ICSE 2023

PROGRAMME BOOK

5th INTERNATIONAL CONFERENCE ON SPECIAL EDUCATION

Concurrent Event — IDIEC 2023 Innovation for Disability-Inclusive Education Competition 2023

4th - 5th October 2023

Gearing Towards Disability-Inclusive Education Recovery

Taylor's University Lakeside Campus MALAYSIA

Main Organiser:
SEAMEO SEN
REGIONAL CENTRE FOR SPECIAL EDUCATIONAL NEEDS

Co-Organiser:
TAYLOR'S UNIVERSITY
Wisdom · Integrity · Excellence

Partners:

UNIVERSITI SAINS MALAYSIA · SEAMEO · unesco · UNIVERSITI PENDIDIKAN SULTAN IDRIS — SULTAN IDRIS EDUCATION UNIVERSITY · National Association of Special Education Malaysia · UNIVERSITAS NEGERI MALANG · IESD · IC INCLUSION Inclusive Education · INSTITUT PENDIDIKAN GURU KAMPUS PENDIDIKAN TEKNIK

In Collaboration with:

MINISTRY OF EDUCATION · SEAMEO SEN SUSTAINABLE DEVELOPMENT GOALS — We support the Sustainable Development Goals

PREFACE

In a world where the fundamental right to quality education belongs to every child, we must acknowledge that barriers persist, that hinders the full participation of learners with diverse needs. The 5th International Conference on Special Education (ICSE) emerges as a platform to address these challenges and pave the way for Disability-Inclusive Education Recovery where this conference serves as a symbol of optimism, advocating for the rights and potential of every learner, irrespective of their abilities or backgrounds.

In the face of various challenges, our shared commitment to establishing inclusive and equitable educational opportunities for learners with special educational needs remains resolute. With this theme, we explore into the critical aspects of inclusive education recovery, uncovering innovative strategies, transformative ideas and collaborative efforts to advance disability-inclusive practices.

Within this context, the 5th ICSE Conference offers a distinctive opportunity for educators and stakeholders in Special Education to convene, share perspectives and engage in transformative discussions. We envision this gathering as a space where research-based practices, innovative models in teaching and learning and best practices will be disseminated, enriching the lives of learners with special educational needs.

As we embark on this transformative quest, we stand in unity, steadfastly committed to the vision of a world where every child, regardless of their abilities, finds a place to thrive and succeed.

The theme for the 5th ICSE 2023 is **"GEARING TOWARDS DISABILITY-INCLUSIVE EDUCATION RECOVERY"** and are supported by 7 sub-themes as follows:

1. Learning and Innovation for Students with Special Educational Needs.
2. Transition from School to Employment for Students and Youths with Special Educational Needs.
3. Building and Sustaining Inclusive Society.
4. Technical and Vocational Education Training (TVET) for Students and Youths with Special Educational Needs.
5. Teacher Training and Capacity Building.
6. Disability-inclusive Disaster Risk Reduction (DiDRR).
7. Empowering Families, Communities and Stakeholders of Children with Special Educational Needs.

CONTENTS

FOREWORD FORM :
ACTING DIRECTOR OF SEAMEO SEN

Bismillahirrahmanirrahim.

Assalamualaikum w.b.t. Greetings from SEAMEO Regional Centre for Special Educational Needs (SEAMEO SEN).

It is with great pleasure and anticipation that I extend my warmest welcome to all educators, experts, researchers, and advocates from all over the world who have gathered for the 5th International Conference on Special Education (ICSE) 2023 and its concurrent event, 1st Innovation for Disability-Inclusive Education Competition (iDIEC) 2023.

In an era defined by inclusivity and the recognition of every learners' unique potential, the field of special education has taken on an increasingly pivotal role. Therefore, the global community is called upon to not only acknowledge the diverse needs of learners with varying abilities but also to harness these differences as strengths that enrich our societies.

The 5th ICSE has been a dedicated platform for scholars, practitioners, policymakers, and advocates in exchanging ideas, sharing insights, and advancing our collective understanding of special education in today's diverse and evolving world.

In synergy with the ICSE, the 1st Innovation for Disability-Inclusive Education Competition (iDIEC) takes a bold step forward, recognizing that innovation is a driving force for positive change in education. iDIEC provides a space for educators to present innovative solutions that foster accessibility, engagement, and inclusivity in learning environments. This competition not only celebrates innovation but also underscores the urgency of addressing the gaps in education systems.

As we gather to engage in captivating discussions, deliberate on best practices, and explore the latest research findings, let us together remain committed to our mutual goal through the theme **'Gearing Towards Disability-Inclusive Education Recovery'**. I believe by fostering an environment of open dialogue and collaboration, we can collectively address challenges, discover holistic approaches, and lay the groundwork for a disability - inclusive education landscape that empowers all learners with disabilities.

I would like to extend my heartfelt gratitude to Taylor's University as co-organiser, partners, speakers, presenters, exhibitors, and participants who have dedicated their effort and time in making this conference a success. Your enthusiasm in improving the lives of learners with disabilities is both commendable and inspiring. Let us use this opportunity to learn from one another, to form lasting partnerships, and to ensure that the outcomes of this conference translate into meaningful change in classrooms and communities.

May the discussions held, and connections made during this conference serve as a catalyst for advancing disability - inclusive education practices, promoting equity, and shaping a brighter future for all. Let's pave the way for an inclusive world where every individual is valued, supported, and empowered to achieve their full potential.

I wish you all a successful and enriching conference.

Together, we strive for excellence.

DR. MOHD AZLIS SANI MD JALIL
CHAIRPERSON OF THE 5th ICSE 2023 AND
ACTING DIRECTOR OF SEAMEO SEN

FOREWORD FORM :
DEPUTY VICE-CHANCELLOR AND CHIEF ACADEMIC OFFICER OF TAYLOR'S UNIVERSITY

Distinguished Guests, Partners, and Colleagues,

It is my great pleasure to welcome you to Taylor's Lakeside Campus for the 2023 International Conference on Special Education (ICSE), co-organised by Southeast Asian Ministers of Education Organization for Special Educational Needs (SEAMEO SEN) Malaysia and Taylor's University, the very first university in Malaysia to be part of such an initiative. We are happy to have everyone back for the first in-person conference since the COVID-19 pandemic.

This year, our conference is themed "*Gearing Towards Disability - Inclusive Education Recovery"*. With this in mind, we turn our focus to the special educational needs students who have faced barriers in accessing quality education for many years. Throughout the next few days, we shall hear new insights in teaching and learning, especially in tackling post-pandemic learning recoveries.

In addition to hosting the ICSE 2023, Taylor's University is committed to championing inclusive education through the training of teachers for Special Educational Needs (SEN). This commitment is reflected in our taught and research programmes, as well as our Education for All Impact Lab, which engages the community at large. With over 50 years of experience in higher education, we are passionate about advocacy, research, and purpose-driven pedagogy. We believe that all children, regardless of their abilities, deserve a quality education. That's why we introduced the SEN specialisation early this year, which incorporates educational pedagogy within a therapeutic setting. This specialisation is designed to prepare teachers with the skills and knowledge they need to provide effective instruction to students with SEN.

I am confident that ICSE 2023 will be the ideal platform for the high-level collaboration and networking amongst notable movers and shakers from around our region and beyond. Together, we are able to discover and accomplish best practices and significant developments for those with special educational needs.

My sincere appreciation and congratulations to the organising committee for the time and energy that they have devoted to ensuring the success of this event. I hope your time here with us is enjoyable, productive, and meaningful.

With very best wishes,

PROFESSOR DR. PRADEEP NAIR
*DEPUTY VICE-CHANCELLOR AND
CHIEF ACADEMIC OFFICER
TAYLOR'S UNIVERSITY*

THE THEME

GEARING TOWARDS DISABILITY - INCLUSIVE EDUCATION RECOVERY

5th ICSE SUBTHEMES

1. Learning and Innovation for Students with Special Educational Needs.
2. Transition from School to Employment for Students and Youths with Special Educational Needs.
3. Building and Sustaining Inclusive Society.
4. Technical and Vocational Education Training (TVET) for Students and Youths with Special Educational Needs.
5. Teacher Training and Capacity Building.
6. Disability-inclusive Disaster Risk Reduction (DiDRR).
7. Empowering Families, Communities and Stakeholders of Children with Special Educational Needs.

1st iDIEC SUBTHEMES

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

5ᵗʰ ICSE CONFERENCE OBJECTIVES

1. Provide the platform and opportunities for exchange of best practices in teaching and learning of children with special educational needs.

2. Provide information on recent trends in Special Education through exchange of best practices and current approaches that are tangible and responsive to the 21ˢᵗ century challenges and needs.

3. Establish networking and smart collaboration among Ministries, related agencies, and educators in education especially in Special Education at national, regional and international levels.

4. Increase awareness and acceptance of individuals with disabilities in the society and accommodate their needs in the community in terms of access, engagement, and equity.

5. Educate and instil inspirations towards the importance of innovation in teaching and learning; and

6. Providing a platform to discuss post pandemic learning recovery responses and actions.

1ˢᵗ iDIEC COMPETITION OBJECTIVES

1. Highlight the potential innovation teaching and learning model approaches/products that can be applied in Disability-Inclusive Education setting;

2. As a platform to share and showcase ideas and creativities in Disability-Inclusive Education among educators, advocates and students;

3. To recognize outstanding innovators as well as instill interest and awareness on the importance of innovation in Disability-Inclusive Education among educators, advocates and students; and

4. Providing a platform for networking among the inventors of Disability-Inclusive Education.

5th ICSE PARTICIPANTS

The 5th ICSE 2023 is attended by approximately 500 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 16 countries, including Brunei, China, Cambodia, Hong Kong, Indonesia, Japan, Lao PDR, Malaysia, Myanmar, Maldives, Philippines, Singapore, Saudi Arabia, Thailand, Timor Leste and Vietnam.

1st iDIEC PARTICIPANTS

Embracing the spirit of innovation, this competition reaches out to a dynamic spectrum of participants in the education ecosystem. From forward-thinking educators in both public and private institutions, encompassing teachers, professionals, and academicians, to innovative students across universities, colleges/institutes, polytechnics, and community colleges. This endeavor also extends its invitation to individuals associated with non-governmental organizations (NGOs) as well as private and government agencies/centres, all poised to contribute to the innovative evolution of education. By converging these diverse innovation-driven stakeholders, this competition aspires to ignite a revolution in education and skill development, ensuring a progressive and inclusive future.

KEYNOTE AND PLENARY SPEAKERS
PLENARY SESSION 1

KEYNOTE
DR. KENJI KUNO
Senior Advisor, Japan International Cooperation Agency (JICA), Thailand

PLENARY SPEAKER
MADAM HAJAH SALMAH JOPRI
Director Teacher Professionalism Division, Ministry of Education Malaysia
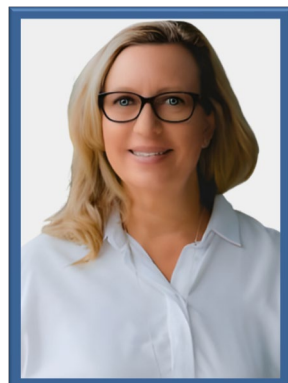
PLENARY SPEAKER
DR. AIJA RINKINEN
Senior Education Specialist, The World Bank, Kuala Lumpur

PLENARY SESSION 2

KEYNOTE
MADAM AMI TANGO - LIMKETKAI
Director Asia Pacific Region, Perkins School for The Blind, United States of America

PLENARY SPEAKER
MADAM CATHERINE WILCZEK
Programme Officer, UNESCO Multisectoral Office, Bangkok

PLENARY SPEAKER
MADAM NUR HIDAYAH MOHAMED IBRAHIM
Occupational Therapy Educator
Training Institute, Ministry of Health Malaysia

PLENARY SESSION 3

KEYNOTE
ASSOC. PROF. DR. SHARIFAH MARIAM ALJUNIED
**Principal Educational Psychologist, Special Educational Needs Division,
Ministry of Education Singapore**

PLENARY SPEAKER
MR. RAJA AZMI ADAM
Country Director, Google for Education, Malaysia, Singapore & Brunei
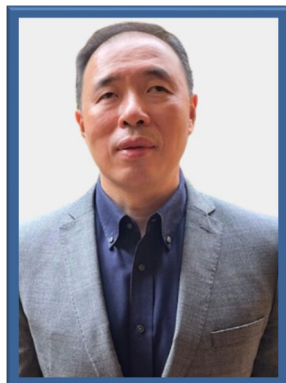
PLENARY SPEAKER
ASSOC. PROF. DR. WONG MENG EE
**Associate Professor Psychology and Child & Human Development Academic
Group, National Institute of Education, Nanyang Technological University,
Singapore**

1ˢᵗ iDIEC PANEL JUDGES
STAGE 1

DR. RAHIMAH JAMALUDDIN
Universiti Putra Malaysia

MR. DEDE SUPRIYANTO MUSTAKIM
Center of Development of Teachers and Educational Staffs (PPPPTK TK & PLB),
Indonesia

DR. DIOSDADO SAN ANTONIO
SEAMEO INNOTECH, Philippines

MR. AHMAD HEIKHAL AMIR HAMZAH
SEAMEO SEN, Malaysia

STAGE 2

MADAM NEANG PHALLA
Governing Board Member (Cambodia)

MR. ASWIN WIHDIYANTO
Governing Board Member (Indonesia)

DR. SOUNIENG VONGKHAMCHANH
Governing Board Member (Lao PDR)

MR. AFONSO SOARES
Representative of Governing Board Member (Timor Leste)

SEAMEO SEN COMMITTEE
STEERING COMMITTEE

PATRON
HER EXCELLENCY FADHLINA SIDEK
Minister of Education, Malaysia

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Acting Director, SEAMEO SEN

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Head, Research and Innovation Division SEAMEO SEN

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Programme Officer, SEAMEO SEN

MS. NADIA NATASHA ARSHAD
Programme Officer, SEAMEO SEN

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

MS. NOOR ADDLINA OSHMAN
Assistant Officer Finance, SEAMEO SEN

LIAISON OFFICER
MR. MOHD ZULKARNAIN ABDUL WAHAB
Head, Strategic Communication Unit SEAMEO SEN

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Head, Training and Consultation Division SEAMEO SEN

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Programme Associate, Training and Consultation Division SEAMEO SEN

MR. MOHAMAD SHABILULLAH ABD HAMID
Information and Communication Technology Officer, SEAMEO SEN

MS. SUHAILA MOHAMAD
Programme Associate, Training and Consultation Division SEAMEO SEN

MS. FEZNY OTHMAN
Programme Officer, Strategic Communication Unit SEAMEO SEN

MS. MIZANINA MOHAMAD MADON
Programme Officer, Strategic Communication Unit SEAMEO SEN

MR. MUHAMMAD IKRAM AB AZIZ
Programme Officer, Management Division SEAMEO SEN

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MS. JAYANTHI ARUMUGAM

MS. SITI NADIA SAHAK

MS. NOOR ADILA AB KHALIM

MS. SHAHIDAH ABD RAHMAN

MS. SITI ZURAIDAH MD NOOR

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MR. MUHAMMAD KHAIRUL AZHAN ALI

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MS. NUR AMIRAH HANI SENIN

MR. MOHD KHAIROL JOHAR

MR. ARIS MAMAT

MS. FAAIZAH ABU HASSAN

MS. NORWATI MAHADI

MS. FADILAH JAAPAR

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STEERING COMMITTEE

ADVISOR
PROF. DR. NEETHIAHNANTHAN ARI RAGAVAN

CO-CHAIRPERSON
ASSOC. PROF. DR LOGENDRA PONNIAH

DR. JASMINE ANAK JAIN

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DR. THIVILOJANA PERINPASINGAM

CH'NG CHOR BAN

DR. TAN SHIN YEN

DR. JOSEPH MALALUAN VELARDE

MOHD RADZY OMAR

VOLUNTEERS

WANG JIALIN (OSCAR)

DENISE DUAR XIA SHING

MOK SHU JIN

YONG TING

LAM JING HANN

TAN ZI YI

KESHAV KUMAR SIVAMOHAN

ZHANG QIRUI

ALYSHA BAIG

REN DANPING

ARICHANNA S GOPAL

KIANG CHYU VEY

PANG YUQI

WUZHIYING

CAI YUXING

GUO LIUFANG

CHEN FEIMIN

TAN TZE LIM

TENGKU MAISARAH KHALIDAH

CARMEN VOOI

CHEW QI JEY

KU YAN CHIE

SANDRA NG WAI KIM

ASHLEY CHEAH KAR MUN

YIM SU EN

ROSHINY

NAWAL AZFAR

MICHAEL TAN YIN HAN

AHMED MAAIN NAZIM

MOA SAITO

SOYAKA FURUKAWA

DAIGO YAMADA

CHEN SHUQI

JADON LIM WENXHUAN

KATHRINA MARIA BINTI MAZLI

KOTONA YOKOSUKA

PAN XIAOLEI

SHUEI KITAGAWA

YAP SHUEN TING

SIMON HII WEI SUNG

GE JIAXIN

MACO IWANAGA

NSIMIRE VWIKALO NISSI

RIN HOSOI

GURPREET KAUR A/P KARPAL SINGH

KOBAYASHI AYANO

LIANG JI TAO

MARINO MIYAKE

VENISA ANGELICA PUTRI

YANG MU

EVANIA FELICIA

CHOO MIO SAN

RIO YAMANAKA

LEE QIAN HUI

IBRAHIM SIDHAM NASEER

VAISHNAVI GHOORAH

ELISSA CHOO ZE ERN

TEW SIN YING

HANI NURAINI BINTI ZAINI

ICSE 2023 CONFERENCE SCHEDULE

DAY 1: 4th OCTOBER 2023 (WEDNESDAY)

Table 1-DAY 1: ICSE 2023 CONFERENCE SCHEDULE

TIME	PROGRAMME AND VENUE
07:30 – 08:30	Registration
08:30 – 16:30	iDIEC Exhibition ***Venue:*** *The Grand Hall*
08:30 – 08:50	**Presentation by UNESCO** ***Venue:*** *Lecture Theatre 21 & 22* **Speaker:** Mdm. Catherine Wilczek **Topic:** Teaching in Emergencies: An Online Course for Teachers of Learners with Disabilities
08:50 – 10:50	<u>**Plenary Session 1:**</u> ***Venue:*** *Lecture Theatre 21 & 22* **Keynote:** Dr. Kenji Kuno Japan International Cooperation Agency (JICA) **Topic:** School Closure and Learning Loss (40 minutes) **Plenary Speaker:** Mdm. Salmah Jopri Ministry of Education, Malaysia **Topic:** Assessing Learning Levels (20 minutes) **Plenary Speaker:** Dr. Aija Rinkinen World Bank **Topic:** Increasing Catch-up Learning (20 minutes)
10:50 – 11:00	Arrival of Guest of Honour
11:00 – 13:00	**Opening Ceremony** ***Venue:*** *Lecture Theatre 21 & 22*
13:00 – 14:30	Lunch ***Venue:*** *The Grand Hall*

14:30 – 16:30	**1st iDIEC 2023 JUDGING SESSION**
	Venue: *The Grand Hall*
	
	Concurrent Session 1 (9 rooms)
	Venue: *Basement Ground, Block A*
	  • 6 rooms = Paper Presentation
	  • 3 rooms = Workshop Session

16:30 – 17:00	Afternoon Tea Break and Conference Adjourned for Day 1 ***Venue:*** *The Grand Hall*

DAY 2: 5th OCTOBER 2023 (THURSDAY)

Table 2-DAY 2: ICSE 2023 CONFERENCE SCHEDULE

TIME	PROGRAMME AND VENUE
08:30 – 10:30	**Plenary Session 2:** *Venue: Lecture Theatre 21 & 22* **Keynote:** Mdm. Ami Tango-Limketkai Perkins School For The Blind **Topic:** Reaching Every Child and Retaining Them in School (40 minutes) **Plenary Speaker:** Mdm.Catherine Wilczek UNESCO **Topic:** Prioritizing Teaching (20 minutes) **Plenary Speaker:** Mdm. Nur Hidayah Mohamed Ibrahim Ministry of Health Malaysia **Topic:** Developing Psychosocial Health and Well-being (20 minutes)
08:30 – 16:30	iDIEC Exhibition *Venue: The Grand Hall*
10:30 – 11:00	Morning Tea Break *Venue: The Grand Hall*
11:00 – 13:00	**Plenary Session 3:** *Venue: Lecture Theatre 21 & 22* **Keynote:** Assoc. Prof. Dr. Sharifah Mariam Aljunied Ministry of Education, Singapore **Topic:** Education Transformation (40 minutes) **Plenary Speaker:** Mr. Raja Azmi Adam Google For Education Malaysia, Singapore & Brunei **Topic:** Digital Learning (20 minutes) **Plenary Speaker:** Assoc. Prof. Dr. Wong Meng Ee Nanyang Technological University **Topic:** Alternative Teaching and Learning Method (20 minutes)
13:00 – 14:00	Lunch *Venue: The Grand Hall*
14:00 – 15:30	**Concurrent Session 2 (7 rooms)** *Venue: Basement Ground, Block A* • 5 rooms = Paper Presentation • 2 rooms = Workshop Session
15:30 – 16:00	Afternoon Tea Break *Venue: The Grand Hall*
16:00 – 17:00	**Closing Ceremony** *Venue: Lecture Theatre 21 & 22*

1ˢᵗ INNOVATION FOR DISABILITY-INCLUSIVE EDUCATION COMPETITION (IDIEC) 2023 SCHEDULE

DAY 1: 4ᵗʰ OCTOBER 2023 (WEDNESDAY)

Table 3-IDIEC 2023 SCHEDULE 4ᵗʰ OCTOBER 2023

TIME	PROGRAMME AND VENUE
07:30 – 08:30	**iDIEC 2023 Finalist Registration**
08:30 – 09:00	**Booth Preparation**
09:00 – 12:00	**Public Access**
08:50 – 10:50	Plenary Session 1 (Keynote Session 1)
	Workshop Session 1 (2 rooms)
10:50 – 11:00	Arrival of Guest of Honour
11:00 – 13:00	Opening Ceremony
13:00 – 14:30	Lunch
14:30 – 16:30	**iDIEC 2023 Judging Session (8 Groups)**
	Concurrent Session 1 (10 rooms)
16:30 – 17:00	Afternoon Tea Break
	Adjourned for Day 1

DAY 2: 5ᵗʰ OCTOBER 2023 (THURSDAY)

Table 4-IDIEC 2023 SCHEDULE 5ᵗʰ OCTOBER 2023

TIME	PROGRAMME AND VENUE
08:00 – 08:30	**Booth Preparation**
09:00 – 12:00	**Public Access**
08:30 – 10:30	**iDIEC 2023 Judging Session (8 Groups)**
	Plenary Session 2 (Keynote Session 2)
	Workshop Session 2 (2 rooms)
10:30 – 11:00	Morning Tea Break
11:00 – 13:00	Plenary Session 3 (Keynote Session 3)
	Workshop Session 3 (2 rooms)
13:00 – 14:00	Lunch
14:00 – 15:30	Concurrent Session 2 (10 rooms)
15:30 – 16:00	Afternoon Tea Break
16:00 – 17:00	**Presentation of Award for 1ˢᵗ Innovation for Disability-Inclusive Education Competition 2023 (iDIEC)**
	Closing Ceremony

ICSE 2023

CONCURRENT SESSION SCHEDULE

DAY 1: 4th OCTOBER 2023 (WEDNESDAY), TIME: 14:30 – 16:30

BUILDING AND SUSTAINING INCLUSIVE SOCIETY
ROOM: BG.20 (BASEMENT GROUND, BLOCK A)

Table 5-BUILDING AND SUSTAINING INCLUSIVE SOCIETY. ROOM: BG.20 (BASEMENT GROUND, BLOCK A)

PAPER ID	PAPER TITLE & AUTHOR(S)
ICSE 2023: **075-023**	RESEARCH ON ATTITUDES TOWARDS INCLUSIVE EDUCATION AMONG PRESCHOOL EDUCATION PRE-SERVICE TEACHERS IN CHINA *Zeng Xiaoli & Low Hui Min*
ICSE 2023: **123-084**	SENIOR HIGH SCHOOL TRACK PREFERENCES OF GRADE 10 LEARNERS WITH SPECIAL EDUCATIONAL NEEDS (LSENs): A BASIS FOR CAREER GUIDANCE PROGRAM *Arlene C. Dalut & Ayson M. Catipon*
ICSE 2023: **4**	ZERO REJECT POLICY: THE POLICY THAT PROVIDES ACCESS TO EDUCATION FOR CHILDREN WITH SPECIAL EDUCATIONAL NEEDS *Hanizan Che Mat; Salmah Jopri & Muhd Khaizer Omar*
ICSE 2023: **002-040**	AUTISTIC TRAITS PROFILES AMONG UNDERGRADUATE STUDENTS IN MALAYSIA: A DESCRIPTIVE ANALYSIS *Mohd Syazwan Zainal; Hui Min Low & Hairul Nizam Ismail*
ICSE 2023: **092-047**	IC ALL ROSENIANS (INCLUSION COUNCIL FOR ALL ROSENIANS): ASSESSING THE LEVEL OF INCLUSIVITY IN SANTA ROSA CITY AS BASIS FOR AN INTER-AGENCY INCLUSION COUNCIL *Manuela S. Tolentino; Ceso V & Paulo B. Mangubos*
ICSE 2023: **104-063**	EARLY DETECTION AND SUPPORT FOR CHILDREN WITH LEARNING DISABILITIES BY APPLYING UNIVERSAL DESIGN IN LEARNING - A CASE STUDY IN VIETNAM *Nguyen Thi Cam Huong; Nguyen Ha My; Nguyen Thi Tham; Tran Thi Bich Ngoc; Bui The Hop; Nguyen Minh Phuong; Do Thi Thao & Nguyen Nu Tam An*

PAPER ID	PAPER TITLE & AUTHOR(S)
ICSE 2023: **012-042**	GOING BEYOND KNOWLEDGE: INTERVENTION ON DYSLEXIA AMONG PUBLIC SCHOOL TEACHERS IN A TOWN IN THE PHILIPPINES *Maria Ophelia L. Cario & Rhea R. Bailey*

EMPOWERING FAMILIES, COMMUNITIES AND STAKEHOLDERS OF CHILDREN WITH SPECIAL EDUCATIONAL NEEDS
ROOM: BG.15 (BASEMENT GROUND, BLOCK A)

Table 6-EMPOWERING FAMILIES, COMMUNITIES AND STAKEHOLDERS OF CHILDREN WITH SPECIAL EDUCATIONAL NEEDS. ROOM: BG.15 (BASEMENT GROUND, BLOCK A)

PAPER ID	PAPER TITLE & AUTHOR(S)
ICSE 2023: **065-024**	INCLUSIVE EDUCATION: PERCEPTION, PRACTICE AND IMPLEMENTATION WITHIN MALAYSIA *Chua Tuan Sek & Low Hui Min*
ICSE 2023: **174-096**	DEVELOPMENT AND VALIDATION OF AN ONLINE HEARING AID ORIENTATION MODULE FOR PARENTS OF HEARING IMPAIRED CHILDREN *Rafidah Mazlan; Wan Nur Hanim Mohd Yusoff; Nur Izzati Md. Yusoff; Mohamad Firdaus Latip; Alicia Tan Gek Ching; Hanani Harun Rasit; Mohd Azlis Sani Md Jalil; Mohd Zulkarnain Abdul Wahab & Mohd Anis Abdul Razak*
ICSE 2023: **180-100**	DETERMINING THE VALIDITY OF THE MALAY VERSION OF WORLD HEALTH ORGANIZATIONS CAREGIVER SKILLS TRAINING PACKAGE THROUGH COGNITIVE INTERVIEWING *Mardhiah Mohd Zain; Siti Zuhairah Mohamad Saufe; Sazlina Kamaralzaman; Hasnah Toran; Mohd Azlis Sani Md Jalil; Puteri Norfariza Arbain; Nilam Suhana Othman; Mohd Anis Abdul Razak & Mohd Zulkarnain Abdul Wahab*
ICSE 2023: **181-101**	PARENT EMPOWERMENT PROGRAM (PEP) AS A WAY OF INTENSIFYING SOCIO-EMOTIONAL LEARNING FOR NEURO-TYPICAL AND NEURO-DIVERSE LEARNERS AS THEY TRANSITION FROM DISTANCE LEARNING BACK TO FACE-TO-FACE CLASSES: A SMALL PRIVATE PROGRESSIVE INCLUSIVE SCHOOLS PROGRAM TO RECOVERY AND GROWTH *Nilda B. Delgado; Genevieve Q. Collantes; Jan Jade N. Tabasa; Diana Grace S. Ariz & Frank S. Emboltura*

PAPER ID	PAPER TITLE & AUTHOR(S)
ICSE 2023: **165-094**	FOSTERING INDEPENDENCE: PERLIS SPECIAL TEENS CENTRE ENGAGES FAMILIES, COMMUNITIES, AND STAKEHOLDERS *Nazmin Abdullah; Maisarah A Aziz; Noor Shahanis Abdullah; Ruwaida Yussof; Nurul Nadia Razak; Norsyahirah Romly & Mohd Shazrul Faiz Azmi*
ICSE 2023: **186-106**	ENHANCING THINKING SKILLS AMONGST CHILDREN WITH AUTISM SPECTRUM DISORDER THROUGH PLAY THERAPY: A CASE STUDY IN AN INCLUSIVE CHILDCARE CENTRE IN KUCHING, SARAWAK *Bong Lie Chien; Felicia Genie Tersan & Ng Lee Boon*
ICSE 2023: **079-027**	FACTORS CORRELATED WITH COGNITIVE DIFFICULTIES EXPERIENCED BY EPILEPTIC CHILDREN *Bhawani Letchemanan & Hui Min Low*

LEARNING AND INNOVATION FOR STUDENTS WITH SPECIAL EDUCATIONAL NEEDS
ROOM: BG.18 (BASEMENT GROUND, BLOCK A)

Table 7-LEARNING AND INNOVATION FOR STUDENTS WITH SPECIAL EDUCATIONAL NEEDS. ROOM: BG.18 (BASEMENT GROUND, BLOCK A)

PAPER ID	PAPER TITLE & AUTHOR(S)
ICSE 2023: **142-087**	EXPLORATORY STRUCTURAL EQUATION MODELING FOR THE CHILDREN'S SLEEP HABITS QUESTIONNAIRE IN AUTISM: A METHODOLOGIC SOLUTION FOR INADEQUATE RESULTS OF TRADITIONAL CFA *Pang Feifan; Yang Lan; Sin Kuen-fung & Lu Minghui*
ICSE 2023: **010-003**	EVALUATING THE EFFECTIVENESS OF THE OCCUPATIONAL THERAPY HANDWRITING INTERVENTION GUIDELINE ON HANDWRITING SKILLS FOR CHILDREN: A PROTOCOL FOR CLUSTERED-RANDOMISED CONTROL TRIAL *Mahfuzah Zainol; Masne Kadar; Nor Afifi Razaob; Farahiyah Wan Yunus & Nurbieta Abd Aziz*

PAPER ID	PAPER TITLE & AUTHOR(S)
ICSE 2023: **018-007**	VALIDITY OF DYSCALCULIA MODULE FOR PUPILS WITH DYSCALCULIA *Yoong Soo May; Noor Aini Ahmad; Ardzulyna Anal; Kumaran Gengatharan; Sukor Beram & Norzalina Noor*
ICSE 2023: **142-086**	ASSESSMENT OF INCLUSIVE TEACHING PRACTICES FOR SUPPORTING STUDENTS WITH AUTISM: RASCH ANALYSIS OF THE PRACTICE AND PRODUCT INVENTORY OF SUPPORTING STUDENTS WITH AUTISM *Pang Feifan; Yang Lan; Sin Kuen-fung & Gao Feng-Zhan*
ICSE 2023: **047-010**	RESEARCH ON THE INTEGRATED EDUCATION ADAPTABILITY OF VISUALLY IMPAIRED STUDENTS" A STUDY ON BINZHOU MEDICAL UNIVERSITY FROM CHINA" *Zhou Bo & Kway Eng Hock*
ICSE 2023: **067-015**	A BIBLIOMETRIC STUDY ON SPECIAL EDUCATIONAL NEEDS (SEN): THE GROWTH TRAJECTORY *Wang Yanan & Low Hui Min*
ICSE 2023: **072-022**	SELF-EFFICACY AND MINDSET IN STUDENTS WITH AND WITHOUT LEARNING DIFFICULTY *Wang Hao & Hui Min Low*

LEARNING AND INNOVATION FOR STUDENTS WITH SPECIAL EDUCATIONAL NEEDS
ROOM: BG.13 (BASEMENT GROUND, BLOCK A)

Table 8-LEARNING AND INNOVATION FOR STUDENTS WITH SPECIAL EDUCATIONAL NEEDS. ROOM: BG.13 (BASEMENT GROUND, BLOCK A)

PAPER ID	PAPER TITLE & AUTHOR(S)
ICSE 2023: **080-037**	INVESTIGATION OF SOCIAL IMAGINATION USING WORDLESS PICTURE BOOK AMONG PRESCHOOLERS *Fang Fang & Low Hui Min*
ICSE 2023: **081-038**	KNOWLEDGE AND AWARENESS ABOUT EMOTIONAL REGULATION TEACHING METHOD AMONG SPECIAL EDUCATION TEACHERS IN MALAYSIA *Noraziyanah Md Jais & Low Hui Min*

PAPER ID	PAPER TITLE & AUTHOR(S)
ICSE 2023: **004-043**	ASSESSING THE USABILTY OF PERSONALISED-MULTILINGUAL AAC "MYSUARA" MOBILE APPLICATION *Kalaimathi Rajagopal; Low Hui Min & Siti Mastura Baharudin*
ICSE 2023: **093-051**	ACADEMIC ACHIEVEMENT OF CHILDREN WITH DEAFNESS OR HARD OF HEARING (DHH) INCLUSIVE EDUCATIONAL SETTING: A SCOPING REVIEW *Aw Cheu Lih; Lee Lay Wah; Mohd Fadzil Nor Rashid & Aznan Che Ahmad*
ICSE 2023: **105-056**	THE STATUS OF USING AUGMENTATIVE AND ALTERNATIVE COMMUNICATION IN INTERVENTION FOR CHILDREN WITH AUTISM SPECTRUM DISORDERS IN VIETNAM *Nguyen Nu Tam An; Cao Bich Thuy; Do Thi Thao; Tran Thi Bich Ngoc; Nguyen Thi Cam Huong; Nguyen Ha My; Dinh Nguyen Trang Thu; Ngo Thi Duyen; Do Phuong Uyen & Mai Thuy Quynh*
ICSE 2023: **013-073**	THE LEVEL OF INTEREST OR MOTIVATION WITH DIFFERENTIATED INSTRUCTION IN BLENDED LEARNING AMONG LOW ACHIEVING STUDENTS *Hoe Sin Ling; Yeo Kee Jiar & Azlina Mohd Kosnin*
ICSE 2023: **086-046**	SURVEY OF GENERAL EDUCATION TEACHERS' AND SPECIAL EDUCATION TEACHERS' KNOWLEDGE, SKILLS, AND ENGAGEMENT IN UNIVERSAL DESIGN FOR LEARNING IN CHINA *Sun Yuege & Rozniza Zaharudin*

LEARNING AND INNOVATION FOR STUDENTS WITH SPECIAL EDUCATIONAL NEEDS
ROOM: BG.16 (BASEMENT GROUND, BLOCK A)

Table 9-LEARNING AND INNOVATION FOR STUDENTS WITH SPECIAL EDUCATIONAL NEEDS. ROOM: BG.16 (BASEMENT GROUND, BLOCK A)

PAPER ID	PAPER TITLE & AUTHOR(S)
ICSE 2023: **166-088**	THE ASSESSMENT OF FUNDAMENTAL MOTOR SKILLS (FMS) PROFICIENCY AMONG CHILDREN WITH AUTISM SPECTRUM DISORDERS (ASD) AT PERSATUAN KANAK-KANAK ISTIMEWA AMPANG *Nagoor Meera Abdullah; Siti Soleha Abdul Rahman; Norazhan Che Lan; Mohamad Nizam Mohamed Shapie; Mohamad Rahizam Abdul Rahim; Wahidah Tumijan; Zarizi Ab Rahman & Novri Gazali*
ICSE 2023: **181-104**	AN ETHNOGRAPHIC STUDY ON THE PROCESS OF (RE) DESIGNING LIFE SKILLS PROGRAM AS A SCHOOL-HOME COLLABORATION DURING THE COVID-19 PANDEMIC AND AS PREPARATION FOR RETURNING TO FACE-TO-FACE CLASSES *Nilda B. Delgado; Genevieve Q. Collantes; Jan Jade N. Tabasa; Diana Grace S. Ariz; Mary Grace A. Educado; Jovel Ann R. Beramo & Frank S. Emboltura*
ICSE 2023: **191-112**	TECHNOLOGY SUPPORT FOR THE INCLUSION OF DEAF STUDENTS IN SLB 1 SUKABUMI CITY *Deden Novan Setiawan Nugraha & Nurul Hermina*
ICSE 2023: **192-117**	PARENTAL PERCEPTION OF SOCIAL COMMUNICATION DIFFICULTIES AMONG CHILDREN WITH AUTISM SPECTRUM DISORDER (ASD) *Joanna Ting Hie Ping*
ICSE 2023: **102-053**	AN INTERDISCIPLINARY HANDWRITING FRAMEWORK *Ann Lee Sien Sut; Low Hui Min & Lee Lay Wah*
ICSE 2023: **112-055**	THE DEVELOPMENT OF AN ITEM BANK OF WORD PROBLEMS TO MONITOR PROGRESS OF STUDENTS WITH LEARNING DIFFICULTIES IN MATHEMATICS *Lim Luck Siew*

PAPER ID	PAPER TITLE & AUTHOR(S)
ICSE 2023: **183-103**	THE TEACHING STRATEGIES OF AKLANON TEACHERS IN INCLUSIVE CLASSROOMS *Ciciro A. Reyes; Griselda C. Quintana; Clyde G. Abayon; Alma I. Irader & Lelisa J. Teodosio*

TEACHER TRAINING AND CAPACITY BUILDING
ROOM: BG.14 (BASEMENT GROUND, BLOCK A)

Table 10-TEACHER TRAINING AND CAPACITY BUILDING. ROOM: BG.14 (BASEMENT GROUND, BLOCK A)

PAPER ID	PAPER TITLE & AUTHOR(S)
ICSE 2023: **064-018**	PRE-SERVICE TEACHERS' PERCEPTIONS TOWARDS THE INCLUSION OF CHILDREN WITH SPECIAL EDUCATIONAL NEEDS IN CHINESE PRESCHOOL *Li Lu Na & Low Hui Min*
ICSE 2023: **173-099**	COMPETENCIES FOR VOCATIONAL TEACHERS OF LEARNERS WITH SPECIAL EDUCATIONAL NEEDS: META-ANALYSIS *Mohd Farizan Mohd Saad @ Zakaria; Chia Jong Huey; Nornazira Suhairom; Muhammad Sukri Saud & Salmalina Salleh*
ICSE 2023: **200-113**	PRESERVICE TEACHERS' BEHAVIOURAL AFFECTION TOWARD INCLUSIVE EDUCATION SCALE (PTBAIES) WITHIN MALAYSIAN CONTEXT *Teng Kie Yin; Yusminah Mohd Yusof; Salmi Lilek; Low Moi Jun; Khamisiah Mohamed Kamal; Halik Wang & Dayang Masbah Abang Mohd Amin*
ICSE 2023: **200-115**	GENDER POLARISATION AND PRESERVICE TEACHERS' BEHAVIOURAL AFFECTION TOWARDS INCLUSIVE EDUCATION *Teng Kie Yin; Ernia Syafeka Sam; Kelvin Yiung Shi Hong; Lee Wen Qing & Mohd Harris Haiqal Ahmad Moslini*
ICSE 2023: **200-116**	RELATIONSHIP BETWEEN AFFECTION AND BEHAVIOUR TOWARDS INCLUSIVE EDUCATION AMONG THE PRESERVICE TEACHERS *Teng Kie Yin; Rebecca Lu Yann Ru; Carol Rayong; Nurjanna Mohd Yusof & Rismaya Abbas*

PAPER ID	PAPER TITLE & AUTHOR(S)
ICSE 2023: **095-050**	POSITIVE TEACHER LANGUAGE: IMPROVING TEACHER-STUDENT RELATIONSHIPS AND ENGAGING LOW PROGRESS STUDENTS *Ailsa Goh; Carol Tan & Tan Cher Chong*
ICSE 2023: **124-070**	LEGAL LANDSCAPES OF INCLUSIVE EDUCATION IN THE MALDIVES: EVOLUTION, IMPLEMENTATION, AND FUTURE DIRECTION *Mariyam Shareefa; Visal Moosa & Shuhudha Rizwan*

DAY 2: 5th OCTOBER 2023 (THURSDAY), TIME: 14:30 – 15:30

EMPOWERING FAMILIES, COMMUNITIES AND STAKEHOLDERS OF CHILDREN WITH SPECIAL EDUCATIONAL NEEDS
ROOM: BG.20 (BASEMENT GROUND, BLOCK A)

Table 11-EMPOWERING FAMILIES, COMMUNITIES AND STAKEHOLDERS OF CHILDREN WITH SPECIAL EDUCATIONAL NEEDS. ROOM: BG.20 (BASEMENT GROUND, BLOCK A)

PAPER ID	PAPER TITLE & AUTHOR(S)
ICSE 2023: **1**	QUALITY OF LIFE OF ADOLESCENTS WITH INTELLECTUAL DISABILITY *Umadevi VM & PS Sukumaran*
ICSE 2023: **140-079**	THE VOICE: A CASE STUDY ON PARENTAL PERSPECTIVES IN EMPOWERING LEARNERS WITH SPECIAL EDUCATIONAL NEEDS THROUGH PERFORMING ARTS EDUCATION *Suhaila Mohamad*

BUILDING AND SUSTAINING INCLUSIVE SOCIETY
ROOM: BG.20 (BASEMENT GROUND, BLOCK A)

Table 12-BUILDING AND SUSTAINING INCLUSIVE SOCIETY. ROOM: BG.20 (BASEMENT GROUND, BLOCK A)

PAPER ID	PAPER TITLE & AUTHOR(S)
ICSE 2023: **109-062**	INCLUSIVE EDUCATION IN THE CURRENT CONTEXT OF INNOVATIONS OF EDUCATION IN VIETNAM *Dinh Nguyen Trang Thu; Nguyen Van Hung; Nguyen Minh Phuong & Do Thi Thanh Thuy*

PAPER ID	PAPER TITLE & AUTHOR(S)
ICSE 2023: **178-097**	NONE LEFT BEHIND: DEVELOPING MATERIALS IN LOCAL LANGUAGE TO SUPPORT PARENTS OF STUDENTS WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD), AUTISM SPECTRUM DISORDER (ASD), AND LEARNING DISABILITIES (LD) DURING COVID-19. *Fathmath Nishan*
ICSE 2023: **063-039**	RESEARCH ON INCLUSIVE EDUCATION FOR KINDERGARTEN IN SERVICE TEACHERS AND PRE-SERVICE TEACHERS BASED ON INCLUSIVE INDICATORS *Yang YuCui & Low Hui Min*

LEARNING AND INNOVATION FOR STUDENTS WITH SPECIAL EDUCATIONAL NEEDS
ROOM: BG.15 (BASEMENT GROUND, BLOCK A)

Table 13-LEARNING AND INNOVATION FOR STUDENTS WITH SPECIAL EDUCATIONAL NEEDS. ROOM: BG.15 (BASEMENT GROUND, BLOCK A)

PAPER ID	PAPER TITLE & AUTHOR(S)
ICSE 2023: **2**	THE EFFICACY OF THE CEITA EARLY INTERVENTION PROGRAM FOR YOUNG CHILDREN WITH AUTISM SPECTRUM DISORDERS IN MALAYSIA: A RANDOMIZED CONTROLLED TRIAL DESIGN *Yung Lin, Han; Wan Shahrazad Wan Sulaiman; Abdul Rahman Ahmad Badayai & Hilwa Abdullah*
ICSE 2023: **114-057**	THE EFFECTIVENESS OF THE MATH KEYWORD SHEET AND THE CUBES-V STRATEGY IN SOLVING MATHEMATICAL PROBLEMS IN REMEDIAL CLASS *Tan Siew Joey; Chan Mun Syuen; Lewis Sia Qi Kai; Afian Akhbar Mustam & Hanani Harun Rasit*
ICSE 2023: **099-058**	M-TECHNIQUE TOWARDS SEN STUDENTS' PERFORMANCE AND ANXIETY LEVEL IN MATHEMATICS *Cheng Chung Yu; Chin Jack Onn; Seow Wen Qiang; Rohani Abd Wahab & Hanani Harun Rasit*

PAPER ID	PAPER TITLE & AUTHOR(S)
ICSE 2023: **100-059**	READINESS OF ELEMENTARY TEACHERS IN INCLUSIVE EDUCATION *Yeoh Yan Han; Tan Hui Shan; Chua Jing En; Everild Lau Xin Yi; Hanani Harun Rasit & Tan Tong Hock*
ICSE 2023: **097-060**	THE EFFECT OF "FRACTION FUNK MUSIC" IN TEACHING FRACTION TOWARDS SPECIAL EDUCATION *Ooi Zhi Khang; Lew Hao Zhe; Lim Sheng Ren; Lim Zhi Sean & Hanani Harun Rasit*

LEARNING AND INNOVATION FOR STUDENTS WITH SPECIAL EDUCATIONAL NEEDS
ROOM: BG.18 (BASEMENT GROUND, BLOCK A)

Table 14-LEARNING AND INNOVATION FOR STUDENTS WITH SPECIAL EDUCATIONAL NEEDS. ROOM: BG.18 (BASEMENT GROUND, BLOCK A)

PAPER ID	PAPER TITLE & AUTHOR(S)
ICSE 2023: **098-061**	VISUAL ARTS INTEGRATION ON GEOMETRY ACHIEVEMENT FOR SPECIAL EDUCATION PUPILS *Crystal Ling Xiu Bin; Alicia Wang Shin Ping; Lim Tse Yunn; Yau Sze Xuen & Hanani Harun Rasit*
ICSE 2023: **164-085**	MOOD BOARD: THE PSYCHOLOGICAL WELLBEING ASSESSMENT FOR SPECIAL NEEDS STUDENTS IN CLASSROOM SETTING *Geh Cheow Lin; Philip Lew Chun Foong & Shamsudin Mohamad*
ICSE 2023: **201-114**	TEACHING PREPOSITIONS TO EARLY CHILDHOOD EDUCATION STUDENTS WITH AUTISM: STRATEGIES, CHALLENGES, AND COLLABORATION *Ross Ahnel R. Ramos; Rea Rianna R. Revadillo; Jabriel Caleb S. Dailo; Rachelle Ann D. Redil & Kristine Nicole Y. Malaga*
ICSE 2023: **068-016**	KIT VisMat.SE APPLICATION INNOVATION: SIMPLE, ATTRACTIVE AND JOYFUL MATHEMATICS *Norhayati Abd Aziz; Leong Theng Theng; Mohd Zulkarnain Abdul Wahab; Alina Mazwin Mansor; Mohamad Basri Nadzeri & Mohamad Affandi Rosdi*

PAPER ID	PAPER TITLE & AUTHOR(S)
ICSE 2023: **137-077**	CURRENT SITUATION OF DEVELOPING SELF-AWARENESS SKILLS FOR CHILDREN WITH AUTISM SPECTRUM DISORDERS VIA ART THERAPY IN INCLUSIVE SCHOOLS *Quyen Pham (Pham Thi To Quyen) & Tham Nguyen (Nguyen Thi Tham)*

TECHNICAL AND VOCATIONAL EDUCATION TRAINING (TVET) FOR STUDENTS AND YOUTHS WITH SPECIAL EDUCATIONAL NEEDS
ROOM: BG.13 (BASEMENT GROUND, BLOCK A)

Table 15-TECHNICAL AND VOCATIONAL EDUCATION TRAINING (TVET) FOR STUDENTS AND YOUTHS WITH SPECIAL EDUCATIONAL NEEDS. ROOM: BG.13 (BASEMENT GROUND, BLOCK A)

PAPER ID	PAPER TITLE & AUTHOR(S)
ICSE 2023: **116-064**	INCLUSIVE EDUCATION: A PRELIMINARY STUDY AMONG TRAINEE TEACHERS IN INSTITUTE OF TEACHER EDUCATION, TECHNICAL EDUCATION CAMPUS *Romy Abd Kadir; Anusuya Kaliappan; Hanani Harun Rasit; Syamsiah Mokhtar & Shanty Sai'en*
ICSE 2023: **117-076**	CHALLENGES FACED BY TRAINEE TEACHERS AT IPGKPT IN TECHNICAL AND VOCATIONAL EDUCATION TRAINING (TVET) FOR SPECIAL NEEDS STUDENTS *Tan Hao En; Shanty Sai'en; Tan Chun Zin; Ng Wen Wen; STharsini PannerSelvan; Hanani Harun Rasit & Romy Abd Kadir*
ICSE 2023: **169-091**	IMPLEMENTATION OF VOCATIONAL SKILLS FOR STUDENTS WITH SPECIAL EDUCATIONAL NEEDS IN PRIMARY SCHOOLS IN MALAYSIA *Zulhafizsyam Zulkifli & Ardzulyna Anal*

EMPOWERING FAMILIES, COMMUNITIES AND STAKEHOLDERS OF CHILDREN WITH SPECIAL EDUCATIONAL NEEDS
ROOM: BG.13 (BASEMENT GROUND, BLOCK A)

Table 16-EMPOWERING FAMILIES, COMMUNITIES AND STAKEHOLDERS OF CHILDREN WITH SPECIAL EDUCATIONAL NEEDS. ROOM: BG.13 (BASEMENT GROUND, BLOCK A)

PAPER ID	PAPER TITLE & AUTHOR(S)
ICSE 2023: **120-068**	THE LEVEL OF READINES TRAINEE TEACHERS IN THE INSTITUTE OF TEACHER EDUCATION TECHNICAL EDUCATION CAMPUS FOR SPECIAL NEEDS STUDENTS IN TVET SUBJECTS *Johnady Wong Tiong Hee; Mohd Ridzuan Padzil; Hanani Harun Rasit; Alice Wong Ming Hiong; Christina Ting Yuer Ning & Esmond Yap Wei Yang*
ICSE 2023: **3**	IDENTIFYING CHILDREN WITH AUTISM SPECTRUM DISORDER (ASD) AMONG MAINSTREAM PRESCHOOL TEACHERS IN KLANG VALLEY *Nadine Chan Kit Yi & Revati Ramakrishnan*

TRANSITION FROM SCHOOL TO EMPLOYMENT FOR STUDENTS AND YOUTHS WITH SPECIAL EDUCATIONAL NEEDS
ROOM: BG.16 (BASEMENT GROUND, BLOCK A)

Table 17-TRANSITION FROM SCHOOL TO EMPLOYMENT FOR STUDENTS AND YOUTHS WITH SPECIAL EDUCATIONAL NEEDS. ROOM: BG.16 (BASEMENT GROUND, BLOCK A)

PAPER ID	PAPER TITLE & AUTHOR(S)
ICSE 2023: **143-083**	A SYSTEMATIC REVIEW OF CAREER ADAPTABILITY IN STUDENTS WITH SPECIAL EDUCATIONAL NEEDS *Cheng Li; Lan Yang & Kuen Fung Sin*
ICSE 2023: **061-014**	A CONCEPTUAL FRAMEWORK OF WORK READINESS SKILLS NEED BY EMPLOYERS AMONG STUDENTS WITH LEARNING DISABILITIES IN SPECIAL EDUCATION VOCATIONAL SCHOOLS *Nur Maslina Mastam & Rozniza Zaharudin*
ICSE 2023: **095-049**	THE HOPES AND DREAMS FOR YOUTH WITH INTELLECTUAL DISABILITIES *Ailsa Goh; Wong Meng Ee & Carol Tan*
ICSE 2023: **185-105**	TRANSITION TO EMPLOYMENT: INSTRUCTIONAL STRATEGIES OF SPECIAL EDUCATION TEACHERS FOR STUDENTS WITH HEARING IMPAIRMENT *Percella Mae Conag; Reilly Raje Angeles; Sarah Grace Suanino; Princess Charm San Miguel & Dyan Angela Macerin*

ICSE 2023

5th ICSE ABSTRACTS

(SEAMEO SEN PROCEEDING ISSN)

(ICSE 2023: 092-047)

IC ALL ROSENIANS (INCLUSION COUNCIL FOR ALL ROSENIANS): ASSESSING THE LEVEL OF INCLUSIVITY IN SANTA ROSA CITY AS BASIS FOR AN INTER-AGENCY INCLUSION COUNCIL

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ABSTRACT

Several societal goals, such as achieving universal education, expanding gender equality, reducing child mortality, and improving maternal health, depend on inclusion in the society. In this regard, the establishment of an Inclusion Council is one of the objectives stressed in the Executive Legislative Agenda (ELA) of the City of Santa Rosa, which focuses on Inclusive Education. Republic Act No. 11650, An Act Establishing a Policy of Inclusion and Services for Learners with Disabilities (LWDs) in Support of Inclusive Education Act, served as its foundation. This study assessed the level of inclusivity in the different agencies and sectors in the Local Government of Santa Rosa City. In terms of the level of implementation of inclusivity in the identified agencies and sectors - Manpower Development Office, City Youth Development Office, City Culture and Arts Office, City Scholarship Office, City Sports Development Office, and DepEd Santa Rosa City; it was proven that the respondents firmly support the implementation of inclusion in their respective agencies with regard to fostering an inclusive workplace, specifically in creating inclusive environment. With regard to producing inclusive policies, the respondents firmly concur that their respective agencies have rules on inclusion in the workplace. While for evolving inclusive practices, the respondents continue to actively support the development of inclusive practices in their offices or agencies. As a result of this study, it is concluded that Santa Rosa City's implementation of inclusivity is at a level where the personnel are aware of the concepts of inclusion among their agencies and offices. As recommended, the researchers proved the importance of an inclusion council that will enjoin all related agencies and sectors in the Local Government of Santa Rosa City. This study ensured the inclusivity among all the Rosenian with special needs to secure a future ahead of them by giving them equitable opportunities through an institutionalized Inclusion Council. Thus, it has been made possible and proven effective by assessing the level of inclusivity in the entire city among the different local government agencies and sectors that are expected to work altogether in an Inclusion Council for a more inclusive community.

Keywords: Inclusion Council, Inclusive Community, Special Education

THE HOPES AND DREAMS FOR YOUTH WITH INTELLECTUAL DISABILITIES

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ABSTRACT

Transition is difficult for everyone, but it is particularly challenging for youth with ID and their families. When these youth transition out of school to post school environments, they will move from a structured environment with clear daily routines, with school personnel who are tasked to teach and support them, to environments where on-going support and services are not readily available. The purpose of this study is to explore how the various stakeholders envision the future for youth with ID from the perspectives of the individuals themselves, their parents and siblings, and the school personnel. Thirty-three participants from four stakeholder groups (i.e., eight students with ID, 10 parents, six siblings and nine school personnel) participated in this study. The eight student participants were from three special schools. We utilized semi-structured interviews and qualitative research methods to explore the perspectives of stakeholders on youth with ID transitioning to adulthood. All interviews were audio-recorded and transcribed verbatim. The data were analyzed using thematic analysis. The various stakeholders envisioned a future where the youth with ID will: (a) be meaningfully occupied and/or gainful employed, (b) be independent in managing themselves, (c) be emotionally and/or physically healthy, (d) be safe, and (e) have social lives. The findings provide insights into the stakeholders' vision of the future for youth with ID and suggest that while working to increase post school options is critical, more importantly, we need to support the family to empower the youth to explore the available opportunities. A family's hopes and dreams for the youth with ID are often clouded by society's expectations for people with disabilities. Therefore, the mindsets, beliefs and attitudes of the general public towards the participation of people with disabilities in the society must change.

Keywords: Transition, Adulthood, Intellectual Disabilities, School-to-Work

(ICSE 2023: 095-050)

POSITIVE TEACHER LANGUAGE: IMPROVING TEACHER-STUDENT RELATIONSHIPS AND ENGAGING LOW PROGRESS STUDENTS

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ABSTRACT

Teacher's language can help create a supportive and conducive classroom environment for learning. Positive Teacher Language (PTL) is one of ten practices in the Responsive Classroom approach. PTL emphasizes the careful and conscientious use of words, voice, tone, and pacing by the teacher when talking to students, and together with effective listening skills, will nurture students to develop self-discipline, build sense of belonging, and encourage students to learn and achieve in an engaging and active way. While research has shown that a strong teacher-student relationship is critical as a firm foundation for learning for low progress students, there are few research studies in the Singapore context that look at the how-to of building teacher-student relationships. The purpose of this research study was to evaluate the impact of a teacher professional development program on PTL to improve teacher-student relationships and to engage low progress students. We utilized a single-case research design, specifically, the multiple baseline across participants design. Twelve teachers and 18 students from two primary schools participated in the study. The outcome measures were direct classroom observation of students' classroom engagement and audio-recording of lessons to collect data on teachers' use of PTL. Teachers completed a questionnaire and were interviewed on their views on the acceptability and effectiveness of PTL. Teachers reported high acceptability of the PTL intervention, and they perceived that PTL is effective and beneficial for their students. However, the results revealed that the task of unlearning formed teacher talk habits and learning the new PTL presented a steep learning curve for the teachers. Performance feedback to the teachers led to greater use of PTL in the classroom. However, this study did not show conclusive findings with regards to the effect of PTL on students' classroom engagement and teacher-student relationships.

Keywords: Teacher language, Teacher-student relationship, Low progress students

THE EFFECT OF "FRACTION FUNK MUSIC" IN TEACHING FRACTION TOWARDS SPECIAL EDUCATION

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ABSTRACT

This study explores the effect of using Fraction Funk Music (FFM) in teaching fractions to primary school students with special educational needs (SEN). Fractions are essential to the primary school curriculum, and a deep understanding of fractions is crucial for future mathematics learning. However, teaching fractions can be challenging, especially in inclusive classrooms, where students with SEN may have misconceptions about fractions. One common misconception is that fraction operations require only memorization of rules and procedures, leading to a superficial understanding of fractions. To address this issue, this study used a simple experimental design with ten Year 5 students with SEN from a school in Seremban, Negeri Sembilan. FFM, a teaching aid that incorporates music, was used to teach the addition of fractions to students. Pre- and post-tests were administered to measure the learning outcomes of the students. The results indicate that the use of FFM has led to a significant improvement in the student's understanding of the addition of fractions. These findings suggest that the integration of music can be an effective tool for teaching the addition of fractions to students with SEN. The proposed improvements can guide future research on the use of music-based teaching aids for mathematics learning. Overall, this study emphasizes the importance of effective teaching strategies for students with SEN, especially in teaching fractions. FFM can be a valuable teaching aid to promote a deeper understanding of the addition of fractions, and teachers can incorporate music into their teaching to engage students with diverse learning needs. Further research can explore the effect of FFM on other mathematical concepts and diverse student populations.

Keywords: Fraction, Music, Special Education, Student Special Needs

(ICSE 2023: 098-061)

VISUAL ARTS INTEGRATION ON GEOMETRY ACHIEVEMENT FOR SPECIAL EDUCATION PUPILS

[1*]Crystal Ling Xiu Bin, [1]Alicia Wang Shin Ping, [1]Lim Tse Yunn, [1]Yau Sze Xuen & [1]Hanani Harun Rasit

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ABSTRACT

This study aimed to investigate the effect of visual arts integration on the acquisition of conceptual knowledge in geometry among pupils with special educational needs (SEN). Recognizing the imperative to provide effective instructional strategies tailored to the diverse needs of students with SEN, this research investigates the potential of visual arts integration as a pedagogical approach. While extant literature has highlighted the benefits of visual arts integration in fostering engagement and comprehension, limited empirical inquiry has focused specifically on its influence on conceptual knowledge acquisition in geometry among students with SEN. The study employed a quasi-experimental quantitative design, involving twelve Year Two SEN pupils from a primary school in Negeri Sembilan. The intervention comprised integrating visual arts into the geometry curriculum, and a pre-test and post-test was conducted to measure pupils' geometry achievement according to Van Hiele's theory. The results indicated a statistically significant positive effect of visual arts integration on pupils' performance, as evidenced by their enhanced understanding and mastery of the concept of geometry in three-dimensional shapes. These outcomes corroborate the efficacy of visual arts integration as an instructional strategy for facilitating geometry learning among students with SEN. In conclusion, this study provides a rigorous empirical foundation for advocating the adoption of visual arts integration within the geometry curriculum for students with SEN. These findings have far-reaching implications, transcending the immediate context, as they underscore the potential of visual arts integration to augment conceptual knowledge acquisition in geometry, effectively addressing the distinctive learning requirements of students with SEN. Future research endeavors should investigate the longitudinal effects and broader applications of visual arts integration across diverse academic domains and educational settings.

Keywords: visual arts integration, geometry achievement, special educational needs (SEN), Van Hiele.

(ICSE 2023: 099-058)

M-TECHNIQUE TOWARDS SEN STUDENTS' PERFORMANCE AND ANXIETY LEVEL IN MATHEMATICS

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ABSTRACT

Multiplication can pose significant challenges for primary school students, especially those with special educational needs (SEN). These challenges may contribute to Malaysia's low performance in mathematics, as measured by the Programme for International Student Assessment (PISA). Difficulties with multiplication may lead to anxiety and poor performance in mathematics overall, making it challenging for students to achieve proficiency at higher levels. This study aims to improve SEN students' performance in multiplication and reduce their anxiety level in mathematics by using the M-Technique. The central research question is whether the M- Technique can improve the multiplication performance and reduce anxiety levels among primary school students with special educational needs in Malaysia. The study employed quantitative methods to collect data on the students' performance and anxiety levels before and after using the M-Technique, utilizing two learning tools: the "nine-box grid tool" and the "easy column multiplication tool." The study participants were five SEN students from Year 3 at a school in Seremban, Negeri Sembilan. Data collection methods included a questionnaire, pre-post-test, and interview, with two intervention sessions utilizing the M-Technique. The data analysis conducted for this study indicates that the M-Technique significantly enhanced the students' proficiency in solving multiplication problems up to four digits by one digit without the need for teacher guidance. Specifically, the results revealed a remarkable improvement in the students' multiplication performance following the intervention, as evidenced by the significant increase in their post-test scores. The findings suggest that the M-Technique can serve as an effective alternative for inclusive students to learn multiplication. Therefore, the study contributes to the development of inclusive teaching methods and may assist in improving Malaysia's overall mathematics performance.

Keywords: Multiplication, SEN, anxiety, inclusive

(ICSE 2023: 100-059)

READINESS OF ELEMENTARY TEACHERS IN INCLUSIVE EDUCATION

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ABSTRACT

Inclusive education is an education program for students with special education needs (SEN) who can learn alongside mainstream students. It is important for elementary school teachers to master the aspects of knowledge and skills in implementing inclusive education. The level of teachers' readiness in implementing inclusive education, especially elementary school teachers is the main indicator that will determine the success of inclusive education. Therefore, this study aims to investigate the readiness level of elementary school teachers in implementing inclusive education. The readiness level involves aspects of knowledge, skills and attitude towards inclusive education. This study was conducted in quantitative survey research form. It was used to collect responses from 103 elementary school mathematics teachers in one of the districts in Negeri Sembilan. The data collected was analysed using the Statistical Packages for Social Science (SPSS) version 27 to obtain the mean score and standard deviation for the three variables and the ANOVA test to identify the effect size among the aspects studied. The test analysis showed significant differences between the aspects of knowledge, skills and attitude. Post hoc test had showed aspect of attitude have more impact towards inclusive education. The implication of this study suggests that the elementary school teachers' readiness level in inclusive education in the aspects of attitude is important to provide an obstacle-free learning environment for students with special needs.

Keywords: knowledge, skills, attitude, inclusive education

(ICSE 2023: 102-053)

AN INTERDISCIPLINARY HANDWRITING FRAMEWORK

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ABSTRACT

Handwriting is still an important skill especially for school-going children. As a result, it is important to acquire endurable and legible handwriting. Substantial handwriting researches were available before the 19th century. However, the knowledge are fragmented as these research were mostly within discipline-specific boundaries, there is a lack of knowledge transfer. This paper examines an interdisciplinary conceptual framework to guide research and intervention on handwriting. This conceptual framework is the product of an interdisciplinary study focus between educational discipline and occupational therapy discipline. The framework revealed four major factors that influence Malay language handwriting: neuromotor developmental, ergonomic, orthography, and cognitive factors. One important element of this framework is that it takes into account the perspective of language in handwriting. This paper provides a summary description of the framework, the application of the framework, as well as the benefits of utilizing this framework in handwriting assessment and intervention. In conclusion, this paper aims to encourage professionals and researchers who work with or study special population, to adopt this framework, evaluate the adoption and share the results. Such results should extend knowledge of handwriting, particularly among students with special educational needs. It is hope that more effective intervention could be planned to improve handwriting among students struggling with handwriting difficulties.

Keywords: handwriting, interdisciplinary framework of handwriting, Malay language handwriting

(ICSE 2023: 112-055)

THE DEVELOPMENT OF AN ITEM BANK OF WORD PROBLEMS TO MONITOR PROGRESS OF STUDENTS WITH LEARNING DIFFICULTIES IN MATHEMATICS

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ABSTRACT

As children progress from preschool to primary school, the content of mathematics learning gains more depth and an emphasis on problem solving is one of the core processes in the mathematics curriculum. Word problems are accorded such significance as the problem solving skills involve the development of other life skills such as communication and reasoning. Students with difficulties in mathematics often encounter difficulties solving word problems. Prior to intervention in supporting students, an item bank of word problems with different levels of difficulty should be developed. This allows for word problems of similar difficulties to be administered to monitor the progress. In addition, the difficulty level of the word problems in the item bank could also inform teachers of the potential difficulty level of the word problems that could affect their students' performance. In order to develop the item bank of word problems, the word problem type of combine, change and compare were administered to 191 students in Primary 3. Using their performance in the word problems, the Rasch model of measurement was used to analyze the data to determine the difficulty level of the word problems. There were 75 word problems administered and the difficulty level of the word problems ranged from most difficult word problem at 5.58 logit while the easiest was -4.92 logit. Among the three types of word problems, the Change Word Problem had the widest range of difficult and less difficult word problems. The difficulty level of the word problems enables word problems of varying difficulties to be included at baseline and also during intervention to monitor students' progress during intervention.

Keywords: word problems, mathematics difficulties, item bank, Rasch analysis

(ICSE 2023: 114-057)

THE EFFECTIVENESS OF THE MATH KEYWORD SHEET AND THE CUBES-V STRATEGY IN SOLVING MATHEMATICAL PROBLEMS IN REMEDIAL CLASS

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ABSTRACT

This action research was conducted with the aim of assisting Year Four students in mastering problem-solving skills in the topic of whole numbers and basic operations using the Mathematics Keyword Sheet and CUBES-V strategy. Four students from class 4A of a SJKC (Chinese vernacular school) in Taiping, Perak, were selected as the research subjects based on a diagnostic test. Two participants faced serious difficulties in reading and understanding the questions due to their mother tongue not being Chinese, while the other two participants had a moderate level of understanding but lacked skills in solving mathematical word problems. The research instruments used to collect data for this action research included pre-tests, post-tests, observations, and structured interviews. The quantitative analysis was applied to the data obtained from the pre-test and post-test, while qualitative analysis was used for observations and structured interviews. Two interventions were implemented using the Mathematics Keyword Sheet and CUBES-V strategy. The study findings indicated a significant improvement in the minimum scores of all four students. In terms of attitude, the students transformed from being passive to active, and those who lacked confidence became more assured in answering mathematical word problems. Clearly, the Mathematics Keyword Sheet encompassing three main languages helped the students comprehend the requirements of questions written in Chinese. Additionally, the use of the CUBES-V strategy served as a guideline to assist the students in formulating mathematical sentences from the context of word problems accurately and effortlessly.

Keywords: CUBES-V, mathematics keyword sheet, problem-solving

(ICSE 2023: 116-064)

INCLUSIVE EDUCATION: A PRELIMINARY STUDY AMONG TRAINEE TEACHERS IN INSTITUTE OF TEACHER EDUCATION, TECHNICAL EDUCATION CAMPUS

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ABSTRACT

In the age of globalization, Inclusive Education (IE) aims to foster engagement and provide opportunities for Students with Special Education Needs (SEN) to get involved in academic and extracurricular activities alongside mainstream students. However, there is still societal prejudice against an integrated education system that can help Students with Special Education Needs (SEN) succeed, particularly among trainee teachers. Therefore, this research was carried out to measure trainee teachers' level of understanding in terms of knowledge and readiness in implementing Inclusive Education. This study was conducted quantitatively using a survey involving 204 trainee teachers from Bachelor of Teaching Degree Program (PISMP) (June 2020, Year 3, Semester II) offered Inclusive Education course majoring in Design and Technology (RBT), Mathematics, Science, Islamic Education, Malay Studies and TESL. A set of questionnaires using 5-point Likert Scale was administered online using Google Forms and the data obtained were analysed using descriptive statistics, namely mean and standard deviation through Statistical Package for Social Science (SPSS) Version 29. The most obvious finding to emerge from the analysis is that the level of knowledge (mean=4.44, SD=0.62) and readiness (mean=4.14, SD=0.81) in understanding of Inclusive Education (IE) is high among trainee teachers in Institute of Teacher Education, Technical Education Campus (IPGKPT).The findings of this research will critically examine and provide deeper insights on improvements that can be made for both practitioners and policy-makers to achieve the goal to integrate 75% of Students with Special Education Needs (SEN) into Inclusive Education by 2025 as stated in the Malaysian Education Blueprint (2013 - 2025).

Keywords: Knowledge, Readiness, Inclusive Education, Special Education Needs (SEN), Quantitative, Survey

(ICSE 2023: 117-076)

CHALLENGES FACED BY TRAINEE TEACHERS AT IPGKPT IN TECHNICAL AND VOCATIONAL EDUCATION TRAINING (TVET) FOR SPECIAL NEEDS STUDENTS

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ABSTRACT

This study examine the challenges faced by trainee teachers at Institut Pendidikan Guru Kampus Pendidikan Teknik (IPGKPT) in providing Technical and Vocational Education Training (TVET) to students with special needs. A trainee teacher refers to an individual who enrolled in a teacher education program at IPGKPT. As trainee teachers, they are undergoing training to become a qualified teacher and typically required to complete a teacher training and internship as part of their program. The research aims to analyze the challenges faced by trainee teachers in teaching TVET for students with special needs from three aspects which are, professional development, competencies and skills, and attitudes and motivation of student teachers towards teaching TVET to students with special needs. By examining these three aspects, the researchers can provide a more in-depth understanding of the challenges and develop effective strategies for addressing them. The research design use in this study is the survey research design. The primary instrument for data collection was a questionnaire and the reliability of the questionnaire as certain using Cronbach's Alpha test. In this context, TVET serves as a tool to help students with special needs acquire the necessary skills and knowledge to compete in the job market. Therefore, this research is expected to provide insights into how TVET teaching and learning can be tailored to the needs of students with special needs so that these challenges can be overcome by trainee teachers at IPGKPT. The findings of this research also could help trainee teachers and the education system to support students with special needs and improve the quality of education they receive.

Keywords: special needs, TVET, inclusive, trainee teachers

(ICSE 2023: 120-068)

THE LEVEL OF READINES TRAINEE TEACHERS IN THE INSTITUTE OF TEACHER EDUCATION TECHNICAL EDUCATION CAMPUS FOR SPECIAL NEEDS STUDENTS IN TVET SUBJECTS

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ABSTRACT

In Malaysia, studies on students with special needs in technical and vocational education are lacking. Therefore, this study aims to identify the level of readiness of trainee teachers towards the implementation of the teaching and learning process for technical and vocational subjects namely Design and Technology. This study uses a survey method using a 4-point Likert scale questionnaire as a research instrument involving a sample of 154 teacher trainees at the Technical Education Campus Teacher Education Institution who took the Design and Technology (RBT) course. The size of the selected respondents was by simple random sampling using Krejcie & Morgan's Sample Size Determination Table. Descriptive analysis was used to obtain the mean value, standard deviation, frequency, and percentage to see the level of preparedness of trainee teachers towards Special Needs Students (SNS) in TVET subjects. The findings of the study show the level of knowledge and skills of trainee teachers regarding the implementation of teaching and learning of Design and Technology subjects for students with Special Needs (SNS) which is overall at a moderate level. The results of the analysis found that the level of knowledge and skills of trainee teachers at Teacher Education Institutions concerning the implementation of the teaching and learning of Design and Technology subjects for Students with Special Needs (SNS) needs to be improved. This study is expected to provide input on the level of preparedness of trainee teachers at the Technical Education Campus Teacher Education Institution in teaching students with special educational needs in TVET subjects. Improving the knowledge and skills of Design and Technology trainee teachers at the Technical Education Campus Teacher Education Institution will have a positive impact on the effectiveness of the teaching and learning delivered by the trainee teachers, which in turn can improve the quality of learning for Special Needs Students (SNS) in the classroom. In conclusion, every trainee teacher needs to be given sufficient training and education to help Special Needs Students (SNS) in Design and Technology subjects.

Keywords: Special Needs Students (SNS), Teaching and Learning Knowledge, Teaching and Learning Skills, Behavior Management, Technical and Vocational Education (TVET), Reka Bentuk dan Teknologi (RBT)

SENIOR HIGH SCHOOL TRACK PREFERENCES OF GRADE 10 LEARNERS WITH SPECIAL EDUCATIONAL NEEDS (LSENs): A BASIS FOR SCHOOL CAREER GUIDANCE PROGRAM

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ABSTRACT

One of the challenges of grade 10 students is what track to choose in senior high school years. As identified in most of the studies, different factors influence grade 10 learners' decisions on which senior high school track they ought to pursue, which include personal interest, family influence, peer influence, job opportunities, and financial condition. Embracing the realization of inclusion, learners with special educational needs (LSENs) also experiencing this kind of predicament, the school should be prepared with what support and program they can offer to their learners who are categorized as LSENs for them to choose and decide what senior high school track will they pursue. The purpose of this study is to determine what factors influenced the senior high school track preferences of grade 10 learners with disabilities (LWDs) in a public high school in Cavite, Philippines, and also to know if the health condition of the participants greatly influenced their decision in choosing the senior high school track. In this study, a descriptive design was used, along with a four (4) point Likert scale for each indicator. The grade 10 LWDs of an inclusive public high school in Cavite, Philippines served as participants, and through an online survey questionnaire data was gathered. Data was then interpreted using frequency, ranking, and weighted mean. This study revealed that the LSENs' interests were the most influential factor in their choice of senior high school track while peer influence was the least.

Keywords: grade 10, inclusive education, K to 12, LSENs, senior high school, track preference

(ICSE 2023: 124-070)

LEGAL LANDSCAPES OF INCLUSIVE EDUCATION IN THE MALDIVES: EVOLUTION, IMPLEMENTATION, AND FUTURE DIRECTIONS

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ABSTRACT

The purpose of this research is to document the legal transition of a developing island nation, namely Maldives, to establish a nation-wide inclusive education system that caters to all students, including those with special needs. The study sheds light on the significant milestones achieved, current status of implementation of the legislations, and suggests a roadmap towards achieving inclusion in schools. The investigation draws heavily on the relevant legal, policy, and other local documents to elicit the story on the legal domain. Data from reports and similar documents are used for examining the status of implementation. Major milestones and transitions that took place over the three and half decades in the inclusive education journey of the country are discussed in the paper. These milestones in implementation are cross-checked against the expectations stipulated in the relevant legislations. The study offers recommendations to improve and widen the scope of inclusive education in the country which could be lessons for countries similar in context.

Keywords: challenges, implementation, inclusive education, legal landscape, milestones, recommendations, teacher development.

(ICSE 2023: 137-077)

CURRENT SITUATION OF DEVELOPING SELF-AWARENESS SKILLS FOR CHILDREN WITH AUTISM SPECTRUM DISORDERSVIA ART THERAPY IN INCLUSIVE SCHOOLS

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ABSTRACT

Self-awareness is an important group of skills from the model of social-emotional learning which is extremely necessary for children. In this study, we present the result of a survey from 385 teachers at inclusive preschools and primary schools in Viet Nam on the development of self-awareness skills for children with ASD 4-8 years old via art therapy or art experience. The survey results show that some of the teachers are properly aware of the goal of developing self-awareness skills through art therapy for children with ASD 4-8 years old. The actual results also indicate some requirements for learning and teaching self-awareness skills through art therapy for children with ASD 4-8 years old. This result contributes to providing useful information in building a measure of self-awareness skills through art therapy for children with ASD 4-8 years old in inclusive schools in Vietnam. Art therapy can be an effective tool in developing self-awareness skills for children with ASD, in the condition that early intervention must be set up methodically and professionally. Finally, the role of teachers is a concern because they are the main in supporting children with special needs.

Keywords: art therapy, self-awareness, SEL, Social-emotional skills, special education, Children on the Autistic Spectrum, inclusive education.

ASSESSMENT OF INCLUSIVE TEACHING PRACTICES FOR SUPPORTING STUDENTS WITH AUTISM: RASCH ANALYSIS OF THE PRACTICE AND PRODUCT INVENTORY OF SUPPORTING STUDENTS WITH AUTISM

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ABSTRACT

The prevalence of students with autism spectrum disorders (ASD) being included in mainstream classrooms has been increasing in recent years. However, the evaluation of inclusive teaching practices and products for this population remains a challenge. In this study, we aimed to evaluate the psychometric properties of the Practice and Product Inventory of Supporting Students with Autism (PPI-SSA), an assessment tool from the teachers' perspective. The PPI-SSA aims to assess inclusive teaching practices and products for students with ASD in mainstream classrooms. 207 primary school teachers in Hong Kong participated in this study, and Rasch analysis was employed to determine the scale's reliability, specifically using the rate scaling model within the multidimensional random-coefficients multinomial logit model. The analysis revealed that a three-factor model (inclusive teaching practices, social and academic products of ASD students) with 14 items was suitable for the PPI-SSA, with good Rasch reliabilities. Infit and outfit values for these items were acceptable. Item difficulties were also reasonable for these teachers. These findings indicate that the PPI-SSA is a useful tool for evaluating inclusive teaching practices for supporting social and academic products of students with ASD in mainstream classrooms. Implications of the PPI-SSA include the development of an effective assessment tool for ASD students with the potential to identify areas for improvement in the support of this group of students in inclusive classrooms regionally and internationally.

Keywords: Autism; Teacher practices; Social and academic achievement; Assessment

(ICSE 2023: 142-087)

EXPLORATORY STRUCTURAL EQUATION MODELING FOR THE CHILDREN'S SLEEP HABITS QUESTIONNAIRE IN AUTISM: A METHODOLOGIC SOLUTION FOR INADEQUATE RESULTS OF TRADITIONAL CFA

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ABSTRACT

Children with autism are likely to have sleep issues. The Children's Sleep Habits Questionnaire (CSHQ) is a widely-used, parent-reported instrument on child sleep problems in the autism literature, but there is a lack of agreement on its factor structure. Furthermore, most existing studies use traditional confirmatory factor analysis (CFA) to examine the factor structure of CHSQ but none has applied an exploratory structural equation modelling (ESEM) approach. However, considering that one behavioral manifestation may indicate different types of sleep disorders, ESEM that allows each indicator to load on all dimensions may be a more appropriate approach than traditional CFA which assumes zero cross-loadings on non-targeted factors. This study revisited the factor structure of the CHSQ in autism with an ESEM approach, using a sample of Chinese parents of 256 children with ASD aged 3-6. We found that the previously reported models produced poor fit based on traditional CFA. By contrast, an ESEM model using the item pool from a previous CFA model produced a good fit, with only 1 targeted factor loadings unsalient and 4 non-targeted loadings salient. Our results encourage future researchers to propose an appropriate CHSQ model in autism using an ESEM approach.

Keywords: Autism; Sleep; Assessment; Children

(ICSE 2023: 143-083)

A SYSTEMATIC REVIEW OF CAREER ADAPTABILITY IN STUDENTS WITH SPECIAL EDUCATIONAL NEEDS

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ABSTRACT

While research shows career adaptability is closely associated with social functioning, well-being and life satisfaction, considerably fewer studies have been done to explore career adaptability among students with special educational needs (SEN). For generating a good understanding of the research status of career adaptability among SEN students, we conducted a systematic review. Among a large number of studies (N=1504), 43 studies related to SEN were screened out, and a further screening led to solely seven articles investigating specifically career adaptability among students with SEN. Among these studies, only two of them investigated career adaptability in multiple types of students with SEN, the others only included one type of SEN or a specific disorder (e.g., visual impairments, intellectual disability). The results showed that a wide range of factors were positively associated with career adaptability in SEN students, including self-esteem, self-efficacy, social support, hope and life satisfaction. The investigation of career adaptability in students with SEN is scarce but deemed essential in order to understand the career development of SEN students after finishing their education. Current research remains unexplored and inconsistent on the antecedents and outcomes of career adaptability in students with SEN, with limited studies conducted in mostly developed countries or areas where SEN students receive more resources. Implications of the review results for helping promote career adaptability in students with SEN with suggestions for potential training programs will be discussed.

(ICSE 2023: 164-085)

MOOD BOARD: THE PSYCHOLOGICAL WELLBEING ASSESSMENT FOR SPECIAL NEEDS STUDENTS IN CLASSROOM SETTING

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ABSTRACT

Achieving optimal psychological health has always been an important requirement to develop a holistic human being. With regards to the education ecosystem, especially with the negative impact on physical, psychological, and social challenges that were significantly influenced by the coronavirus (COVID-19) pandemic, the integral role that the teachers have to play in supporting the mental health and wellbeing of their students has grown exponentially. Despite the existence of multiple validated psychometric instruments, however, to accommodate the unique conditions of the participants, the aim of this study was to explore an interactive approach to assess the psychological wellbeing of special needs students in classroom setting. The development of the Mood Board was generated through reflecting on the psychological construct of the Malaysian Mood Scale, Malaysian Perceived Stress Scale and Malaysian Emotion Regulation Questionnaire. The construct of mood, perceived stress and emotion regulation were incorporated with (i) the traffic light analogy through the colours of red, yellow, and green; (ii) numbering – from one (1) to five (5); and (iii) emotions icons – smiling face with smiling eyes, anxious face, weary face. The participants will rate their current perceived emotional experience through the Mood Board, which can be completed physically and virtually, prior to the start of their respective classes. The opportunity to correspond the tangible data derived from the Mood Board with the real-life psychological, physical, and behavioural indicators expressed by the participants, teachers will have better understanding to observe the signs and reactions of the students and access support to manage their psychological distress. Participants also highlighted that they were more conscious of their mental processes. In general, the implementation of the Mood Board in a classroom setting provides a simple yet informative tool to assess, identify and monitor the psychological status of special need students.

Keywords: Mood Board, Psychological Wellbeing, Special Needs, Students

(ICSE 2023: 165-094)

FOSTERING INDEPENDENCE: PERLIS SPECIAL TEENS CENTRE ENGAGES FAMILIES, COMMUNITIES, AND STAKEHOLDERS

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ABSTRACT

Individuals with learning disabilities are a group that requires specialized support to lead self-determined lives. In spite of this, many structural barriers hinder their participation and inclusion in society. In Perlis, Northern Malaysia, Perlis Special Teens Centre (PeSTeC) is a community-based rehabilitation program designed to increase the social and economic capabilities of individuals with learning disabilities. This study intends to explore the center's mission in engaging families, communities, and stakeholders in the pursuit of independence for the learning disabled. A qualitative research method through a case study is utilized to achieve the objective of this research. In-depth interviews with PeSTeC committee members, the program's management, and participants with learning disabilities served as the primary method of data collection for this study. The annual activity reports from PeSTeC were used to acquire secondary data. A thematic analysis is used to identify the themes that emerged in the data gathered. The findings showcased the resounding success of the community-based rehabilitation program, which effectively utilized PeSTeC's meticulously designed training modules to empower individuals with learning disabilities through a diverse range of on-the-job activities, including agriculture, food production, animal rearing, and craft-making. The program's triumph was further fortified by the proactive involvement of facilitators and the enthusiastic participation of families, local communities, and stakeholders across Perlis, particularly, and Malaysia at large. The program effectively enhanced the quality of life of the learning disabled and provided them with equality of opportunity to become contributing members of society. Future research has the potential to make valuable contributions to the existing body of literature by conducting a longitudinal study that explores the effectiveness and outcomes of community-based rehabilitation programs. By placing a strong emphasis on data collection from individuals with learning disabilities, researchers can delve deeper into the subject matter and provide a more profound understanding of the topic.

Keywords: individuals with learning disabilities, community-based rehabilitation program, Perlis Special Teens Centre (PeSTeC), economic empowerment

TRANSITION TO EMPLOYMENT: INSTRUCTIONAL STRATEGIES OF SPECIAL EDUCATION TEACHERS FOR STUDENTS WITH HEARING IMPAIRMENT

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ABSTRACT

There is an increase in the population of people with disabilities which emphasises issues concerning their inclusion in essential societal functions. For example, in the Philippines, these issues manifest in a low participation rate in jobs and the preparedness of students to transition from school to employment. Special education (SPED) teachers prepare these individuals to transition to employment through meaningful instructional strategies. The study aimed to determine the instructional strategies employed by SPED teachers to equip students with hearing impairment to transition to employment. Using a single case study design, accounts of SPED teachers of students with hearing impairment in a postsecondary educational institution in the Philippines were collected. Data collected through key informant interviews and observations revealed that the instructional strategies of SPED teachers include the use of visual aids and immersion of the students with sign language and assessments as supporting strategies. The instructional strategies of the SPED teachers target necessary skills for employment, such as communication skills, perseverance, and discipline as soft skills and business administration and computer technology as hard skills. Experiences of teachers, which revolve around employment together towards shared goals, influence the instructional strategies of teachers. Moreover, these experiences, especially the negative reality of the employment of students with hearing impairment, also shape the pedagogical decisions of teachers in using effective instructional strategies.

Keywords: Hearing impairment, instructional strategies, special education, transition to employment

ENHANCING THINKING SKILLS AMONGST CHILDREN WITH AUTISM SPECTRUM DISORDER THROUGH PLAY THERAPY: A CASE STUDY IN AN INCLUSIVE CHILDCARE CENTRE IN KUCHING, SARAWAK

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ABSTRACT

Most children naturally engage in play as they progress through life. Play refers to enjoyable physical or mental activities that enhance children's abilities to negotiate, solve problems, master manual dexterity, work in a team, share, make decisions, and work with others. However, those with autism spectrum disorder (ASD) typically experience the numerous play stages in fragments or do not undergo them at all. With this in mind, this study seeks to understand how interventions with play therapy impacts the development of thinking skills amongst children with ASD by asking the following questions: 1) How does play help enhance the development of thinking skills amongst children with ASD? 2) What are the play therapy strategies employed by nursery caregivers and occupational therapists (OTs) in enhancing thinking skills amongst children with ASD? The study sample consisted of 6 children with ASD aged 3-5 years old who were enrolled in an inclusive childcare centre in Kuching, Sarawak. For 3 months, nursery caregivers and OT at the childcare centre carried out interventions using play therapy strategies and observations focusing on the children's thinking skills in interacting with peers their age who do not have ASD. Data were collected through observational checklists and video observations while secondary supporting data were collected via parental interviews, focusing on parental observation of their children's thinking skills at home. Thematic analysis revealed that play therapy encouraged the development of these skills amongst children with ASD, particularly in problem solving and organisational skills daily. This qualitative study hopes to provide a richer understanding and insight into the impact of play therapy on children with ASD. It hopes to encourage educators and nursery caregivers in inclusive childcare centres to employ play therapy in interventions to improve thinking skills for children with ASD.

Keywords: play therapy, autism spectrum disorder (ASD), thinking skills, nursery caregivers, occupational therapist

TEACHING PREPOSITIONS TO EARLY CHILDHOOD EDUCATION STUDENTS WITH AUTISM: STRATEGIES, CHALLENGES, AND COLLABORATION

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ABSTRACT

Teaching strategies that can be used in teaching prepositions in early childhood education (ECE) learners with autism spectrum disorder (ASD). Using a qualitative narrative research design, accounts from teachers who teach prepositions to early childhood education learners with ASD in selected private schools in Metro Manila were collected to identify specific teaching strategies utilized in classrooms. It is imperative to teach prepositions to ECE learners with ASD, as it accounts for the improvement of adaptive skills including navigating, doing spatial tasks, locating the placement of an object or person, and improving communication skills. Semi-structured interview questions were prepared before the one-on-one interview sessions with the teachers. Findings show that the use of visual aids, repetition, and a naturalistic approach are the most utilized strategies used in teaching prepositions to ECE learners with ASD. Teacher collaboration and the present level of performance of the child are the basis for the implementation of the teaching strategies. Research in teaching essential concepts of the English language to learners with additional needs is necessary to bridge the gap between teaching strategies and learners' acquisition of knowledge.

Keywords: Autism Spectrum Disorder, Early Childhood Education, Prepositions, Teaching Strategies

(ICSE 2023: 1)

QUALITY OF LIFE OF ADOLESCENTS WITH INTELLECTUAL DISABILITY

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ABSTRACT

The present study aimed to find out the quality of life of adolescents with intellectual disability. The study widely investigates the vital aspects related to the life of adolescents like basic living skills, social skills, domestic activities, community orientation, personal care, and emotional wellbeing. This study aims to find out the quality of life mainly through direct assessment and observation of adolescents. Descriptive method of research was employed for the study. The study sample consisted of 204 adolescents with intellectual disability, randomly selected from various special schools in Kottayam and Ernakulam district of Kerala state, in South India. Data on quality of life of these individuals were collected through a standardised Quality of life Scale of Adolescents with Intellectual Disability developed by the authors. The data were analysed through arithmetic mean and standard deviation. The result indicated that quality of life of adolescents with intellectual disability is of an average level. About 37% have a high or very high quality of life. Whereas the remaining 63% belong to average, low or very low quality of life.

Keywords: intellectual disability, quality of life

(ICSE 2023: 2)

THE EFFICACY OF THE 'CEITA' EARLY INTERVENTION PROGRAM FOR YOUNG CHILDREN WITH AUTISM SPECTRUM DISORDERS IN MALAYSIA: A RANDOMIZED CONTROLLED TRIAL DESIGN.

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ABSTRACT

The present study examined the efficacy of the Comprehensive Early Intervention for Toddlers with Autism (CEITA) program on children with Autism Spectrum Disorder (ASD) in Malaysia. A randomized control trial design was adopted where 16 children (Mean age= xx) were assigned to either intervention group (n=8) or control group (n=8). Children in the intervention group underwent 3 months of low intensity (2hrs/week) CEITA program intervention while the control group was given no treatment. Measures of autism symptoms and developmental growth scores were taken at baseline, post-treatment and 6-weeks follow-up to evaluate the efficacy of the CEITA program. Results from MANCOVA analysis showed significant intervention effect where autism symptoms were significantly reduced (η^2= 0.36), and growth scores for all developmental domains (η^2= 0.20-0.66) were significantly increased. Hence, the present research highlighted the potential of the CEITA program for clinical implications and relevant future research is recommended.

Keywords: Autism Spectrum Disorder (ASD), early intervention, Comprehensive Early Intervention for Toddlers with Autism (CEITA), Malaysia

(ICSE 2023: 3)

IDENTIFYING CHILDREN WITH AUTISM SPECTRUM DISORDER (ASD) AMONG MAINSTREAM PRESCHOOL TEACHERS IN KLANG VALLEY

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ABSTRACT

Malaysia, along with many other countries, made a pledge to all children to ensure that all their rights including the rights to education will be protected and promoted when the United Nations Convention on the Rights of the Child (CRC) was adopted. In line with that, inclusive education was introduced in the Education Act 1996 and has been established ever since. According to the Malaysian Education Blueprint (2013-2025), the goal was to have children of 5 years registered in a preschool whether if it is public or private because the period from birth to five years is extremely crucial for any child as these are vital in laying the foundation for children to nurture their cognitive, language, physical, social, emotional, behavioral development. This study investigates the knowledge level of mainstream preschool teachers in identifying children with ASD. By focusing on teachers' knowledge, the research aims to provide a better understanding of the promotion of inclusive education in Malaysia's preschools. A mixed-method approach was used in this study. 30 respondents who worked in the field of early childhood education were recruited for this study. An online questionnaire was sent out for respondents to answer. Six respondents were recruited for the interview session that followed. Findings show that the knowledge level of the respondents ranges between moderate to high with the majority having a high knowledge level. The findings also resulted that one of the most important factors that affect the respondents' knowledge in identifying children with ASD is through hands-on experiences and training related to ASD. This study implies that mainstream preschool teachers need to be exposed to ASD children so that they can have hands-on experiences, which will further strengthen their knowledge on ASD to ensure that they can identify children with ASD in the future.

Keywords: Inclusive education, autism spectrum disorder

ICSE 2023

5th ICSE ABSTRACTS

(INDEXED – JOURNAL)

AUTISTIC TRAITS PROFILES AMONG UNDERGRADUATE STUDENTS IN MALAYSIA: A DESCRIPTIVE ANALYSIS

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ABSTRACT

Autistic traits (ATs) describe characteristics and features associated with autism, which are thought to be continuously distributed in the general population. Exploration of ATs in the general population is important as it can inform the understanding of both autistic and non-autistic populations. Extending this idea, an understanding of the distribution of ATs within certain environments and settings may be useful in developing strategies for supporting those with specific needs associated with their level of ATs. ATs are divided into social behavior (with sub-factors of social skills, routine, switching, and imagination) and fascination with numbers or patterns. Therefore, this study aims to evaluate the internal consistency of the Autism Quotient short (AQ-28) instrument had used in this study, evaluate the pattern of ATs among undergraduate students at a university in Malaysia, and compare the findings between this study with the original AQ -28. We examined self-reported ATs using a newly translated Malay version of the AQ-28. Participants were 1344 Malaysian undergraduate students who completed an online survey. The internal consistency of the AQ-28 Malay version is 0.708 and descriptive analysis indicates the mean score for ATs was 66.88 (*SD* = 7.00) among the samples. Thus, an analysis of sub-trait scores was also made, and comparisons were made with previous studies (results from the original AQ-28), by comparing non-clinical groups. Overall, this study provides further support for the idea that the expression of ATs is diverse across the student.

Keywords: Autistic Traits, Undergraduate Students, Malaysia, AQ-28

ASSESSING THE USABILITY OF PERSONALISED-MULTILINGUAL AAC 'MYSUARA' MOBILE APPLICATION

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ABSTRACT

This paper focuses on assessing an augmentative and alternative communication (AAC) mobile application. 'MySuara' is an AAC app designed and developed to aid students with complex communication needs to communicate with their teachers/caregivers in the local languages (Malay, Mandarin, Tamil) and English. Usability is a quantifiable quality that can be numerically represented, which could quickly reveal whether a website, piece of software, or application is as useful as it should be for specific users performing particular tasks. Conducting a usability evaluation can assist the researcher in identifying potential flaws that may have gone unnoticed throughout the system's development phase and can provide information on users' demands. Usability testing is a necessary procedure throughout the development phase of a mobile application since high user satisfaction will ensure the successful use of any mobile application. However, there are limited usability models available to assess mobile application features. Therefore, 'MySuara' was accessed using the adapted 5-point Likert-Scale usability questionnaire (AACUQ) developed based on the Mobile Learning Application Usability model, which incorporates the attributes suggested by People at the Centre of Mobile Application Development (PACMAD) mobile usability model. Therefore, eight attributes were included in the AACUQ usability questionnaire. Fourteen participants voluntarily participated in this survey; 12 special education teachers and two speech therapists were selected for this study based on their expertise in the field. Data was collected using the google form after a demonstration session introducing the 'MySuara' app. The results of the usability assessment revealed that in general, participants are generally satisfied with the 'MySuara' mobile app, with the mean values for each attribute being above average. Lastly, the limitations and the implication of the findings were discussed. Overall, 'MySuara' is suitable for its intended purpose.

Keywords: 'MySuara', PACMAD, AACUQ. Usability, AAC

(ICSE 2023: 010-003)

EVALUATING THE EFFECTIVENESS OF THE OCCUPATIONAL THERAPY HANDWRITING INTERVENTION GUIDELINE ON HANDWRITING SKILLS FOR CHILDREN: A PROTOCOL FOR CLUSTERED-RANDOMISED CONTROL TRIAL

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ABSTRACT

Background: Occupational therapy may have essential benefits in handwriting intervention for children with handwriting difficulties. This study aims to evaluate the effectiveness of the Occupational Therapy Handwriting Interventions Guidelines (OTHIG) in enhancing handwriting performance among children. **Method:** A clustered-randomized controlled trial (c-RCT) will be conducted before and after the intervention. Forty-two children recruited from private centers with occupational therapy indications and with handwriting issues, aged five to nine years, will be assigned to the experimental and control groups. Participants will receive a total of 10-week sessions, including training, intervention, and outcome measures. The experimental group will receive the developed OTHIG during handwriting skills intervention. Meanwhile, the control group will receive conventional interventions which not exposed to the OTHIG. **Results:** Two outcome measures, The Print Tool and Test of Visual Perceptual Skills 4th edition will be measured at baseline and post-intervention levels. The effectiveness of the developed OTHIG will be investigated using covariance analysis. Effects on both outcome measures will be calculated by the difference between mean group scores, accounting for baseline scores. **Conclusion:** This study is expected to provide evidence for the effectiveness of using the developed OTHIG to OTs in delivering their services, targeting children struggling with handwriting skills.

Keywords: Handwriting intervention, effectiveness, children, study protocol, clustered-RCT

THE LEVEL OF INTEREST OR MOTIVATION WITH DIFFERENTIATED INSTRUCTION IN BLENDED LEARNING AMONG LOW ACHIEVING STUDENTS

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ABSTRACT

The consequences of nationwide school closures in reaction to the COVID-19 outbreak are far-reaching, affecting instruction and learning over the last two academic years. Blended learning is one of the growing educational methods in the digital era. Most teaching and learning processes have actively embraced blended learning to improve quality and keep up with technological innovation. Many children require differentiated instruction to satisfy their individual learning needs. This teaching method has the potential to greatly improve the lives of at-risk students. Teachers' attitudes and beliefs can help inspire students in a variety of ways. This study will look into how differentiated instruction in blended learning affects students' degrees of interest or motivation. To collect data from research participants among low-achieving students, the current study used a quantitative research methodology (Descriptive methodology). Data was collected from low achieving students using a set of surveys to determine their level of interest or motivation in blended learning. According to the findings of this research, teachers' differentiated instruction on blended learning had a generally positive impact on students' levels of interest or motivation. If students are given the tools they need, they can become active participants in their own educational adventures rather than passive learners.

Keywords: blended learning; level of interest; motivation; innovation; differentiated instruction; low achieving students

VALIDITY OF DYSCALCULIA MODULE FOR PUPILS WITH DYSCALCULIA

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ABSTRACT

There are three types of specific learning difficulties, namely dyscalculia, dyslexia, and dysgraphia. Pupils with dyscalculia facing difficulties in acquiring basic arithmetic skills. Dyscalculia Module has been designed and developed for pupils with dyscalculia to learn basic arithmetic skills. The purpose of this study is to measure the validity of Dyscalculia Module among pupils with dyscalculia in basic arithmetic skills. Expert validation was carried out to measure the face validity, content validity, and activities suitability of Dyscalculia Module. Three experts in language were invited evaluate the face validity, whereas nine experts in the field of special education, learning difficulties, Mathematics education, and module development were invited to evaluate the content validity and activities suitability. Percentages of validity achievement was used to measure the face validity achievement, content validity achievement, and activities suitability achievement. The result shows that the language and terminology used in Dyscalculia Module achieved a good face validity measurement, with a face validity percentage of 86.66%. Dyscalculia Module has also achieved a good content validity measurement, with a content validity percentage of 87.50%. Other than that, the activities in Dyscalculia Module achieved a good suitability measurement, with activities suitability percentage of 85.44%. As a conclusion, Dyscalculia Module achieved acceptable face validity, content validity, and suitability of activities. This study implicated that Dyscalculia Module is valid and the activities designed are suitable to improve the basic arithmetic skills among pupils with dyscalculia in primary schools. Future studies are recommended to implement Dyscalculia Module to pupils with dyscalculia in Malaysia and other countries.

Keywords: Dyscalculia, Basic Arithmetic Skills, Validity, Module, Mathematics

(ICSE 2023: 047-010)

RESEARCH ON THE INTEGRATED EDUCATION ADAPTABILITY OF VISUALLY IMPAIRED STUDENTS—A STUDY ON BINZHOU MEDICAL UNIVERSITY FROM CHINA

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ABSTRACT

The education of visually impaired students in China has also gone through a developmental stage from "segregated education" to "special education" and then to "integrated education". In this paper, we take the visually impaired students at Binzhou Medical College, the first university in China to provide higher education for the disabled, as the research object. The study was carried out to investigate the adaptability of visually impaired students, using various research methods such as literature review method, questionnaire method and case study method, we investigated and researched the adaptation of visually impaired students to integrated education from several aspects such as quality of life, social support, mental health level, self-esteem and self-efficacy study. Finally, the study proposed several countermeasures and suggestions, such as attaching importance to the physical and psychological rehabilitation of visually impaired students, emphasising the integration of education and rehabilitation, strengthening the training of professional teachers for visually impaired students, emphasising the complementarity between schools and professions, and improving the employment support service system for visually impaired students, which are of great significance in promoting the development of the cause of integrated education for visually impaired students and improving the adaptability of integrated education for visually impaired students.

Keywords: Education for the visually impaired students, Integrated education, Adaptability

(ICSE 2023: 061-014)

A CONCEPTUAL FRAMEWORK OF WORK READINESS SKILLS NEED BY EMPLOYERS AMONG STUDENTS WITH LEARNING DISABILITIES IN SPECIAL EDUCATION VOCATIONAL SCHOOLS

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ABSTRACT

In the world of work, there are so many things that must be prepared, one of which is work readiness. Lack of work readiness skills leads students with learning disabilities to face persistent challenges in gaining meaningful employment. This study is to introduce a conceptual framework for exploring the need of work readiness skills among students with learning disabilities. This qualitative study applies five stage of ADDIE Model to explore the perspectives of one; the work readiness skills need by employers, and two; the teachers' knowledge about work readiness skills. This qualitative study emphasizes on Taxonomy for Transition Programming 2.0 Model, Super Career Development Theory and Work Readiness Skills for Commonwealth. Together, these perspectives develop an instrument for evaluating work readiness skills among students with learning disabilities. As there is no guideline in assessing and evaluating Students with Learning Disabilities' Work Readiness Skills in Malaysia, it is a necessity to consider having an outline of instruments which implement the evaluation of work readiness skills among them. Interview will be conducted among employers to explore the need of work readiness skills in workplace. Data from the interview will be analysed and used to design the instrument.

Keywords: Work Readiness Skills, Employers Need, Students with Learning Disabilities

RESEARCH ON INCLUSIVE EDUCATION FOR KINDERGARTEN IN-SERVICE TEACHERS AND PRE-SERVICE TEACHERS BASED ON INCLUSIVE INDICATORS

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ABSTRACT

In the 1980s, the Education Department of China's National Education Commission introduced "Learning in Regular Classroom" to have special education students and typical students studying together in the inclusive classrooms (Huang, 2004). "Learning in Regular Classroom" formed the basis of inclusive education in China (Zhu, 2011). Following various educational reforms, inclusive education has been gradually implemented in China. However, the development of preschool inclusive education is slow. With a focus on kindergarten instructors, we examined the indicators of inclusive preschool education based on the reports of in-service teachers and pre-service teachers. A survey was conducted with 30 in-service and 30 pre-service preschool teachers using a questionnaire of inclusive education indicators. The findings showed that both groups of teachers reported low scores for the preschool inclusive culture and policy. Between-group differences in the dimensions of inclusive culture, inclusive policies, and inclusive practice were documented. The implications of the findings on reflecting the state and future of preschool inclusive education in China were discussed.

Keywords: Index of inclusion, preschool inclusive education, China

PRE-SERVICE TEACHERS' PERCEPTIONS TOWARDS THE INCLUSION OF CHILDREN WITH SPECIAL EDUCATIONAL NEEDS IN CHINESE PRESCHOOL

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ABSTRACT

Inclusive education, which places children with special educational needs (SEN) in inclusive preschools, has gradually become a trend in the development of world education. One key element in the success of preschool inclusive education is the teachers' attitudes towards teaching students with specific learning needs in the inclusive classrooms. Theoretical and practical studies on preschool inclusive education are still rare in China at the moment. This study makes use of a questionnaire created by Chinese academics to look at the opinions and attitudes of 258 pre-service preschool teachers in China. According to the findings, the preschool teachers in the study typically have an attitude of acceptance and support for preschool inclusive education. However, accepting children with special needs still raises certain considerations, with some participants claiming that inclusive education presents major uncertainty and difficulties in management, teaching, and parent-teacher communication. Based on the findings, the researcher made pertinent recommendations on pre- and post-service teacher training for preschool teachers, the improvement of the preschool inclusive education system, and social support for preschool inclusive education. It is hoped that these recommendations will ultimately help to advance the quality of inclusive preschool education in China and contribute to the global research on preschool education.

Keywords: Inclusive education, SEN, Preschool teacher, Attitudes

(ICSE 2023: 065-024)

INCLUSIVE EDUCATION: PERCEPTION, PRACTICE AND IMPLEMENTATION WITHIN MALAYSIA

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ABSTRACT

As of 2022, the World Health Organisation estimates some 16 percent of the world's population or nearly 1.3 billion people have some form of disability. Out of this number, the United Nations Educational, Scientific and Cultural Organization approximates that at least 90 percent of children with disabilities are not going to school. Already, disability-inclusive education is becoming an important focus in today's education trends around the world. Much literature has been written about inclusive education, as a result of several defining international conventions that champion the individual child's right to education in an inclusive setting. From international conventions to operative statements at ministries and schools, inclusive education is often described as a basic human right with equal access to education in a learning environment that supports the student with disability to the best of his/her ability. Malaysia has long been proactive in keeping up with the changing global trends in education, reflected in her numerous education policies, especially for people with disabilities (*Orang Kurang Upaya* or OKU). In particular, the Malaysian Education Blueprint 2013-2025 has dedicated a section to the education of OKU. This paper will thus explore two major parts: Part One describes and discusses literature on inclusive education; Part Two discusses the context of education in Malaysia. Further recommendations are finally suggested so that future generations of Malaysian children with disabilities can benefit from disability-inclusive education more fully.

Keywords: disability-inclusive education, policy, perception, practice, implementation.

(ICSE 2023: 067-015)

A BIBLIOMETRIC STUDY ON SPECIAL EDUCATIONAL NEEDS (SEN): THE GROWTH TRAJECTORY

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ABSTRACT

Students with special educational needs (SEN) are the ones who struggle more than most kids their age to study or access education because of their disabilities or learning challenges. Since SEN became an official research topic in 1971, its significance in scholarly discussions has expanded tremendously, which has led to an increase in its research output. The database Web of Science, for example, has 4057 publications related to the subject of SEN. This study uses the core database in WOS as a data source and screens 2599 of these high-quality publications (including articles, conference papers, and reviews) to summarize the growth trajectory of the SEN field. Two key findings were identified. First, the global publication trend reveals a rise in scholarly interest in SEN research, with an especially noticeable increase in publications since 2005. While SEN research have been slowly rising across Asia over decades, this tendency became more obvious in 2013. Second, there has been a growth in keywords related to SEN provision in both global and Asian trend patterns.

Keywords: Special Educational Needs (SEN), Bibliometric analysis, TCCM Framework, Web of Science (WOS), The Growth Trajectory and Future Preview

(ICSE 2023: 068-016)

KIT VISMAT.SE APPLICATION INNOVATION : SIMPLE, ATTRACTIVE AND JOYFUL MATHEMATICS

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ABSTRACT

The teaching method of Mathematics needs to be changed in order to give understanding and create interest in learning among students. The KIT VisMat.SE innovation is an application to solve the difficulty special education students to understand the concept of digit value and place value as well as writing two-digit numbers correctly. The problem of students not being able to understand the concept of digit value causes students to lose interest in mathematics teaching. The main objective of this innovation is to help autistic and intellectual disability students being under the Learning Difficulties (LD) category to understand the concept of digit value and place value in simple, attractive and joyful way. Based on Cognitive Theory, the researcher bridges the gap between the existing theory and practical practice of teachers and mathematics textbooks which sometimes do not go hand in hand with the theory which contributes to failure in students' understanding of mathematical concepts. The innovation of this application appliying sample images, colors and digital materials. The study involved 10 LD primary students in Johor. Respondents were categorized into three groups which were one conventional group and two experimental group. Group 1 was taught with a conventional approach while group 2 and group 3 were taught using VisMat.SE Module and KIT VisMat.SE. This mixed method explanatory design study aims to investigate the effectiveness of KIT VisMat.SE to help LD to understand number value, place value and digit value. Findings from this study have succeeded in providing an easy and enjoyable understanding of math concepts and eliminating LD students frustration with math.

Keywords: KIT VisMat.SE application, digit value and place value, Mathematics through colours, pictures, special education, learning difficulties, autism, intellectual disability.

(ICSE 2023: 072-022)

SELF-EFFICACY AND MINDSET IN STUDENTS WITH AND WITHOUT LEARNING DIFFICULTY

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ABSTRACT

Students with learning difficulty that have low self-efficacy and a fixed mindset which might further hinder their performance. This study aimed to investigate the unique characteristic of self-efficacy and mindset for a child with learning difficulty. The study consisted of two mini studies. Study 1 investigated self-efficacy and mindset in 30 primary school students without learning difficulty. Study 2 investigated self-efficacy and mindset in a student with learning difficulty. A research questionnaires and a score record were used in both studies.

Keywords: learning difficulty, self-efficacy, mindset, after-school program

(ICSE 2023: 075-023)

RESEARCH ON ATTITUDES TOWARDS INCLUSIVE EDUCATION AMONG PRESCHOOL EDUCATION PRE-SERVICE TEACHERS IN CHINA

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ABSTRACT

The introduction of inclusive education has led to the development of special education from isolation to integration. Although the implementation of inclusive education has achieved initial results in China, there are still many problems, including attitudinal issues among the social groups. Therefore, this study aimed to the attitudes among a sample of students in an university in China towards inclusive education; to discover the current implementation of inclusive education, predict the difficulties that may be encountered in the promotion of inclusive education in the future, and then take measures in advance to remove obstacles to the implementation of inclusive education. The questionnaire used in the study was revised based on the "Attitudes Towards Inclusive Education Scale (ATIES)" compiled by Wilczenski (1992, 1995) and the "Attitudes towards Inclusive Education for University Students" (Li, 2018). The revised scale has good reliability and validity. The inclusive educational attitude scale can be divided into four dimensions: physical factors, academic factors, *Behavioural* factors and social factors, and each factor contains four items. In this study, 407 students majoring in preschool education from an university in China were selected as survey objects, and the data of inclusive education attitude of preschool education pre-service teachers were analyzed by SPSS software. The results are as follows: (1) the attitude of preschool education pre-service teachers towards inclusive education is at the average level, (2) from the perspective of 16 items, students who are shy and withdrawn should be in regular classes reported the highest level of acceptance, while students who are physically aggressive towards their peers should be in regular classes reported the lowest level of acceptance, and (3) factors influencing preschool education students' acceptance of inclusive education include gender, major and whether they understand inclusive education or integrate education.

Keywords: Inclusive Education; Attitude; Preschool Education Students

FACTORS CORRELATED WITH COGNITIVE DIFFICULTIES EXPERIENCED BY EPILEPTIC CHILDREN

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ABSTRACT

A survey was used in this exploratory study to identify and obtain information about the cognitive difficulties experienced by children with epilepsy and the related factors. A total of 74 parents with children with epilepsy participated in the study. The parents provided background information and the cognitive difficulties experienced by their epileptic children. The findings show that one of the most dominant cognitive problems experienced by Malaysian epileptic children is memory issue. As a whole, The findings shed light on the predominant categories of cognitive impairments that Malaysian epileptic children in this study experienced. Besides that, the fact that intervention was found to considerably lessen the cognitive challenges they encountered points to the importance of intervention in enhancing their learning outcomes, which is another noteworthy insight gained from this study.

Keywords: epilepsy children; cognitive difficulties; influencing factors

(ICSE 2023: 080-037)

INVESTIGATION OF SOCIAL IMAGINATION USING WORDLESS PICTURE BOOK AMONG PRESCHOOLERS

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ABSTRACT

Social imagination is a mindset which provides the ability for individuals to realize the relationship between their personal experiences and the larger society in which they live their lives, which may include people's thoughts, feelings and intentions. However, there is no standardised method available to assess or profile social imagination in preschoolers. Therefore, the researcher is planned to explore the profiling of social imagination via using wordless picture books to analyse the thoughts, feelings, and intentions (TFI scores) in social imagination among preschoolers. In this study, a new method of profiling social imagination through using wordless picture book will be attempted. Six children (three boys and three girls) were selected from a 5-year-old class for this pilot study according to the purposive sampling criteria. The findings indicated that the use of social imagination is observable using wordless picture book reading. The findings also revealed that the children's TFI scores across the three dimensions were very different. The potential ways to improve children's social imagination according to their TFI scores are postulated.

Keywords: ADHD behaviors,emotion regulation, preschooler, social imagination, wordless picture book

KNOWLEDGE AND AWARENESS ABOUT EMOTIONAL REGULATION TEACHING METHOD AMONG SPECIAL EDUCATION TEACHERS IN MALAYSIA

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ABSTRACT

Abstract— The effectiveness of the emotional regulation teaching method among special education teachers is one of the contributing factors to increasing emotional regulation among students with special needs. Therefore, this article aims to identify and discuss the knowledge level, sources' level and awareness level of emotional regulation teaching methods among special education teachers in Malaysia. A descriptive quantitative study involving 35 respondents selected through the purposeful sampling technique was conducted. The research finding using SPSS 27.0 showed a moderate knowledge level about emotional regulation teaching methods among special education teachers (mean = 3.50), and their awareness level of the benefits of emotional regulation (mean = 3.48) is moderate. These research findings pointed to the state of knowledge and awareness about emotion regulation teaching methods among special education teachers in Malaysia.

Keywords: Emotional Regulation Method, Level of Knowledge, Level of Awareness, Special Education Teacher.

(ICSE 2023: 86-046)

SURVEY OF GENERAL EDUCATION TEACHERS' AND SPECIAL EDUCATION TEACHERS' KNOWLEDGE, SKILLS, AND ENGAGEMENTIN UNIVERSAL DESIGN FOR LEARNING IN CHINA

ABSTRACT

Universal Design for Learning (UDL) is an effective framework for guiding educational practice, guiding educators to design and develop curricula that areeffective and inclusive for all learners. The development of UDL is currently in its infancy in China, and the number of research studies on the implementation of UDL in schools is still relatively small. This research investigated Chinese general and special education teachers' understanding of UDL and their application of UDL knowledge, skills, and participation, and explored what the main challenges of UDL in China are at present. Using a mixed research approach, analysis of 185 questionnaires and interviews with four teachers showed that general education teachers and special education teachers have different levels of understanding of UDLand need to continue to strengthen it. They are relatively best in applying Knowledgeof UDL Providing Multiple Means of Representation, relatively poor in applying Skillsof UDL Providing Multiple Means of Action and Expression, and moderate in applyingEngagement of UDL Providing Multiple Means of Engagement, and they all need to be strengthened and improved. In addition, there are currently three main challengingthemes in the application of UDL for general education teachers and special education teachers, which are: lack of training and access to learning; lack of collaboration andprofessionalism; lack of policy support and guidance for action.

(ICSE 2023: 093-051)

ACADEMIC ACHIEVEMENT OF CHILDREN WITH DEAFNESS OR HARD OF HEARING (DHH) INCLUSIVE EDUCATIONAL SETTING: A SCOPING REVIEW

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ABSTRACT

Education for children who are deaf or hard of hearing (DHH) has resulted in various outcomes. In the move to inclusivity, scarce studies have been conducted to evaluate the academic achievement of DHH children, especially in the inclusive education (IE) setting. Therefore, this review aims to map the literature about the academic achievement of children with DHH within IE settings worldwide, including the assessment tools and interventions received. Data were searched from five electronic databases: EBSCOhost [Academic Search Complete (ASC), MEDLINE and CINAHL], Science Direct, SCOPUS, PubMed (PMC) and ERIC (Education Resources Information Centre). Six studies were found to fulfil the inclusion criteria: investigated the achievement of students with DHH academically and in inclusive educational settings. These studies were organised based on the Problem-Intervention-Outcome Meta-Model (PIO MM) conceptual model. In this model, the problem (population of children with DHH) with the intervention [hearing device(s) used, communication mode, classroom type, and therapy received] and outcomes (academic achievement) were analysed. The resulting studies were conducted in Taiwan, the United States, the Netherlands, and Canada. This study described academic achievement using different tools. This review also showed that most of the studies focused on students with a cochlear implant(s) who usually had severe to profound hearing loss. Communication had been rated as a lower achievement by the classroom teachers and formal examinations. With the mapped findings from the scoping review, future research could focus on various degrees of loss, the hearing devices used, and their relationship to educational outcomes, especially in the IE setting.

Keywords: Academic achievement, deafness, hard-of-hearing, inclusive education

EARLY DETECTION AND SUPPORT FOR CHILDREN WITH LEARNING DISABILITIES BY APPLYING UNIVERSAL DESIGN IN LEARNING - A CASE STUDY IN VIETNAM

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ABSTRACT

Most of the students with learning disabilities in Vietnam are currently enrolled in inclusive schools. Learning disability is a hidden disability, often discovered late after a child has experienced many failures in school and accepts poor academic performance. Early detection and timely support play an important role in helping students with learning disabilities succeed in school, preventing negative academic and psychological consequences. In Vietnam, the reformed general education program has been implemented since 2018. The program aims to develop the capacity of learners, guide teachers to select content and student-centered teaching methods, flexible method in assessment. The program has created opportunities for all children to develop their capacities regardless of whether they have a disability or not. In this study, based on the analysis of the characteristics of students with learning disabilities, the general education curriculum implementation guidelines and the principles of the UDL in inclusive education, we will propose and discuss how to apply the principles of UDL in the implementation of the general education program in order to detect early and create an early and sustainable supportive environment for students with learning disabilities in Vietnam such as: Analyzing the requirements to be achieved and stratify the requirements to be achieved in teaching, designing diverse learning methods, media and multi-sensory teaching aids, establishing diverse and flexible assessment methods. Some challenges and future research directions are also discussed.

Keywords: Learning disabilities, UDL, early detection and support, general education curriculum, Vietnam

THE STATUS OF USING AUGMENTATIVE AND ALTERNATIVE COMMUNICATION IN INTERVENTION FOR CHILDREN WITH AUTISM SPECTRUM DISORDERS IN VIETNAM

ABSTRACT

Augmentative and alternative communication (AAC) for children with autism spectrum disorder (ASD) is primarily about communicating through the exchange of images and symbols. With the advantage of words regarding clarity, consistency, stability, facilitation, and promotion of visual perception ability of children with ASD, AAC is considered an effective communication tool for children with ASD. This research aims to: (i) assess the current implementation of AAC and other digital technologies for people with autism in Vietnam, (ii) recognize some barriers to using AAC on people with autism in Vietnam. From the survey results, the study pointed out that low-tech AAC methods are widely utilized as the primary form of AAC for individuals with ASD. There is a significant need for more high-tech AAC options, therapy apps, and software in Vietnamese. Creating low-tech AAC resources is a time-consuming process, and the limited availability of professional skills and training in AAC and the search for culturally appropriate symbols pose significant challenges in this regard. This research also proposes several feasible and practical solutions to use AAC in current conditions.

Keywords: Augmentative and alternative communication, children with autism spectrum disorder, intervention, factors.

INCLUSIVE EDUCATION IN THE CURRENT CONTEXT OF INNOVATIONS OF EDUCATION IN VIETNAM

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ABSTRACT

This article summarizes the process of developing inclusive education policies and services in Vietnam from its initial application to the current extent. The model of inclusive education has raised access, support, participation and success for children and young people with disabilities. In 2018, Vietnam carried out an overall innovation of the general education program, leading to many changes in inclusive education for people with disabilities. Data sources include analysis of policies related to people with disabilities (*e.g. Law on People with Disabilities, 2010; Circular on educational policies for people with disabilities, 2013; Circular on inclusive education for people with disabilities, 2018; Circular on support centers for inclusive education development, 2022*); innovative educational programs (*e.g. preschool education program, 2020; general education program, 2022*); research (*e.g. The research on ensuring the quality of inclusive education for children with disabilities in Vietnamese secondary and high schools, Nguyen Xuan Hai, 2016; Support center for inclusive education development – conditions for ensuring the quality of inclusive education, Le Van Tac, 2015*); results of surveys, in-depth interviews, research on records on the development of inclusive teaching capacity of secondary and high school teachers. Reported impacts include public awareness raising and support for children with disabilities, development of local policies and infrastructure for inclusive education, capacity building of educators to educate children with disabilities and improve the quality of life for people with disabilities. Remarkably, the first Master's and Doctoral training programs in special education in Vietnam has been developed in Hanoi National University of Education; training program for education leaders in preparation for the enhancement of inclusive education in local communities have also been implemented across the country. In addition to that, the article examines the barriers and difficulties in implementing inclusive education in the context of renovation of education and lessons learned. On that basis, the authors propose the next steps to: 1) Strengthen consensus on the choice of inclusive education for children with disabilities in Vietnam, 2) Increase the use of effective teaching strategies for inclusive classrooms, and 3) Orientate/Strengthen to develop resources to effectively support inclusive education for children with disabilities in all over the country.

Keywords: Inclusive education, educational innovation, policy on education for people with disabilities in Vietnam, general education program in 2018.

THE VOICE: A CASE STUDY ON PARENTAL PERSPECTIVES IN EMPOWERING LEARNERS WITH SPECIAL EDUCATIONAL NEEDS THROUGH PERFORMING ARTS EDUCATION

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ABSTRACT

This case study explores parental perspectives on empowering learners with Special Educational Needs (SEN) through performing arts education. It investigates the advantages of performing arts education for learners with SEN and offers recommendations for improvement. This case study employs a mixed-methods research design, combining quantitative and qualitative approaches through surveys and interviews. The survey method involves administering structured questionnaires to gather numerical data, while interviews provide in-depth insights into parents' perspectives. Triangulation is employed to cross-reference and validate findings using existing literature and theoretical frameworks. The study focuses on understanding parental views on the role of performing arts education in empowering learners with SEN and the benefits derived from such programs. The findings highlight parents' perspectives on the importance of performing arts education, including its impact on personal development, self-expression, and overall well-being of learners with SEN. Recommendations are made to enhance the effectiveness and inclusivity of performing arts education programs based on parental input. This case study contributes valuable insights into performing arts education for learners with SEN from the standpoint of parents, informing future research and practice in this area.

Keywords: special educational needs, performing arts education, parental perspectives

THE ASSESSMENT OF FUNDAMENTAL MOTOR SKILLS (FMS) PROFICIENCY AMONG CHILDREN WITH AUTISM SPECTRUM DISORDERS (ASD) AT PERSATUAN KANAK-KANAK ISTIMEWA AMPANG

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ABSTRACT

The Fundamental Motor Skill or FMS play the important role for the human development to improve stability in balance, locomotor in jump and hop with objective control such as catch, throw skill. FMS is building blocks for more complex and specialized skill that involve in different of body parts such as feet, legs, trunk, arms and hands. In addition, FMS can be categorized into sub-group of skills, including objective control skill and locomotor. Therefore, FMS also have relationship with physical activity for children. The greater FMS in early children leads to higher levels of physical activity, physical fitness and perceived motor competence. The purpose of this study is to evaluate the level of fundamental motor skills among children with autism spectrum disorders and to compare the level of fundamental motor skills between genders among children with autism spectrum disorders. A total of twenty (n=20) student males (10) and the females (10), aged between 14 to 16 years old participated in the study. The participants undergo with 8 sub test using The Bruiniks-Oseretsky Test of Motor Proficiency, Second Edition (BOT-2) assessment. After the warming-up session, each participant will be given trials for each test depending on the test procedure. The end of test, cooling down session for seven minutes been conducted. The data been analyzed using independent t-test. The results showed there were two significant different were found in test jumping up and clapping hand (t (18) =2.72, $p<0.05$), and standing broad jump with (t (18) =2.87, $p<0.05$). The mean and standard deviation show male outperformed than female with achieve in tens test while women only performed in four test. In conclusion, the level of fundamental motor skill and compare between genders among children with autism spectrum disorder is not much significant different were found in this study.

Keywords: The Bruiniks-Oseretsky Test of Motor Proficiency, Second Edition (BOT-2), fundamental motor skill proficiency, autism spectrum disorders.

IMPLEMENTATION OF VOCATIONAL SKILLS FOR STUDENTS WITH SPECIAL EDUCATIONAL NEEDS IN PRIMARY SCHOOLS IN MALAYSIA

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ABSTRACT

Vocational skills are important in career development and play an important role in the economic growth of a country. However, MBPK (MBPK) face major challenges in acquiring appropriate vocational skills, which affects their employability prospects. This study aims to investigate the implementation of vocational skills for MBPK in primary schools in Malaysia. The aim is to evaluate the effectiveness of the vocational skills program in improving MBPK employment outcomes. The methodological section describes the research design used in this study, including sampling techniques, data collection, and analysis. The research findings section presents the results of the study, highlighting the strengths and limitations of the vocational skills program. The discussion section analyzes and interprets the findings in the context of existing theory and research. Finally, the conclusion provides recommendations for the improvement of vocational skills programs for MBPK in primary schools in Malaysia, with an emphasis on the need to increase collaborative efforts between government agencies, schools and other stakeholders.

Keywords: Vocational Skills, Pupils with Special Educational Needs, Primary School.

COMPETENCIES FOR VOCATIONAL TEACHERS OF LEARNERS WITH SPECIAL EDUCATIONAL NEEDS: META-ANALYSIS

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ABSTRACT

A high-quality, national educational system-aligned education is expected to empower disabled students to reach their full potential. Global awareness and recognition of vocational education and training for learners with disabilities have grown in recent years. This includes policy changes in special needs education, the development of specific curricula for fast-paced industries, technology integration into lessons, the establishment of new vocational special needs education facilities, and the restructuring of existing facilities to meet current demands. These vocational education programmes require new vocational special needs education teacher roles. As talent developers for special needs education, teachers help achieve the Malaysian Education Blueprint 2012–2025 mission and vision. In Malaysia, competencies and other quality factors for this new educational role have yet to be identified. This study examines special education and vocational teacher competencies. A systematic literature review identified special education vocational teacher competencies. Professional competency constructs include technical, non-technical, personal, mental, and physical attributes, motives, and self-concept. These findings could be used to train special education vocational teachers. The findings will shape vocational special needs secondary school vocational teacher professional development. In particular, identifying critical competency aspects will provide baseline data for improving our understanding of critical components for quality vocational teachers, which are believed to be essential to effective teaching and learning for learners with special educational needs.

Keywords: vocational teacher, competencies, vocational special needs secondary school, competency construct.

DEVELOPMENT AND VALIDATION OF AN ONLINE HEARING AID ORIENTATION MODULE FOR PARENTS OF HEARING-IMPAIRED CHILDREN

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ABSTRACT

Consistent and early hearing aid use is important for hearing-impaired children to develop speech and language skills. Thus, parents must learn information and skills to ensure their children receive consistent auditory stimulation daily through well-functioning hearing aids. The study aimed to develop and validate an online hearing aid orientation (HAO) module for parents of hearing-impaired children. The study involved two phases: Phase 1 was the development of the module, while Phase II measured the module's face and content validity. Six topics were established during the development process of the module. The face validation process was conducted on seven parents whose children are fitted with at least a hearing aid using a Patient Education Materials Assessment Tool for Audio-visual Materials (PEMAT-V). The suitability assessment of materials (SAM) was used among seven experts to assess the content validity. The PEMAT-V scores of 96.4% and 100% were established for understandability and actionability, respectively. The content validity score ranged from 0.86 to 1.00, with a mean content validity index of 0.98. Moreover, all items in content, literacy demand, and layout and typography domains received the highest rating of 1 from the experts. These results showed that the module has good content validity and is suitable for parents to manage their children's hearing aid.

Keywords: Hearing aid orientation, Parents, Hearing-impaired children, Development, Validation

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NONE LEFT BEHIND: DEVELOPING MATERIALS IN LOCAL LANGUAGE TO SUPPORT PARENTS OF STUDENTS WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD), AUTISM SPECTRUM DISORDER (ASD), AND LEARNING DISABILITIES (LD) DURING COVID-19

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ABSTRACT

The Republic of Maldives is an archipelago in the Indian Ocean. With the pandemic of COVID-19 in 2020, schools were closed as the lockdown was imposed. This obstructed the support for students from special education teachers and other paraprofessionals for students with special educational needs (SEN). As parents required support to know how to manage their child at home and to support the online learning during the pandemic, the lack of materials in local language, Dhivehi, was challenging for parents. As most learning were online, and it was the most accessible way for island communities during lockdown, the lack of materials on SEN in local language and electronic format meant the parents had very little support. Further, parents were very dependent on schools for providing specialized learning support and hence, the lockdown was an immense pressure for parents . Parents lacked knowledge on the child's special needs, behaviour management and individualized learning. The purpose of this project was to develop three electronic books in Dhivehi on the main areas of SEN in Maldives, under Australia Awards Small Grants Scheme. Based on the data on the three main areas of SEN in Maldives, the book's contents were identified, adapted, and translated in to simpler forms for audience. This included images, tables and charts to provide concise information for parents. The development of the books went through a three-phase cycle: 1: Developing content in Dhivehi, 2. Proofreading,editing and graphics, and 3. Final revisions for publications. The three books were completed in 2021 and uploaded on the website of the Department of Inclusive Education (DoIE) which was freely accessible to be downloaded. These books also serve as resources for teachers and students enrolled in teaching courses conducted in Dhivehi Language.

Keywords: COVID-19, Special Education, Parents, Resources, ADHD, ASD, LD

DETERMINING THE VALIDITY OF THE MALAY VERSION OF WORLD HEALTH ORGANIZATION'S CAREGIVER SKILLS TRAINING PACKAGE THROUGH COGNITIVE INTERVIEWING

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ABSTRACT

The National Movement Control Order mandate that implied for 18 months during the Covid-19 pandemic in Malaysia had disrupted healthcare services, making outpatient care a lower priority. The situation however, had hampered the opportunity for children with ASD access to appropriate intervention. With the continuous postponement of hospital appointments, implementing WHO Caregiver Skills Training (WHO-CST), a program that focuses on training parents to deliver intervention may ensure continuous skills development for ASD children. Prior to putting the programme into action on a local level, it is crucial to complete a validity testing given the significant disparities between the English and Malay languages and cultures. The WHO-CST program consists of three modules: the facilitator module, the caregiver module, and the home visit module. This study aimed to validate the translated Malay version of WHO-CST packages by assessing content validity and conducting cognitive interviews, ensuring alignment with local cultural context. In this sequential explanatory mixed-methods study, the quantitative approach was used to analyse content validation by expert reviewers and the qualitative approach was used to analyse cognitive interviews with parents of children with ASD. The quantitative findings yielded an excellent content validation with S-CVI/Average ranging from 0.96 to 0.99. Through cognitive interviews, several issues were identified within 23 items in the module and classified under four codes that could assist in further refinement. With appropriate alteration, the Malay version of WHO-CST was found to be valid and suitable for use among Malaysian parents or caregivers of children with ASD. This validation process ensures that the intervention materials align with the local cultural context, language, and needs of the target population.

Keywords: WHO-CST, caregiver skills training, ASD, content validity, cognitive interview

PARENT EMPOWERMENT PROGRAM (PEP) AS A WAY OF INTENSIFYING SOCIO-EMOTIONAL LEARNING FOR NEURO-TYPICAL AND NEURO-DIVERSE LEARNERS AS THEY TRANSITION FROM DISTANCE LEARNING BACK TO FACE-TO-FACE CLASSES: A SMALL PRIVATE PROGRESSIVE INCLUSIVE SCHOOL'S PROGRAM TO RECOVERY AND GROWTH

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ABSTRACT

Transforming engagement of parents to empowerment of parents is a component in "across the motive of a system that's one of the maximum high-price leverage factors for transformation" (Winthrop, 2020), particularly in school programs. MindHaven School, which has been turning barriers to Inclusive Education (like the COVID-19 pandemic) into opportunities to intensify its 30-year advocacy for parent empowerment, has, through parent engagement, practiced the "Every home a school, every parent a teacher" Learning Model. MindHaven School's Parent Education Program (PEP) turned out to be "an idea whose time has come" during the COVID-19 pandemic, with the parents becoming the direct implementers of their children's school program. Fifteen to twenty-five 2-hour face-to-face training sessions and workshops per school year turned into 25-35 2-hour virtual sessions per school year beginning S.Y. 2020-2021. It was these PEP sessions that sustained the parents and teachers in dealing with student learning gap, in helping students achieve and maintain academic gains, and in addressing and minimizing the Socio-Emotional challenges of Distance Learning. The aim of this ethnographic study is to document how the empowerment of parents as a result of intensified Social-Emotional Learning during PEP sessions has manifested in the interactions: a.) between learners, b.) between learners and teachers, c.) between the learner and his/her parents, d.) between spouses (parents of one learner), e.) between parents and teachers, f.) between parents of different learners, and g.) between the parents and the community. This ethnographic study found out that in addressing the challenges of transitioning from distance learning back to face-to-face classes, empowered parents significantly benefit not only the learners but also the entire school community. The effects of parent empowerment through PEP sessions can be categorized into the following: a) Parents creating and maintaining meaningful, trusting, and productive relationships with the School Staff, b) Parents supporting each other in helping all their children stay engaged in school, c) Learners being inspired by their empowered parents to help fellow learners deal with socio-emotional issues, and d) Replication, scaling up, and community applications of MindHaven School's Parent Empowerment Program.

Keywords: Parent Empowerment Program, Parent Engagement, Social-Emotional Learning, Distance Learning to Face-to-Face Classes, Inclusive Education

AN ETHNOGRAPHIC STUDY ON THE PROCESS OF (RE) DESIGNING LIFE SKILLS PROGRAM AS A SCHOOL-HOME COLLABORATION DURING THE COVID-19 PANDEMIC AND AS PREPARATION FOR RETURNING TO FACE-TO-FACE CLASSES

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ABSTRACT

This ethnographic research aims to find out the process involved in the conversion and modifications of the MindHaven Life Skills Program, which has long been implemented by the school as an embedded program in its inclusive curriculum, that was transformed to be the Core Curriculum during the pandemic. The school translated Life Skills from its theoretical definition of being the "abilities for adaptive and positive behavior that enable individuals to deal effectively with the demands and challenges of everyday life". (WHO, 1997) Into a relevant, timely, and responsive functional curriculum aimed towards the empowerment of learners, parents, and teachers for Online Classes during the pandemic and for transitioning back to Face-to-Face classes. The aim of this study is to find out A.) What processes in the modifications were observed to effect innovative changes that would address the pandemic context; B.) What the implications (for Theory and for Practice) were of both the processes and the responses of the students, parents, and teachers to these modifications as classes returned to Face-to-Face modality. The findings described both the A.) The process involved in the Modifications and Attunement for the program to be responsive to the students by sustaining their academic gains and minimizing Socio-Emotional challenges, and B.) The responses of the students, parents, and teachers to these modifications and the implications of these modifications when Face-to-Face classes resumed. Using Naturalistic Observation in data collection, the result indicated that the Modification Processes have significant influence on transforming Life Skills as the Core Curriculum and as the most direct interventions for the promotion of psychosocial competence affirming that "Life skills enable individuals to translate knowledge, attitudes, and values into actual abilities— i.e. "what to do and how to do it" (WHO, 1997) and in effect, critical core set of skills have enhanced the stakeholders' coping resources, personal and social competencies, and manifested these competencies in the promotion of health and well-being of children during everyday challenges and during the transition stages from face-to-face classes to distance learning and back to face-to-face classes.

Keywords: Life Skills, Parent Empowerment and Engagement, Social-Emotional Learning, Distance Learning to Face-to-Face Classes, Inclusive Education

THE TEACHING STRATEGIES OF AKLANON TEACHERS IN INCLUSIVE CLASSROOMS

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ABSTRACT

This study focused on finding the level of teaching competencies of the Aklanon teachers handling children with special needs. It also elicited detailed responses relative to teaching strategies in delivering instructions to children with special needs. Both quantitative and qualitative methods of research were used in this study. A set of questionnaire was used to gather data on the level of teaching competencies. The focused group discussion was used to elicit the best practices in teaching children with special needs as well as their coping mechanisms. The teachers of special education in the Division of Aklan were in middle age, 38 years old, with 12 years of service in teaching and earned master's degree units. Most of the students with special needs handled by the Aklanon teachers were with specific learning disabilities. Generally, the teachers were competent in professional values, which included: compassion, patience, perseverance, and commitment to improve every child with special needs. The teaching strategy used frequently was collaborating with colleagues and parents in order to meet the needs of students with disability. Integration of assistive technology was occasionally used. The behavioral problems of students were among the challenging concerns of the teachers, coupled with handling students with different disabilities. Their foremost coping mechanisms to counter the behavioral concerns were patience and mentoring from veteran special education teachers. This study concluded that the three models had been effective in inclusive classrooms, which were frequent collaboration with colleagues and parents, integrating assistive technology, and reflective narrative. The researchers recommended that teachers in inclusive classrooms should be highly committed to do frequent reflection to assess the instructional strategy that hastens the progress of the children. They should continue upgrading their teaching competence along classroom management and discipline and the use of formal, informal, and alternative student assessment.

Keywords: special education, inclusive classrooms, teaching strategies

TECHNOLOGY SUPPORT FOR THE INCLUSION OF DEAF STUDENTS IN SLB SUKABUMI CITY

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ABSTRACT

The COVID-19 pandemic brought rapid changes in various areas of life, including education and technology. One of the learning media that can be used by the deaf to improve their ability to compose sentence structures is I-CHAT (I Can Hear and Talk). I-CHAT is a portal that contains applications that function as tools for the deaf in language acquisition. In communicating, mastery of sentence structure is very important. It is because with the correct sentence structure, other people will better understand what we are talking about, and besides that, communication becomes more effective and efficient. Communication barriers that occur in deaf children are caused by hearing impairment, which ultimately requires deaf children to only use sight to acquire their receptive language. This has an impact on the acquisition of imperfect or partial deaf children's receptive language because not everything they see can be understood. Therefore, if a deaf child makes a sentence, the sentence structure is sometimes wrong. This research aims to determine the use of I-CHAT in the preparation of sentence structures for deaf students at SLB Sukabumi City. This research is experimental with a quantitative approach. The results of the research show that the use of I-CHAT can improve the ability to compose sentence structures for deaf children in SLB Sukabumi City.

Keywords: Education Technology; I-Chat; Sentences; Deaf Students; Covid-19.

PARENTAL PERCEPTION OF SOCIAL COMMUNICATION DIFFICULTIES AMONG CHILDREN WITH AUTISM SPECTRUM DISORDER (ASD)

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ABSTRACT

One of the most prevalent symptoms in children with autism spectrum disorder (ASD) is impairment in social communication. Depending on the degree of the disease, children with ASD exhibit a wide range of social communication difficulties. Lack of social communication can have a negative impact on their engagement and make it more difficult for them to interact with their parents and siblings at home. The purpose of this study was to learn how parents perceive their children with ASD's social communication challenges. A semi-structured interview with ten parents of children with ASD was undertaken. Atlas.ti was used to transcribe the interview data. The study's findings revealed a few common traits linked to ASD, including a lack of eye contact, restricted social initiation, and inadequate joint attention in social communication. Parents who participated in the study recommended putting some strategies into practice at the school to help children with ASD develop their social communication abilities.

Keywords: Social Communication Difficulties, Parental, Autism Spectrum Disorder

(ICSE 2023: 200-113)

PRESERVICE TEACHERS' BEHAVIOURAL AFFECTION TOWARD INCLUSIVE EDUCATION SCALE (PTBAIES) WITHIN MALAYSIAN CONTEXT

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ABSTRACT

To learn more about teachers' perceptions of including students with disabilities in regular classrooms, the Multidimensional Attitudes towards Inclusive Education Scale (MATIES) was first created. Mahat (2008) discovered three separate dimensions of teachers' attitudes towards inclusive education, which are measured by the individual cognitive, affective, and behavioural subscales. For the purposes of the current study, MATIES was being cross-culturally modified. In order to better support the learning outcomes for preservice teachers who pursued the inclusive education course during the relevant semester, the current study is focusing on the two dimensions namely, affection and behaviour. A cross-validation and reliability study on the behavioural affection of 302 preservice teachers was undertaken using the Rasch Measurement Model (RMM) Item Analysis and Exploratory Factor Analysis (EFA). The Preservice Teachers' Behavioural Affection towards Inclusive Education Scale (PTBAIES), according to the findings, is a dual-dimensional scale with two components (affection and behaviour). The reliability coefficient for Cronbach's alpha was .802 at the time. Results indicated that the 10-item-PTBAIES can be used as a valid and reliable tool for preservice teachers to examine their demeanour towards inclusive education in Malaysia.

Keywords: Attitudes, Affection, Behaviour, Inclusive Education, Rasch Measurement Model, Exploratory Factor Analysis

GENDER POLARISATION AND PRESERVICE TEACHERS' BEHAVIOURAL AFFECTION TOWARDS INCLUSIVE EDUCATION

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ABSTRACT

It is clear that the study of attitude and gender is a crucial field for research given that one gender dominates both the teacher training programme and the teaching profession in Malaysia. In this study, preservice teachers' behavioural affection in inclusive education was examined in relation to gender. This study exploited quantitative research design and made use of the survey method. The respondents, who included 189 females and 65 males, received a set of questionnaire. Independent sample t-test and descriptive statistics were utilised. The findings showed that there was no gender-related difference in the preservice teachers' behavioural affection for inclusive education [$t(252)=1.499$, $p=.137$]. Therefore, it implies that gender does not play a significant role in determining preservice teachers' behavioural affection towards inclusive education. This study's conclusion indicates that efforts to promote inclusive education among preservice teachers should not focus solely on gender-based interventions. Instead, other factors, such as exposure to inclusive education practices, should be emphasised. Additionally, this study contributes to the existing body of literature on inclusive education by providing insights into the attitudes of preservice teachers towards inclusive education. Policymakers and educators can use these findings to design effective teacher training programmes that promote inclusive education practices.

Keywords: Gender, Teacher training programme, Preservice teachers, Behavioural affection, Inclusive Education, T-test

RELATIONSHIP BETWEEN AFFECTION AND BEHAVIOUR TOWARDS INCLUSIVE EDUCATION AMONG THE PRESERVICE TEACHERS

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ABSTRACT

The relationship between affection and behaviour in inclusive education is an important topic to explore. Affection refers to the positive feelings and emotions that individuals have towards others, while behavior refers to the actions and reactions of individuals in response to various stimuli. The relationship between preservice teachers' affection for behaviour in inclusive education was examined in this study. This study exploited quantitative design and made use of the survey method. 254 respondents who enrolled in a teacher training programme for their bachelor's degree received a set of questionnaire. The Statistical Software Package for Social Sciences (SPSS) version 27 was used to analyse the quantitative data of this study. The inferential data was evaluated using Spearman correlation due to the non-normal data distribution, whilst the descriptive data was given in mean and standard deviation. The study's results showed that both variables, preservice teachers' level of affection and their level of behaviour towards inclusive education were at low and very low levels, respectively (M=17.63; SD=5.55; M=25.76; SD=3.67). However, the results of the inferential statistics revealed a weak significant relationship between the degree of affection for inclusive education and the degree of behaviour towards it (ρ=.32, p<.01). To conclude, preservice teachers' positive attitudes and emotions towards inclusive education can influence their behaviour towards it. The study suggests that fostering a positive attitude towards inclusive education can help teachers to become more effective in inclusive classrooms. Overall, the study's findings contribute to our understanding of the relationship between affection and behaviour in inclusive education, and the importance of promoting positive attitudes towards it.

Keywords: Affection, Behaviour, Inclusive Education, Preservice teachers, Teacher training programme, Spearman correlation

(ICSE 2023: 4)

ZERO REJECT POLICY: THE POLICY THAT PROVIDES ACCESS TO EDUCATION FOR CHILDREN WITH SPECIAL EDUCATIONAL NEEDS

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ABSTRACT

Malaysia has consistently made continuous efforts towards promoting access to education, in alignment with the World Declaration on Education for All. Fast forward to 2015, The United Nations Educational, Scientific and Cultural Organization pledged to enhance the benchmarks of quality education, ensuring that all children can equally access a high standard of education. Building upon these international declarations and endeavors for improved education for future generations, Malaysia implemented a Zero Reject Policy in January 2019. This policy allows all children, irrespective of their disabilities, to enroll in government and government aided schools. This qualitative study involved six primary school headmasters from Selangor, who were selected through purposive sampling. Two qualitative data collection methods were employed including semi-structured interviews and systematic literature reviews. The collected data were analyzed using ATLAS.ti (Version 9) software. The study discovered that the majority of headmasters comprehend the objectives of the Zero Reject Policy in facilitating access to education. Nonetheless, challenges such as inadequate infrastructure have posed significant obstacles for headmasters in effectively implementing the policy. The study concludes that the implementation of the ZRP has presented challenges for headmasters from three distinct perspectives: awareness, leadership skills, and access to education.

Keywords: Special education, special educational needs student, zero reject policy, access, Education policy

1ˢᵗ iDIEC ABSTRACTS

(iDIEC23_002)

SAINT LOUIS UNIVERSITY-INCLUSIVE EDUCATION RESOURCE CENTER: ADDRESSING UNIQUE LEARNING NEEDS

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Abstract: Inclusive Education is an educational approach whose major goal is to provide all learners with the most appropriate learning environments and opportunities by removing barriers to learning. Saint Louis University, Baguio City, Philippines is one educational institution that adheres to and advocates inclusive education. The Saint Louis University-Inclusive Education Resource Center (SLU-IERC) is a product and output of its previous Institute for Inclusive Education Foundation Inc. The Resource Center is one of the University's advocacy and answer to Sustainable Development Goal number 10 (SDG 10) - Reduced Inequality. The Center seeks to assist the differently-abled learners and also to cater to their unique learning needs. The Center, in collaboration with the entire academic community, students, teachers, parents, and other stakeholders work cooperatively to determine appropriate capacitating activities that will eliminate the learning barriers and promote a collaborative learning in receiving classrooms of students with unique learning needs. The Center has 2 major components: (1) training for students, receiving teachers and parents; and (2) production of instructional materials for learners with unique learning needs. The Center offers its services for free to the community. Learners from primary to the tertiary level come and avail of its services. The institution has established this as an extension program of teachers. On designated schedules, teachers voluntarily share their different skills and expertise to the students being catered by the center. Even during the outbreak of the pandemic, virtual learning sessions have been conducted to make sure that they are assisted in coping with their academic tasks and activities. Through the Inclusive Education Resource Center, the students became more confident of themselves by continuously equipping themselves with independent living skills to help them address their daily life-challenges both from the community and the school. Parents also are more empowered to assist their own children in addressing their special learning needs. Receiving teachers have become more creative and innovative in their teaching strategies and design of instructional materials. The academic community has also become more pro-active in providing for policies, accommodations, facilities as well as equipment for learners with varied learning needs.

***Keywords*:** Inclusive Education, Learning Needs, Resource Center, Receiving Teachers.

(iDIEC23_003)

INCLUSIVE WORKBOOKS FOR INCLUSIVE LEARNERS (I-WIL) PROJECT

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Abstract: The Inclusive Workbooks for Inclusive Learners (I-WIL) Project is an avenue to create and develop workbooks specially designed for regular learners and Learners with Disabilities (LWDs) who are beginning to write, read, do sign language, and learn concepts. The project employs enjoyable and fun learning activities that teach learners how to write and read the letters of the alphabet, colors, numbers, sign language, and others. As an innovative project output, the workbook provides various learning activities, more writing practice, and hands-on learning activities to develop their independent writing and reading skills. The project also addresses the most common problem in the inclusive setting which is the lack of modified learning materials to accommodate learners, which are modified to accommodate learners. A pre-test and post-test were implemented to evaluate the effectiveness of the workbooks. Validation and quality assurance processes were also conducted by experts in the field of special education. The project aimed to develop inclusive learning workbooks for both LWDs and regular learners. These workbooks can be utilized by all types of disabilities in the beginning stage of reading, writing, and recognition of basic concepts. Likewise, for those learners with hearing impairment, their parents and family will be able to utilize the workbooks as self-learning material to learn sign language.

Keywords: Workbooks, Inclusive Education.

(iDIEC23_004)

BESTULIS FUNTULIS HANDWRITING INTERVENTION MODULE FOR STUDENTS WITH SPECIFIC LEARNING DIFFICULTIES

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Abstract: Handwriting difficulties are also known as dyslexic dysgraphia and are not related to intelligence. In another study, handwriting difficulty is defined by a score at or below the 3rd percentile handwriting screening. These skills are very crucial across the curriculum within the Malaysian educational system as it requires students to be able to be handwritten in most mainstream subjects. Many studies estimated that from 6% to 33% of children had handwriting difficulties. The objective of the intervention module includes specific materials and techniques in handwriting intervention such as activities on handwriting development phases, pre-writing skills, gross and fine motor skills, writing capitals, lowercase, and numbers using proposed strategies and materials. This module enhances the pragmatic approach to using correct handwriting tools, promoting functional pencil grasp, facilitating ideal posture and position, and demonstrating the best method of writing capitals, lowercase, and numbers. This is a comprehensive guide to help therapists as professional service providers within special education to support teaching and learning skills for students with disabilities. This module also can be used by teachers within the classroom and can be done by parents at home because the instructions are very handy and easy to understand. The intervention strategy in classroom can be used in the Individual Education Plan (IEP) for each student. Teachers can benefit from the checklist activities to ensure all intervention activities has been covered throughout their teaching and learning sessions. The contribution of this product are (1) effective to improve student's handwriting performance specifically in capitals, lowercase and numbers writing; (2) capable to accelerate student's visual perceptual skills in classroom especially in visual memory and perceptual aspect in handwriting components; (3) contained a comprehensive set of intervention guideline for therapists, teachers, and parents; and (4) may be used by schools to work in partnership with the students, teachers, healthcare professionals, and families to support learning within the classroom. The handwriting intervention module had undergone a feasibility and effectiveness study.

Keywords: Handwriting, Module, Intervention, Occupational Therapy, Students with Specific Learning Difficulties.

(iDIEC23_005)

PROJECT C.A.F.E.
(COMPETENCY ALIGNMENT FOR EMPLOYMENT)

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Abstract: Children with special needs in the Municipality of Angat is increasing especially those who are over-aged for formal schooling. Thus, the center is continuously looking for ways to teach them the skills that may help them to be equipped and become a productive member of the society. MAFMS – SpEd Center wants to empower these children and engage them to working environment and so an innovation were conceptualized, consulted and created - "Project C.A.F.È. – Competency Alignment for Employment". Through this project, learners will have the chance to develop and prove basic skills as a café crew, strengthen the psychomotor skills of LWDs in becoming a service crew employee through proper training, develop the LWDs social skills through interaction and provide good customer service, create community awareness and acceptance of the LWDs as a contributing member of the society, and prepare LWDs for possible employment. The project can be replicated easily by different sped centers for it doesn't require too much financial support because you don't need to buy specialized equipment nor materials to conduct the project. Project C.A.F.E. took a big leap in terms of transitioning learners with disabilities towards the community. It aims to empower Learners with Disabilities (LWDs) by giving them the chance to prove themselves to be a productive contributing member of our society. Amidst the pandemic Covid-19, school year 2020-2021 sets the milestones in special education of Matias A. Fernando Memorial School-SPED Center. For the first time in Angat, the LWDs felt the belongingness and inclusivity as they immersed in different cafes to be part of the service crew team. For the first time, they felt the acceptance of the society. "Project C.A.F.È." together with our growing partners will continue to provide proper service crew training, mastering the required competencies set by employers aligned with the transition curriculum and hope that they will be grant an employment in the near future.

Keywords: Inclusion, Immersion, Awareness, Employment, Acceptance.

AUDIO-VISUAL LESSONS THROUGH DIGITAL TECHNOLOGY FOR LEARNERS WITH DISABILITES

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Abstract: This study aims to develop a model of learning by integrating multimedia and audio-visual capable learners in writing and reading. This multimedia was developed as a tool for SPED teachers in the education of children with special needs to improve their reading and writing skills participated by 78 identified learners with disabilities in Labason I District 2021-2022. The findings of this study are analyzed by using an experimental design. The data gathering method used a pretest and post-test. The technique used in this study is the total enumeration method, where all respondents were measured individually in terms of their literacy skills such as Phonemic Awareness, phonics, vocabulary, fluency, and writing skills. Overall, results show that audio-visual lesson is an effective strategy for accomplishing activities in writing and reading. The Strategy also increased the level of achievement of the learners after the study was conducted. The strategy shall be recommended to be integrated into audio-video lesson classes with supervised learning for LWDs throughout the district.

Keywords: Audio Visual Lessons, Special Education, Disabilities, Reading Skills, Writing Skills.

(iDIEC23_007)

IMPACT OF ACCREDITATION AND EQUIVALENCY, BASIC LITERACY AND E-LEARNING PROGRAMS IMPLEMENTED IN THE NORTHERN PART OF NUEVA VIZCAYA PHILIPPINES

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Abstract: This descriptive – quantitative and qualitative research study delved with the impact of Accreditation and Equivalency, Basic Literacy and e-Learning Programs under the Alternative Learning System (ALS) of the Department of Education. The respondents of the study were the recipients of the three programs implemented in the Barangay of Runruno, Quezon, Nueva Vizcaya namely: Basic Literacy Program (BLP), Accreditation and Equivalency (A&E) and e-Learning. Those recipients of the programs were learners who enrolled in the ALS program in the Northern part of Nueva Vizcaya, Philippines from the years 2015-2018. Findings of the study revealed improvement on the educational attainment, family monthly income, employment status and job characterization among ALS program recipients. There was a dramatic shift from unskilled jobs to skilled, physical labor and clerical/office works among the ALS Program recipients. Further, the study showed that A&E Program of the ALS helped in the self-development of learners and cultivated their sense of community and vision. A continuous partnership with the stakeholders such as but not limited to the Local Government Unit (LGU) and the Technical Education and Skills Development Authority (TESDA) in support for livelihood projects have been forged. However, Accreditation and Equivalency (A&E) program is challenged to meet required standard in the learning strands of developing critical and problem solving and communication skills among recipients. Enhancement programs have been provided to ALS teachers to enhance their pedagogical/andragogical competencies to engage ALS program recipients to activities that enhances their critical and problem-solving skills including communication skills. Likewise, the development of contextualized materials have been constantly prepared by teachers and the practical spoken language technique have been explored to better improve their communicative competence.

Keywords: Education, Employment Status, Out-of-School-Youth, Partnered Agencies, Literacy Programs.

(iDIEC23_017)

PROJECT SLIM PACK
(SPECIAL CHILDREN LEARNING INTERACTIVE MATERIAL PACKAGE)

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Abstract: DRRM integration in the K to 12 Curriculum should be enhanced and strengthened by providing our learners with special needs specific materials to increase their capacities in dealing with risk and hazards that come their way. Vulnerabilities can be overcome with knowledge being a powerful tool in addressing the gaps brought about by lack of specific programs and framework by way of advocacy activities, training, provision of psychosocial services, materials and supplies needed, to name a few. Recognizing the special needs of a disabled child, there is really a need to provide learning resources designed to facilitate effective access to education that would promote the development of life skills to achieve the fullest possible social integration. However, there is no learning resource which is DRRM-related intended for persons with disabilities. This project is the realization of the Department of Education's vision that as a learner centered public institution, it enables to protect and promote the right of every Filipino learner to quality, equitable, culture-based, and complete basic education where students learn in a child-friendly, gender-sensitive, safe, and motivating environment. This project also is in line with the Regional Office 6 mantra of producing champion learners with values and lifelong competencies that are relevant to the community needs and essential in the realization of their aspirations in life, whilst increasing the access to basic education all the way through the improved learners' literacy and enhanced technical skills. This project of producing series of short stories especially created for our differently-abled learners both in Braille System and in Radio-based. This innovation generally aimed to produce high frequency DRRM-related audio files and story books in Braille System. The innovative project has produced five (5) published quality-assured comic books in Braille System and published one (1) Braille Comic Book in learning resource portal. It has also produced five (5) quality-assured audio files which are published in the LR portal. This project has benefited fifteen (15) Special Education teachers and twenty-nine learners.

***Keywords*:** Learning Resources, Inclusivity, Disaster Risk Reduction and Management, Braille System, Literacy.

(iDIEC23_020)

FOOD AND BEVERAGE - A PRACTICAL GUIDE: EXPERIENTIAL LEARNING FOR STUDENTS WITH SPECIAL NEEDS

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Abstract: Food and beverage (F&B) skills can play an important role in the development and well-being of special needs students. F&B activities can assist them in succeeding and reaching their maximum potential by offering chances for sensory experiences, socialization, and life skills. Inclusive education approach has the potential to improve special needs students' learning outcomes that requires teachers to receive proper training. This collaboration involves teachers and lecturers working together simultaneously to teach special needs students from Sungai Puteri Secondary School and conducted by lecturers from Hotel Operations Program, Rompin Community College in Basic Food and Beverage Skills. Based on the lecturer's observations, the students face difficulties in performing the tasks during the F&B practical class, especially assignments that require them to remember steps to be completed. In addition, lack of focus also confused them in preparing the table setting. Providing the right amount of attention and adaptation can be challenging for teachers, especially if there is a higher teacher-to-student ratio. The Food & Beverage - A Practical Guide focuses on experiential learning approaches for students with special needs. This innovation would allow special needs students to compete on the same level as peers without disabilities, enabling them to perform on par with peers (without disabilities) using established best practices. Moreover, it helps to improve interactive and entertaining class experience and lead them to be able to fit in the Food and Beverage industry. This innovation focuses on developing the knowledge and skills by giving clearer guidance and better responding to the needs of students with disabilities. It is notable that some F&B industries have specific programs or initiatives to support hiring individuals with special needs. This innovation will assist special needs students to be competent in table setting and service sequence especially for café and restaurant. This experiential learning innovation can be commercialized to other schools or institutions that offer Food and Beverage courses for Integrated Education Programme (PPKI).

Keywords: Special Needs Students, Secondary School, Food and Beverage, Experiential Learning, Innovation.

(iDIEC23_021)

THE CARER PROGRAM: PAVING THE WAY FOR INCLUSIVE EDUCATION AND EMPLOYMENT FOR PERSONS WITH DISABILITY IN THE MUNICIPALITY OF CARMONA, PHILIPPINES

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Abstract: The Department of Education (DepEd), the executive branch of the Philippine government in charge of ensuring access to quality primary education, is generally responsible for carrying out Inclusive Education, specifically the Special Education Program in the country. This was laid out in the Department Order No. 26 series of 1997, establishing SPED in all public schools nationwide. However, despite the country's progress in inclusive education, public facilities for special needs education services remain lacking. A DepEd report reveals that there are only 648 SPED Centers (471 for elementary, 177 for high school) in the Philippines. In the Province of Cavite alone, where the Municipality of Carmona is located, only seven (7) public SPED schools are catering to 24 cities and municipalities. Furthermore, Carmona has one (1) SPED school with only six (6) teachers. Hence, the importance of LGU efforts in making education programs and services for PWDs more accessible. Motivated to address the pressing special education needs in the locality, the Local Government Unit (LGU) of Carmona established its special education program in 2000. From its humble beginnings, the program has evolved into a more holistic education and rehabilitation solution, now commonly known as the Comprehensive Approach, Responsive Education, and Rehabilitation (CARER) Program. The CARER Program is an accessible and sustainable education initiative catering to children with disabilities living in the Municipality of Carmona. It employs an intricate LGU-developed service framework that serves as a guide in determining appropriate and tailored-fit early intervention, instructional, entrepreneurial, and work training programs for learners with disability. Initially serving just 20, the program now serves approximately 300 students, bringing forth positive change to the lives of many PWDs. Testimonials from learners and parents attest to the success of the program in assisting PWDs in coping and adapting to mainstream society. Overall, the CARER Program continues to empower children with disabilities by gearing them toward self-sufficiency through its extensive education-to-employment strategy.

Keywords: Special Education Program, Inclusive Education, Children with Special Needs, Local Government, Philippines.

(iDIEC23_022)

BEYOND CLASSROOMS: INCLUSIVE EDUCATION PROGRAMS IN QUEZON CITY KABAHAGI CENTER FOR CHILDREN WITH DISABILITIES

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Abstract: Nine percent of the population between 6-24 years old are considered out-of-school children and youth (OSCY) in the Philippines (PSA, 2017). The OSCY commonly have indigent backgrounds with low quality of life (Delprato & Flora, 2021). While there are current programs in Quezon City (QC) to improve inclusive education among children and youth with disabilities, the programs may not reach the 6.8% OSCY that are unenrolled due to disability (PSA, 2017). The local government of QC subsidizes services for indigent Children with Disabilities (CWD) through the program "*Kabahagi*", which translates "to be a part of". True to its name, it aims to increase participation and promote inclusion of children at-risk (CAR) and CWD. Specifically, it targets inclusion at the levels of the child, family and community through (1) Child-find efforts to ensure children are profiled (2) Family-centered approach to diagnosis and therapy intervention for CAR and CWD; (3) Group activities that target social and advocacy skills, including talent development of CWD; (3) Capacity-building of stakeholders in proper developmental stimulation to prevent delays and disability-inclusive teaching practices (DITP); and (4) Information dissemination campaign to reach the larger community on inclusion concepts. In five years, the program has reached 4,403 citizens of QC. Through the program: 3,649 children were assessed and diagnosed, 4,000 children were provided family-centered therapy intervention, and the information campaign for early detection and intervention reached 874,103 citizens. The inclusive arts classes developed 200 visual artists and 16 singers. Group classes attended by 265 children focusing on school readiness and community participation. Community stakeholders including 336 early childhood care workers and 190 Kinder and Grade 1 public school teachers were trained for early disability detection and intervention and strategies for DITP. Ultimately, this initiative proves inclusive education goes beyond classrooms.

Keywords: Inclusive Education, Extra-Curricular Learning, Community-Based Programs, Out-of-School-Children, Out-of-School-Youth, Children with Disabilities.

(iDIEC23_025)

CONNECT-THE-SPHERE FOR AUTISM SPECTRUM DISORDER (ASD) STUDENTS

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Abstract: Autism or Autism Spectrum Disorder (ASD) is a type of developmental disability that affects an individual's behaviour, communication and social skills. Autism spectrum disorder (ASD) is a neurological and developmental disorder affecting the individual's ability to interact with others, communicate, learn, and behave. Students with autism spectrum disorder are categorized under students with special education needs whereupon the method and approach used in tackling their education differ depending on the type of disability. To shed light on one of the difficulties faced by autism spectrum disorder students, Technology and Design (RBT) teacher trainees from the Teacher Education Institute Technical Education Campus, have discussed and observed recent studies focusing on the visuospatial abilities of these students. As a conscious effort to provide and aid autism spectrum disorder students, an innovation focusing on helping the visualisation skill of autism spectrum disorder students was proposed and created with this goal in mind. This innovation focuses on improving students' ability to visualize as well as indirectly assisting the fine motor skills of students with an autism spectrum disorder. The innovation produced contains elements from construction toys such as LEGO and modelling clay which are used in constructing various models and structures by hand and physically inspired by the molecular model. This product; connect-the-sphere is created in accordance with its goal as a tool to interpret 2D images into 3D structures as an aid for autism spectrum disorder students to visualize an object as well as improve their fine motor skills by constructing the models using their own hands.

Keywords: Autism Spectrum Disorder (ASD), Special Education Needs, Visuospatial abilities, Fine motor skills.

(iDIEC23_026)

STAKEHOLDER ENGAGEMENT TO IMPLEMENT PROJECTS OF ALTERNATIVE LEARNING SYSTEM

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Abstract: Stakeholder engagement in order to raise funds to meaningfully implement special education projects is one very important undertaking of a special education teacher. It necessitates establishment of linkages to properly communicate the needs of the learning center and community learning center to government as well as non-government agencies who have the heart for learners with disabilities. The objectives of this paper stressed on the level of implementation of the alternative learning system in special education projects, degree of seriousness of the financial constraints in the implementation of the projects, extent of effects of the financial constraints on the successful implementation of the projects and the measures developed and implemented to augment funds that would ensure successful implementation of the projects of the recognized Learning Center and Community Learning Center in Schools Division of Nueva Vizcaya. Descriptive-analytical method of research was employed with survey-questionnaire as its data-gathering instrument. Respondents were teachers and stakeholders who were randomly selected from the alternative learning system in special education learning center and community learning center across Bambang I District. From the data gathered, it was concluded that special education projects were highly implemented; financial constraints that are encountered in the implementation of the projects were very highly serious and the financial constraints had very high effects on the implementation of the projects of the special education learning centers. The findings indicated that the Special Education Teacher and at the same time ALS Teachers with the technical assistance of education program supervisor must regularly coordinate with and inform the SPED teachers/ ALS Teacher, the parents, the local government unit officials and other stakeholders of the future and on-going projects to be able to fully and successfully implement all projects; the school head, the SPED teachers ALS Teacher, the parents, the local government unit officials and other stakeholders should work in concerted efforts to address and minimize financial constraints that hinder implementation of special education projects; the education program supervisor, in coordination with the SPED teacher/ALS Teachers and the local government unit officials should use applicable and effective solutions to address and minimize the effects of financial constraints in the implementation of the projects and the school head, with the assistance of SPED teacher/ALS Teachers and local government officials should adopt and implement the developed measures effectively and systematically to augment the funds to ensure successful implementation of the projects of special education learning centers in Schools Division of Nueva Vizcaya, Department of Education, Philippines.

***Keywords*:** Stakeholder Engagement, Special Education Learning Center Learners with Disability (LWDs).

(iDIEC23_027)

THE MEASURE SUPPORT SELF-AWARENESS AND COMMUNICATION TO VISUAL IMPAIRMENT STUDENTS FOR THE QUALITY OF INCLUSIVE SCHOOLS

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Abstract: There are many ways to support inclusive education. The Inclusive center/ Special School provides timely support to teachers, counseling parents, and intervention services for children with special needs. This paper's objectives stressed the implementation of reinforcement relationships in Inclusive schools with Visual Impairment (VI) students. There were some actions of pushing self-awareness, an environment for practicing conversation, and sharing experiences in the older blinds generation. From my perspective, the relationships between visually impaired students, students, and teachers at inclusive schools have been one aspect of promoting the quality of blind students' inclusive education. The lacking of communication skills of the blind student made the problem in making friendships at inclusive schools. They were hard to ask for help or actively communication. That made the distance from them the normal student in an inclusive school. The effects were no one helped them with orientation and movement, support for learning, and lacking social interaction. With my experience, my survey, and evidence-based research, I have had a timely impact on this connection, impacting myself and my local inclusive school community. Descriptive-analytical method of research was employed with survey-questionnaire as its data-gathering instrument. Respondents were teachers and students in Inclusive Schools. The results were the motivation for me to propose inclusive education directions at my school and locality: pushing the self - acknowledgment, and well-being of blind students - positive reinforcement for friendships in an inclusive school - supporting the needs of teachers there. The VI student feels happier when they know their talent, and their fear and have a group for sharing their case in an inclusive school life. Furthermore, the student and teacher have willed to help and received positive reference support. While event organization by the VI students, not only the 21st-century skills improved, but also the attack of newspapers, and social organizations would be a connection of everyone with the blinds student. It is a step for removing distance in an inclusive school and opening the job for disabilities.

Keywords: Inclusive Education, Blind Students, Visual Impairment Students (VI Students), Friendships and communication of Blinds student.

(iDIEC23_029)

AMPVP: A REVOLUTIONARY TOOL FOR MAKING SCIENCE ACCESSIBLE TO STUDENTS WITH SPECIAL EDUCATION NEEDS

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Abstract: Innovative learning environments are most beneficial for students with special educational needs (SEN) due to their varying strengths, learning preferences, and requirements. AmpVP is a revolutionary and inclusive learning tool that has the potential to transform the education and support of students with special educational needs, particularly those with dyslexia, dysgraphia, and speech, language, and communication needs. AmpVP is specifically designed to teach the abstract scientific concept of electricity and energy transformation, which can be challenging for students with special educational needs (SEN) to comprehend. Current teaching aids available on the market are not effective in assisting SEN students in understanding these concepts because they were not developed with their disabilities in mind. AmpVP was created to provide a multi-sensory learning experience that meets the unique educational needs of SEN students. It is an electricity circuit mapping tool enriched with visual, audio, and kinesthetics elements, allowing SEN students to explore and comprehend the scientific concept through self-exploration. SEN students can connect portable tactile electric components creatively in the map to complete the circuit, observe the transformation of energy, and be prompted by sound effects instead of reading instructions. The addition of different maps in a book concept can expand the possibilities of their creativity and enhance their understanding of the electricity concept through visual engagement. Besides introducing educators and students to a new teaching and learning approach, AmpVP's inclusive-friendly characteristics also aim to provide the government with a fresh perspective on the importance of inclusive education learning tools. By focusing on the strengths and potentials of SEN students, AmpVP provides an innovative and highly suitable learning tool that is currently lacking in regular elementary schools in Malaysia, while also meeting their unique educational needs at an affordable price point. This addresses a significant gap in the market and presents a potential opportunity for effective and inclusive teaching, with the added benefits of portability, adaptability, long-term usage, and inclusive-friendly characteristics that make it a strong contender in the market.

Keywords: AmpVP, Electricity Concept, Innovative Learning Tool, SEN Students.

(iDIEC23_030)

SHOCKINGLY SIMPLE

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Abstract: Students with Special Education Needs (SEN) require additional support and accommodations to address their unique educational needs. It is important to recognize the value of creative activities in the education of students with SEN. These SEN pupils may express themselves, build confidence, and learn meaningfully via creative activities such as music and art. 'Shockingly Simple' is a learning tool which provides a captivating approach that incorporates play-based learning to facilitate active participation of SEN pupils' learning process. 'Shockingly Simple' helps SEN students as they can help to support their understanding in the concept about conductors and insulators in the topic of electricity. When it comes to teaching aids, it is important to keep in mind that different students with SEN may have different types of learning needs. However, the teaching aids that are provided in the marketing may not be relevant to the specific learning needs of the SEN student. Therefore, 'Shockingly Simple' provides maze-like partial circuits constructed to allow students to explore conductors and insulators in an engaging manner, rather than limiting them to testing materials by controlling crocodile clips. The product is specifically tailored to support the learning requirements of SENS students. It aids students with visual impairments at classification areas with colourful illustrations. The writing pad and writing aids dots inside *Shockingly Simple* can enhance writing abilities of those with autism, and assists dyslexic students in recognizing the alphabet and improving their pronunciation. 'Shockingly Simple' provides a guideline for educators in Malaysia to assess the individual learning needs of students with SEN and provide the idea to create more teaching aids that are tailored to their specific needs. Educators can modify existing teaching aids, or create new teaching aids altogether to ensure that each student is able to learn effectively and achieve their full potential. 'Shockingly Simple' holds significant commercial value as an affordable and innovative learning tool that addresses the unique educational needs of SEN students in Malaysia. Its portability, adaptability, creativity, and inclusivity provide valuable resources for effective and inclusive teaching, filling a significant gap in the market for regular schools.

Keywords: 'Shockingly Simple', Special Need Education (SEN) Students, Inclusive, Education.

(iDIEC23_034)

ETHNOMATHEMATICS OF TEDURAY CRAFTS AND ITS' WEAVING TRADITIONS

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Abstract: This ethnographic study is based on the Teduray crafts' weaving techniques, which they acquired from their ancestors. It is based on the principles of ethnography. Based on an examination of Teduray weavers' creations, rotating geometric patterns are infrequently found in any of the frieze patterns of translation, reflection, or a mix of the two. Finally, their weavings made of bamboo, rattan, or neto are utilized in vital ceremonies like planting or harvesting of any crops through dance, highlighting how traditional customs are deeply rooted in their handicrafts as depicted in the pictures below. According to its architectural peripherals, these different ethnocrafts serve a variety of purposes, but in the study by Arciosa (2022), emphasis is placed on the cultural value in the context of mathematics and scientific education. Researchers firmly suggest employing indigenous containers made by these Indigenous People (IPs) group that is located at the center of the Mindanao, also known as indigenous marketing, due to the increase of single-use plastics in the different islands of the Philippines, including Mindanao Island, in which the Sultan Kudarat is located. Individuals get back to the prehistoric ways.

Keywords: Ethnography, Teduray, Ethnomathematics, Sultan Kudarat, Indigenous People (IP).

(iDIEC23_035)

MODULE EXPLORING THE BENEFITS OF PUPPETS AND MUSIC IN SPECIAL EDUCATION: A RESOURCE FOR TEACHERS AND PARENTS

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Abstract: Inclusive education is the approach of providing equal opportunities and access to education for all students, regardless of their abilities, disabilities, or differences. Special education is an important aspect of inclusive education that aims to cater to the unique needs of students with disabilities. Puppets and music have been found to be effective tools for teaching and learning in special education. This module aims to explore the benefits of using puppets and music in special education and provide resources for teachers and parents. The problem statement is that students with special needs often face challenges in their learning due to their unique abilities and disabilities. Teachers and parents need to have effective strategies to help these students learn and engage with the curriculum. Puppets and music have been found to be effective in promoting social interaction, communication, and language development in students with special needs. However, many teachers and parents may not be aware of how to use these tools in their teaching and learning. The objectives of this module are to provide teachers and parents with the necessary knowledge and skills to effectively use puppets and music in special education. The module will cover topics such as the benefits of using puppets and music, methods of incorporating these tools into the curriculum, and strategies for engaging students with special needs. The contribution of this module is that it provides a practical and accessible resource for teachers and parents to enhance their teaching and learning practices in special education. By using puppets and music, teachers and parents can create a positive and engaging learning environment for students with special needs, promoting inclusivity in education. The commercialization potential of this module is significant, as there is a growing demand for inclusive education and resources for teaching and learning in special education. The module can be marketed to schools, educational institutions, and parents of children with special needs. In conclusion, this module explores the benefits of using puppets and music in special education and provides resources for teachers and parents. By incorporating these tools into their teaching and learning practices, teachers and parents can create a positive and engaging learning environment for students with special needs, promoting inclusivity in education.

Keywords: Puppets, Music, Inclusive Education, Teachers, Parents.

(iDIEC23_037)

ONE-I ARCHERY

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Abstract: "Inclusive education is a program designed for Special Needs Students (SNS) in primary school. These SNS students study together with mainstream students for all academic subjects, including the modified national curriculum. However, these inclusive students often have difficulty recognizing basic numbers in mathematics and lose focus easily during teaching and learning session. To overcome these challenges, we have created an innovative tool called One-I Archery. This modified version of the traditional archery game is designed for slow learners, especially in mathematics. It serves as a teaching aid that helps students recognize numbers and colors easily and correctly. In the game, students shoot at colored number targets and then have to say the number and color clearly. We have found that One-I Archery is very helpful in attracting students' interest and improving their cognitive ability to recognize and remember numbers and colors. One-I Archery also combines the subjects of Physical Education and Art Education. One-I Archery is made using recycled items, with involves minimal costs. Moreover, this game is user-friendly, light, and easy to carry out anywhere. Overall, One-I Archery improves students' cognitive ability, particularly in terms of concentration and short-term memory strength among SNS students."

Keywords: Inclusive Education, Special Needs Students, Concentration, Short-Term Memory Strength.

(iDIEC23_038)

INCLUSIVE-ROBOTIC TING MATTRESS (I-RTM)

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Abstract: The Inclusive Education Program (PPI), as defined by the Code of Practice of Special Needs Students Education (2014), aims to provide quality education to students with special educational needs (MBPK) in the same classroom as typical students. The primary goal of inclusive education is to eliminate discrimination and provide equal opportunities for all students to access education and develop their full potential. While Physical and Health Education (PJPK) is a subject offered through PPI, its teaching and facilitation process (PdPc) must be adapted to the ability of inclusive MBPK, who may have delays in gross psychomotor skills development, to ensure they can participate in PJPK activities without obstacles. However, understanding and mastering directions such as left, right, up, down, front, and back are still challenging for most Level 1 students, including typical students, which can disrupt the smoothness of the PdPc PJPK process, particularly for the movement theme. To address these challenges, an innovation called the Inclusive-Robotic Ting Mattress (I-RTM) has been developed, inspired by the traditional Malaysian game of ketinting. I-RTM is a game mat that uses picture cue cards to improve fundamental movement skills, particularly jumping, for the psychomotor domain and eye and body coordination in PJPK subjects. The uniqueness of I-RTM helps MBPK learn jumping techniques more efficiently, improve posture and body balance while jumping, and remember directions in a more fun and engaging way. In keeping with the focus on technology-based learning in the Fourth Industrial Revolution (IR 4), I-RTM also integrates robotic elements that use a coding track system. This coding track system offers added value and expands the potential for wider use of I-RTM. Overall, the Inclusive-Robotic Ting Mattress (I-RTM) offers a promising solution for improving PJPK teaching and facilitation processes for inclusive MBPK and typical students. By leveraging technology and traditional games, I-RTM offers a fun, engaging, and effective approach to promoting fundamental movement skills, eye and body coordination, and direction recognition for all students.

Keywords: Inclusive, Psychomotor Gross Skills, Position of Directions, Picture Visual Cards, Robotic.

(iDIEC23_039)

E-SMART KIU

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Abstract*:* E-SMART KIU Innovation is focussing on the verbal reading of the students with special hearing needs (MBPKP) level one. Major improvement in this kit is the teaching of basic reading skills for MBPKP using a combination of vocal methods of Cue Speech and ABC Alphabet Signals that have been adapted into the form of print media and electronic media or as known as E-SMART KIU. The printed form of media is in books while the electronic media is in the form of PowerPoint digital software which equipped with audio, video, graphic and Virtual Reality (VR) to support this SMART KIU method. In other words, E-SMART KIU aims to help MBPKP improve the basic verbal reading skills so they can master the basic reading and speaking skills just like normal students. Furthermore, E-SMART KIU is also equipped with a Virtual Reality (VR) game feature to increase the motivation and understanding of MBPKP especially in the self-learning process. In the meantime, the user-friendly and easy-to-use E-SMART KIU application also enables teaching and intervention activities to be carried out outside school hours. E-SMART KIU's application is equipped with icons and special features that allow this material to become an interactive teaching material. The icons and features provided also allow MBPKP to have a self-learning process at home, either as a drill or as a reinforcement activity. Using E-SMART KIU application fits to improve student issues and teacher practices in schools. For example, the issue of MBPKP who do not show interest in involving in reading activities as well as the practice of teachers who teach reading using traditional methods. Meanwhile, the use of E-SMART KIU digital software in teaching and learning activities (PdP) allows MBPKP to be more enthusiastic to participate in activities and complete assignments involving digital activities. Therefore, this E-SMART KIU is suitable to be used individually or in groups according to the suitability of the achievements and needs of the current MBPKP.

Keywords*:* E-SMART KIU, Student with Special Hearing Needs (MBPKP), Cue Speech, Verbal Reading Skills, Virtual Reality (VR).

TEACHER'S TOOLKIT FOR CHILDREN'S THEATER: A SMALL PRIVATE INCLUSIVE SCHOOL'S INNOVATIVE PEDAGOGICAL APPROACH FOR DEVELOPING SOCIO-EMOTIONAL LEARNING AND ACADEMIC COMPETENCIES OF STUDENTS WITH AND WITHOUT DISABILITIES

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Abstract: All students should have equitable access to high-quality education, according to the pedagogical philosophy of Inclusive Education. However, it is extremely difficult for learners with disabilities to obtain a high-quality education program where they have access to and are engaged in the learning process, and this difficulty widens the already-existing educational inequities. To address this problem, Mindhaven School utilized Children's Theater as an inclusive pedagogical strategy that created a special learning environment that meets the various learning needs of all kids. Children's Theater is one cutting-edge strategy for inclusive education, as it has been demonstrated to enhance academic and socio-emotional learning for all kids. In MindHaven's context, Children's Theater fosters social integration and lowers social barriers in the classroom by reconfiguring the spaces, the people, the time, and the technologies to create powerful inclusive learning environments. Learners with disabilities are given the same chances as their peers to acquire the skills necessary for academic and social success. However, the lack of comprehensive theater programs and limited research on the effectiveness of such programs, led MindHaven School to determine how Inclusive Children's Theater Programs affect both kids with and without disabilities in terms of their academic and socio-emotional development. This innovation specifically intends to pinpoint the advantages of involvement in Inclusive Children's Theater Programs for students struggling in academics and for students with disabilities, as well as to investigate the potential obstacles and hurdles in putting such programs into action. The Teacher's Toolkit on Children's Theater will serve as Manual in the creation of inclusive children's theater initiatives that promote a whole-child inclusive approach of acquiring 21st Century Skills: students with strong skills in communication, critical thinking, and creative innovation and who can work collaboratively. This innovation has the potential to be commercialized since its inclusive pedagogical strategies can be scaled up and used in classrooms and other educational settings. This Children's Theater Teacher's Toolkit will be the roadmap for Inclusion advocates on HOW to build Children's Theater as venue for Diversity, WHERE Inclusion means having a voice, and WHY Belonging means having one's voice heard.

Keywords: Children's Theater, Creative Dramatics, Equity in Education, Socio-Emotional Learning, Inclusive Education.

(iDIEC23_043)

PATHFINDER-X

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Abstract: Successful inclusive education happens primarily through accepting, understanding, and attending to student differences and diversity, which can include physical, cognitive, academic, social, and emotional. Learning is challenging processes for children with unique disabilities. In order for inclusive students to reach their full potential, the curriculum and teaching strategies must be modified. Inclusive children with specific disabilities have difficulties in classroom learning process. It is necessary to alter the curriculum and teaching methods in order for special needs students to realize their full potential in academic, sports and games. One of the sports that could be emphasized in inclusive students is netball. Players must be adept variety of skills in netball, including passing, receiving, shooting, and landing techniques. In order to realize the notion of education for all and help children with special needs, a novel netball tool emphasizing movement skills that emphasis landing and visualisation has been created. PathFinder-X tool was developed to assist special needs students in better understanding in landing phase in netball. Using PathFinder-X, special needs students have opportunity to play netball together with other students. This tool has implications for physical education curriculum and Teaching Games for Understanding (TGFU), which emphasize students' movement patterns. PathFinder-X uses colour and movement patterns to pique students' interest in visualising and decision-making skills. After gaining experience with PathFinder-X, the average landing error rate reduced. Additionally, PathFinder-X has improved their decision-making skills, memory and gross motor skills.

Keywords: Special Needs Students, Gross Motor Skills, Skills, Spatial Visualization, Memory, Teaching Game for Understanding (TGFU), Physical Education Curriculum.

(iDIEC23_048)

THE RED PARADE

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Abstract: Inclusive education is one dimension of a rights-based quality education that emphasizes equity in access and participation and responds positively to all children's learning needs and competencies. (SAVE THE CHILDREN, 2020). Legazpi City National High School has been advocating inclusion since 2016. Still, it needs the support of stakeholders to realize its dream of empowering and making ready its learners with disabilities (LWDs) for work. To strengthen partnerships, the School Principal instituted THE RED PARADE PROJECT. It celebrates the disabilities of those with disabilities through its four components: Chat, Caricature, Catwalk, and Circuit. Chat includes promotional activities on radios, televisions, newspapers, and Facebook, and connecting with other stakeholders. In July, the School Principal proposed conducting similar activities in the city and worked closely with the City Council to celebrate similar advocacy. In October, the Mayor of Legazpi City approved City Ordinance No. 16-0004-2022, or the Ordinance Institutionalizing the City Annual Celebration of the National Disability and Prevention Week Every Third Week of July, Providing Funds Thereof and for other Purposes. To date, the Legazpi City Government has started its initial preparations for the first massively-participated advocacy activity not only for the LWDs but for the entire persons with disabilities in the city and the whole Bicol region as well. As suggested by the proponent, it shall highlight the gathering of business owners and legislators to fully implement existing labor laws for those with disabilities and propose other legislative proposals. Caricature is the regular exhibit and selling of art and different outputs of learners with disabilities in malls. Catwalk is the fashion show among the learners who parade their self-made dresses with their family members and relatives. Circuit is the parade in the city of all students, teachers, department and city officials, and civic and community leaders/volunteers. A mini-concert of those with disabilities highlights it. THE RED PARADE PROJECT made possible the establishment of the commercial coffee shop and beauty parlors where graduates and students of the SPED Program work for a living and other facilities for the school and communities and inspired numerous schools to advocate and conduct similar initiatives.

Keywords: Inclusive Education, Learners with Disabilities, Partnerships, Red Parade, City Ordinance.

AMBLYOPIA LEARN V

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Abstract: A virtual reality (VR) game-based teaching and learning tool called Amblyopia Learn V (ALV) was created to assist students who have been diagnosed with amblyopia, often known as lazy eye. They typically have reading problems, which inhibits their ability to focus on fine details in colour and shape in images. ALV was built with CoSpaces Edu. Amblyopia can usually be corrected with glasses or contact lenses, or patching therapy. On top of that, it is found that the games playing improved their affected eye more than just using an eye patch. The findings showed that lazy eye is caused by improper brain-eye communication rather than a physical problem with the eye. Matching and maze exercises, which are typical components of frequently used intervention-type applications like Amblyo Match and Maze, Puzzle and Delivering Game, have been incorporated into ALV. Additionally, ALV incorporates zooming functionality for objects throughout the scenes, aligning with the evidence-based amblyopia exercise known as Pencil Pushups Treatment (PPT). It makes it possible for the weaker eye to focus at the same level as the stronger eye. Students may recognise different vowel sounds, as well as identify and recognise the shapes of vowels with the aid of ALV. To sum up, AVL is helpful for learning vowels and can also be utilised as a self-intervention tool during the teaching and learning process. It should be widely disseminated and encourage instructors to use it as a teaching tool in the classroom, particularly in classrooms for the Inclusive Education Programme.

Keywords: Virtual Reality, Amblyopia, Vowel, Self-Intervention, Matching, Maze.

(iDIEC23_050)

FUN BIG BOOK FOR INTRODUCING DISABILITY-INCLUSIVE DISASTER RISK REDUCTION IN SCHOOL

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Abstract: Disasters can have a devastating impact on communities, especially vulnerable groups such as people with disabilities. One of the major challenges is the lack of innovative and engaging teaching tools that can support the delivery of disaster risk reduction education. Another challenge is the lack of inclusivity in the teaching materials and methods used. Many existing teaching materials do not consider the unique needs and vulnerabilities of people with disabilities and may not provide an inclusive learning experience for all students. Innovative and effective teaching tools can support implementing disability-inclusive disaster risk reduction education and promote inclusivity among students. Introducing disability-inclusive disaster risk reduction education in schools is essential for promoting inclusivity and ensuring that people with disabilities are adequately prepared for disasters. A fun big book can be an effective tool for introducing disability-inclusive disaster risk reduction education in schools. A colourful big book can be a great tool for engaging and entertaining pupils while introducing this topic. The big book can follow a character with a disability as they navigate a disaster, highlighting how their disability affects their ability to prepare for and respond to the disaster. Using vibrant illustrations and colors can make the book visually appealing and interesting for students of all ages. Additionally, including diverse characters with disabilities can promote inclusivity and help students understand that disabilities can affect people from all walks of life. The objective of the innovation of a fun big book for introducing disability-inclusive disaster risk reduction education in schools is to create an inclusive and engaging learning experience that promotes disaster preparedness and empathy among students. a Fun big book for introducing disability-inclusive disaster risk reduction education in schools can promote inclusivity, critical thinking, and disaster risk reduction education among students. There is a potential for commercialization of a fun big book for introducing disability-inclusive disaster risk reduction education in schools. By marketing the book to schools and other educational institutions interested in promoting inclusivity and disaster preparedness, it can reach a wider audience and significantly impact disaster risk reduction education.

***Keywords*:** Big Book, Disability, Inclusion, Disaster, Education.

(iDIEC23_013)

KIT VISMAT APPLICATION INNOVATION: SIMPLE, ATTRACTIVE AND JOYFUL MATHEMATICS

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Abstract: The declining interest of students in the subject of mathematics has been increasing in recent years. Accordingly, the teaching method of Mathematics needs to be changed in order to give understanding and create interest in learning among students. The KIT VisMat innovation is an innovation to solve the difficulty of students including special education students to understand the concept of digit value and place value and writing two-digit numbers correctly. The problem of students not being able to understand the concept of digit value causes students to lose interest in this important subject which causes the failure of mathematics teaching so that mathematics teaching becomes ineffective. The main objective of this innovation is to help both mainstream and special education students understand the concept of digit value and place value, help students write numbers with two or more digits correctly, improve students' interpersonal skills through teaching and learning activities, develop a sense of love and affection for Mathematics with fun learning. Based on Cognitive Theory, the researcher bridges the gap between the existing theory and practical practice of teachers and mathematics textbooks which sometimes do not go hand in hand with the theory which contributes to failure in students' understanding of mathematical concepts. The innovation that applies this KIT VisMat uses sample images, colors and digital materials. Findings from this innovation study have succeeded in providing an easy and enjoyable understanding of math concepts and eliminating both mainstream and special education students' frustration with math.

Keywords: KIT VisMat, Mathematics Through Colours, Pictures, Digital Materials.

(iDIEC23_019)

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Abstract: In recent years, the public has become more aware that students with special educational needs (SEN) have needs that extend beyond the scope of a traditional classroom. It is now widely acknowledged that regular classroom teachers are responsible for educating students with learning disabilities, mild intellectual impairments, or behavioral issues. Since conventional classrooms may not be suitable for all students. As a result of its impact on classroom dynamics, particularly in instances where students exhibited emotional instability when under duress, lacked a firm grasp of the physical properties of food, or struggled to implement the steps outlined in a recipe, a desire to find a solution to this problem has emerged. In addition, learning resources for special education are scarce on the Malaysian market. As a result, CBOOK XCESS was created as a supplementary learning tool for students with special educational needs in an effort to enhance their academic performance, particularly in the areas of Technical and Vocational Education and Training. (TVET). It is designed in accordance with the Malaysian Skills Certificate Level 2 (Students with Special Needs) Diversity Learning Module for the Food Preparation and Production Course. This CBOOK XCESS can be used as a resource and teaching tool by culinary arts instructors. In this market segment, it can also be extended to children aged 7 to 10 years. This is because CBOOK XCESS's layout is more interactive and therefore suitable for normal children. A novel approach to special education has the potential to significantly improve the academic performance of students.

***Keywords*:** CBOOK XCESS, SEN, TVET, Teaching and Learning Tool.

(iDIEC23_023)

TECHNOLOGY ROBOTICS IN EDUCATION FOR SPECIAL NEEDS

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Abstract: Recently, there has been an explosion in the use of technology and robotics in education, especially in the support of students with autism spectrum disorder (ASD) which affects daily social interaction. Technology and robotics have been discovered to give a unique manner of engaging and aiding these pupils in their learning process. Robotics has been shown to help individuals with ASD's social skills, attention span, or cognitive ability. In this project, Lego Spike Prime is used to benefit kids with autism in education. Spike Prime is a robotics lesson plans platform that combines building and coding to engage children in STEM learning. It's contains the colourful Lego brick, motors, sensors and a programmable hub. According to researchers, most autistic students enjoy using robots. Robots can keep delivering predictable responses. They repeat things and recognition, which is critical for helping them understand and remember better. A multipurpose robot that has two uses is built. Through touch sensor and a programmable hub, autistic children will learn about physical boundaries and improve social relationships between them with others. The robot will be programmed to react accordingly to the force of the children touch the sensor. Through facial expressions that are appropriate for certain social circumstances, it will benefit students with autism in understanding and reacting to complex social situations. The Colour sensor in this robot will assist students with autism to develop cognitive ability. Students can learn about colour, saturation, and brightness by exploring different colours. They also can use the colour sensor for learning trends and patterns and improve their problem-solving and critical thinking skills. The robot should be widely promoted as it shortens the time for the parents and teachers to teach and autistic students also can revise and repeat the learning process anytime and anywhere. Consequently, it can be implemented in the curriculum and used as a teaching aid in schools. Overall, technology and robotics such as Lego Spike Prime is an effective tool for educators trying to help students with autism in developing STEM skills and social interaction abilities.

Keywords: Autism Spectrum Disorder, Education Technology, Robotics, Special Needs Education.

(iDIEC23_045)

CONSTELPRO

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Abstract: Constellation projectors (ConstelPro) are a new and useful educational resource for pupils in both traditional and inclusive classroom settings. The projectors are made to show several constellations on the walls or ceiling of the classroom, as required by the 12-month system. Accessible to students with hearing and cognitive problems, such as dyslexia, this experiential learning technique allows them to interact with the subject and retain it via repetition without requiring a standard teaching session. Cost-effective and environmentally sustainable, the projectors are created with salvaged materials and torches. Pupils in inclusive education can benefit from the tool's ability to reduce the frequency and severity of injuries, as well as from the stimulating learning environment, it creates. The combination of visual and auditory aids maximises and improves the student's capacity for knowledge absorption and gives a mind-blowing experience, like stargazing, without the restrictions of time or place. The malleability, sustainability, and low cost of this idea give it excellent marketability potential. This innovative style of teaching may be used everywhere there are pupils since it can be repeated as many times as necessary for the learner to fully grasp the material. In conclusion, the Constellation projectors offer a promising answer to the problems with conventional teaching strategies and have the potential to radically improve the accessibility and efficacy of the educational system for all students.

Keywords: Inclusive classroom, Constellations, Learning technique, Cost-effective and Efficiency.

(iDIEC23_051)

ENHANCING THE SCHOOL'S PRE-VOCATIONAL PROGRAMME COLLABORATIVELY THROUGH STEAM-BASED FUNCTIONAL SKILLS

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Abstract: Sayyidina Ali Secondary School (SMSA) in Brunei has implemented the SMSA Sakura Pre-Vocational Programme, a tailored program for special needs students to improve their future job prospects. The program focusses on developing vocational skills aligned with STEAM education, including innovative art, design, woodwork, welding, and laser engraving. The Individualized Education Plans (IEPs) for each student emphasize the skills they need for their unique abilities, interests, and the job market's needs. The program's design allows students to carry out tasks related to communication, teamwork, and problem-solving. The program includes innovative initiatives such as the Safety Cones Project, the New Innovative Rehal Project, the Portable Sink, the Sakura Double Trolleys, and the SMSA 25th Anniversary 3D Logo, which require skills in basic woodwork, painting, welding, laser engraving, and other vocational skills. The commercialization potential of these products can serve as a learning tool for educators to implement in schools and provide another perspective on upcycling wood and metal. The SMSA Sakura Pre-Vocational Programme helps to improve the employment outcomes and overall quality of life of special needs students while addressing the school and community's problems and needs.

Keywords: Special Needs Education, Vocational Training, Soft Skills, Innovation, Commercialization.

(iDIEC23_051)

APPLICATION OF FUZZY DELPHI METHOD (FDM) TO IDENTIFY ELEMENTS, CONSTRUCTS, AND ITEMS FOR DESIGNING AND DEVELOPING CONTENTS FOR PRE-BRAILLE SKILLS MODULE

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Abstract: On the basis of the discrepancy model, a need analysis questionnaire was distributed to 92 randomly selected special education teachers in Malaysia to determine if they required a specialised module for early braille learning lessons. The results of the survey indicate that teachers strongly agree that they need a guided module with detailed instructions and video demonstrations in teaching early braille lessons. Fuzzy Delphi Method (FDM) was chosen to determine the elements, constructs, and items required to design and develop the contents for Pre-Braille Skills Module. The Content Assessment of the Pre-Braille Skills Module questionnaire is used to collect data from seven designated subject matter experts. The chosen elements, constructs, and items must satisfy three criteria of triangular fuzzy numbers: threshold value (d) ≤ 0.2, percentage of experts in agreement > 75%, and fuzzy score with a minimum value of 0.5. The data analysis was conducted using an Excel template, called FDM 2.0. As a result, *Tactile Perception*, *Basic Braille Literacy*, *Early Braille Reading*, and the most of the proposed constructs and items have been incorporated into the Pre-Braille Skills Module. In phase 2, items that did not meet the aforementioned criteria were amended and evaluated. This research has produced a prototype for the Pre-Braille Skills Module and Teaching Aid Kit. In the meanwhile, it offered teachers fresh perspective, especially those of us whose pupils were learning braille for the first time. Before proceeding on to more advanced braille lessons, these teachers must ensure that their pupils acquire tactile readiness.

Keywords: Early Braille Learning, Tactile Reading, Visually Impaired, Fuzzy Delphi Method (FDM), Tactile Perception.

TEACHING METHOD DETECTION INSTRUMENT SYSTEM BASED ON LEARNING STYLES AND DEVELOPMENT OF PUPILS WITH SPECIAL EDUCATIONAL NEEDS

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Abstract: Pupils with special educational needs (SEN) need teaching method that is relevant to their special need. Until now, there is insufficient guide or tracing tools available for special education teachers to detect teaching methods that are suitable to SEN pupils learning styles and development. Thus, a teaching method detection instrument system (TMDIS) based on the SEN pupils' learning styles and development is introduced to meet their special needs. This innovation based on design and development research (DDR) method by Richey & Klien that involves three phases, namely the needs analysis phase, the design and development phase, and the evaluation phase to achieve its research objectives. The analysis results of the first phase proved that there was a high need for the development of TMDIS. The results of the second phase were successfully designed and developed the TMDIS through consensus of experts. In the last phase of the innovation, TMDIS has successfully achieved the level of usability when all domains and elements used have reached the level of usability based on the evaluation of experts. This innovation gives theoretically significant implications on the combination of two theories in an integrated manner, namely learning style theory and developmental theory as well as implications on methodology with a combination of various research methods in a systematic manner. This innovation also gives practical implications including pedagogical on effective teaching practices for special education teachers to detect appropriate teaching methods for each MBPK. Theoretical implications contribute to enriching the literature in the field of research for special education while practical implications provide new contributions to the practice of technological education to the Special Education Division under the Ministry of Education Malaysia, special education teachers and parents as well as guardians of SEN.

***Keywords*:** Special Educational Needs, Teaching Method.

(iDIEC23_024)

JUMANJI FOR HYPER ANGELS

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Abstract: Equality and equity in education provide opportunities for students with special educational needs to develop their abilities in terms of skills and knowledge. The students especially those who were diagnosed with Attention Deficit Hyperactivity Disorder (ADHD) have poor mastery of learning skills due to short attention spans and their learning difficulties. The low concentration among students with ADHD causes them to get bored quickly and often disturb their friends in any learning activity. Therefore, effective and creative teaching and learning strategies should be integrated to meet the diverse needs of each student. The blooming of the digital era revolution 4.0 provides a variety of technologies in education such as the use of Virtual Reality (VR). Jumanji for Hyper Angels (JHA) is a VR game-based teaching and learning tool which is constructed by using CoSpaces Edu. The virtual learning environment is designed to spark the students' interests and retain their attention throughout the learning process via play and rewards earning. JHA has interdisciplined two different fields namely, Physical Education and Islamic Studies. It enhances the psychomotor, affective and cognitive development among the students in IE classrooms. They are able to apply various locomotor physical skills such as jumping, running, walking and so on prior access to the appropriate directions in treasure hunt activities designed in JHA. Furthermore, the students are guided by virtual agents to carry out the learning process on the different types of angels and their roles respectively as according to Islamic Studies. JHA can be a very useful and interesting teaching aid in IE Programme classrooms specifically to cater to the diverse learning needs among the students.

Keywords: Inclusive Education Programme, Attention Deficit Hyperactivity Disorder, Virtual Reality, Physical Education, Islamic Studies.

(iDIEC23_032)

THE EFFECTIVENESS OF SPEAKAMON INTERACTIVE GAME IN IMPROVING VOCABULARY, PRONUNCIATION, AND PREPOSITIONS UNDERSTANDING AMONG STUDENTS WITH LEARNING DISABILITIES

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Abstract: The ability to communicate effectively in English is essential for success in today's globalized world. However, students with learning disabilities often face challenges in language learning, particularly in vocabulary acquisition, pronunciation, and preposition understanding. These difficulties may impact their academic and future career prospects. Therefore, effective language instruction tailored to their needs is necessary. Traditional language instruction may not cater to the specific needs of students with learning disabilities. This creates a gap in their language skills development and may result in a lack of confidence in using English. Therefore, alternative approaches that can improve their language skills are necessary. One such alternative is the Speakamon Interactive Game, a unique tool developed specifically to target preposition understanding. The game offers a fun and engaging way for students with learning disabilities to improve their language skills, particularly in areas where they may struggle in traditional language instruction. This study aims to investigate the effectiveness of Speakamon Interactive Game in enhancing vocabulary, pronunciation, and preposition understanding among students with learning disabilities. It also aims to examine the impact of Speakamon Interactive Game on their confidence in using English and their perceptions towards this technology-based learning tool. To assess the effectiveness of the Speakamon Interactive Game, a study was conducted with a group of 20 targeted students with learning disabilities. The results of the study showed that the game significantly improved the students' vocabulary, pronunciation, and preposition understanding. The game was also found to have a positive impact on the students' confidence in using English and their perceptions towards technology-based learning tools. The Speakamon Interactive Game is a unique innovation in the field of English language teaching, particularly in the area of technology-based instruction for students with learning disabilities. The findings of this study contribute to the development of innovative and effective language instruction tools that cater to the specific needs of this student group, potentially improving their academic and career prospects. Furthermore, the Speakamon Interactive Game has potential commercialization possibilities as a language learning tool that caters to the needs of students with learning disabilities. It offers a unique selling point, particularly for educators and institutions that prioritize inclusive education and innovative teaching methods. In conclusion, the Speakamon Interactive Game is a valuable innovation in the field of English language teaching for students with learning disabilities. It provides an effective and engaging way to enhance language skills, particularly in areas where students may struggle in traditional language instruction. This game has the potential to improve the academic and career prospects of students with learning disabilities, and also offers a unique commercialization opportunity for educators and institutions that prioritize innovative and inclusive teaching methods.

Keywords: Speakamon Interactive Game, Language Learning, Learning Disabilities, Preposition Understanding, Technology-Based Instruction, Innovative Teaching Methods.

(iDIEC23_046)

I-DYSLEXIA APP FOR SEN STUDENTS' READING AND SPELLING SKILLS

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Abstract: Dyslexia is a neurological disability that results in reading, decoding, and spelling difficulties. Without appropriate diagnosis and instruction, dyslexia can lead to frustration, school failure, and low self-esteem. In today's educational institutions, there are very few approaches to teaching language subjects such as Bahasa Malaysia or English to SEN students, especially to students with dyslexia. The purpose of this study was to determine the sustainability of the impact of the mobile application developed for the students of SEN that integrate multimedia technology with the visual, processing, and auditory differences of students with dyslexia. By analyzing the learning disability itself, existing applications for students with dyslexia, and current accessibility standards for students with dyslexia, this study provides a practical solution to provide a more balanced learning experience for SEN students, especially students with dyslexia. Based on our findings, we develop a mobile application called i-dyslexia to help SEN students overcome their reading and spelling difficulties. We used the i-dyslexia app in a group of 4 SEN students with low-level reading and spelling difficulties in English class. The students learned English communication using the i-dyslexia app for 1 week, and reading and spelling tests were administered using the app after the learning period. The results show that the multimedia technology integrated into the i-dyslexia app is more advanced as an intervention approach for the students of SEN to improve their reading and spelling skills. The impact of the i-dyslexia app was significant as one of the intervention approaches as well as a teaching and learning aid in SEN English Communication Class. The app with its interactive features creates a fun learning environment for English Communication and it is user-friendly to SEN students. The i-dyslexia was compatible with both ios and Android, and it is the potential to be launched both in the Apple store and Google Play store to be used for schools and communities.

Keywords: Special Education Needs, Dyslexia, Learning Difficulties, Reading Skills, Spelling Skills.

(iDIEC23_008)

TRANSLATOR FOR THE MUTE AND THE DEAF

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Abstract: According to the National Committee for Persons, the percentage of the disabled was approximately 6.2 million, including 7.06% of them were more than two years old, 58% were women, 28.3% were children and 29% were severely disabled. According to WHO, the percentage of people who were the mute and the deaf reached 7% (550 million people, surveyed in 2007), in which only 30% of them can use sign language. On the other hand, it is very difficult for anyone to communicate with hearing-impaired and speech-impaired people because there are only a few people who can use sign language. Therefore, the mute and the deaf will face a lot of difficulties to communicate, study and work as well. There are some solutions to support the mute and the deaf in communication with others such as hearing aids (assistive listening device) and sign language. However, these solutions have some drawbacks. The hearing aid is only useful for the deaf whose outer ears are still functioning. Furthermore, to use sign language in communication, not only the mute and the deaf but also everyone has to learn this kind of language. Designing smart equipment which provides a method for communicating easily with everyone is a great and meaningful invention. We decided to invent a translation device that translates sign language to voice and text with the project: "Translator for the Mute and the Deafness''. The device has translation functions that meet the following criteria: First, it has the ability to translate sign language to voice and text. By contrast, it can also translate the voice to sign language, text and picture. Thus, this interpreting equipment has a profound humanistic meaning because it helps the disabled confidently communicate with everyone around the world and integrate into the community to become global citizens.

Keywords: Artificial Intelligence, Translator, the Mute, the Deafness, Global Citizens.

(iDIEC23_012)

READING BOOKS MACHINE FOR THE BLIND

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Abstract: According to the World Health Organization (WHO), as the longevity increases, the issue of declining vision and blindness caused by degenerative diseases is also rising. Currently, there are approximately 314 million people with low vision or blindness worldwide, with an estimated 45 million blind people, 80% of whom are over 50 years old. Additionally, every five minutes a person becomes blind, and every minute a child becomes blind, with 90% of blind people living in developing countries with limited access to healthcare services. Vietnam is one of these countries. According to the Ministry of Health, there are approximately 2 million visually impaired and blind people in Vietnam, and one-third of them are poor and unable to improve their vision." It seems that visually impaired people face many difficulties in learning, communicating and working because they cannot observe anything around them. The only way for them to read study is Braille. Therefore, they have to learn on how to use Braille. However currently, the documents which are presented in Braille, are limited. Thus, my team decided to design a "Reading Books Machine for the Blind"- Robot which can read text not only in books but also on the internet for the Blind, and it can also translate to other languages to help blind people approach many resources around the world.

Keywords: Artificial Intelligence, Reading Books Machine, the Blind.

(iDIEC23_015)

"MYSUARA": BILINGUAL, PERSONALISED, EASY-TO-TRAIN, AND CAREGIVER-FRIENDLY AAC MOBILE APPLICATION FOR THE NOVICE STUDENTS

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Abstract: Based on the 2018 Social Statistics Bulletin Malaysia, more than 2000 individuals live with some speech impairment in Malaysia. This condition can restrict these individuals from participating in education, employment, healthcare, family life and community activities. Meanwhile, students with speech impairment, either non-verbal or minimally verbal, will face issues in expressing themselves in the classrooms and at home. These students can benefit from augmentative and alternative communication (AAC). With the advent of the mobile application AAC, now everyone can own a mobile device equipped with AAC apps that are widely available in the app market, such as AppStore and Google PlayStore. These AAC apps have yet to be widely accepted in the Malaysian context. Most of these AAC apps are not personalised for individual's needs or designed to use local languages. Besides, novice AAC users cannot learn to use these apps by themselves. They need a caregiver to train them; hence the caregivers must have the knowledge and skills to teach the AAC users. The primary purpose of developing the "MySuara" mobile app is to provide a bilingual, personalised, easy-to-train, caregiver-friendly AAC mobile application. With the "MySuara" mobile application, caregivers could have AAC apps designed specifically for their student's needs, using languages requested by the caregivers. On top of it, the caregiver, without much hustle, could learn this app quickly and use the training phases available to train their novice student to interact using "MySuara" with them. Hence, these students would not be excluded from participating in classroom interactions or at home. Since this app is customisable to individual needs and available in local languages, this app can satisfy more users. Meanwhile, this app is also uniquely designed for caregivers to train their novice students efficiently. In conclusion, "MySuara" is the most suitable AAC app for novice users with complex communication needs.

Keywords: AAC, Caregiver, "MySuara", Mobile Apps.

THE USE OF EASYADD TO IMPROVE THE SKILLS OF DOUBLE-DIGIT ADDITION WITH REGROUPING AMONG THE STUDENTS OF INTEGRATED SPECIAL EDUCATION PROGRAM IN SK KHIR JOHARI

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Abstract: This action research aims to examine the effectiveness of using "EasyADD" tool in improving the skills of double-digit addition with regrouping among the students of Integrated Special Education Program in SK Khir Johari, Sabak Bernam, Selangor. Based on the preliminary survey conducted by the researcher, it is found that the students were having difficulties to master the topic of double-digit addition with regrouping in Mathematics subject. The students were having difficulties to understand the concept of adding with regrouping and the calculation process involved. Therefore, a new teaching aid named "EasyADD" has been introduced by the teachers to help students enhance the skill of double-digit addition with regrouping. A total of eight students were involved in this research. The instruments used in this action research were pre-test, post-test, document analysis and observation. This research has found that the application of EasyADD tool can help to enhance the students understanding on the topic and increase the students' interest in Mathematics subject. It is also found that the tool also helps to enhance learning environment in class by creating a more fun learning session. Students were observed to be more involved in learning session. EasyADD is created using recycle materials such as papers, printed materials and boxes. Thus, it is very economical to be produced. Story-telling technique has been utilized to make EasyADD more attractive for the students to use and aid in memorizing the calculation process. It is hoped that this study can be used in a variety of ways in order to have a positive effect on teaching and student outcome.

Keywords: Learning, Teaching, Special Education, Mathematics, Addition.

(iDIEC23_018)

CONTACTLESS MOUSE

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Abstract: For individuals with physical disabilities, injuries or limited mobility, using computer input devices such as conventional mice that require direct contact with a surface to direct cursor movements, might be uncomfortable or impossible to use. The 'Contactless Mouse' is an innovation that uses sensors to detect head motions and transform them into cursor movements on a computer screen, allowing users to control their computer without physical contact. The device includes built-in accelerometers and gyroscopes for accurate control of cursor movements, as well as shortcut buttons and other controls which can be activated by blowing into the microphone. Moreover, users can control their computer with spoken commands by voice recognition technology. Some objectives of this development include: to make computer access easier, to provide an alternative input device that can be used by the user group as mentioned above, and to create an intuitive and innovative input device that can be used in a range of settings conveniently. The Contactless Mouse contributes to the society as a whole by promoting a normal life for the disabled and at the same time improving safety measures for individuals who uses computer regularly - the mouse can provide improved ergonomics, reducing strain on the hands, wrists, and arms, which helps prevent conditions such as carpal tunnel syndrome or repetitive strain injury. In addition, the contactless mouse has a significant potential for commercialisation in a range of markets: the technology can be developed into a product that can be marketed to individuals with physical disabilities, gaming enthusiasts, professionals who frequently give presentations or lectures, and individuals interested in virtual and augmented reality experiences. By leveraging the benefits of contactless mice, companies can tap into a growing market of users who require innovative and accessible input devices to use their computers effectively.

Keywords: Contactless Mouse, Physical disabilities, Bluetooth, Head movement, Cursor Control.

USAGE OF MULTISENSORY KIT TO ASSIST A STUDENT WITH SPECIAL EDUCATIONAL NEEDS IN LEARNING THE LETTERS "A", "B", "C", "D" AND "E"

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Abstract: The ability to recognize letter is a fundamental skill that lays the foundation for reading and writing. However, students with special educational needs may face challenges in developing this skill through traditional teaching method. To address this issue, we have developed a Multisensory Kit designed to assist students with special educational needs in learning the letters "A", "B", "C", "D" and "E". Our kit includes textured cards, visual aids with sound, scented and flavoured edible materials that correspond to each letter. This multisensory approach aims to enhance students' engagement and memory recall by associating the letters with different sensory experiences. By incorporating smell and taste, we believe we can make the learning experience more immersive, stimulating, and enjoyable for students with special educational needs. We are hope to demonstrate its effectiveness in assisting students with special educational needs in developing fundamental literacy skills.

Keywords: Multisensory Kit, Letter Recognition, Learners with Disability (LWDs).

(iDIEC23_033)

THE USE OF THE DELARA APPLICATION (TEXT TO SPEECH DETECTION) IN FULFILLING ACCESS TO VISIBLE TEXT INFORMATION FOR THE VISUAL IMPAIRMENT PERSON

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Abstract: The era of digitalization leads individuals to move quickly, especially in the use of technology. In this era, every individual can access information easily only through smartphones. However, for the visually impaired, the fulfillment of access to written information in the form of alert text is still limited. The lack of information in the form of text that can be accessed by the visual impairment person, inspired to create an application that can access all existing texts that only normal vision can read. Delara application is an android-based application that aims to detect information from various documents such as books, magazines, brochures or objects containing alert text by detecting it through the camera on a smartphone. This application can convert image objects that have text into sound that later blind people understand the information detected. The sound produced using Indonesian language called *Bahasa* through *Damayanti* vocalizer is in accordance with the purpose of visual impairment people in Indonesia. So that anytime and anywhere can be accessed via smartphone by application users, namely visually impaired. It is expected that from these various problems, this application provides easy access to as much information as possible for the visual impairment person. This application is still in prototype form and is not yet available in the play store or apps store. Later this application will also be developed on iOS, in order to reach more visual impairment people who need more access information. In addition, we will make this application into a free application which of course will work with application developers to always get updates both from versions and functions such as detecting colors and objects in *Bahasa*.

Keywords: Delara Application, Visual Impairment Person.

(iDIEC23_036)

FORTABLE-TING

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Abstract: The government has launched the Inclusive Education Programme in an effort to genuinely provide equitable educational chances, from the academic to the sports components, regardless of the challenges and disabilities encountered. Impulsive behaviour, hyperactivity, and difficulty of focus are characteristics of Attention Deficit Hyperactive Disorder (ADHD). Typically, this disability is identified as early as childhood. In the context of education, children with this condition are categorized as students with special needs on the ADHD spectrum and have difficulty focusing in class or during learning sessions. Impulsive behaviour, hyperactivity, and difficulty of focus are characteristics of Attention Deficit Hyperactive Disorder (ADHD). Typically, this disability is identified as early as childhood. Children with this condition are classified as pupils with special needs on the ADHD spectrum in the context of schooling and have trouble focusing in class or during learning sessions. Students with ADHD are granted the same human right to an equal education as kids in the general population. In order to give them the opportunity to fully participate in the teaching and learning process, they require inclusive teaching aid. This situation provides chances for physical education teachers to modify their methods and pedagogical concepts so that kids with ADHD can remain active and focused while taking part in sporting events. Fortable-Ting is an innovative tool that has been developed to help children with ADHD become more attentive, have stronger short-term memories and have better decision-making abilities through physical education class activities. The traditional Malaysian game "Ketingting" was used as a prototype for the modified gaming tool known as "Fortable-Ting." This innovative game tool has been proven to rekindle kids' enthusiasm in sports while also bringing them closer to the classic game "Ketingting." Fortable-Ting is user-friendly because it is portable and doesn't need a lot of area to play. This Fortable-Ting was created with recycled materials and didn't cost a lot to produce. Fortable-Ting has improved motor movement abilities, concentration, short memory strength and decision-making skills of the students with ADHD.

Keywords: Inclusive Education, Colours Visualization, Concentration, Memory Strength.

(iDIEC23_040)

PYCHARM IDE SYSTEM: AMERICAN SIGN LANGUAGE ALPHABET TRANSCRIPTION TO TEXT FOR DEAF AND HARD OF HEARING LEARNERS

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Abstract: Education for All is a worldwide movement to guarantee that each individual will have an access to quality education. It is a piece of human rights to advance individual development and improvement and guarantee that each child will have an equivalent chance to quality education paying little heed to sexual orientation, religion, financial status, and disability. Quality education can only be achieved when each and every child, including the most marginalized and excluded children, are in school receiving inclusive education that provides the learning required for life (Farkas, 2014). Inclusion of deaf and hard of hearing learners is a big challenge as it often confronts teachers with communicative challenges that are likely to interrupt daily classroom activities (Marschark, Lang & Albertini, 2022). Limited resources and unavailable assistive technology for deaf and hard of hearing learners often creates barriers that exclude them from learning in a mainstream classroom. This study is aimed in utilizing the use of American Sign Language Alphabet (ASL) Transcription system using PyCharm-Integrated Development Environment (IDE), a system that converts the ASL alphabet to text. Python was utilized as the programming language to develop the system. It has undergone a series of beta testing with actual users of sign language. Based on the aptitude criteria of efficiency (Accuracy, Sensitivity/Stability, and Response Time), the percentage of correctly revealed letters was 94% for both left and right hands which is highly accurate; the average mean for the sensitivity for both right and left hands was 4.29 seconds; and the average response time was 0.82 seconds for both right hand and left hand which is rapid response time. The data showed that the system was significantly efficient. The ASL Alphabet transcription to text system can be used as an assistive device in the learning process of the deaf and hard of hearing learners. It breaks the barriers in communication between the deaf and the normal learners/people. For potential commercialization, the system could be converted into a mobile application and be published on Playstore for free which could be accessible for everyone using android phone.

***Keywords*:** Inclusive Education, Assistive device, Mainstream classroom, ASL Alphabet Conversion System, PyCharm-Integrated Development Environment (IDE).

(iDIEC23_041)

SIGN LANGUAGE VIRTUAL REALITY (SiLViR)

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Abstract: Students with special educational needs for hearing impairment (MBPK) tend to learn visually. Although there are many books that use sign language as a guide, the use of non-interactive books makes the learning process difficult for MBPK students. This is because the sign language reference source in the book is two-dimensional and does not move, which can lead to mistakes in sign language and hinder learning. Therefore, emerging technology will lead to better learning as it provide better environment and a lot of access to teaching resources. Among the technologies that can be used to unify technology in teaching and learning is Virtual Reality (VR). Virtual reality is a simulated 3D environment that enables users to explore and interact with a virtual surrounding in a way that approximates reality, as it is perceived through the users' senses. The environment is created with computer hardware and software, although users might also need to wear devices such as helmets or goggles to interact with the environment. This virtual environment provided real-life opportunities to interact with characters, to utilize an on-screen sign language interpreter, and to build confidence in social situations. Sign Language Virtual Reality (SiLViR) is a virtual reality material that has been developed by implementing sign language in a space that is safe to learn. Using the application (CoSpace) as the main platform this material is produced. SiLViR uses a gallery walk learning method, which means that each space developed has its own theme. The space is filled with objects/situations that are learned with the help of a sign language teacher who will accompany them to learn things in that space. Virtual learning by providing an interactive situation will attract students to learn directly in a safe space. This SiLVir will be the latest teaching material in the teaching and learning of hearing-impaired students. Its high commercial value is spread by the consumption of this kind of material in the future. This material is more sustainable, easy access and more realistic for students to learn.

Keywords: Emerging, Technology, Virtual Reality, Sign Language, SiLVi.

i-TACT: HELPING THE BVI STUDENTS TO READ TACTILE GRAPHICS

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Abstract: To read graphical information using haptic sensory is far more difficult compared to reading visual-based information. It is a cognitive overload task due to the complexity of graphical information represented in a tactile format. Without any guidance or assistance from a sighted person, the blind and visually impaired (BVI) students could not read and comprehend the information on the tactile graphics independently. This project presents an assistive device that combines both auditory and haptic sensory feedback to assist BVI students in tactile graphics reading. An exploratory test with 10 blindfolded (BF) participants has been conducted to investigate several design factors and configurations of the haptic feedback system. This project is currently in collaboration with Special Education School for the Blind in Setapak.

Keywords: Tactile Graphics, Blind and Visual Impairment, Assistive Technology, Augmented Reality, Haptic Feedback.

PARTNERS

UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION (UNESCO)
https://www.unesco.org/en

INSTITUT PENDIDIKAN GURU KAMPUS PENDIDIKAN TEKNIK (IPGK PT)
https://ipgkpt.moe.edu.my/

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

UNIVERSITI SAINS MALAYSIA (USM)
https://www.usm.my/

PARTNERS OVERVIEW

UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION (UNESCO)

Established in 1961, The UNESCO Multisectoral Regional Office in Bangkok (in short, UNESCO Bangkok) implements the six areas of UNESCO programmes - education, natural sciences, ocean sciences, social and human sciences, culture, and communication and information - in Cambodia, Lao PDR, Myanmar, Singapore, Thailand, and Viet Nam. **Over the years, the Office has played a vital role in coordinating and enhancing capacity in education.** The Office has been leading the regional coordination and capacity development for the Education for All (1990–2000/2000–2015) and the SDG4-Education 2030 Agenda, covering 46 Member States and 3 Associate Members in the region and within a network of 14 UNESCO Field Offices. Representing UNESCO in the United Nations Regional Collaborative Platform in Asia and Pacific, it serves as the secretariat of the Learning and Education 2030+ Networking Group in the region.

Full potential of education will be realized only if learning extends to the most marginalized groups. UNESCO Bangkok works with Member States to remove barriers to education related to gender, endemic poverty, geographical isolation, minority status, disability, conflict situations, or any other status. In line with SDG 4.5, UNESCO Bangkok addresses gender disparities in education, and disability-inclusive education, and champions mother-tongue-based multilingual education to ensure that no one is left behind, and that all education curricula lead to a more inclusive society.

UNESCO Bangkok's Equity and Inclusion in Education programme for the Asia-Pacific region focuses on the following strategies related to disability inclusion:

Advocacy
- Raise awareness and advocates for promoting equitable and inclusive quality education, such as initiative on disability-disaggregated data for education system transformation and reiterated the imperative for disability-inclusive data

Technical assistance
- Initiated the creation of 800 accessible reading materials for children with disabilities in 8 Asia countries in response to the COVID-19 (2020)

Capacity development
- Established an online teacher training course "Responding to Educational Needs of Learners with Disabilities in Emergencies"
- Hosted technical workshop Mainstreaming and Investing in Disability-Inclusive Data for Inclusive Education (2023)
- Delivered the webinars related to disability-inclusive education in the Asia-Pacific region

Research
- Published policy brief on [Early Intervention and Quality Education of Children with Disabilities in Asia and the Pacific (2021)](#)
- Launched a j[oint report on Disability-inclusive Comprehensive Sexuality Education (CSE) in Asia and the Pacific (2022)](#)

Partnerships
- [Learning and Education 2030+ (LE2030+) Networking Group](#)
- [Disability-Inclusive Education in Asia-Pacific Working Group](#)

For more information on UNESCO's inclusive education work, please visit:
https://unesdoc.unesco.org/ark:/48223/pf0000385330

Contact details:
UNESCO Multisectoral Regional Office in Bangkok, Section for Inclusive Quality Education
920 Sukhumvit Road, Phrakhanong, Khlongtoei, Bangkok 10110, Thailand
Email address: iqe.bgk@unesco.org
Website: https://bangkok.unesco.org/theme/inclusive-education

INSTITUT PENDIDIKAN GURU KAMPUS PENDIDIKAN TEKNIK (IPGK PT)

Institut Pendidikan Guru, Kampus Pendidikan Teknik (IPGKPT) is one of the 27 teacher training institute campuses under the Ministry of Education. Our headquarter, known as Institut Pendidikan Guru Malaysia (IPGM), is in Cyberjaya and IPGKPT is situated in Bandar Enstek, Nilai, Negeri Sembilan. We offer programs including Preparatory Program for Bachelor of Teaching, Bachelor of Teaching, and Post Graduate Diploma in Teaching and Diploma in Teaching. IPGKPT focuses on three main programs: Design and Technology, Science, and Mathematics. We also currently offer other programs such as TESL, Malay Studies, Islamic Education, Moral Education, Physical and Health Education, Arabic Language and Chinese Language. Currently, we have an enrolment of 1430 students with 148 lecturers and 70 supporting staff.

Our top administrators are Dr. Hanani binti Harun Rasit, the director, and Dr. Mohd Nordin bin Abu Bakar, the deputy director. IPGKPT is always committed to the development of disability inclusive education. This commitment is strengthened with the appointment of our current director who holds a PhD in special education from the National University of Malaysia, Dr.

Hanani previously served as the Head of Programme at Permata Kurnia Centre, a National Autism Centre (2015-2017), Deputy Director of the Special Education Division, Ministry of Education Malaysia (2019-2021), and Director of the Southeast Asia Ministers of Education Organization (SEAMEO) Regional Centre for Special Educational Needs (SEN) from February 2021 to February 2023. IPGKPT is proud with Design and Technology, the niche program. Led by our Deputy Director who specializes in TVET, IPGKPT has many TVET experts who has trained a few thousands of TVET teachers.

In line with the holistic education approach, one of the courses offered in our degree and diploma programs is Inclusive Education. We are committed to fulfilling the EOMS and MQA standards in producing future teachers who are not only equipped to serve the mainstream students but are also adept at catering to pupils with special needs. Our courses also cover topics related to special needs, such as Child and Teenager Psychology Development, as well as Classroom Management and Behavior. It is indeed a privilege to be a strategic partner for 5th ICSE 2023, as we are always dedicated in contributing to the advancement of disability inclusive education.

UNIVERSITI PENDIDIKAN SULTAN IDRIS (UPSI)

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.

UNIVERSITI SAINS MALAYSIA (USM)

Established as the second university in the country in 1969, Universiti Sains Malaysia (USM) was first known as Universiti Pulau Pinang. In 1971, USM moved from its temporary premises at the Malayan Teachers' Training College, Bukit Gelugor to the present 416.6-hectare site at Minden, approximately 9.7 km from Georgetown.

USM offers courses ranging from Natural Sciences, Applied Sciences, Medical and Health Sciences, Pharmaceutical Sciences to Building Science and Technology, Social Sciences, Humanities, and Education. These are available at undergraduate and postgraduate levels to approximately 30,000 students at its 17 Academic Schools on the main campus in the island of Penang; 6 Schools at the Engineering Campus in Nibong Tebal (approximately 50km from the main campus); and 3 at the Health Campus in Kubang Kerian, Kelantan (approximately 300km from the main campus).

JOURNAL OF EDUCATION FOR SUSTAINABILITY AND DIVERSITY (JESD)

Journal of Education for Sustainability and Diversity (JESD) is an academic peer-reviewed journal published by the Angstrom Centre of Education Foundation (Yayasan Pusat Pendidikan Angstrom) and SAASEd (Southeast Asia Association for Special Education). Journal management by the Angstrom Centre of Education Foundation is carried out professionally and in accordance with international quality standards. The Angstrom Centre of Education Management Journal manages several Open Access Journals with the scope of education and inclusion studies. The JESD provides the best International forum discussion on Sustainability and Diversity in Education. The multi-disciplinary dialogue concerns the 4th Sustainable Development Goal (Quality Education), which ensures inclusive and equal education and promotes lifelong learning opportunities. Through the JESD, educators and educational policy-makers can contribute to realizing Quality Education. Papers are scientific articles, including primary (original research, case reports/case series, and technical notes) and secondary (narrative review and systematic review articles).

NATIONAL ASSOCIATION OF SPECIAL EDUCATION, MALAYSIA (NASE)

National Association of
Special Education, Malaysia

The association is now popularly known as NASE, a non-profit organization which aspires to work with similar organizations locally and globally for the purpose of sharing knowledge, technology, projects, and activities concerning the well-being and development of children and youth with special needs. This is the altruistic mission of NASE, and we sincerely hope that this mission will be perpetuated continuously in the future by our concerned members and activists.

The Journal of Special Needs Education (JSNE) (ISSN 2289-2745 and eISSN 2811-4396) is the official journal of the Persatuan Pendidikan Khas Kebangsaan, or the National Association of Special Education, Malaysia. Published annually, this open-access journal (double-blind peer review) invites article contributions from concerned educators, practitioners and scholars in areas related to special needs education from Malaysia and other countries. As a leading journal in special needs education in Malaysia, the Journal serves as an instructive platform for researchers to share knowledge, ideas, and evidence-based practices in special needs education. Articles submitted can be in any nature, such as a research-based paper, experience-based paper, a reflection paper, a book review paper, a conceptual paper, a meta-analysis paper of past articles, or a review of conference papers. A wide variety of articles is to serve a diverse range of readers for this journal. To further enhance the volume and quality of the journal, we invite interested academicians from neighbouring countries and others in the world to join in either as members of the international advisory board, editorial board, article reviewers or manuscript contributors.

INCLUSIVE EDUCATION

Inclusive Education is an academic peer-reviewed journal published by International Inclusion Development and Cooperation (IIDEC) and Southeast Asia Association for Special Education (SAASEd). Inclusive Education publishes research papers in the field of (but not limited to):

- Student with Special Needs in Inclusive Setting
- Education for All

- Inclusive Sustainability Education
- Inclusive Education Management
- Educational Psychology
- Policy and Administration
- Inclusive Technologies and Infrastructures
- Assistive Technology
- Curriculum and Instruction The journal is published twice a year (February & August).

UNIVERSITAS NEGERI MALANG

Universitas Negeri Malang prides itself as the only Indonesian state-run university whose foundations, vision, mission, and purpose aim to help it earn the status of "The Learning University," by which UM carries out its dual mission as a Learning Organization and Learning Resource.

The association is now popularly known as NASE, a non-profit organization which aspires to work with similar organizations locally and globally for the purpose of sharing knowledge, technology, projects, and activities concerning the well-being and development of children and youth with special needs. This is the altruistic mission of NASE, and we sincerely hope that this mission will be perpetuated continuously in the future by our concerned members and activists.

The Journal of ICSAR is the right place to publish science education papers, especially in Special Needs Education. The Journal of ICSAR is an innovative, interdisciplinary, comparative, global project in inclusive and special needs education. This journal is organized by the Department of Special Education, Faculty of Education, Universitas Negeri Malang.
This journal is expected to serve as a publication media for quality scientific research, especially children's special education, which can be accessed online, printed, and accessible by the people of Indonesia and the international community. The article (article) published in this Journal of ICSAR is an article that has passed or completed the review process by peer reviewed.

WORKSHOPS

Table 18-WORKSHOPS SCHEDULE

NAME OF ORGANISATION	TOPIC	DATE, TIME & VENUE	
Dr. Fu Sai Hoe PPD Sandakan	Enhancing Pre-number Skills for Pupils with Dyscalculia	Date: 4th October 2023 Time: 14:30 – 16:30 Room: BG.10 (BASEMENT GROUND, BLOCK A)	
Mr. Shahrizal Selamat Permata Kurnia	Sexuality Education for Individual with Special Needs	Date: 4th October 2023 Time: 14:30 – 16:30 Room: BG.11 (BASEMENT GROUND, BLOCK A)	
Assoc. Prof. Dr. Kannamah Mottan National Association of Special Education	Critical Thinking Skills for Students with Special Educational Needs	Date: 4th October 2023 Time: 14:30 – 16:30 Room: BG.12 (BASEMENT GROUND, BLOCK A)	
Mdm. Thilakavathy A/P Shanmugam SEN Enrichment Centre	Behaviour Management Strategies of Children with Special Needs	Date: 5th October 2023 Time: 14:30 – 16:30 Room: BG.10 (BASEMENT GROUND, BLOCK A)	
Dr. Shyielathy Arumugam IPG Kampus Ipoh	Entrepreneurship Authoring & Illustrating Children's Picture Books through the SMART-PUBLISH Kickstarter Toolkit	Date: 5th October 2023 Time: 14:30 – 16:30 Room: BG.11 (BASEMENT GROUND, BLOCK A)	

EXHIBITORS

REQ CRAFT AND DECO (BOOTH NUMBER: 17)

ORGANISATION BACKGROUND:
Mrs. Madura Selamat, is the founder of Req Craft and Deco which was established in 2012 and registered in 2018. She is a former education leader with 31 years of service in the Ministry of Education Malaysia, where her last position was Principal at Bukit China National School in Melaka. She has extensive experience in human resource management and organizational skills. She is always seeking space and opportunities for self-development and human capital enhancement. She enjoys acquiring, sharing, and maintaining a positive outlook on life and refers to herself as a person with various talents and inclinations.

Mrs. Madura Selamat made the decision to change her career field from education to entrepreneurship. Her chosen domain encompasses various crafts, with a special focus on the art of decoupage. She also directs her attention towards training and producing products under her own brand. Currently, she works full-time in a small enterprise specializing in craft-related work.

WHAT WE OFFER:
1. Producing decoupage products and teaching decoupage craft and other art forms
2. Training and workshops (domestic and international)
3. Community engagement activities
4. Collaboration with private agencies, NGOs, relevant ministries, and schools
5. Production of products under one's own brand
6. Exhibition and sales activities

DR CHIN & PACIFIC ONE STOP CHILD DEVELOPMENT CENTRE
(BOOTH NUMBER: 18)

ORGANISATION BACKGROUND:

Established in 2022, Dr Chin & Pacific One Stop Therapy Centre is the official collaboration between Dr Chin, the Senior Consultant Paediatrician and Pacific Speech Therapy and Learning Centre.

Pacific Speech Therapy and Learning Centre is the first 1-Stop paediatric therapy centre in Northen Region of Malaysia since 2010. Down the road, we are now one of the leading 1-stop learning centre for children with special needs (below 18 years old) in Malaysia. We are a team of passionate and highly qualified professionals offering a wide range of quality services, from comprehensive assessments to therapies under one roof. We work in close collaboration within our multi-disciplined team, as well as the family to address the individual needs of the children, thus improving the quality of life of the child and the family as a whole.

We strongly believe that every child and their family deserve the rights for a better quality of life. We provide services for children with:

1. Autism Spectrum Disorder, ASD
2. Hyperactive, ADHD
3. Down Syndrome / Other Syndromes
4. Cerebral Palsy
5. Developmental Delay
6. Speech-Language Delay
7. Sensory Processing Disorder
8. Hand-writing Difficulties
9. Learning Difficulties / Dyslexia
10. Social Skills Difficulties

WHAT WE OFFER:

1. Speech-Language Assessment and Therapy
2. Occupational Assessment and Therapy
3. Early Intervention Program, EIP
4. School Readiness Program
5. Social Play Group
6. Personal Learning Assistant / Shadow Aide Program
7. Vocational Training
8. International and Local Certification Workshop
9. SKM 3: Children with Special Needs Care and Education Practices Course

SEN ENRICHMENT CARE CENTRE (BOOTH NUMBER: 19)
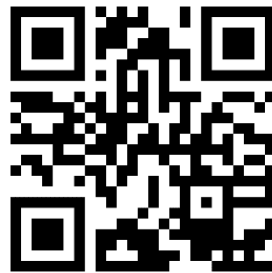

senenrichment.com

ORGANISATION BACKGROUND:

SEN Enrichment Care Centre is a day care centre for children with special needs that provides pre-academic and academic programs, social skills, sensory integration, behaviour management, school readiness and functional living skills that are collaboratively supported by speech therapy and occupational therapy. SEN Enrichment Care Centre was founded in 2018 by a passionate special education teacher who has been in this field for more than six years. The main purpose of this Centre is to provide special education services for the population in need. Our centre is also dedicated to work on the unique vision is to nurture and develop students' potentials and abilities, guide them throughout their learning journey and prepare them for life's challenges. Our mission is to nurture and develop each student's potentials and abilities by providing individualised learning programmes for the diverse population of special needs, enabling every student to learn in a caring, supportive and enriching environment.

WHAT WE OFFER:

1. Home School
2. Applied Behaviour Analysis (ABA) Therapy
3. Early Intervention Programme
4. After School Programme
5. Screening and Consultation
6. 6. Training
7. Occupational Therapy
8. Speech Therapy

PERMATA KURNIA (BOOTH NUMBER: 20)
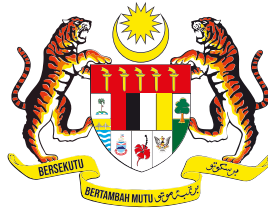
KEMENTERIAN PENDIDIKAN
BAHAGIAN PERMATA

www.facebook.com/geniuskurniaofficial

ORGANISATION BACKGROUND:
The Permata Kurnia Centre in Sentul, Kuala Lumpur commenced its operations in 2015 as one of the initiatives by the government of Malaysia, providing comprehensive early intervention services and preschool education to children with autism (aged 2 - 6 years) and offering support services to families and communities. The program at PERMATA Kurnia has been specially designed to assist children with autism in achieving their full potential. Our objectives include providing intervention and training for children with autism, empowering parents through training and consultation services, raising awareness, and establishing a model demonstration center.

WHAT WE OFFER:
1. Early Intervention and Family Support Services (Autism children age 2-6 years old)
2. Preschool Education Program (Autism children age 4-6 years old)
3. Community Education Programs (Parents with Autism children, Teachers and therapists and community)
    a. Face to face
        i. Weekend Training
        ii. Public Talk
        iii. Scheduled Training
    b. Online
        i. iKurnia Live (Youtube Platform)
        ii. iKurnia Autisme (eLatih Platform)
4. Professional Staff Development
    a. Post Graduate Diploma for Special Education (Autism)
    b. Malaysian Skills Certification System (MSCS Level III)

MALAYSIAN FOUNDATION FOR THE BLIND (BOOTH NUMBER: 21)

Malaysian Foundation for the Blind
(Yayasan Orang Buta Malaysia)

www.mfb.org.my

ORGANISATION BACKGROUND:
Malaysian Foundation for the Blind (MFB) was established on November 2013 under registration with 'Bahagian Hal-Ehwal Undang-Undang – BHEUU, Jabatan Perdana Menteri' Malaysia. As a national non-profit foundation, the MFB is here to make life better for blind and partially sighted people in Malaysia. We champion access and equality and seek to share the benefits of new technologies. Our key services are to connect families to knowledge and support, guide the usage of assistive technology tools, design and offer courses to educate professionals in the field, and provide skills and vocational training programs for the blind and partially sighted people. Whether you're losing your sight, or you're blind or partially sighted, we can help you face the future with confidence.

WHAT WE OFFER:
1. White Cane
2. Classic Perkins Brailler
3. Braille Watch
4. Talking Watch
5. Braille and Talking Watch Combo
6. Talking Table Clock
7. Talking Calculator
8. Talking Blood Pressure Monitor
9. Talking Glucose Meter
10. Talking Scale
11. English & Malay version of assisting the blind comic
12. Braille books & Braille Holy Quran
13. Braille Business Card
14. Hable One Braille Keyboard
15. Braille Bookmarks
16. Braille Writing Frame
17. Braille Display
18. Magnifier for low vision

SEAMEO REGIONAL CENTRE FOR SPECIAL EDUCATIONAL NEEDS (SEAMEO SEN) (BOOTH NUMBER: 22)

seameosen.edu.my

ORGANISATION BACKGROUND:
Located in Malaysia, the SEAMEO Regional Centre for Special Educational Needs (SEAMEO SEN) is a regional intergovernmental organization established in 2012 among governments of Southeast Asian countries that specializes in education to support the needs of children with different disabilities in South East Asia (SEA) region under the SEAMEO Education Cluster. 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, Socialist Republic of Vietnam, Lao PDR, Brunei Darussalam, Singapore, Philippines, Republic of the Union Myanmar and Timor Leste. SEAMEO has 26 specialist institutions throughout the Southeast Asian region which includes the Education Cluster, Science Cluster and Culture Cluster with a mission to promote knowledge and facilitate education opportunities for people, from early childhood to life-long learning.

WHAT WE OFFER:
1. Training and Consultation services in special education for member countries and local community
2. Research and Innovation with local and international agencies in special education, and to be a referral point by other agencies in special education research
3. Seminars, Conferences and Workshops
4. Communities Outreach and Awareness
5. Networking, partnership, collaboration and resource sharing among Special Education institutions in Member Countries, Associate Countries, other countries, agencies and non-governmental organizations (NGOs)
6. Scholarships to SEAMEO member countries for the sabbatical program at the center

DAWN BRIDGE (BOOTH NUMBER: 23)

www.dawnbridge.com.my

ORGANISATION BACKGROUND:
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 centers, 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. Dawn Bridge aim 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, create awareness and improve understanding of persons with special needs to the world. Our vision is to create a world where all children with special needs are treated as equals and can be truly independent in their daily lives.

WHAT WE OFFER:
1. Dream Conference
2. Specialized Products
3. Resources & Support
4. Product
5. Awareness Creation Event
6. Charity Events
7. Stem Cell

INFINITE MINDS ACADEMY (BOOTH NUMBER: 24)

infinitemindsacademy.com

ORGANISATION BACKGROUND:
Infinite Minds empowers the Special Needs people with Digital Technology skills. The Special Needs (Neuro-diverse) youths referred here are those who are under the spectrum of Autism, Dyslexia, Down Syndrome, ASD, ADHD, Cerebral Palsy, Slow Learners, people with disabilities (PWD) and various others. We strongly believe that no individual should be left behind from advancing in today's digital age.

WHAT WE OFFER:
Providing structured programs to promote Digital Skills for Special Needs people to be self-sustainable. Part of the programs are as below;

1. Animation development
2. Multimedia designing
3. App development
4. Multimedia designing
5. VR Social skills training
6. Basic engineering and many others

PUSAT LATIHAN PERINDUSTRIAN DAN PEMULIHAN (PLPP)
(BOOTH NUMBER: 25)

ORGANISATION BACKGROUND:
Industrial Training and Rehabilitation for the Disabled (PLPP) is an institution under the Department of Social Welfare established on August 29, 1990. PLPP began full operations in 1999, and student intake started in the year 2000. The purpose of this center is to provide vocational training and medical rehabilitation to persons with disabilities (PWD), particularly those in the physical disability category. The main objectives of establishing PLPP are to provide comprehensive services to PWD members including vocational training and medical rehabilitation. Among the goals of its establishment are to restore skills lost due to accidents to enhance their employability and independence, take early steps in rehabilitation to prevent disabilities from worsening, provide a service location as a referral and training resource for medical students, rehabilitation therapists, prosthetic and orthotic technicians, as well as other staff in need, and to serve as a reference point for conducting research related to PWD. Admission requirements are open to all individuals aged 18-45 years with physical disabilities, visual impairments (blindness), hearing impairments (deaf and mute), speech impairments, and learning disabilities, who are registered with the Department of Social Welfare.

WHAT WE OFFER:
1. **Vocational Course**
    a. Office Management Course
    b. Women's Clothing Production Course (Malaysian Skills Certificate, Level 2)
    c. Electrical Installation Course
    d. Prosthetics and Orthotics Course
    e. Metal Fabrication Course (Wheelchair Manufacturing)

2. **Pre-vocational Course**
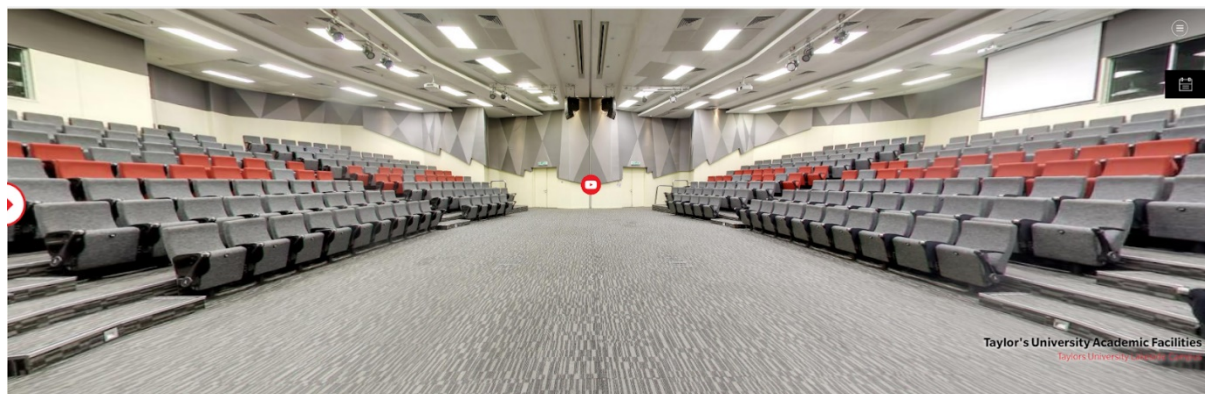   a. Painting Art Course
    b. Batik Technology Course

SNEAK PEAK: CONFERENCE AND EXHIBITION VENUE

THE GRAND HALL (iDIEC BOOTH, EXHIBITION BOOTH & DINING AREA)

LECTURE THEATRE 21 & 22 (OPENING & CLOSING CEREMONY)

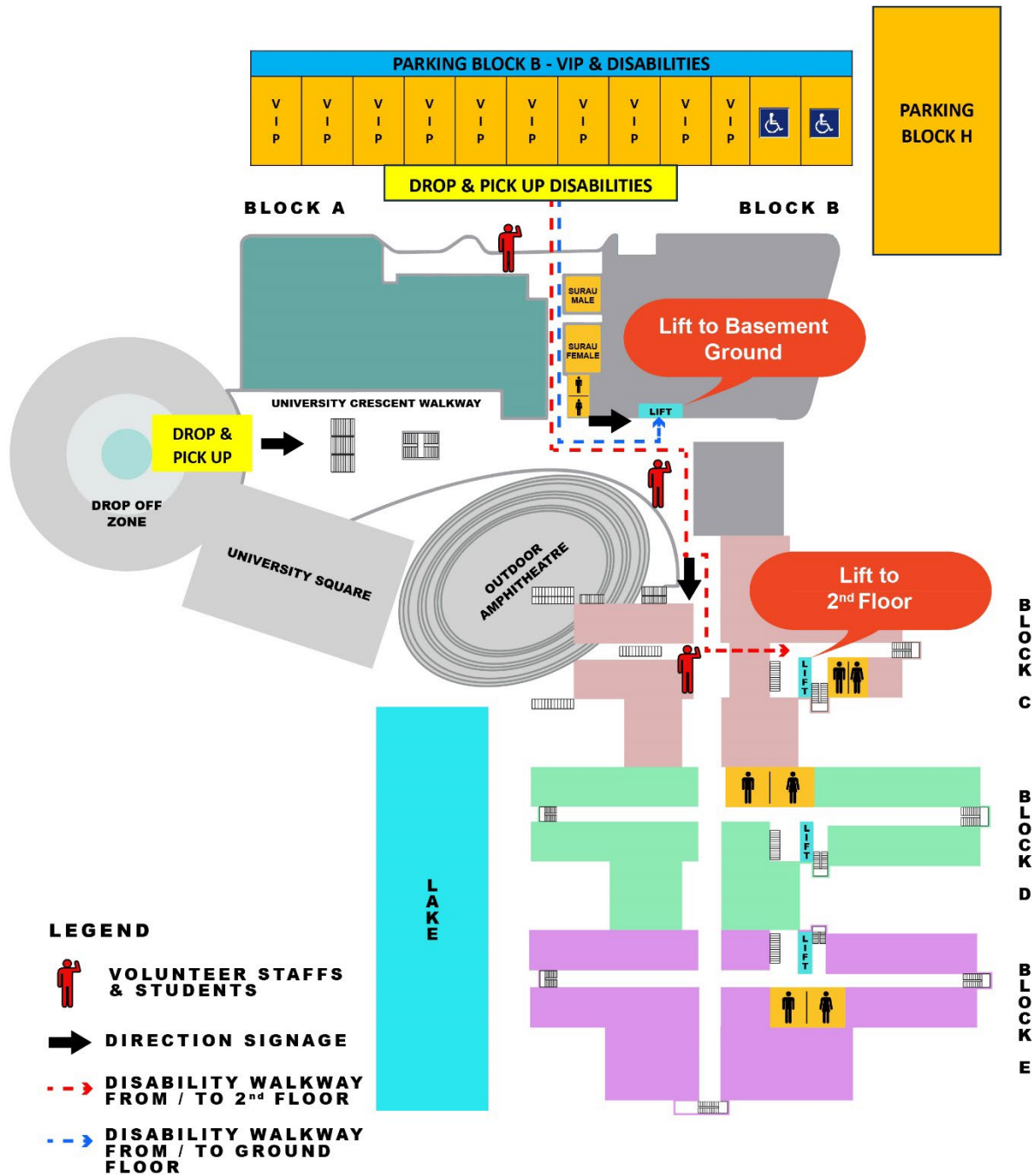## CONCURRENT ROOM (PAPER PRESENTATION & WORKSHOP)
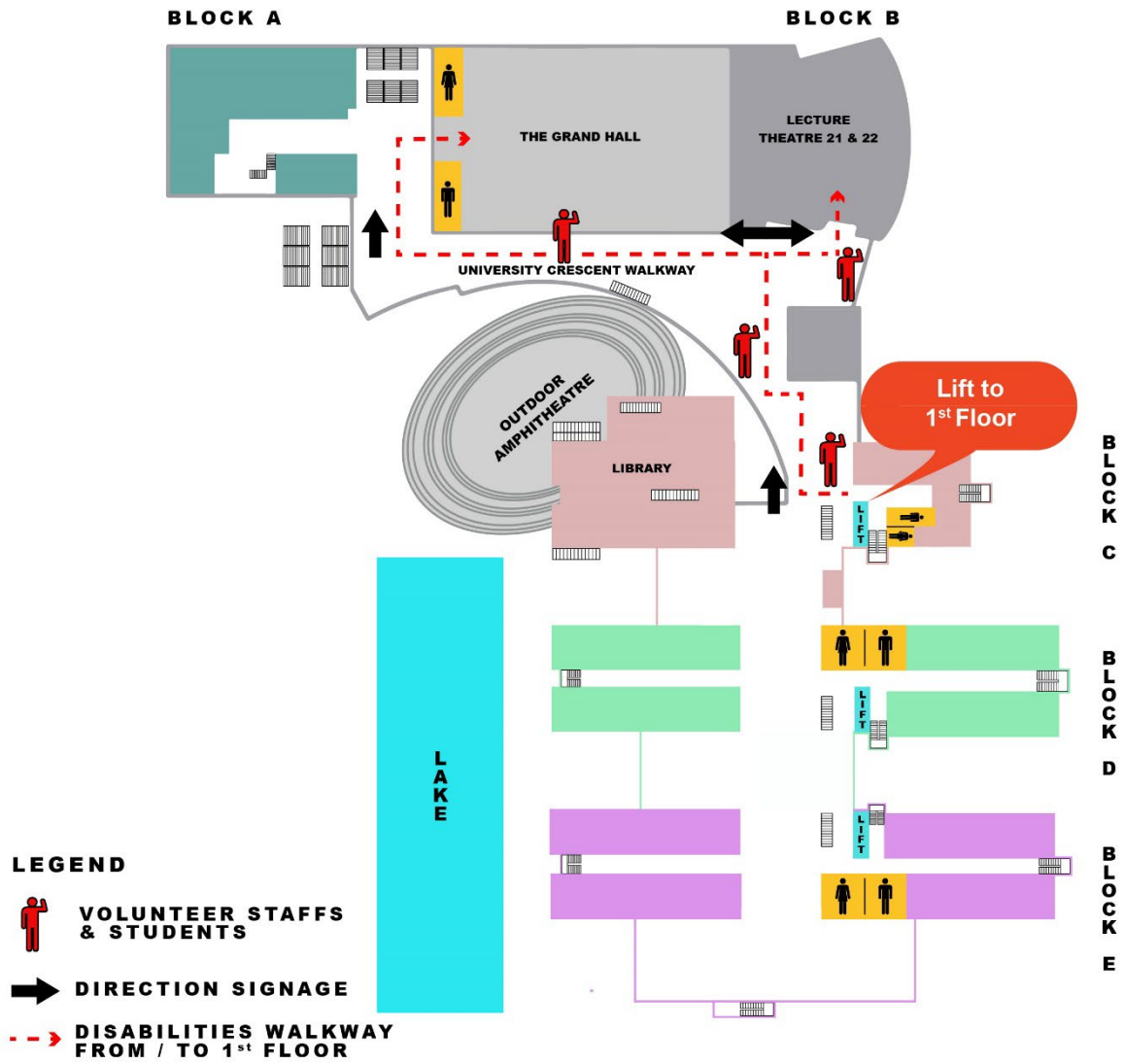
TAYLOR'S UNIVERSITY VIRTUAL TOUR

https://university.taylors.edu.my/en/study/campus-facilities/virtual-tour.html

TAYLOR'S UNIVERSITY FLOOR PLAN LAYOUT

1st Floor

2nd Floor

BLOCK A

BLOCK B

THE GRAND HALL

LECTURE
THEATRE 21 & 22

UNIVERSITY CRESCENT WALKWAY

OUTDOOR AMPHITHEATRE

LIBRARY

Lift to
1st Floor

LAKE

LIFT

BLOCK C

BLOCK D

BLOCK E

LEGEND

VOLUNTEER STAFFS
& STUDENTS

DIRECTION SIGNAGE

DISABILITIES WALKWAY
FROM / TO 1st FLOOR