communicating with others. They need tools to facilitate communication with those around them. Robots can serve as assistive devices; they can be designed to support individuals with communication disabilities by incorporating systems such as speech recognition and synthesis capabilities. Additionally, robots can assist with mobility, enabling children to move more independently and enhancing their social interactions. In response to this need, innovators have proposed the development of a kit named "CommuBot (Communication Robot)", which consists of coding components, a robot to be assembled by the user, a mobile application connected to the robot, and a guidebook on how to use the kit. The application includes images related to communication and social interactions commonly used by individuals with communication disabilities. The robot functions by producing sounds based on the images selected in the application. This kit will be developed using Richey and Klein's Design and Development Research methods and will be validated by experts. Innovators expect that, in addition to improving communication skills CommuBot will also enhance mobility and social interaction. The marketing strategy for this tool includes initial promotion through social media, followed by outreach to various institutions such as schools. Interaction with CommuBot has the potential to strengthen connections with individuals with communication disorders. It could facilitate improvements in their ability to recognize and use essential words related to everyday environments, such as restaurants, schools, hospitals, and markets. To maximize its effectiveness, additional sessions should be conducted to enhance users' word imitation and comprehension in connection with CommuBot.

Keywords: communication robot, assistive devices, communication skills, individual with communication disabilities

(iDIEC_2025_053)

HEARITOUT: AI-POWERED ASSISTIVE SYSTEM TO ENHANCE SOCIAL MEDIA ACCESSIBILITY FOR THE VISUALLY IMPAIRED USING LVLMS

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ABSTRACT

Visually impaired individuals face significant challenges in accessing and interpreting image-driven content on social media, limiting their ability to engage meaningfully in digital spaces. Inappropriate or meaningless alt text, such as filenames, random characters, or vague phrases like “nice photo,” further exacerbates the issue by failing to provide relevant or emotional context. This digital exclusion restricts access to entertainment, professional opportunities, and social interactions. HearITOut is an AI-powered assistive system designed to bridge this accessibility gap. Leveraging Large Vision-Language Models (LVLMs) and advanced prompt engineering, it generates rich, contextually aware, and emotionally resonant image descriptions in both text and audio formats. Integrated with optimized image processing and Google Text-to-Speech (gTTS), the system provides a seamless and interactive user experience, enabling visually impaired individuals to interpret and engage with visual content more effectively. Unlike traditional AI-generated alt text, HearITOut introduces emotion-aware descriptions, allowing users to perceive and connect with images on a deeper level. Preliminary user testing has demonstrated enhanced engagement, improved content comprehension, and increased emotional resonance. Furthermore, strategic optimizations mitigate dataset limitations and computational constraints, ensuring high-quality output. With applications ranging from personal social media use to professional networking and content creation, HearITOut presents a transformative opportunity for AI-driven accessibility solutions. Future enhancements include multi-language support, personalized voice modulation, and potential collaborations with major social media platforms to establish a more inclusive digital ecosystem. By harnessing cutting-edge AI and ethical design, HearITOut empowers visually impaired users to engage in social media on equal footing, fostering a more accessible and inclusive digital future.

Keywords: AI-powered assistive system, digital inclusion, emotion-aware, large vision-language models (lvlms), social media accessibility

(iDIEC_2025_056)

KATAKAN YANG KAMU INGIN (KKI)

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ABSTRACT

Individuals with communication disabilities have consistently faced challenges in interacting with others. They require tools to facilitate communication; however, most existing tools have several limitations, such as being too traditional, non-portable, offering a limited selection of sentences, and being available only in English. These limitations make it difficult for users who do not speak English and prevent them from adding new sentences as needed. To address these issues, innovators have developed a modern mobile communication application that can be used anywhere. Utilizing Richey and Klein's Design and Development Research (DDR) methodology, the application, named "Katakan yang Kamu Ingin (KKI)", has been developed and validated by three expert validators. A beta version of the application was tested to evaluate its effectiveness in assisting individuals with communication disabilities. This version includes a selection of commonly used sentences in school settings and features the ability to add new sentences and utilize a text-to-speech system that adapts to the phone's language settings. The study was conducted on two non-verbal children with autism spectrum disorder (ASD) in a special needs school. The results indicated a positive impact on the nonverbal communication skills of ASD children, demonstrating the application's effectiveness as a communication support tool in educational settings. Based on these findings, the application was further improved by expanding the selection of commonly used sentences beyond schools to include hospitals, restaurants, and markets while maintaining the ability to add new sentences and use the text-to-speech system. The innovators plan to disseminate the application through interpersonal communication, school-based socialization programs, and distribution via the Google Play Store. It is hoped that this tool will help individuals with communication disabilities interact more effectively with others and facilitate their social integration.

Keywords: mobile application, augmentative and alternative communication, communication skills, children with communication disabilities, autism spectrum disorder

(iDIEC_2025_060)

3D MANUAL ALPHABET MODEL AS A MANIPULATIVE TOOL IN THE ACQUISITION OF ALPHABETIC KNOWLEDGE OF KINDERGARTEN DEAF LEARNERS

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ABSTRACT

This 3D Manual Alphabet Model is a manipulative tool to help kindergarten deaf learners acquire alphabetic knowledge. Specifically, it sought to answer if there is a significant improvement in alphabet recognition performance of Kindergarten Deaf Learners after using the 3D Manual Alphabet as a manipulative and self-correcting tool. Alphabetic knowledge is a critical foundation for literacy, yet deaf learners often face challenges in acquiring reading and writing skills due to limited access to phonological cues. This was conducted through a research study that employed a quasi-experimental one-group pretest-posttest design. This was used to assess the impact of the 3D Manual Alphabet Model on learners' ability to recognize letters, match uppercase and lowercase letters, and associate letter signs with their English equivalents. Participants were kindergarten Deaf learners enrolled in a special education program in the Southern Province of the Philippines. Data was analyzed using the Wilcoxon signed-rank test, which revealed a significant increase in posttest scores compared to pretest results, indicating the tool's effectiveness in enhancing alphabetic knowledge. The results suggest that using a 3D Manual Alphabet Model provides an interactive, multisensory approach that supports literacy development for deaf learners by reinforcing letter recognition through hands-on engagement. This manipulative tool contributes to the field of special education by providing an evidence-based approach to enhancing early literacy skills among deaf learners. It underscores the importance of integrating multisensory tools in specialized teaching strategies. This manipulative tool can be produced with the use of 3D printing technology with PLA (polylactic acid) filament, making it cost-effective and accessible for schools, therapy centers, and organizations supporting the deaf community.

Keywords: 3D manual alphabet, alphabetic knowledge, deaf learners, multisensory tool, kindergarten

PARTNERS

SEAMEO SECRETARIAT
https://www.seameo.org/

KEMENTERIAN PEMBANGUNAN WANITA,
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KOMUNITI
MINISTRY OF WOMEN, EARLY CHILDHOOD AND COMMUNITY WELLBEING DEVELOPMENT, SARAWAK (KPWK)
https://kpwk.sarawak.gov.my/

KEMENTERIAN PENDIDIKAN
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UNIVERSITI PENDIDIKAN SULTAN IDRIS (UPSI)
https://ejournal.upsi.edu.my/index.php/JPB/home

PARTNERS OVERVIEW

SEAMEO SECRETARIAT

The Southeast Asian Ministers of Education Organization (SEAMEO) is a regional intergovernmental organization established in 1965 among governments of Southeast Asian countries to promote regional cooperation in education, science and culture in the region. SEAMEO member countries are Malaysia, Thailand, Indonesia, Cambodia, Vietnam, Lao PDR, Brunei Darussalam, Singapore, Philippines, Myanmar and Timor-Leste.

As an organization that has continued to nurture human capacities and explored the peoples' fullest potential, the SEAMEO maintains its work and aspirations for development with peoples of the region to make lives better in quality and equity in education, preventive health education, culture and tradition, information and communication technology, languages, poverty alleviation and agriculture and natural resources.

MINISTRY OF WOMEN, EARLY CHILDHOOD AND COMMUNITY WELLBEING DEVELOPMENT, SARAWAK (KPWK)

KEMENTERIAN PEMBANGUNAN WANITA,
KANAK-KANAK DAN KESEJAHTERAAN
KOMUNITI

The Ministry of Women, Early Childhood and Community Wellbeing Development, Sarawak (KPWK) was officially established on 30th September 2011 under its original name, the Ministry of Welfare, Women and Family Development (KKWPK). It began with two foundational units: the Women's Bureau and the Administration and Finance Division. As its mandate expanded, the Ministry underwent a series of strategic transformations. On 19th May 2016, it was renamed the Ministry of Welfare, Women and Community Wellbeing, with the inclusion of the Policy Division and the Management Services Division. A further restructuring took place on 7th May 2017, when the Ministry adopted the name Ministry of Welfare, Community Wellbeing, Women, Family and Childhood Development, with two additional entities: the Social and Urbanisation Development Council and the Early Childhood Development Division.

The Ministry assumed its current name on 4th January 2022, as the Ministry of Women, Early Childhood and Community Wellbeing Development (KPWK). KPWK plays a pivotal role in driving Sarawak's social transformation. As a lead agency for the state's wellbeing agenda, the Ministry designs and implements policies that address the diverse and interconnected needs of women, children, families, persons with disabilities, the elderly and vulnerable populations. Through multisectoral collaboration, grassroots engagement, and data-informed policymaking, KPWK actively contributes to the realisation of Sarawak's Post-COVID-19 Development Strategy (PCDS) 2030. Its integrated approach supports the development of resilient families, inclusive communities, and a compassionate, equitable society, laying the foundation for sustainable human capital development across Sarawak.

SARAWAK STATE EDUCATION DEPARTMENT

KEMENTERIAN PENDIDIKAN
JABATAN PENDIDIKAN NEGERI SARAWAK

Jabatan Pendidikan Negeri Sarawak (JPNS) is the state-level education authority under the Ministry of Education Malaysia, responsible for coordinating and managing education policies, programs, and initiatives across Sarawak. It oversees 30 District Education Offices (PPD) and more than 1,266 primary and 194 secondary schools statewide. JPNS works to provide quality education for all students in Sarawak, including those in rural and remote areas. With a focus on inclusivity, JPNS collaborates with others to support both general and special education, while also promoting sports, co-curricular activities, and overall student development.

The objectives of JPNS focus on strengthening collaboration with strategic partners to enhance educational quality in Sarawak, supporting programmes that foster student excellence in academics, sports, and character development, providing training and capacity-building opportunities for teachers and school leaders, and ensuring equitable access to education, particularly in rural and underprivileged communities. Key focus areas include promoting academic excellence through innovative teaching aligned with national standards, encouraging co-curricular development via sports, cultural, and leadership programmes, advancing inclusive education for students with special needs, and fostering community engagement through partnerships with NGOs, the private sector, and local leaders. Notable achievements include the implementation of statewide STEM initiatives reaching over 50,000 students, successful participation of Sarawakian students in national-level academic and sports competitions, and the establishment of Special Education Integration Programs (PPKI) in 80% of primary and secondary schools. Looking ahead, JPNS envisions collaborating with partners to nurture globally competitive, ethical, and well-rounded Sarawakian students, while strengthening its role in driving educational transformation in the state.

UNIVERSITI PENDIDIKAN SULTAN IDRIS (UPSI)

UNIVERSITI PENDIDIKAN SULTAN IDRIS
اونيۏرسيتي ڤندidikan سلطان ادريس
SULTAN IDRIS EDUCATION UNIVERSITY

Universiti Pendidikan Sultan Idris (UPSI) was established on 1st May 1997 under the Order of Universiti Pendidikan Sultan Idris (Corporation) 1997 and the Order of Universiti Pendidikan Sultan Idris (Campus) 1997 through the Government Gazette P.U (A) 132 & 133 dated 24th February 1997.

Located in Tanjung Malim, Perak Darul Ridzuan. UPSI has two campuses namely Sultan Abdul Jalil Shah Campus (KSAJS) and Sultan Azlan Shah Campus (KSAH) that is unique in term of education leadership based on historical splendor and leading global changes.

BITARA Educational Journal
Journal Pendidikan BITARA (BITARA Educational Journal) is published once a year by the Faculty of Human Development, Sultan Idris Education University. It publishes academic writings and refereed research articles regarding issues on education and social science. Articles are published in Bahasa Melayu and English. The editorial contents are ownership of Sultan Idris Education University. Authors are responsible for statements and opinion in them. All articles that have been submitted will be evaluated through double blind review.

WORKSHOPS

Table 6-WORKSHOPS SCHEDULE

NAME OF PRESENTER & ORGANISATION'S NAME	TOPIC	DATE, TIME & VENUE
Dr. Fu Sai Hoe District Education Officer, Sandakan District Education Office, Sabah, Malaysia	Developing Number Sense with at-Risk Dyscalculic Students	**SATURDAY** **Date: 26th July 2025** Time: 13:00 – 15:00 Room: ISTHMUS 1 (LEVEL 4)
Dr. Mohd Syazwan Zainal Lecturer Faculty of Education, The National University of Malaysia	Effective Science Communication in Special Education: Bridging Knowledge and Practice	**SATURDAY** **Date: 26th July 2025** Time: 13:00 – 15:00 Room: ISTHMUS 2 (LEVEL 4)
Dr. Ong Sing Yee Counsellor (PEERS)(UCLA) School-Based and Young Adult Certified Provider	Empowering Friendship: Enhancing Communication and Play in High-Functioning Neurodiverse Children"	**SATURDAY** **Date: 26th July 2025** Time: 13:00 – 15:00 Room: ISTHMUS 3 (LEVEL 4)
Ms. Vivi Kurnia Herviani, S.Pd, M.Pd ***Ms. Khofidotur Rofiah, Ph.D*** ***Mr. Acep Ovel Novari Beny, S.Pd, M.Pd*** Disability Innovation Center (DIC) Universitas Negeri Surabaya, Kota Surabaya, Jawa Timur	Empowering Inclusive Communities: The Role of DIC UNESA in Assistive Innovation and Regional Commercialization	**SATURDAY** **Date: 26th July 2025** Time: 13:00 – 15:00 Room: ISTHMUS 4 (LEVEL 4)
Mr. Kumaresan Muniandy Vocational & Special Education Educator, Merbok Vocational Special Education Secondary School, Malaysia	Negotiating Career and Vocational Training for SEN Students	**SATURDAY** **Date: 26th July 2025** Time: 15:30 – 17:30 Room: ISTHMUS 1 (LEVEL 4)
Dr. Shiw Shin Yeen BrainScience Academy Sdn. Bhd. Selangor, Malaysia	Harnessing EEG for Inclusive Education: Scalable Assessment and Neurofeedback for Student Mental Health and Learning Support	**SATURDAY** **Date: 26th July 2025** Time: 15:30 – 17:30 Room: ISTHMUS 2 (LEVEL 4)
Madam Megan Townes APJ Regional Lead Canva for Education Sydney, Australia	Designing Inclusive Classrooms with Canva: Tech- Enabled Strategies for Diverse Learners	**SATURDAY** **Date: 26th July 2025** Time: 15:30 – 17:30 Room: ISTHMUS 3 (LEVEL 4)

EXHIBITORS

INDEX BRAILLE TECHNOLOGY SYS (M) SDN BHD

Booth Number: 1

About Us:

Authorized Master Distributor for Index Braille Embossers (www.indexbraille.com) in South East Asia. We provide reliable after sales Technical Support, Service, Repair and Maintenance services. We facilitate User training, Service, Repair and Maintenance training for users.

What we offer:

- Index Basic-D V5, Everest-D V5 BrailleBox-D V5 and Fanfold-D V5 models braille embossers. We provide training for Ministry of Special Educations, blind and visually impaired schools, blind councils, blind foundations, blind associations in South East Asia.
- User Training for editors and braillist.
- Service repair and maintenance training for technician team.
- Training for parents with blind and visually impaired child.

Website/Contact:

Facebook : https://www.facebook.com/indexbrailletech
Linkedin : https://www.linkedin.com/in/anna-lau-34a92697/

OPEN UNIVERSITY MALAYSIA (OUM)

Booth Number: 2

About Us:

Open University Malaysia (OUM) is a pioneer in flexible, fully online and affordable education designed for working adults and lifelong learners. As Malaysia's preferred open and distance learning institution, OUM offers MQA-accredited diploma, degree, and postgraduate programmes across diverse fields. Recognised by professional bodies and supported by nationwide learning centres, OUM empowers individuals to pursue quality education anytime, anywhere.

What we offer:

- Flexible, MQA-accredited programmes in teaching, education, and early childhood education that support pathways into special needs education (Postgraduate Diploma in Teaching, Bachelor of Teaching (Primary Education) with Honours, Diploma in Early Childhood Education, Bachelor of Early Childhood Education with Honours, Master of Education, PhD in Early Childhood Education, Doctor of Education, PhD in Education).

- Elements Of Special And Inclusive Education Are Embedded As Core Components Across Various Levels Of Study I.E. Diploma, Bachelor's, Postgraduate Diploma, Master's, And Doctorate, Rather Than Offered As Standalone Programmes.

- The University Actively Participates In Collaborations And Engagements With Relevant Stakeholders To Strengthen The Syllabus And Teaching Practices Related To Special Education.

VEX ROBOTICS

Booth Number: 3

About Us:

VEX Robotics is educational robotics for everyone! The VEX Continuum spans all levels of both formal and informal education from primary through to university education. It allows educators and students of all types to inspire and become the STEM problem solvers of tomorrow!

What we offer:

- VEXcode VR is our free-web based virtual robotics coding platform
- VEX PD+ is our teacher professional development resource and it is Universal Design for Learning (UDL) Product Certified by the Center for Applied Special Technology (CAST) .
- All of our online resources meet Web Content Acesssibility Guidelines (WCAG 2.0)

Website/Contact:

Website: Vexrobotics.com
Email: ap-sales@vex.com
Social Media: https://www.facebook.com/vexroboticshk/

SIBU AUTISTIC ASSOCIATION

PERSATUAN AUTISME SIBU
(SIBU AUTISTIC ASSOCIATION) (SAA)

Booth Number: 4

About Us:

Sibu Autistic Association (SAA), established in 2000, is dedicated to supporting individuals with autism through education, therapy, and care. As Malaysia's first autism-specific Taska OKU (PWD Childcare Centre), SAA empowers children and families with professional services, training, and advocacy—promoting inclusion and brighter futures for those on the autism spectrum.

What we offer:

- Early Intervention Program
- School Age Program
- Therapy Program

Website/Contact:

Website : http://www.sibuautistic.org.my
Facebook : www.facebook.com/sibuautistic
Contact : (6) 011-20920026
Fax : (6) 084-213785
Email : saa96000@gmail.com

UNIMAS BUSINESS SCHOOL

Booth Number: 5

About Us:

UNIMAS Edu Sdn Bhd (UESB), operating under the brand name UNIMAS Business School (UBS) was established in April 2017, to signify the company's key focus in undertaking academic business transactions and collaborations with strategic partners across the country; private and public entities in response to the new landscape of globalized education to meet learning needs and goals.

UBS offers two main types of learning programmes: academic mainstream programmes and lifelong learning programmes which include professional and executive programmes, short courses to upskill, reskill and multiskill the diverse workforce of today.

What we offer:

- Postgraduate by coursework Programmes
- Commercial Undergraduate Programmes
- Professional and Executive Programmes
- Short Course & Training

Website/Contact:

DAWN BRIDGE SDN BHD

Booth Number: **6**

About Us:

Dawn Bridge is incorporated with the main purpose of providing support the special needs community around the world, not only to the person with special needs, but also their parents and families. Dawn Bridge aims to create a platform as a social and information network – connecting all like-minded health professionals, therapy centres, non-government organizations, special needs community into a single network, making these info and services easily accessible and readily available. Dawn Bridge is the connection between the beginning of a new hope, the people who are in need of help, and the people who are willing to give.

Our mission aims to provide a platform, connecting all industries related to the field of special needs in order to provide assistance and solutions for families with special needs children. At the same time, through education, we aim to create awareness and improve understanding of persons with special needs around the world. Our vision is a world where all children with special needs are treated as equals and can be truly independent in their daily lives.

What we offer:

- 🍼 **CareMIL** – A 5-Free plant-based nutritional milk formula for children with sensitive digestion, food intolerances, or absorption issues.
- 🌿 **Botani9** – A plant-based blend supporting memory, immunity, and cellular regeneration in growing children.
- 🌙 **Nura-Zen** – A natural calming formula designed to reduce anxiety, support emotional regulation, and promote restful sleep.
- 🧠 **Nura-Fix** – A neuro-supportive formula crafted to enhance focus, concentration, and behavioral balance.
- 🤝 **Parent Support Initiatives** – Community outreach and educational programs to empower families of neurodiverse and sensitive children.

Website/Contact: 🌐 https://www.dawnbridge.com.my/
Link tree: linktr.ee/dawnbridge.media

PUREDAYS

Booth Number: 8

About Us:

Pure Days is a Malaysian children's lifestyle brand dedicated to preserving the joy and purity of childhood. We craft high-quality wooden educational toys, immersive Busy Books, and products that spark creativity, reduce screen time, and support early learning. Beyond products, Pure Days hosts engaging workshops, family events, and customised kids' parties, providing parents effortless and enriching experiences.

What we offer:

● **Adaptive Wooden Learning Toys** – open-ended stacking stones, tangram puzzles, and word-building tiles in varied textures, sizes, and colours that enhance hand-eye coordination, spatial reasoning, and sensory regulation.

● **Multi-Sensory Busy Books** – interactive, velcro-based pages that strengthen fine-motor skills, early literacy & numeracy, and sustained attention; pages can be customised for differentiated instruction to suit varied learning profiles.

Website: https://puredays.store/
Social Media:
https://www.instagram.com/puredays.toystore/
https://www.facebook.com/puredays.store/
https://www.instagram.com/johnsonandyuni/

SEKOLAH KEBANGSAAN SERI MEDAN BATU PAHAT, JOHOR DARUL TAKZIM

Booth Number: 9

SK SERI MEDAN introduce student special needs multifunction tools for reading, writing, counting and soft skill. My 'BEG METODE MATAku 20/20' is a set of methods of scanning and reciting words seen according to th eye level of the pupils.

The programme involves several special rehabilitation students, preschool and private kindergartens in Batu Pahat, Kota Tinggi, Pontian and Johor Bahru as well as 258 students in the class facing the masses health and various abilities such as ADHD, Autism, Mild Mental Retardation, Slow learners, Speech Delay, Sindrom Down, ADD and Hiperactivity. Four Multifuction Montessori. The effectiveness of the product can be seen from the scientific test of brainwaves, Brain Wave (EEG), OpenBCI and Neurolinguistic researcher.

1. Introduction

One of the modification branches of Montessori Education and its application towards children's early education can be used for students with special needs in mastering the 4M principle. The strength of Montessori Education is to expose children to learn self-control, the use of vocabulary, interesting learning process to enhance children's memory and metacognitive.

2. Methodology

Students with low-functioning ranges and learning problems. The different levels of ability and mind will make it complicated for students with special needs to learn colors, shapes, pronounce words and word sequences, communicate, count, construct sentences, read, and extreme complications in fine motor movements.

3. Results & Discussion

This innovation project has a high potential to be disseminated not only to students with special needs but is also interesting to preschoolers, kindergarten, and special recovery students. Preschoolers in SK Seri Gading, SK Bandar, SK Seri Medan and Pasti An-Nur Learning Centre. Also 5 primary school at Zon Benut, Pontian, Johor.

Website/Contact:

sufisuraidah@gmail.com
https://www.kreanovatif.com

EVERWAY

Booth Number: 10

About us:

We help everyone to understand and be understood. At Everway, we believe that every mind is unique. We create easy-to-use technology solutions that drive better outcomes in education, work and life.

From classrooms to universities, our solutions empower every learner. We support diverse learning needs, enhance accessibility, and guide informed decision-making. Discover our Everway digital tools today: Read&Write (literacy), OrbitNote (pdf editor) and EquatIO (math+STEM).

What we offer:

Read&Write is a literacy support digital tool that supports learners with everyday tasks like reading text out loud, building vocabulary, research assignments and proofing written work.

OrbitNote is a pdf editor that allows learners to transform and interact with documents, that creates an accessible, dynamic and collaborative space that works for everyone.

EquatIO takes maths and STEM beyond paper and pen. It is a powerful equation editor that makes math and science more accessible and engaging for every student.

Website/Contact:

https://www.texthelp.com/en-au/
https://www.everway.com/en-au/

Asia Distributor contact:
Gail Tok, Director and Founder, TheKnowledge-Lab
gail@theknowledge-lab.com

BRAINSCIENCE ACADEMY SDN BHD

Booth Number: 11

About Us:

At BrainScience Academy, we enhance lives through advanced, non-invasive brain health solutions. In partnership with Sultan Idris Education University and the Korea Research Institute of Brain Science, we combine cutting-edge technology with expert care to support focus, clarity, and relief from ADHD, autism, insomnia, and more—empowering individuals and families toward better mental well-being.

What we offer:

Unlock Better Brain Health with BrainScience Academy

Discover our range of non-invasive brain assessments and training programs designed to support cognitive function and mental well-being for all ages.

1. **Brain Assessment Reports:**
    - **BFA** – Comprehensive analysis of brainwave patterns for insight into brain's physical and mental health condition.
    - **POTB** – Evaluates focus, relaxation, and attention for understanding of mental states.
    - **ML Report** – Measures cognitive ability (attention, concentration, relaxation) and mental health indicators (anxiety, stress, depression) offering valuable insights into how these factors affect learning performance and academic potential.
    - **Quick Scan** – A fast, five-point overview of brain function.
    - **BC Report** – Highlights key behavioural traits: sleep, sociability, alertness, and more.
    - **BMR** – Recommends personalised audio-visual brain training based on brainwave activity.
2. **Brain Training Programs:**
    - **Neurofeedback** – Real-time brainwave training for focus, calm, and clarity.
    - **MIT** – Korean tech using music and frequency for brain enhancement.
    - **Audio-Visual Training** – Stimulates brain states through light and sound.
3. **Supplement:**
    - **DrinPro Forte** – Brain-boosting protein drink suitable for children to seniors.

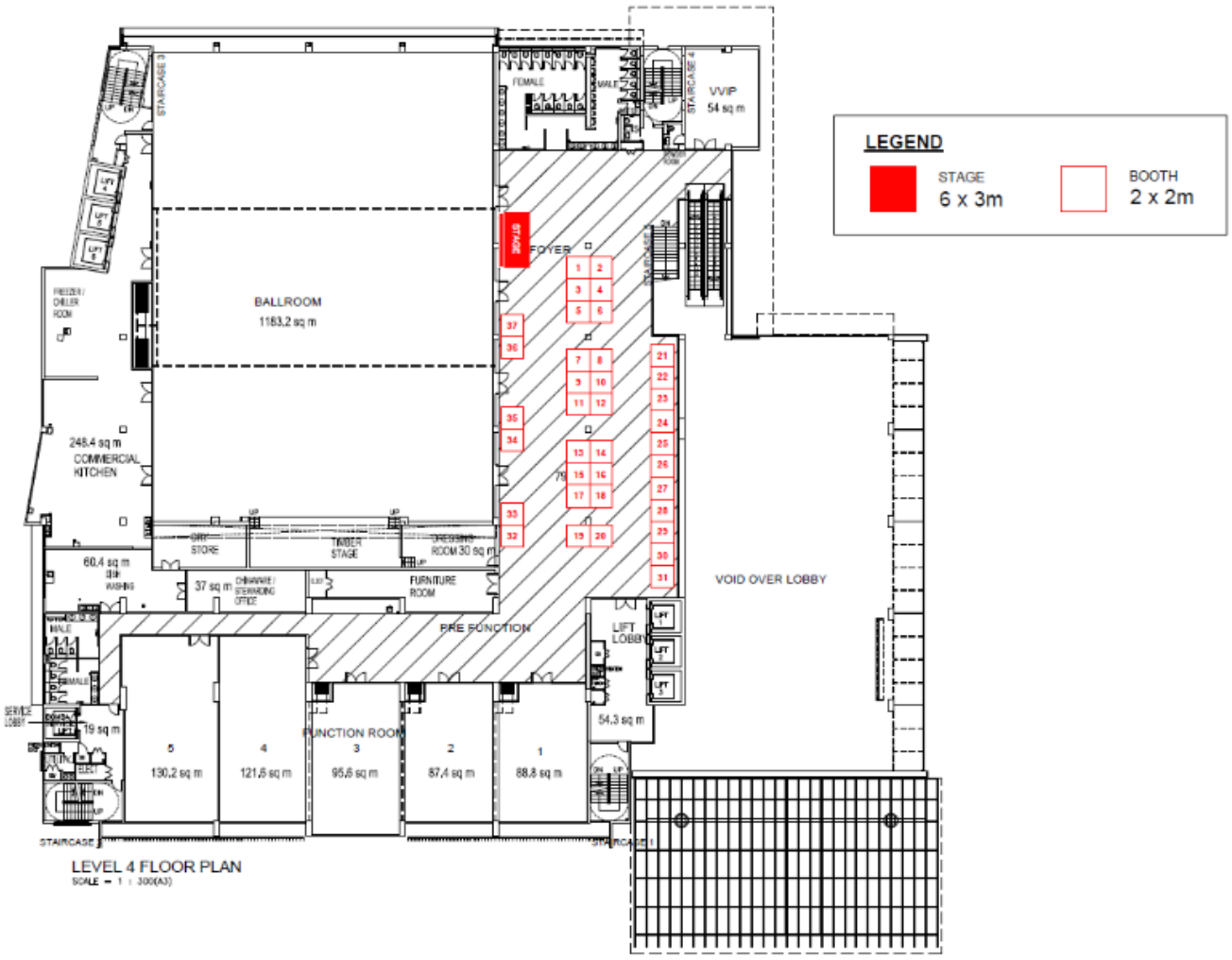
Website: https://www.brainscienceacademy.com.my/ **Contact/WhatsApp:** +6012-3176607

CONFERENCE AND EXHIBITION VENUE

UCSI HOTEL
KUCHING

Level 4, Lot 2864 Block 7, Muara Tebas Land, 93450 Kuching, Sarawak, Malaysia

(Scan for direction to UCSI Hotel)



VENUE AMENITIES

- Internet Access
- Muslim Prayer Rooms
- Participants Car Park
- Restroom
- Ballroom
- Restaurant Sky Lounge, Pool Bar

SEAMEO SEN
REGIONAL CENTRE FOR SPECIAL EDUCATIONAL NEEDS

TINGKAT 2, KOMPLEKS ANJUNG HIKMAH
IPGK PEREMPUAN MELAYU
JALAN DURIAN DAUN
75400 MELAKA, MALAYSIA

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EMAIL: icse@seameosen.edu.my

https://icse.seameosen.edu.my