



# 4th International Conference on Education (ICE-2025)

Integrating Curriculum, Research  
and Lifelong Learning in Education

# Abstract Book

December 13-14, 2025

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International  
Conference on  
Education '25

# 4th International Conference on Education

Organized by Department Of Education

## THEME

**Integrating Curriculum, Research and  
Lifelong Learning in Education**

**December 13<sup>th</sup> and 14<sup>th</sup>, 2025**  
(Saturday & Sunday)

For further details contact:  
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International  
Conference on  
Education '25

# 4th International Conference on Education

Organized by the Department of Education

ISBN 2025: 978-969-23055-9-4

## Integrating Curriculum, Research and Lifelong Learning in Education

13<sup>th</sup> and 14<sup>th</sup> December, 2025 | Saturday & Sunday

**Day 1 — December 13, 2025 | (1:30 PM – 5:30 PM)**

Auditorium CBM Building (IoBM)

### Conference Highlights

- Keynote Address
- Plenary Talk
- Panel Discussions featuring education leaders from across Pakistan
- Narratives Session
- Hi-Tea

**Day 2 — December 14, 2025 | (9:00 AM – 5:00 PM)**

SSK and CBM Building (IoBM)

### Conference Highlights

- Principals/Heads Panel Discussion
- Workshops for teachers; researchers
- Lunch and Tea
- Paper Presentations/Action Research Presentation/Project Display
- 2-Minute MPhil/PhD Challenge
- Closing ceremony

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ISBN: 978-969-23055-9-4

Integrating Curriculum, Research and Lifelong Learning in Education

Department of Education, IoBM

Karachi, Pakistan

## IoBM's Vision

We aspire to be one of the leading institutions, nationally and internationally, for learning, research, innovation, and adding value to society.



## IoBM's Mission

We strive to develop future leaders by providing innovative education, fostering critical thinking, and cultivating entrepreneurship while emphasizing ethical practices. Our mission is to equip learners with the knowledge, skills, and to prepare them for dynamic challenges. We are committed to advancing impactful research that addresses real-world problems and contributes to sustainable solutions, driving both economic and societal progress. We also aim to create an enabling environment for inclusive growth by embracing technology, promoting interdisciplinary collaboration, and actively engaging with society to create meaningful change

## IoBM's Core Values

At the heart of Strategic Plan 2029 (SP29) lies a strong foundation of shared values that define the character of IoBM and guide our decisions, actions, and aspirations. These core values are integral to fulfilling our mission of developing ethical leaders, fostering innovation, and contributing meaningfully to society. Each value represents a principle we uphold across our academic, research, and community endeavors:

### Learning

We embrace a culture of continuous learning to empower individuals with the knowledge and adaptability required in a rapidly evolving world.

### Integrity

We uphold the highest standards of honesty, ethics, and accountability in all institutional practices.

### Motivation

We foster a driven and purpose-oriented environment that inspires initiative, resilience, and self-improvement.



## **Innovation**

We cultivate creativity and forward-thinking to address complex challenges with practical, future-focused solutions.

## **Teamwork**

We value collaboration, respect, and mutual support, believing that collective effort leads to greater impact.

## **Leadership**

We develop principled and socially responsible leaders who can influence positive change at local and global levels.

## **Excellence**

We strive for distinction in education, research, service, and institutional performance through a commitment to quality and continuous improvement.

## **Sustainability**

We are committed to sustainable development, ensuring our actions contribute to long-term environmental, social, and economic well-being.

## **Service**

We promote civic engagement and social responsibility, using our knowledge and resources to serve communities and advance the public good.

# College of Economics & Social Development



The College of Economics and Social Development (CESD) is a social science and liberal arts college with postgraduate and undergraduate programs in areas such as Economics, Business Psychology, Education, Media studies, and Policy & Area Studies

## CESD Vision

To be the leading Social Science and Economics institution engaged in creation of knowledge through research and its dissemination through teaching.

## CESD Mission

To meet the multifarious challenges afflicting the society, economy and the people with a view towards bringing peace, prosperity and healthy life styles in Pakistan and the developing world.

# Department of Education

## **Ph.D. in Education**

The aim of Ph.D in Education program is to promote scholarship, research and service at national and international levels. The research-oriented doctoral program is the highest academic degree facilitating candidates to remain updated in research literature and conducting socially relevant and intellectually competent research studies in specialized areas. The program offers a range of courses in contemporary topics of education and development, assisting the scholars to compete for leadership positions.

## **M.Phil. in Education**

The M.Phil. in Education is specially designed for educators of all levels in private and public sector institutions as well as administrators who have an interest in research. The program provides a strong foundation in the field of educational research and integrates the core principles of research and development backed by innovative practices.

## **B.Ed. (1.5 Years and 2.5 Years) Weekend Program**

These degree programs are offered to pre-service and in-service teachers, potential and current school administrators, and aspiring educational entrepreneurs. The B.Ed 1.5-year program is designed for candidates with 16 years of education, whereas the B.Ed 2.5-year program is intended for those with 14 years of education.



## About Conference

The 4th International Conference on Education (ICE 2025) at IoBM aims to provide a platform for academics, researchers, practitioners, teacher educators, policymakers, and students to engage in meaningful dialogue on the integration of curriculum, research, and lifelong learning. By focusing on these three interconnected pillars, the conference seeks to address the evolving needs of education in a globalized, digital, and competency-driven era.

The scope of ICE 2025 covers a wide range of issues central to improving education systems. It will include discussions on curriculum innovation, trans-disciplinary approaches, and competency-based learning pathways, while also exploring the role of educational technology in creating more inclusive and accessible curricula. At the same time, the conference will highlight research practices by promoting ethical standards, embedding inquiry skills into education, and examining the transformative impact of artificial intelligence and data on educational research. A further strand will emphasize the translation of research into policy and practice to ensure evidence-based reforms.

Lifelong learning will be a major focus, with sessions addressing workforce readiness, continuous up-skilling, blended and hybrid learning, and the cultivation of 21st-century competencies alongside quality teaching. In addition, the conference will adopt an interdisciplinary lens, drawing on insights from economics, psychology, media, and policy studies to enrich the understanding of education in context.

Ultimately, the conference aims to generate knowledge that bridges theory, policy, and practice, foster collaboration between institutions, and produce actionable recommendations that can inform educational reform in Pakistan and beyond. By engaging international and local scholars, ICE 2025 aspires to connect global best practices with local realities, creating an impactful dialogue that supports the future of education.

## Sub-Themes

S.No	Sub-Themes
1	Transdisciplinary Learning Designs
2	Curriculum Futures in a Global World
3	Competency-Based Learning Pathways
4	EdTech for Curricular Inclusion
5	Research & Inquiry in Education
6	Ethics in Educational Research
7	AI and the Future of Research
8	Research-to-Policy Pathways
9	Upskilling for the Future Workforce
10	Blended & Hybrid Learning Journeys
11	21st-Century Skills and Quality Teaching
12	Education Across Media, Psychology, Economics & Policy

## Conference Patron (ICE-2024)

**Mr. Talib Syed Karim**

*President, Institute of Business Management (IoBM)*



Dear Conference Delegates,

It gives me great pleasure to welcome you to the Fourth International Conference on Education (ICE 2025), organised by the Department of Education at the Institute of Business Management, in collaboration with Sukkur IBA University. This year's theme, *Integrating Curriculum, Research and Lifelong Learning in Education*, invites us to reflect deeply on how education must evolve in a rapidly changing world. Societies everywhere are experiencing dramatic shifts such as technological, social, and economic, and with these shifts come new expectations of our learners and educators. If education is to remain relevant, curriculum must be grounded in real needs, research must guide reform, and lifelong learning must become a natural and continuous part of personal and professional growth. ICE 2025 brings these strands together so that we can imagine the future of education more thoughtfully and collaboratively. I would like to express our sincere appreciation to the Sindh Higher Education Commission (SHEC) for supporting this conference through its Conference Grant. Their belief in academic dialogue and knowledge-sharing makes initiatives like ICE possible and strengthens the higher education ecosystem across Sindh. This year's conference brings together a diverse and distinguished group of keynote speakers, researchers, plenary presenters, teacher educators, policymakers, school leaders and students. Their presence reflects the depth and breadth of perspectives represented here. Over the next two days, participants will engage with research that is grounded, practical and forward-looking, research that challenges us, encourages us, and invites us to rethink our assumptions. The programme includes keynote addresses, plenary sessions, paper presentations, a panel discussion on rethinking teacher education, an action research showcase, a two-minute research challenge, and our Edupreneurship Exhibition, each segment contributing to a richer understanding of how education can respond to both local needs and global trends.

ICE is more than an academic gathering; it is a collective effort toward building a stronger educational future for Pakistan. I extend my gratitude to all presenters, reviewers, partners, and the organising team, whose dedication has brought this event to life. I hope these two days inspire meaningful dialogue, new collaborations, and a renewed sense of purpose as we continue working toward a future where learning truly lasts.

Warm regards,

**Talib Syed Karim**

President, IoBM

## Conference Chair (ICE-2025)

***Prof. Dr Nadia Ayub***

*Dean, College of Economics and Social Development, IoBM*



### **Dean's Message**

Distinguished guests, esteemed speakers, colleagues, academic partners, and our delegates and future scholars, welcome to the Fourth International Conference on Education at the Institute of Business Management. Our founding President, the late Mr. Shahjahan Karim, believed deeply in education as a force for individual and social transformation. His vision of building a strong, inclusive, and globally recognised institution continues to guide us. This year's conference theme, *Integrating Curriculum, Research and Lifelong Learning in Education*, reminds us that meaningful education emerges when these elements work together with purpose and direction. The Department of Education carries this vision forward through its four academic programmes, BEd 1.5 years, BEd 2.5 years, MPhil in Education, and PhD in Education, all accredited by the National Accreditation Council for Teacher Education (NACTE) as X and W categories respectively. Recently approved courses and diploma programmes further reflect our commitment to staying relevant and responsive to emerging educational needs. To date, we have proudly produced more than forty BEd graduates, twenty-six MPhil scholars and sixteen PhDs, many of whom now serve in leadership roles across respected educational organisations. Research remains central to our work, with faculty and students contributing to national conversations on teacher quality, curriculum innovation, artificial intelligence in education, instructional design and educational leadership. Their publications in reputable journals, academic books and policy forums continue to reinforce our presence in both scholarly and practitioner communities. The Journal of Education and Educational Development remains a valued platform for national and international scholarship. Alongside this, our collaborations with government, particularly STEDA, and the securing of major research grants under HEC-NRPU and CPEC, speak to our growing capacity and relevance at the national level. I extend my sincere gratitude to our Chancellor, Mr. Bashir Jan Mohammed; our President, Mr. Talib Syed Karim; our Vice President, Ms. Sabina Mohsin; and our Rector, Dr. Tariq Soomro, for their continued support. My appreciation also goes to Dr. Kiran Hashmi and her team for their tireless efforts in bringing this conference to life. A warm welcome once again to all delegates and scholars. May these two days' spark new ideas, strengthen our resolve, and deepen our shared commitment to shaping resilient learners who continue to grow throughout their lives.

Warm regards,

**Prof. Dr Nadia Ayub**

Dean, College of Economics and Social Development

## Conference Co-Chair (ICE-2025)

***Dr. Kiran Hashmi***

*Head of Education Department, IoBM*



It is my privilege to welcome you to the Fourth International Conference on Education at the Institute of Business Management. Our theme this year, Integrating Curriculum, Research and Lifelong Learning in Education, invites us to think about education as a connected and continuous journey, one that grows through inquiry, reflection and meaningful practice. Conferences like ICE offer more than presentations. They bring together people who care deeply about learning. They help us pause, exchange ideas and reconsider how we teach and how we can do better for our students. Over time, ICE has become a space where researchers, practitioners, policymakers and students meet to explore new possibilities for education in Pakistan. The Department of Education is proud to contribute to this national dialogue. Our work spans curriculum development, teacher education, research and policy engagement. From revising curricula and developing teacher manuals to classroom observations, diploma programs and professional development, we continue to strengthen the teacher education through partnerships. I am grateful to our President, Mr Talib Syed Karim, our Vice President, Ms Sabina Mohsin, our Chancellor, Mr Bashir Jan Mohammed, and our Rector, Dr Tariq Soomro, and Dean, Dr Nadia Ayub for their constant support. My heartfelt thanks to the faculty of the Department of Education, our collaborators and the wider education community for enriching this conference with their contributions.

To our students, presenters, reviewers and volunteers, thank you for your hard work and the spirit you bring to this event. You give life to this conference.

Warm regards,

**Dr Kiran Hashmi**

Conference Co-Chair, ICE 2025

Head of Education Department, IoBM

# ORGANIZERS

## **Conference Patron: Talib Syed Karim**

(President, IoBM)

## **Conference Chair: Dr. Nadia Ayub Ali**

(Dean, College of Economics and Social Development)

## **Conference Co-Chairs: Dr. Kiran Hashmi**

(HoD, Dept. of Education, IoBM)

## TEAM MEMBERS

### **Dept. of Education, IoBM**

Dr. Kiran Hashmi (HoD, Dept. of Education)

Dr. Diana Ambrose (Assistant Professor, Dept. of Education)

Dr. Fozia Gulab (Assistant Professor, Dept. of Education)

Dr. Maria Azfar (Assistant Professor, Dept. of Education)

Mr. Salman Ashiq (Senior Lecturer, Dept. of Education)

Ms. Faiqa Asim (Senior Lecturer, Coordinator, Dept. of Education)

Ms. Munazza Salman (Senior Lecturer, Dept. of Education)

Ms. Mehak Javed (Editorial Secretary, Dept. of Education)

Ms. Yusra Rais (Departmental Officer, Dept. of Education)

Ms. Zareena Qureshi (Research Associate, Dept. of Education)



## **TEAM MEMBERS**

### **Dept. of Education Sukkur IBA University**

Dr. Zafarullah Sahito

Dr. Sharik Zamir

Dr. Kamran Malik

Dr. Muhammad Mujtaba Asad

Dr. Mukhtiar Ahmed

Dr. Sayed Tanweer Ahmed

## **CORE COMMITTEE MEMBERS**

Prof. Dr. Nadia Ayub

(Dean, College of Economics and Social Development)

Dr. Kiran Hashmi

(HoD, Dept. of Education)

Dr. Fozia Gulab

(Assistant Professor, Dept. of Education)

Dr. Maria Azfar

(Assistant Professor, Dept. of Education)

Dr. Diana Ambrose

(Assistant Professor, Dept. of Education)

## **SCIENTIFIC COMMITTEE**

### **Institute of Business Management**

Dr. Nadia Ayub (Dean, College of Economics and Social Development)

Dr. Kiran Hashmi (HoD, Dept. of Education)

Dr. Diana Ambrose (Assistant Professor, Dept. of Education)

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Dr. Falak Shad (Assistant Professor, Dept. of Industrial Engineering and Management)

Dr. Sana Sadia (Assistant Professor, Business Psychology)

Dr. Syeda Tayyaba Fasih (*Assistant Professor, Management and HR*)

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Dr. Sharik Zamir (Assistant Professor)

Dr. Mukhtiar Ahmed (Assistant Professor)

Dr. Sayed Tanweer Ahmed (Assistant Professor)

Dr. Ali Nawab (Assistant Professor)

Dr. Muhammad Mujtaba Asad (Assistant Professor)

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Mr. Ali Asghar Shabbir (Media Production Specialist)

Ms. Amna Khan (Social Media Coordinator)

Ms. Mehak Javed (Editorial secretary, Dept. of Education)

## **Moderators**

Dr. Kiran Hashmi (HoD, Dept. of Education)

Dr. Diana Ambrose (Assistant Professor, Dept. of Education)

Dr. Fozia Gulab (Assistant Professor, Dept. of Education)

Dr. Maria Azfar (Assistant Professor, Dept. of Education)

Ms. Faiqa Asim (Senior Lecturer, Coordinator, Dept. of Education)

Ms. Munazza Salman (Senior Lecturer, Dept. of Education)

## VOLUNTEERS

S.No.	Name	S.No.	Name	S.No.	Name
1	Adam / Adam Asif	24	Kinza Iqbal	47	Sana
2	Aisha Khan / Asra Hanif	25	Komal Shahid	48	Sana Gul
3	Aisha Raja	26	Maha Tahir	49	Sana Mustafa
4	Amima / Amima Niazi	27	Mahnoor Asmat	50	Sarah / Sarah Khan
5	Aman	28	Mahnoor Sheikh	51	Shagufta
6	Asma (MPhil)	29	Maira Hassan	52	Sharmeen
7	Asma Abbasi	30	Maria Masood	53	Shazia
8	Ayesha Raja	31	Maria Qasim	54	Sobia Zafar
9	Bushra Akber / Akhbar / Bed	32	Mariam / Marium Asif	55	Sonia Rizwan
10	Dania Zahid	33	Mehwish Andrew	56	Sunaina Umar
11	Dur e Shahwar	34	Mussarat Amin	57	Surayya Nosheen
12	Eisha Butt	35	Nagina	58	Tabbasum Malick
13	Fariha Ehson	36	Narmeen / Narmeen Mehdi	59	Tahli(l) Ahmed
14	Ghazal Adnan	37	Nayab Rose	60	Tasmeena / Tasneem Karbalai
15	Ghulam Shabbir	38	Qurat ul Ain	61	Tehmina Shabih
16	Gul e Norista	39	Rida Rizwan	62	Uzma Sadiq
17	Hafsa Sajjad	40	Rozina Channar	63	Zain Laghari
18	Haleema Irfan	41	Saba / Sadia Maqsood	64	Zainab Rafiq
19	Hira Abdul Razzak	42	Sadaf Gulzar	65	Zehra Latif
20	Huma	43	Sadia Bed		
21	Hunsa Siddiqui	44	Sadia Maqsood		
22	Imran Larik	45	Saira Batada		
23	Jasia Feroz	46	Salwa Haider		



# CALL FOR PAPERS

ISBN 2025: 978-969-23055-9-4

## 4th International Conference on Education

Organized by Department Of Education

13<sup>th</sup> and 14<sup>th</sup> December, 2025 | Saturday & Sunday

### THEME

Integrating Curriculum, Research and Lifelong Learning in Education

### SUB-THEMES

Sno.	Name of Themes
1.	Transdisciplinary Learning Designs
2.	Curriculum Futures in a Global World
3.	Competency-Based Learning Pathways
4.	EdTech for Curricular Inclusion
5.	Research & Inquiry in Education
6.	Ethics in Educational Research
7.	AI and the Future of Research
8.	Research-to-Policy Pathways
9.	Upskilling for the Future Workforce
10.	Blended & Hybrid Learning Journeys
11.	21st-Century Skills and Quality Teaching
12.	Education Across Media, Psychology, Economics & Policy

Submissions may focus on Curriculum, Research, or Lifelong Learning, or explore the intersections between them. We welcome theoretical, empirical, and practice-based papers, as well as case studies and policy reviews.

Abstract submission deadline: **05 December, 2025**

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December 13-14, 2025

## 2-MINUTE MPhil & PhD CHALLENGE

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**December 05, 2025**

Fee  
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**Integrating Curriculum, Research, and Lifelong  
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## Keynote Speaker

### Luís Miguel Cardoso

P hDPolytechnic University of Portalegre  
CARE - Research Center on Health & Social Sciences  
Center for Comparative Studies - University of Lisbon  
Portugal

Luís Miguel Cardoso holds a PhD in Modern Languages and Literatures (Comparative Literature) from the University of Coimbra. He served as Dean of the Higher School of Education and Social Sciences of the Polytechnic University of Portalegre (2010–2018) and was Deputy Director of the Master in Media and Society. He also presided over ARIPESE (2015–2018). A professor in the Department of Language and Communication Sciences, he researches at the Center for Comparative Studies – University of Lisbon and CARE, focusing on language, communication, pedagogical innovation, higher education, digital skills, AI literacy, and literature and cinema.

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## Plenary 1

**Dr. Susanne Kathrin Beiweis**

Assistant Professor, Habib University

Dr. Susanne Beiweis earned her PhD from the University of Vienna in 2016 and is currently an Assistant Professor in Comparative Humanities at Habib University. She has previously taught and conducted research at Sun Yat-sen University (China) and Mount Allison University (Canada). Her work focuses on the history of philosophy and ideas, particularly Renaissance and Early Modern thought. She is also committed to fostering collaboration, excellence, and inclusiveness in education.

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## Plenary

### Dr. Iain Keith Riley

International Educator and School Leader  
Head of School - TNS Beaconhouse DHA

Dr. Iain Keith Riley is an international educator and school leader dedicated to progressive, inquiry-based learning. As Head of School at TNS Beaconhouse DHA, he champions innovation, inclusion, and well-being while leading the school toward full IB World School authorization. With over 20 years of experience across the UK, the Middle East, and South Asia, he is known for fostering collaboration, student agency, and authentic learning. His leadership emphasizes trust, reflection, and continuous growth.

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## Panelist 1

### Neda Mulji

Senior Manager, Professional Development  
at Oxford University Press

Neda Mulji is working as Senior Manager, Professional Development at Oxford University Press Pakistan. She has been a university lecturer for many years and is a Fellow of the Higher Education Academy. She has taught English and communication skills in three countries. She has an MA from Goldsmiths College, University of London, a Cambridge CELTA and a Postgraduate Certificate in Higher Education (PGC-HE) from Middlesex University. Neda writes regularly for Dawn on topics in education and is an author of a book on parenting entitled - The Love Connection. She has also written a children's story Little Jimmy published by OUP.

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## Panelist 2

### Dr Peter Polak Springer

PhD Associate Professor of  
Comparative Humanities,  
Habib University

Peter (Ibrahim) Polak Springer earned his degree from Rutgers University-New Brunswick and is a comparative and transnational historian of 20th-century borders and partitions, migration, and history/humanities secondary school textbooks, with a geographical focus on Central Europe and the Arab world. In addition to twelve years of university teaching experience in Qatar, the United States, Germany, and Poland, he is also a trained secondary school teacher with several years of work experience in this field. He has held grants from Fulbright-Hays, the Social Science Research Council, and the American Council of Learned Societies, and has published articles and book chapters, as well as a monograph in border studies. His forthcoming work examines public national historiography in the Arabian Gulf, with a focus on Qatar, and is working on a comparative partition project involving South Asia, the Middle East, and Europe in the postwar era.

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## Panelist 3

**Kamil Majeed**

CEO and Principal -  
Nordic International School Lahore

Kamil Majeed is an award-winning global education leader and high-performance coach with a distinguished record in school leadership, education policy, and corporate training. As CEO and Principal of the Nordic International School in Lahore, Pakistan's first Swedish school offering classes from Playgroup to O Levels, he has led transformative initiatives that earned the school recognition among the Top 10 Schools in the World (2025) for the World's Best School Prize in Community Collaboration. A Commonwealth Scholar, Kamil holds a Master's in Education and International Development from the UCL Institute of Education, London, and is certified in Leadership and Policymaking from the Møller Institute at Churchill College, University of Cambridge. Honored as the Best Educator of the Year (2022) and recipient of the Positive Change in Education Award (2024) at the GESS Awards Dubai, he is also among the 50 Future Leaders globally selected by the British Council for its Future Leaders Connect Program (2017).

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## Panelist 4

### Prof. Dr. Muhammad Shahnawaz Adil

Director (Academics, Advanced Studies,  
and Research), Iqra University, Pakistan

Dr. Shahnawaz Adil is a Professor of Management and Leadership with over two decades of experience in university teaching, research, mentoring, and thesis supervision. With professional background in British multinationals and the UK Federal Government, he brings strong global and multicultural perspectives to academia. He serves on key academic and governance bodies, including IRB, BASR, BoS, BoF, doctoral committees, and the Academic Council at Iqra University, and sits on advisory and review boards for 21 universities and journals worldwide. A member of MAP, Dr. Adil holds a PhD in Management from an AACSB- and AMBA-accredited Malaysian university, along with an MPhil, Postgraduate Diploma, a triple-crown accredited MBA, and a BSc (Honours) from the UK. Known for academic excellence, he has earned seven distinctions and a First Class First Position at the Sindh Board of Technical Education. He has supervised three PhDs, over 32 MPhil theses, hundreds of MBA theses, and more than 50 industrial projects.

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## Panelist 5

### Prem Sagar

Special Consultant, School Education and  
Literacy Department, Government of Sindh

Mr. Prem Sagar is a Program Management, Educational Leadership, Partners' Liaison, Innovation and Communication expert having 17+ years of professional experience in designing, implementing, and managing successful educational projects and leading teams with well-reputed national and international organizations, like; USAID, CARE International, Johns Hopkins, Save the Children International, Sindh Education Foundation, and Japan International Cooperation Agency (JICA). Prem's career trajectory ranges from writing, executing, and managing province-wide development programs, especially education-focused programs, policy reforms, partners' liaison, public sector coordination, resource mobilization, leading teams, developing, and implementing communication & advocacy strategies, engaging stakeholders and communities.

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## Panelist 6

### Prof Dr Arshad Saleem

Dean faculty of Education, Languages and  
literacy, University of Sufism and Modern Sciences  
Bhitshah Sindh

I am Prof Dr Arshad Saleem Dean faculty of Education, Languages and  
literacy, University of Sufism and Modern Sciences Bhitshah Sindh.

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Panelist 1



**Neda Mulji**  
Senior Manager, Professional  
Development at Oxford University Press

Panelist 2



**Dr. Peter Polak Springer**  
PhD Associate Professor of  
Comparative Humanities,  
Habib University

Panelist 3



**Kamil Majeed**  
CEO and Principal -  
Nordic International School Lahore

Panelist 4



**Prof. Dr. Muhammad Shahnawaz Adil**  
Director (Academics, Advanced Studies,  
and Research), Iqra University, Pakistan

Panelist 5



**Prem Sagar**  
Special Consultant, School Education and  
Literacy Department, Government of Sindh

Panelist 6



**Prof. Dr. Arshad Saleem**  
Dean faculty of Education, Languages and  
Literacy, University of Sindh and Modern Sciences  
Bhitshah Sindh





# 4<sup>TH</sup> INTERNATIONAL CONFERENCE ON EDUCATION (ICE-2025)

ISBN: 978-969-23055-9-4

## INTEGRATING CURRICULUM, RESEARCH, AND LIFELONG LEARNING IN EDUCATION

Organized by the Department of Education

Panel Discussion Principals & Heads of Schools

Topic:

**CIRCLE: CURRICULUM, INNOVATION, AND RESEARCH  
FOR COLLABORATIVE LEARNING IN EDUCATION**

**December 14, 2025**  
(Sunday)

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## Digital Panelist

### Professor Malissa Maria Mahmud

Dean and Professor

Director - Centre for Professional and  
Continuing Education

Malissa Maria Mahmud is passionate about promoting inclusive and equitable access to quality education. Her research focuses on instructional technologies and post-pandemic learning. She has earned recognition for her contributions through publications, conference presentations, and awards for excellence in both research and teaching.

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Workshop for Teachers

## LEADING BEYOND TITLES: THE POWER OF LATERAL LEADERSHIP

December 14, 2025



### Workshop Facilitator

**Seema Khalid**

Regional Professional Development Coordinator,  
Oxford University Press, Pakistan

A certified educationist from Australian Catholic University and Oxford Teachers' Academy tutor, Seema brings diverse experience in teaching and leadership across school and college levels. She has held roles in academic coordination and school management, with a strong focus on staff development and collaborative leadership. Her expertise lies in building student-centered learning environments, strengthening teaching practices, and empowering educators. Known for her professionalism, interpersonal skills, and results-driven mindset, she is committed to fostering respectful, creative, and growth-oriented educational spaces.

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Workshop for Teachers

## TEACHING BEYOND BORDERS: DECOLONIZING CLASSROOM PRACTICES

December 14, 2025



### Workshop Facilitator

**Gillian Ann Rodrigues**

Senior Lecturer and Head Faculty,  
Notre Dame Institute of Education

Gillian Rodrigues is the Head of Faculty and Senior Lecturer at NDIE, where she leverages her extensive experience to focus primarily on academic quality assurance and driving continuous improvement across all institutional programs. In this capacity, she collaborates closely with faculty to ensure curriculum rigor and high standards of delivery. Gillian possesses comprehensive expertise in both instruction and teacher development. Her ongoing doctoral research and academic interests are centered on critical areas of modern pedagogy, including social justice, inclusive practices, and equitable education.

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**AI IN EDUCATION**

December 14, 2025



**Workshop Facilitator**

**Ms. Faiqa Asim**

Senior Lecturer

Faiqa Asim is an innovative educator with 23 years of experience across Sindh, Cambridge, and Aga Khan systems. A TESOL and digital education specialist, she transforms classrooms through research-driven, technology-enhanced pedagogy. As a Senior Lecturer at IoBM, she empowers learners and educators to think critically, adapt, and lead change.

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## SOCIAL AND EMOTIONAL LEARNING IN SCHOOLS

December 14, 2025



### Workshop Facilitator

**Dr. Sana Sadia**

Head of the Department of Psychology and Assistant  
Professor at the Institute of Business Management (IoBM)

Dr. Sana Sadia is the Head of the Department of Psychology and Assistant Professor at the Institute of Business Management (IoBM). She holds a PhD in Psychology from the University of Karachi, along with postgraduate diplomas in Assessments, Counselling and Psychotherapy, and Mind Sciences. An applied behavioral analyst with over a decade of experience, Dr. Sadia specializes in child and adolescent development, neurodevelopmental disorders, and social and emotional learning (SEL). She has conducted numerous teacher and parent training sessions focusing on emotional intelligence, classroom well-being, and inclusive education. Dr. Sadia serves on the Review Board of the Journal of Education and Educational Development (CESD, IoBM) and has presented her research at several national and international conferences. Her work bridges psychology, education, and community well-being—promoting holistic development and lifelong learning.

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## FROM PLAY TO PURPOSE: INTEGRATING CURRICULUM FOR HOLISTIC EARLY LEARNING

December 14, 2025



### Workshop Facilitator

**Amna Hussain**

Quality Enhancement Cell (QEC) Academic  
Coordinator (Pre-Primary Section) HHS School System,  
Visiting Faculty, IoBM

Ms. Amna Hussain has over 22 years of experience as an Early Childhood Education (ECE) specialist, working across public and private sector organizations. She holds an M.Ed in ECE and an MPhil in Teacher Education from the University of Karachi. She has served as an ECCE Coordinator and as a B.Ed/ADE lecturer at the Notre Dame Institute of Education, and has worked as an ECCE Consultant with SELD, UNICEF, and Oxford University Press (OUP). Ms. Amna is the author of First Steps to Early Years Maths (OUP) and The Art Lab (Stallion), and a co-author of the ECCE Provincial Curriculum 2018. She currently works with the HHS School System as the Quality Enhancement Cell (QEC) Academic Coordinator for the Pre-Primary Section, while also serving as a Professional Development Trainer with OUP and a visiting faculty member at IoBM.

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Workshop for Researchers

## BEYOND EITHER-OR: APPLYING MIXED METHODS FOR EDUCATIONAL RESEARCH

December 14, 2025



### Workshop Facilitator

**Dr. Sharik Zamir**

Assistant Professor

I am an Assistant Professor at Sukkur IBA University with 25+ years in teaching, training, and academic leadership. Holding multiple degrees including a PhD in Education, my work advances teacher preparation, technology-enhanced learning, and educational psychology. I remain committed to strengthening educator development and evidence-based practices in Pakistan.

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Workshop for Researchers

## DEVELOPING A RESEARCH PROPOSAL: CONCEPTS, STRUCTURE & ACADEMIC RIGOR

December 14, 2025



Workshop Facilitator

**Dr. Kiran Hashmi**  
Head of Education  
Department, IoBM



Workshop Facilitator

**Dr. Fozia Gulab**  
Assistant Prof,  
Department of Education,  
IoBM

Dr. Kiran Hashmi is a teacher educator, researcher, and Head of the Education Department at IoBM. Her expertise spans research design, curriculum development, teacher competency frameworks, and academic leadership. She has mentored numerous scholars and led several provincial education reform initiatives.

Dr. Fozia Gulab is an Assistant Professor in the Department of Education at IoBM and formerly served as Deputy Director at the Notre Dame Institute of Education (NDIE), Karachi. A dedicated and goal-oriented teacher educator with over eighteen years of experience, she is committed to the personal and professional growth of future educators. Her research focuses on moral and values education, ethics of care, social justice, teaching pedagogies, practicum, and curriculum evaluation. She is deeply passionate about promoting justice, peace, harmony, honesty, and equity in society.

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## STRUCTURAL EQUATION MODELING USING SMARTPLS

December 14, 2025



### Workshop Facilitator

**Prof. Dr. Muhammad Shahnawaz Adil**

Director (Academics, Advanced Studies,  
and Research), Iqra University, Pakistan

Dr. Shahnawaz Adil is a Professor of Management and Leadership with over two decades of experience in university teaching, research, mentoring, and thesis supervision. With professional background in British multinationals and the UK Federal Government, he brings strong global and multicultural perspectives to academia. He serves on key academic and governance bodies, including IRB, BASR, BoS, BoF, doctoral committees, and the Academic Council at Iqra University, and sits on advisory and review boards for 21 universities and journals worldwide. A member of MAP, Dr. Adil holds a PhD in Management from an AACSB- and AMBA-accredited Malaysian university, along with an MPhil, Postgraduate Diploma, a triple-crown accredited MBA, and a BSc (Honours) from the UK. Known for academic excellence, he has earned seven distinctions and a First Class First Position at the Sindh Board of Technical Education. He has supervised three PhDs, over 32 MPhil theses, hundreds of MBA theses, and more than 50 industrial projects.

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**DESIGNING A DATA COLLECTION TOOL FOR  
RESEARCH DEGREES I.E., MS / MPhil / PHD  
DEGREES**

December 14, 2025



**Workshop Facilitator**

**Dr Zafarullah Sahito**

Dean, Faculty of Education,  
Sukkur IBA University

Dr. Zafarullah Sahito is the Dean, Faculty of Education at Sukkur IBA University and Chief Editor of the HEC-recognized SJEST Journal (Y Category). With over 25 years of experience across schools and higher education, he specializes in teacher education, educational leadership, curriculum development, and management. He holds a PhD and Postdoctoral training from the University of Eastern Finland. Dr. Sahito has published over 50 research papers and book chapters, with 1,100+ citations, and has supervised more than 35 MPhil and 30 Bachelor's theses. His research focuses on teacher motivation and job satisfaction, quality education, STEAM education, educational leadership, and teacher professionalism, contributing valuable insights to bridge gaps between policy and practice.

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## DEVELOPING A THEORETICAL / CONCEPTUAL FRAMEWORK FOR RESEARCH

December 14, 2025



### Workshop Facilitator

**Dr. Meher Rizvi**

Associate Professor

Dr. Meher Rizvi is an Associate Professor of Education at the Aga Khan University's Institute for Educational Development with over 30 years of teaching experience across schools, teacher education colleges, and universities. Her research focuses on teacher professional development, professionalism and status, curriculum studies, creative and future-focused pedagogies (including AI in teacher education), diversity and inclusion, and empowering teachers and students.

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## NARRATIVES OPEN DIALOGUE SESSION

<b>Mr. Ahmed Abbas Saya</b>	The Bridge Foundation
<b>Mr. M. Ekhlaque Ahmed</b>	Salim Habib University
<b>Mr. Adeel Baloch</b>	The Citizens Foundation
<b>Mr. Ghulam Issa Khan</b>	Quaid e Azam Govt. School, Darsano Channo
<b>Ms. Shirin Hussain</b>	Sindh Singhar Initiative
<b>Mr. Maj Ejaz Bashir (Retd)</b>	Hunar Foundation
<b>Ms. Rubina Naqvi</b>	TRC (Teachers Resource Center)
<b>Mr. Pervez Afaq</b>	Eduverse Solution
<b>Ms. Rubina Faryal Asif</b>	Al Furqan Welfare Organization
<b>Dr. Kiran Hashmi</b>	CPEC Project

# ***ABSTRACTS***



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## **Categories of Research Papers**

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Research Paper Presentation

Two Minutes Research Challenge

Action Research Gala (Poster Presentation)

Project Display (Edupreneurship)

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# ***Research Paper Presentations***

<b>S. No</b>	<b>Themes</b>
1	Transdisciplinary Learning Designs
2	Curriculum Futures in a Global World
3	Competency-Based Learning Pathways
4	EdTech for Curricular Inclusion
5	Research & Inquiry in Education
6	Ethics in Educational Research
7	AI and the Future of Research
8	Research-to-Policy Pathways
9	Upskilling for the Future Workforce
10	Blended & Hybrid Learning Journeys
11	21st-Century Skills and Quality Teaching
12	Education Across Media, Psychology, Economics & Policy



## *1<sup>st</sup> Theme*



## *Transdisciplinary Learning Designs*

## **Unlocking the Potential of Education in Higher Education: Significance of Research and Inquiry through Allama Iqbal's Perspective**

Dr. Amina Murad, Dr. Muhammad Abid Ali, and Sabahat Anwar

Institute of Business Management

[aminamurad02@gmail.com](mailto:aminamurad02@gmail.com)

*The pursuit of knowledge and understanding lies at the heart of education, serving as a foundation for self- development through intellectual growth, critical inquiry, and societal progress. This study examines the significance of research and inquiry within the framework of higher education through the philosophical lens of Allama Muhammad Iqbal, a distinguished philosopher, poet, and visionary educationist of the modern Muslim world. Drawing upon Iqbal's educational thought, the paper explores how his emphasis on self-discovery (khudi), creative reasoning, and intellectual independence can inform contemporary pedagogical practices. Iqbal envisioned education as a transformative process that cultivates the learner's capacity for critical thinking, creativity, and moral consciousness. Employing a qualitative interpretive approach, this research analyzes Iqbal's literary and philosophical works including his poetry, lectures, and prose to uncover his perspectives on the role of research and inquiry in intellectual and moral development. The findings reveal that Iqbal's conception of education is deeply rooted in continuous questioning, experiential learning, and the integration of reason and intuition. His vision promotes a higher educational paradigm where learners actively engage in conducting research, generating knowledge, reflecting on their experiences, and contributing meaningfully to the collective advancement of society in cultural, scientific, social, financial, art and literature reforms. The study concludes that incorporating research and inquiry-based learning in higher education aligns with Iqbal's call for dynamic selfhood and intellectual freedom. Such an approach not only empowers individuals to become autonomous and creative thinkers but also nurtures socially responsible citizens equipped to address contemporary global challenges. The implications of this research suggest that educators and policymakers should re-envision curricula and pedagogical frameworks to foster a culture of curiosity, investigation, and innovation in alignment with Iqbal's educational ideals. Ultimately, this paper contributes to the growing discourse on Iqbal's educational philosophy by highlighting the transformative power of research and inquiry in shaping holistic, forward-thinking educational systems.*

**Keywords:** Higher education, inquiry, Iqbal, research

## **The Global Perspectives on STEAM Curricula: A Systematic Literature Review on Approaches to Developing 21st Century Skills**

Zafarullah Sahito and Sumaira Zia

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*The changing needs of the 21st century necessitate an educational system that provides students with critical thinking, creativity, collaboration, and problem-solving abilities. STEAM (Science, Technology, Engineering, Arts, and Mathematics) Education, particularly with the integration of multiple disciplines, has emerged as a promising strategy for meeting the demands. However, worldwide variances in curriculum design, implementation, and outcomes highlight the need for a thorough knowledge of different curricula promote 21st century competencies. The purpose of this study is to examine worldwide approaches to STEAM curriculum design, with a particular emphasis on the function of integrated and thematic frameworks in encouraging interdisciplinary learning and skill development. Therefore, systematic LR methodology was employed to guarantee a robust, transparent, and repeatable techniques to focus the processes connected with curriculum designing. Peer-reviewed publications, reports, and case studies were gathered from a variety of databases, including Scopus, Web of Science, Google Scholar and ERIC, to give a comprehensive focused overview of extant research. The inclusion criteria highlighted research on STEAM curricula and teaching practices with demonstrable educational results connected to 21st century skills among learners, whereas the exclusion criteria excluded papers that lacked empirical evidence or relevance to the major constructs of the study. This methodological approach supported a critical review of trends, geographical disparities, and novel curricular integration initiatives. The findings show that thematic curricula that emphasize real-world problem solving and multidisciplinary association are especially beneficial at promoting creativity and critical thinking. Regions with strong policy frameworks and curricular flexibility show higher alignment with 21st century capabilities. These findings emphasize the significance of contextualized and evidence-based thematic curriculum designs that address different related educational needs. This study adds to the field by integrating worldwide viewpoints, identifying gaps, and providing practical recommendations for policymakers, educators, and curriculum designers who want to enhance STEAM education for 21st century skill development.*

**Keywords:** STEAM curricula, 21st century skills, thematic curriculum, interdisciplinary learning

## **Rethinking Small-Scale Schooling: A Critical Look at Microschools in a Global Education Landscape**

Alefiyah Hoshangabadwala  
ALFAAZZ Online School  
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*The fast-changing landscape of global education, one that is driven by technology, shifting workforce needs, and the pressures on traditional schooling, has opened space for new models of learning. One such model is the micro school: a small, flexible learning environment that blends online and in-person elements to create more personalized experiences. This paper explores the idea of micro schools as part of the conversation on the future of curriculum design in a globalized world. It reviews existing literature and discusses how personalized learning, competency-based approaches, and digital tools shape the structure and teaching methods used in micro schools. The paper also looks at examples from different countries and online learning networks to understand how curriculum, assessment, and the role of the teacher change within these small learning communities. These cases show how micro schools attempt to meet students' individual needs while staying connected to broader educational expectations. Instead of presenting micro schools as a straightforward solution, this paper raises important questions about their long-term impact, equity, quality control, and place within national education systems. Are micro schools scalable beyond privileged groups? Can they maintain consistent standards without strong regulation? Do they risk deepening inequalities or fragmenting the curriculum? By examining these issues, the paper encourages a more cautious and critical conversation about the future of micro schools in global education.*

**Keywords:** Learning pods, micro school, personalized learning, student-centered learning



## **Exploring Inclusive Classroom Practices: An in Depth Study on Differentiated Teaching at the Primary Level**

Kanwal Jaffer  
Institute of Business Management  
[kanwaljaffer@hotmail.com](mailto:kanwaljaffer@hotmail.com)

*Nowadays in the state of Education landscape, inclusivity has great significance as it makes necessary personalised approaches like differentiated teaching to meet the diverse learning needs of a student. This action research proposal focuses on differentiated teaching at the primary level while exploring inclusive classroom practices. Identifying the importance of catering to diverse student needs, the study intends to delve into the strategies, impact and challenges encountered through differentiated teaching. The proposal seeks to investigate the implementation of differentiated teaching in real classroom settings through an action research approach, informed by theories of constructivism and multiple intelligences. In this action research proposal, the intervention plan involves iterative cycles of implementation, data collection, analysis, and reflection, with the goal of informing practice and contributing to a collective understanding of effective differentiated instruction. The proposal underscores the importance of collaborative learning communities in advancing inclusive classroom practices, ultimately aiming to enhance the quality of education for all learners.*

**Keywords:** Personalised learning, constructivism, inclusivity, differentiated teaching

## **Enhancing Middle School Students' Comprehension Skills Through Collaborative Learning with Google Docs: An Action Research**

Lubna Ahmed

Institute of Business Management

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*In the light of modern teaching pedagogies, this action research designed to investigate the role of Google Docs as a collaborative tool in order to boost the comprehension skills in Sixth Graders along with their reader Treasure Island written by Robert Louis Stevenson. This whole procedure was based on three cycles. Starting from group work, it led to specific roles for the group members and wrapped up with individual work. The study was set on the specific objectives to enhance comprehension skills by fostering collaboration and critical thinking through structured interventions. Data for this research was collected through different sources like pre and post assessments, critical buddy observation, teacher's log and reflective journal and rubric to evaluate via mixed method. The results were quite evident and showed effective and significant improvement in students' comprehension skills. The findings displayed the active participation of groups and strong interpretation of text that followed by the robust command in textual comprehension. Beyond the time constraints limitation, Google Docs turned the table and proved its presence as the most effective mode to enhance comprehension abilities in our digital natives. The study of this procedure would be helpful to widen the role of technology in teaching pedagogies that promote the learning competencies of the 21st century learners. This research wrapped up by addressing diverse learners needs and opened the new ways of constructive collaboration to enhance the role of teachers in the modern classroom setup.*

**Keywords:** Google docs, comprehension skills, collaborative tool, action research

## **A Study of the Challenges Faced by Teachers of Rural Areas of Dadu District**

Ayaz Ahmed Babar, Shazia Babar, Pirah Babar, Ahmed Ali Babar  
School Education & Literacy Department, Govt. of Sindh

*Teachers in rural government schools play a crucial role in shaping the educational foundations of underprivileged communities. However, those working in remote areas face a wide range of personal and professional challenges that hinder effective teaching and learning. This study explores the difficulties encountered by both male and female teachers in government schools across the rural areas of Dadu District, Sindh, Pakistan. A mixed-method approach was used, combining quantitative survey data from 40 teachers (20 male and 20 female) with qualitative observations. The findings indicate that teachers suffer from poor infrastructure, limited teaching resources, transportation issues, safety concerns (especially for female staff), low salaries, administrative negligence, and inadequate training opportunities. Gender-based disparities were also noted, with female teachers more affected by sociocultural constraints and mobility problems. The study concludes that comprehensive reforms—focusing on teacher support, school infrastructure, and rural education policy—are essential for improving educational quality and teacher retention in rural Sindh.*

**Keywords:** Dadu district, gender differences, rural education, teacher challenges, government schools, Sindh.

## **Exploring In-Service Teachers' Perceptions of Formative Assessment in Science: A Qualitative Study in Government Schools of Azizabad, Sukkur**

Arzan Afshan Qureshi, Dr. Syed Tanveer Ahmed Shah, Yasir Ishaque, BiBi Bismah Shah  
Sukkur IBA University (Department of Education)  
[arzan.mphils25@iba-suk.edu.pk](mailto:arzan.mphils25@iba-suk.edu.pk)

*This qualitative phenomenological study explores the perceptions of in-service science teachers working in government schools in Azizabad, Sukkur, Pakistan, regarding formative assessment and its influence on science learning. The research investigates how teachers understand and implement formative practices, the pedagogical strategies they prefer, and the major barriers and facilitators that shape effective assessment in low-resource, context-specific environments. Using purposive sampling, experienced science teachers were selected, and structured interview data were analyzed through Braun and Clarke's (2006) six-phase thematic analysis model. Trustworthiness was ensured through triangulation, member checking, and detailed contextual documentation. Findings reveal that teachers consider formative assessment essential for real-time learning and value interactive, low-stakes strategies such as think-pair-share, exit tickets, concept mapping, and peer feedback. However, they face significant obstacles, including limited instructional time, overcrowded classrooms, scarcity of teaching and assessment resources, inconsistent practical training, and the dominance of summative assessment reinforced by school priorities and structural limitations. The study highlights the need for institutional reforms, targeted teacher education, improved resource provision, and policy support to strengthen formative assessment practices. Insights from the research provide guidance for school leaders and policymakers to enhance instructional quality, student engagement, and alignment between policy and classroom realities in under-resourced Pakistani science classrooms. This paper offers original value by being the first qualitative phenomenological investigation into formative assessment experiences of in-service teachers in rural Pakistani science contexts, identifying context-specific themes, and proposing practical directions for adapting global assessment theories to local needs and informing future professional development.*

**Keywords:** Formative assessment, science education, low-resource school contexts



## *2<sup>nd</sup> Theme*



## *Curriculum Futures in a Global World*

## **The Impact of Artificial Intelligence in Teacher Education Program: Opportunities, Challenges, and Ethics**

Dr. Safia Urooj, Muhammad Anwer and Afzal Husain

Karachi University

[anwermuhammadfaani@gmail.com](mailto:anwermuhammadfaani@gmail.com)

*The rapid integration of Artificial Intelligence (AI) into teacher education has reshaped how future educators learn, practice, and engage with pedagogical processes. This research study explores the expanding opportunities, emerging challenges, and critical ethical considerations surrounding AI adoption in teacher training programs. A quantitative research design was adopted, utilizing a survey administered to 150 randomly selected teachers. Data were statistically analyzed through SPSS to ensure reliability and to explore key patterns. AI-powered tools offer significant advantages, such as adaptive learning systems that personalize instruction, automated assessment mechanisms that enhance feedback quality, and intelligent tutoring systems that support pre-service teachers in developing instructional competencies. Moreover, data-driven insights allow teacher educators to design evidence-based interventions that foster reflective practice and improve learning outcomes. Despite these opportunities, the adoption of AI also presents substantial challenges. Issues related to data privacy, algorithmic bias, and over-reliance on automated decision-making may compromise equitable learning environments and reduce teacher autonomy. Additionally, disparities in technological infrastructure across institutions create unequal access to AI-enhanced training, further complicating implementation efforts. Ethical concerns—including transparency, accountability, and responsible use—remain central to ensuring that AI strengthens, rather than undermines, the humanistic core of teaching. As teacher education programs increasingly incorporate AI-driven tools, they must adopt robust policies that promote ethical literacy, critical digital competence, and culturally responsive pedagogical practices. Overall, this study underscores the need for a balanced approach that harnesses AI's transformative potential while safeguarding professional integrity, equity, and the well-being of both educators and learners.*

**Keywords:** Accountability, artificial intelligence, ethics, teacher education

## **Investigating the Role of Educational Technology in Enhancing Curriculum Design for Global Learners and Supporting Lifelong Learning Opportunity**

Dr. Zahid Sahito

Shah Abdul Latif University Khairpur

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*This paper explores the impact of educational technology (EdTech) on improving the curriculum design among global students and to facilitate lifelong learning. As digital tools have become more integrated in the teaching and learning process, there has been a need to know how it affects different areas of the education process such as flexibility, engagement, accessibility, personalized learning as well as enhancement of lifelong learning. The study uses a quantitative survey that was conducted on 200 learners in different regions to investigate the impact of EdTech tools on their lives and learning. According to the results, it is evident that flexibility is made possible by EdTech as learners can study at their pace and read materials anywhere. Moreover, interactive technologies promote greater engagement rates, whereas the adaptive learning system helps to develop individual interaction with education. Another implication of EdTech in the study is the ability to offer lifelong learning, which is essential in career advancement and personal wellbeing. The findings imply that EdTech is crucial in influencing the current education and rendering it more accessible, interactive, personalized to meet the individual requirements of learners, thereby enabling a lifelong learning among the heterogeneous groups of learners.*

**Keywords:** Adaptive learning systems, curriculum design, digital learning, educational technology, global learners, lifelong learning, flexible learning, personalized learning

## **From Classic Texts to Digital Relevance: AI as a Catalyst for Quality Teaching and 21<sup>st</sup> Century Competencies**

Seema Khalid & Somair Mazhar Qureshi

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*Artificial intelligence is reshaping the landscape of quality teaching by enabling educators to embed 21st-century skills into language learning. In an era dominated by digital media and visual storytelling, traditional literature often struggles to maintain relevance for students. This research explores how AI-driven tools, combined with the teaching of Shakespeare's works, can foster critical thinking, collaboration, creativity, and digital literacy skills essential for success in the 21st century. By leveraging technology to reimagine engagement with classic texts, educators can create adaptive and culturally responsive learning environments that go beyond conventional methods. The study employs a mixed-methods approach, integrating qualitative and quantitative techniques to examine innovative strategies for AI integration in literature classrooms. The study investigates innovative strategies for integrating AI into literature classrooms, focusing on how digital tools can transform Shakespeare from a static text into an interactive, multimodal experience. with statistical and thematic analysis used to measure learning gains and engagement. Approximately 100 secondary and higher secondary students and 50 English literature teachers will participate. This approach not only enhances comprehension and interpretation but also aligns with global educational standards by promoting intercultural competence and technological fluency. In a world where digital art and AI-generated content dominate creative expression, teaching literature through AI ensures its continued relevance and appeal for modern learners. The findings aim to advance the discourse on quality teaching by demonstrating how AI can bridge the gap between canonical texts and contemporary learning needs. Ultimately, this study underscores the importance of pedagogical innovation in equipping students with creativity, adaptability, and problem-solving skills required in an era defined by constant change.*

**Keywords:** Artificial intelligence, creativity, digital literacy, Shakespeare



## **Integrating Artificial Intelligence in Early Childhood Education: Enhancing Learning through Technology**

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*Artificial Intelligence (AI) is reshaping educational practices worldwide, with increasing implications for Early Childhood Education (ECE). This paper investigates the potential of AI to enrich young children's learning experiences through adaptive technologies, intelligent tutoring systems, and interactive digital applications. It examines how AI-driven tools support personalized learning pathways, enhance engagement, and foster creativity by responding to individual learner needs in real time. The evolving role of ECE teachers is explored, particularly in facilitating AI-supported learning while maintaining developmentally appropriate practices and ensuring human-centered interaction. To demonstrate practical application, the study presents a case study from an early year's school in Karachi, showcasing how AI-based feedback and assessment tools improved instructional decision-making and supported children's learning outcomes. The findings highlight both the opportunities and challenges associated with integrating AI in early learning environments, emphasizing issues of digital readiness, teacher training, and ethical considerations. The paper concludes with recommendations for educators and policymakers aimed at promoting safe, equitable, and effective AI adoption in ECE settings, ensuring that technological advancement aligns with holistic child development principles.*

**Keywords:** Artificial intelligence, early childhood education, technology integration, personalized learning

## **The Impact of Blended Learning on University Students' Academic Performance**

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*Blended learning is a teaching approach that combines traditional classroom learning with e-learning elements. It offers flexible access to diverse learning for the better engagement of students by using online tools and resources they are already using or with which they are familiar. This approach became widely accepted in Pakistan during the time of COVID-19 when education was disrupted due to the pandemic. Traditional classes were totally shifted to digital learning. This sudden shift forced both students and teachers to utilize digital platforms, online lectures and e-learning tools. The purpose of the study is to investigate the positive and negative impacts of blended learning on students' academic performance. This research used a quantitative approach utilizing survey questionnaires to collect the data. A purposive sample was made of 100 students from a public sector university from different departments. After an in-depth analysis of the results, it has been revealed that blended learning is more flexible, has made students more independent in their learning, and has improved their overall academic performance. Thus, this study concluded that blended learning improves students' motivation, understanding and time management but some challenges like internet access and digital skills are still problems today. So if teachers and institutions ensure proper support for blended learning, it can enhance students' academic performance and foster student learning outcomes.*

**Keywords:** Blended learning, e-learning, academic performance, student motivation, digital

## **Reimagining Pedagogical Leadership in the Age of AI**

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*The accelerating adoption of artificial intelligence is transforming the landscape of pedagogical leadership, redefining the responsibilities, competencies, and ethical obligations of school leaders. Recent empirical evidence indicates that while AI offers opportunities for personalized learning, data-driven decision-making, and professional development, many leaders remain unprepared, constrained by traditional managerial models, and uncertain about integrating AI responsibly (Gamarra-Mendoza & Brito-García, 2023; Berkovich, 2025). This presentation examines the emerging concept of AI-aware pedagogical leadership, drawing on global studies that highlight both potential and challenge. Findings show that principals' digital and instructional leadership significantly shapes teachers' AI adoption, digital self-efficacy, and innovation capacity (He, Guo, & Abazie, 2024; Berkovich, 2025), while conceptual analyses emphasize the need for ethical governance, adaptive decision-making, and distributed professional learning cultures (Khan, 2024; Dignum, 2021; Karakose & Tülübaşı, 2024). Concurrently, research warns of ethical and operational risks, including algorithmic bias, data privacy concerns, surveillance, and inequities, underscoring the necessity of human-centered policies and leadership frameworks. Synthesizing these strands, the presentation argues that effective AI-aware pedagogical leadership must be transformational, ethically grounded, digitally competent, context-responsive, and collaborative. Special attention is given to resource-constrained contexts, where infrastructure limitations and policy gaps amplify challenges but also reveal opportunities for AI to enhance instruction, reduce administrative burdens, and strengthen teacher agency. Ultimately, the presentation proposes a framework for AI-aware pedagogical leadership that leverages AI as a partner in education, reinforces core human pedagogical work, and prepares schools to meet the ethical, social, and instructional demands of the AI era.*

**Keywords:** AI learning, e-learning, academic performance, pedagogical leadership

## *3<sup>rd</sup> Theme*



## *Competency-Based Learning Pathways*



## Data Literacy as a Core Competence for 21st-Century Educators

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*The research was conducted with the aim of exploring the notion that data literacy has become an integral competence for 21st-century educators while emphasizing evidence-based informed decision-making. An exploratory qualitative approach was adopted to tap into educators' experiences to discover how they feel, think, and use data in their day-to-day teaching and learning. Data were derived from educational leaders through semi-structured interviews who serve at different school management levels. Participants had a consensus that data literacy is beyond numeric, and is also linked with students' behavior, their learning profiles, teacher performances and their relationship with students. Thematic analysis was undertaken to identify patterns, which revealed three overarching trends. The first trend indicated that the educator leaders acknowledge the significance of data literacy. However, they admitted that their inability to infer meaningful insights from data hinders their decision-making, and often results in ill-informed decisions. The second trend revealed that leaders engage with data as per their individual leadership styles and their specific contexts. The last overarching pattern shed light on systemic barriers, such as lack of time, resources, and professional development opportunities, that eventually culminate in ineffective, or delayed decision-making. Nonetheless, leaders acknowledged the importance of data literacy and welcomed the idea of developing data literacy as a skill for effective leadership practices. The study underscored that data literacy is essential for informed decision-making, which is at the core of effective leadership. The way forward suggests having customized professional development sessions for educational leaders, tailored to their contexts, and establishing leadership support systems to promote a culture of informed, reflective, and evidence-based decision-making within schools.*

**Keywords:** Decision making, data literacy, educational leadership, reflection

## **The Effect of Rubrics on Enhancing Students Speaking Skills in Urdu**

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*This research finds the effects of using rubrics on enhancing student speaking skills in Urdu language. The research is based on constructivist learning theory, it will focus on the students' involvement, reflection, and self-assessment. "Rubric-referenced assessment provides students with clear criteria for evaluating their own work, which helps them understand performance expectations and promotes self-regulated learning." (Andrade & Du, 2005, p. 10). A group of 10 students in grade 5 will participate in the study. For the outcome, a pre-test and post-test will be conducted to measure the speaking skills, performing on fluency, proficiency, pronunciation, vocabulary, expression, and confidence. These rubric assessments practices will be implemented over 10 days, during which students will receive the opportunity for self-reflection. The findings indicate that students' skills improve particularly after using rubrics. The level of overall components will increase in the post-test. The perspective of students also revealed that rubrics helped them increase their progress and performance. The study results in rubric-based assessment being an effective tool for enhancing speaking skills in Urdu Language.*

**Keywords:** Assessment, rubrics, speaking skills, Urdu language

## **Improving Reading Comprehension through Chunking and Close Reading Strategies**

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*Competency-Based Education (CBE) is widely implemented in many schools, yet its impact on specific language skills, especially reading comprehension—remains under-researched. This case study examines how targeted instructional strategies can support struggling readers within a Grade 5 CBE English classroom. Reading comprehension is a critical literacy skill that influences learning across subjects, but many Grade 5 students experience difficulty demonstrating deep understanding, particularly when required to write responses (CRQs) to multi-paragraph or even age appropriate lengthy texts. Existing research suggests that chunking and close reading—breaking text into manageable parts and engaging analytically with vocabulary, structure, and meaning—can significantly improve comprehension, retention, and written responses. This case study applies to a structured, research-based intervention using these strategies with a group of identified struggling readers. The intervention includes guided reading through chunking and close reading, along with pre- and post-assessments. Student performance will be observed to identify the efficacy of these strategies within a Competency Based Learning Classrooms.*

**Keywords:** Chunking and close reading, guided reading intervention, reading comprehension

## **Designing a Metacognitive Skills Enhancement Tool for English Language Learning in Undergraduate Programs across Public and Private Universities in Karachi**

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*The purpose of this study was to develop a metacognitive skills enhancement tool (MSET) a reliable and valid self-assessment tool, that will help students to regulate, plan, organize and enhance their metacognitive skills in English language learning, as English language (EL) has been a challenging aspect for students in Pakistan because of multi-language cultural backgrounds that challenges students to acquire fluency and clarity towards the composition, structural development and proper communication in EL. Initially, students' current metacognitive awareness status (MCA) was assessed by collecting data from 50 university students. The MAI tool was adopted to assess MCA. Students showed a moderate level of MCA. The study follows Kumar's (2015) six-step process for tool development to validate the tool's effectiveness. The research embeds pragmatic philosophy and adopts a quantitative research design. The study's target population was students from public and private universities in Karachi. The first step in tool development was item construction, based on the literature review and field interviews with six subject specialists. 83 items were generated and subsequently shared with a content validity panel of six national and international experts; 53 items were retained. For reliability, the tool was pilot-tested with 116 students from public and private universities. The data were analysed in SPSS to assess the tool's reliability; its internal consistency was observed. The  $\alpha$  value of .957 indicated excellent internal consistency. The exploratory factor analysis (EFA) data comprised 215 students from public and private universities. The KMO value was 0.902, indicating excellent suitability of the tool, and six factors were extracted. Confirmatory Factor Analysis (CFA) confirmed the three-factor model of the MSET with acceptable model-fit indices ( $\chi^2/df = 2.18$ , RMSEA = .074, CFI and TLI within acceptable ranges). CFA was conducted using SmartPLS 4, EFA and CFA confirmed the existence of three scales. Findings show that the tool was valid and psychometrically sound, highly reliable, and valid. CFA confirms the model fit and strong item loadings, which will help students enhance their metacognitive skills in EL and promote independent, self-assessed learners in the future.*

**Keywords:** English language, metacognitive skills, self-assessment tool, tool development



## **Every Child Can Learn: Implementing a Three-Tiered Support System in Schools**

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*The Learning Support Program introduced by Aga Khan Education Service, Pakistan (AKES, P) provides a comprehensive framework to address diverse student learning needs through structured interventions, monitoring, and support mechanisms. The program emphasizes effective school leadership, qualified teachers, enriched curricula, and differentiated instruction supported by standardized lesson plans and resource packs. Professional development is embedded within the framework to strengthen pedagogical skills, align instruction with assessment, and ensure consistent classroom practices. The program adopts a three-tiered model: Tier 1 focuses on differentiated classroom instruction for all students; Tier 2 provides targeted remedial support for at-risk learners through inclusion and withdrawal sessions; and Tier 3 offers intensive, individualized interventions for students significantly below grade level. Additional strategies include child-to-child support, accountability measures for stakeholders, effective monitoring of attendance and teaching quality, and the establishment of community-based learning support centres. This holistic approach not only addresses academic gaps but also strengthens school-home partnerships, fosters student responsibility, and builds a culture of collective accountability. The framework highlights the importance of timely interventions, collaborative planning, and community engagement in ensuring equitable, high-quality education for all learners.*

**Keywords:** Learning support program, differentiated instruction, monitoring and support, three-tiered model

## **Influence of Teachers pedagogical approaches on the development of students 21st century skills in higher education**

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*This study aims to analyze the influence of different pedagogical approaches used by teacher in higher educational institutes on the development of 21st century skills in undergraduate students. Higher education institutes are places where students prepare not only academic knowledge but also with essential 21st century skills. Teacher's pedagogical strategies play an important role to align students with the demand of modern educational skills. This study aims to investigate the influence of pedagogical approaches such as collaborative, instruction based and inquiry based pedagogies on the development of student's 21st century skills at higher educational level. These pedagogies are used by instructors in higher education so there is a need to investigate the significance of these approaches to enhance the 21st century skills in students at higher education. This study is quantitative and follows survey research design. The data has been collected from undergraduate students as population of this study by close ended questionnaire with the use of Google form by selecting a convenient sampling technique. Sample size of this study is 100 undergraduate students. The collected data were analyzed through SPSS version 2022 software. Regression analysis used to test hypotheses and summarize the findings.*

**Keywords:** Teachers, pedagogical approaches, 21st century, skills

## *4<sup>th</sup> Theme*



## *EdTech for Curricular Inclusion*

## **Empowering Parents through AI and Digital Literacy: Bridging the Language Gap for Enhanced Learning**

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*The increasing role of technology, AI, and digital media in education has created new opportunities for learning, yet many parents—especially those with limited English proficiency—struggle to support their children in this digital environment. In Pakistan, the Digital Language Bridge Initiative addresses this challenge by enhancing parents' English skills and digital literacy through AI-powered tools such as ChatGPT, Google Classroom, and WhatsApp. Targeting non-teaching and support staff who are also parents, the initiative strengthens the home-school connection and enables more meaningful parental involvement in children's learning. The project was implemented in phases, beginning with surveys to understand parental challenges in English support. This was followed by hands-on ICT training, where participants learned to use ChatGPT's voice-enabled features, making AI accessible even for low-literate users. Grade 5 parents received additional online training focused on interactive language learning. Pre- and post-training surveys, along with feedback videos, helped measure shifts in confidence and engagement. The initiative led to increased parental confidence, improved accessibility for non-readers, and greater collaboration between home and school. Despite challenges such as hesitation toward AI and limited device access, simplified training and offline support proved effective. The project's low-cost, scalable model offers promising potential for expansion across other schools and younger grade levels.*

**Keywords:** AI in education, digital literacy, language learning, parental engagement



## **Challenges Encountered by Secondary School Teachers in Integrating Digital Tools for 21st-Century Learning Environments**

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*This study examines the challenges educators face when integrating digital tools to support 21st century learning environments. Despite the recognized importance of educational technology, many teachers struggle to effectively implement digital resources in their classrooms, potentially compromising instructional quality and student engagement. Using the Technological Pedagogical Content Knowledge (TPACK) framework and the Substitution, Augmentation, Modification, and Redefinition (SAMR) model as theoretical foundations, this research investigates how teachers' technological and pedagogical knowledge influences their capacity to meaningfully integrate digital tools. The study employed a qualitative research design, conducting semi-structured interviews with ten secondary school teachers selected through purposive sampling from two institutions. The interviews explored participants' digital competencies, institutional support systems, professional development opportunities, and classroom implementation experiences. Data were analyzed using thematic analysis techniques. Findings revealed four primary barriers to effective technology integration: (1) inadequate technological infrastructure and unreliable internet connectivity, (2) insufficient professional development with limited practical training opportunities, (3) time constraints and excessive workload demands, and (4) misalignment between available digital tools and curricular requirements. Additionally, disparities in students' access to devices emerged as a significant factor undermining consistent digital integration efforts. The study concluded that successful technology integration requires a multi-faceted approach encompassing robust technological infrastructure, sustained professional development programs, and strong administrative support. Future studies may consider adopting a quantitative approach to replicate findings to new settings.*

**Keywords:** 21st-century learning, digital pedagogy, educational technology, samr model

## **Impact of Blended Learning on Students' Engagement and Academic Achievement in Secondary Schools**

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*Blended learning combines traditional classroom instruction with digital learning tools, creating a flexible environment that enhances student participation and interaction. This approach is increasingly linked to improved student engagement and higher academic achievement by offering personalized learning opportunities and continuous access to learning resources. The objectives of the study were a) to find the level of Blended Learning, Students' Engagement and Academic Achievement, b) to measure the correlation among Blended Learning, Students' Engagement and Academic Achievement, c) to examine the effect of Blended Learning on Students' Engagement and Academic Achievement in Secondary Schools. All of the public and private secondary schools in the Lahore district were represented in the population. The five-point Likert scale type questionnaire was deemed to be effective for data collecting. The tool was validated using by professional opinion and reliability was checked by pilot testing. In order to assess the reliability of the instrument, Cronbach's Alpha was determined. The overall score of the student's instrument was 0.912, while the minimum reliability requirement for Cronbach's Alpha is 0.75. This demonstrated the instrument's reliability. Descriptive and Inferential statistics were used in SPSS to analyze the data. Correlation analysis revealed significant positive relationships among blended learning, student engagement, and academic achievement, suggesting that higher use of blended learning is associated with improved engagement and better academic performance. Regression results showed that blended learning has a significant positive effect on both student engagement and academic achievement, demonstrating that increased implementation of blended learning practices contributes directly to enhanced participation and higher academic outcomes in secondary schools. It is recommended that Schools should strengthen the implementation of blended learning by providing teachers with regular training and digital teaching resources, ensuring that technology-enhanced instruction effectively boosts student engagement and academic achievement.*

**Keywords:** Blended learning, students' engagement, academic achievement, secondary schools

## **Bridging the Digital Divide: Teachers' Readiness for Technology-Driven Inclusive Classrooms in Resource-Restricted Schools**

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*The rapid growth of educational technologies (EdTech) offers significant opportunities for inclusive teaching and learning, yet teachers' readiness to implement these tools effectively in resource-constrained schools remains limited. This study examines teachers' preparedness for technology-driven inclusive classrooms in middle- to lower-socioeconomic area schools, focusing on the gap between awareness and practical application. Using a mixed-methods approach, data were collected through surveys, classroom observations, and semi-structured interviews with teachers from multiple low- and middle-income schools. Key dimensions of readiness assessed include technological proficiency, access to digital resources, attitudes toward EdTech, and confidence in supporting learners with diverse needs. Findings reveal a pronounced gap between teachers' understanding of inclusive EdTech and their ability to integrate it into daily teaching, primarily due to limited resources, insufficient training, and infrastructural constraints. The study emphasizes the need for targeted professional development, school-level support, and policy interventions to equip teachers with the skills and tools necessary for inclusive, technology-enhanced instruction. These insights can guide education stakeholders in promoting equitable learning opportunities for all students, even in under-resourced settings.*

**Keywords:** EdTech readiness, inclusive classrooms, resource-constrained Schools

## **Student Experiences of Audio-Visual Flipped Teaching: Exploring Challenges in a Digital Learning Environment**

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*Audio-visual flipped teaching has become an increasingly adopted digital learning approach in higher education. However, its effectiveness depends heavily on students' ability to change from being passive recipients of information to becoming self-directed learners. This qualitative study explores the challenges that undergraduate students at a public university in Sindh face when using audio-visual flipped classroom techniques. Using a case study research design, eight students were selected through purposive sampling participated in semi-structured interview to gain an in-depth understanding of their learning experiences. The findings of this study reveal two major categories of challenges i-e techno-pedagogical challenges and assessment and evaluation related barriers. Students engagement with pre-class audio-visual materials was hampered by factors such as limited familiarity with digital tools, inconsistent internet connectivity, inadequate access to technological resources, and difficulty adjusting to the flipped format. In addition, unclear assessment processes, insufficient teacher guidance, and limited opportunities for self-reflection were identified as key obstacles that disrupted students' ability to regulate and monitor their learning. Although audio-visual flipped teaching promotes autonomy and interactive in-class engagement, the findings indicate that its potential is constrained in contexts where institutional support, digital readiness, and pedagogical clarity are insufficient. Moreover, practical implications highlight the need for strong technological infrastructure, capacity-building programs for instructors, and the development of transparent assessment frameworks to enhance the implementation and sustainability of audio-visual flipped learning in digital higher education environments.*

**Keywords:** Audio-visual flipped teaching, digital learning environment, student experiences, techno, pedagogical challenges



## **Role of School Leader in Management of Educational Crisis in Public Secondary Schools of Larkana Division, in Sindh**

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*This study examines the role of school leadership in educational crises management, focused on public secondary schools in the context of Division Larkana, Sindh. The study analysis factors such as the impact of school leaders' gender-based performance, the influence of leadership training specifically designed for educational crisis management and contextual comparison of educational crisis management through PPRR Model. School leadership requires prompt decision making, interpersonal sensitivity and sustained resilience in times of crisis whether natural disasters, health emergencies, or socio-political disturbance. Though, in Pakistan, frameworks related to professional development often highlight administrative responsibilities while neglecting mental health care and sustainable resilience. This research applied a quantitative approach; data of study were collected through an adapted survey questionnaire administered to secondary school head teachers in the Larkana, Division and analyzed through SPSS software, applied t-tests and ANOVA to test the hypothesis. A stratified random sampling technique was used; the sample size comprised 250 respondents. A pilot test was conducted for validation of study and Cronbach's Alpha test was conducted to ensure reliability. Results indicated that secondary school headmasters in Larkana Division showed high level awareness of crisis management, mostly in evaluation process and sustaining accurate emergency contact database. Results of tests revealed no significant variation in crisis management performance across gender, training standard, or district context. Conversely, female headmasters to some extent overtook males in some areas, emphasizing the significance of gender-inclusive leadership. In the dimension valuation, reactive preparedness appeared as the solidest factor as compare to preventive and proactive planning. Gaps were identified in areas including formulation of comprehensive disaster plans, regular drills for emergency preparation, adopting modern methods for preserving supplies during emergency, and updating regular response framework. The findings of the research suggest application context-specific school leadership design-based training modules which includes crisis simulations and emotional capacity. It helps addressing gendered factors for leadership requirements in strengthening social solidarity, and successful disaster-resilient arrangement. Such measures are key factors strengthening institutional strength, ensuring sustained educational continuity, and building lasting school resilience in time of crises.*

**Keywords:** School leadership, educational crisis management, public secondary schools, Larkana division, PPRR model.

## *5<sup>th</sup> Theme*



## *Research & Inquiry in Education*

## **Using Assessment Data to Examine Learning Variations across Grades and Districts: A Comparative Study of Sukkur and Khairpur**

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*This study investigates variations in student learning across grades and districts by analyzing achievement patterns in English, Mathematics, Science, and Sindhi among publicly supported schools in Sindh. Specifically, it compares student performance between Sukkur and Khairpur districts at Grade IV and Grade VII levels to examine developmental progress and persistent learning gaps. A quantitative research design was employed using secondary data from large-scale student assessments. Descriptive and inferential statistical techniques were applied to explore grade-wise, district-wise, subject-level, and gender-based differences in achievement. The findings reveal clear variations in student performance across both districts and grade levels. While some improvement is observed across grades, notable disparities persist in foundational competencies, particularly in literacy and numeracy. Although overall achievement values fall within an average range, the differences reflect underlying challenges related to instructional practices, teacher capacity, resource allocation, and contextual factors influencing learning outcomes. By comparing two geographically close yet educationally diverse districts, the study highlights how local context affects curriculum implementation and student achievement. The results emphasize the importance of data-driven educational planning, continuous assessment, and targeted instructional support. Strengthening teacher development and ensuring equitable distribution of learning resources are essential to address learning gaps. Overall, the study demonstrates the value of assessment data in improving teaching practices, curriculum alignment, and evidence-based educational decision-making.*

**Keywords:** Assessment data, curriculum effectiveness, district-wise comparison, student performance

## **Rethinking Pedagogy: A Participatory Research on the Need of Re-Envisioning the Schooling to Nurture Engaged Citizens in Pakistani Context**

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*One of the major objectives of an educational system is to produce useful and engaged citizens in the society. This participatory research was conducted to find if the present curricula and schooling system in Pakistan provides the sufficient ground for engaged citizenship and to pave an alternative schooling approach that could serve the purpose. Content analysis of the present curricula, classroom observation, reviewing the National Educational Policy and opinion and interview of accessible personnel from the education field was taken. Purposive sampling was done to select 15 elementary school heads and headmistresses for in-depth interviews followed by thematic analysis of the transcripts highlighting the flaws and failures of the current system. Evidence from classroom observations and review of the curricula indicates that there is a considerable gap between the policy intentions and transmissive practices. Teachers are unprepared to practice democratic pedagogies and outcomes in terms of community engagement are not certain. These findings necessitate transformative reforms to the entire educational system that could cultivate active citizenship and community engagement in the younger generation, ultimately leading to the development of Engaged Citizen Development Model (ECDM), a holistic, student-centered conceptual framework comprised of the content like philosophy, logic, project-based learning, debates, community service, cultural exchange and experiential-reflective pedagogical approach that is perfectly aligned with UN-SDG.*

**Keywords:** Active citizenship, community engagement, democratic pedagogy, transmissive practices.

## **Exploring the Experiences and Challenges of B.Ed. Student-Teachers: Implementing Action Research to Enhance Professional Development in Classroom Setting**

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*This study explores how action research can bridge the gap between theoretical learning and practical teaching, promote educational innovation, and support professional development among B.Ed. student-teachers at private universities in Karachi. Using a qualitative phenomenological approach, the research delves into the lived experiences of student-teachers through in-depth semi-structured interviews to identify barriers and challenges in the effective implementation of action research in real classroom. The findings reveal several key barriers, including a time management, insufficient research skills, difficulty applying research findings in classrooms, and fear of failure. Based on these findings, actionable strategies are proposed, including enhanced research training, dedicated time for research, collaborative action research projects, and a stronger integration of action research into the curriculum to improve the quality of action research in teacher education. The study aims to foster ongoing professional development among future educators, preparing them for the challenges of an evolving educational landscape.*

**Keywords:** Action research, theoretical learning, practical teaching, challenges, professional development



## *6<sup>th</sup> Theme*



## *Ethics in Educational Research*

## **Exploring University Students' Experiences with AI-Generated Text-Based Misinformation and Its Influence on Their Thinking Skills**

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*This study examines how university students in Karachi experience and respond to AI-generated text-based misinformation and how such encounters influence their thinking skills. As generative AI tools increasingly permeate higher education, students face growing difficulties in assessing the credibility and accuracy of digitally produced content. The purpose of this study was to explore the cognitive, emotional, and strategic ways students interpret and navigate AI-generated misinformation, with a particular focus on their digital literacy and critical thinking abilities. A phenomenological approach was employed, using semi-structured interviews with university students, and the data were analyzed using Braun and Clarke's six-step thematic analysis. The analysis generated thirty-six initial codes that were refined into broader themes aligned with the research questions. Findings indicate that while students consider AI a convenient academic aid, they frequently struggle with misinformation, excessive reliance on AI tools, and insufficient institutional guidance. Students also expressed emotional dilemmas including confusion, guilt, and anxiety regarding the ethical use of AI, an area rarely explored in existing literature. These insights underscore the urgent need for structured digital literacy programs and ethical training within higher education curricula.*

**Keywords:** Academic integrity, AI-generated misinformation, critical thinking, digital literacy

## **Impact of Ethical AI Use on Learning Patterns of Pre-Service Teachers in a Public Sector University in Karachi**

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*This study investigated the impact of ethical Artificial Intelligence (AI) use on the learning patterns of pre-service teachers enrolled in a public sector university in Karachi. As the AI tools are being frequently used in academic tasks such as information search, content generation, assignments and assessment support, ethical considerations, such as transparency, academic integrity, and fairness, have become critical for ensuring learning behaviours that are productive and responsible. We used a quantitative survey design, and collected data from pre-service teachers enrolled in B.Ed. program at a public sector university in Karachi. Through standardized scales, we measured their ethical AI use (awareness, attitudes, and practices) and learning patterns (deep learning, strategic learning, and surface learning). To analyse data, we conducted both descriptive and inferential analyses, including correlation and regression, and examined relationships between dependent and independent variables. Results indicated that ethical AI use was positively associated with deep and strategic learning patterns. Low ethical AI use was linked with surface learning tendencies, such as over-reliance on AI for ready-made answers and reduced personal effort. We concluded that ethical AI use is not merely a moral and policy requirement but also an emerging pedagogical approach that can promote higher-order thinking and reflective learning among pre-service teachers. Recommendations included integrating ethical AI education into teacher education curricula to develop responsible, reflective, and future-ready teaching professionals.*

**Keywords:** AI literacy, ethical AI use, learning patterns, pre-service teachers

## **Ethical Principles and Challenges in Educational Research**

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*Ethics in educational research play a vital role in maintaining integrity, protecting participants, and ensuring the reliability of findings. This study explores the essential ethical principles and challenges encountered by researchers working with human participants, especially vulnerable groups such as students and minors. Upholding ethical standards safeguards participants' rights and well-being while preserving the credibility of the research process. The study emphasizes the importance of beneficence, non-maleficence, justice, and autonomy as guiding principles for all stages of educational inquiry. A qualitative and descriptive methodology was adopted, focusing on a review of scholarly literature, institutional review board (IRB) protocols, and international ethical guidelines (AERA, BERA). Through case-based analysis, the research examines documented ethical breaches and explores mechanisms to ensure informed consent, confidentiality, and responsible data management. The data collection tools included the examination of IRB consent forms, risk assessment instruments, peer-reviewed journal articles, and professional ethical codes. Case studies were analyzed to identify recurring ethical dilemmas such as data privacy, researcher-participant power imbalance, and the challenges of protecting anonymity in small educational settings. The findings highlight key ethical concerns, including inadequate informed consent, risks of re-identification in qualitative studies, and unequal power relations between researchers and participants. The study also underscores the growing need for secure data handling and transparent reporting practices. Based on these insights, recommendations include implementing mandatory ethics training for researchers, enhancing consent and assent processes for minors, ensuring contextualized IRB reviews, and promoting transparency by requiring detailed ethical sections in all research publications. Future implications suggest that this research can serve as a framework for strengthening ethical accountability in educational studies. By fostering moral awareness and procedural rigor, it aims to build public trust, ensure justice for participants, and enhance the overall quality and social value of educational research.*

**Keywords:** Confidentiality, educational research, ethics, informed consent, IRB, power dynamics, research integrity

## **A Comparative Study of Science Curriculum of Secondary School in Pakistan and Finland: Preparing Learners for the Global Future**

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*This research study compares the secondary school science curriculum of Pakistan and Finland to examine the difference and similarities in their objectives, teaching techniques and assessment strategies. The main goal of this research work is to determine which components of Finland's curriculum could help Pakistan's curriculum to improve their quality in science education. The study follows a qualitative research approach and uses comparative curriculum analysis, based on reviews of about nine articles, seven research papers, a total of sixteen scholarly sources and material that is available online. Science education plays a vital role in the development of the nation because it helps creators, critical thinkers, and skilled individuals who strengthen the economic and technological progress of the nation. The study indicates that Finland's science curriculum is fully student centered, focusing on problem solving skills, creativity, and real-life learning through approaches like phenomenon-based learning. Teachers in Finland have autonomy to adopt the teaching methods according to the need and interest of the students using formative assessment methods to support learning. However, Pakistan's science curriculum continues to be mostly teacher centered and exam oriented. It mainly focuses on theoretical knowledge instead of experimentation or inquiry-based learning. Resources are very limited, teachers are not fully trained, which leads to the dependence on rote learning reduces the opportunities for the students to think critically and improve problem solving skills. The study concludes that Pakistan's curriculum could be improved by integrating some key features of Finland's education system like teacher's autonomy, experimental learning, and formative assessment to design science curriculum more innovative, practical and relevant to modern educational challenges.*

**Keywords:** Comparative curriculum analysis, formative assessment, inquiry-based learning, science curriculum



## **Developing Basic Literacy Skills among Adult Women through Culturally Responsive Pedagogy: An Action Research**

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*Despite national efforts to improve literacy, Pakistan continues to face a high rate of adult illiteracy, particularly among women from lower socio-economic backgrounds. This research study aims to develop basic literacy skills among adult females. To achieve the objective of the present research study researcher used action research design within the quantitative approach. The participants of the present research study were four adult females working as support staff at Begum Nusrat Bhutto Women University Sukkur, who had never attended school and demonstrated no foundational literacy in pre-test. The study aimed to build their basic reading, writing, numeracy, and communication skills using a structured one-month intervention guided by a Basic Literacy Framework by UNESCO that emphasized real-life literacy tasks. Participants attended four one-hour classes each week, with each session focused on one literacy domain. Instruction included reading headlines and simple paragraphs, writing names and short sentences, counting and recognizing numbers up to 1000, performing simple operations, and practicing everyday communication. Data were collected through pre- and post-tests and compared for analysis. The early results indicate meaningful improvement across all domains, suggesting that an action research approach combined with contextualized adult-learning strategies can effectively support literacy development among adult beginners in workplace settings.*

**Keywords:** Adult literacy, daily life literacy, reading skill, writing skill, numeracy

## *7<sup>th</sup> Theme*



## *AI and the Future of Research*

**Adoption Among Higher Education Students in Public and Private Universities: An Integration of Technology Acceptance Model (TAM) and Value-Based Adoption Model (VAM)**

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*The purpose of this study is to understand the determinants that influence the behavioural intention of university students in Pakistan towards the use of Generative Artificial Intelligence (GenAI) in higher education. The study compares the behaviour across the students in public and resource-rich environments of private universities. Grounded in a functionalist perspective, the use of GenAI has academic advantages; however, it also poses certain challenges and limitations for users, making the study of student acceptance crucial. Previous research studied this behaviour using the Technology Adoption Model (TAM), the Value-Based Adoption Model (VAM), and UTAUT2 (Unified Theory of Acceptance and Use of Technology 2), separately; however, this research has integrated the 3 models and combined their overlapping variables, and added the variable of Trust as a mediating variable. This comprehensive framework assesses the dynamic interplay between perceived benefits (usefulness and enjoyment), perceived sacrifices (risk and cost), and environmental factors (facilitating conditions and social influence) in shaping adoption intentions. The quantitative research design gathered the data through a research survey from 100 undergraduate students across selected private and public universities, and was later analysed using correlation, Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM). The final analysis will provide strategic insights for university professors, administrations and policymakers on how to effectively integrate and control the use of GenAI tools, maximising their benefits while mitigating ethical and structural impediments, thereby preparing students for an increasingly digital future.*

**Keywords:** GenAI, higher education, technology adoption

**Abstract ID: ICE25008**

## **Integrating AI in STEAM Education: A Mix \_ Methods study on Teacher Preparedness and Student Outcomes**

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*As artificial intelligence (AI) becomes a bigger part of our world, schools are trying to bring it into science and math (STEM) classes. However, a key problem is that we don't know if teachers feel ready to use these new tools or if it actually helps students learn better. This study aimed to find out how teachers are prepared to use AI in their teaching and to see what happens to students learning when they do. This research is important because it helps schools understand what support teachers need. It also shows if using AI is a good way to improve how students engage with and understand difficult STEM subjects. To achieve the aim of this research mixed-methods approach has been selected to have more significant findings. This means the collection of two types of information has been planned and to survey 250 STEM teachers to get numbers on their confidence and training needs, and depth interviews with a smaller group of 15 participants to hear their personal stories and challenges. The study has planned to look at student grades and feedback to measure their learning outcomes. It is expected anticipated findings to reveal that teachers are excited about AI's potential and by the combination of expected and narrative insights some teacher has been anticipated to feel unsure about how to use it effectively due to a lack of training. Importantly, in classrooms where teachers planned to use AI tools, and to provide comprehensive understanding about the use of AI tools, reveal either support or hinder that students were more interested in the topics and showed improved problem solving skills. In conclusion, study anticipates identifying a strong link between targeted teacher professional development and positive student results.*

**Keywords:** Academic achievements, artificial intelligence, educational technology, stem education

## **A critical Analysis of Pakistan's HEC Vision 2025 Policy Document: A study on Integration of ICT in Higher Education**

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*By encouraging pedagogical innovation, digital access, and international collaboration, the integration of global educational technology has transformed higher education institutions across the Globe. However, there hasn't been much support from clear policy frameworks for the uneven adoption of these technologies in Pakistan. Between 2000 and 2024, Pakistan's national higher education policies addressed integrating global educational technology. This research paper critically examines how effectively Pakistan's HEC Vision 2025 Policy document addresses the ICT integration in higher education and the real practices in HEIs, challenges, and opportunities. The study used a qualitative document analysis approach to consider institutional reports, strategic plans, and government policies released in the last twenty years. The paper noted significant opportunities brought about by technology usage, such as better research networking, more access to digital learning, and adaptable teaching methods. It also exposed long-standing problems, including out-of-date laws, inadequate digital infrastructure, faculty disagreement, and unequal access in urban and rural areas. The research findings highlighted a significant gap between policy intentions and institutional practice, emphasizing the importance of a more flexible, inclusive, and integrated strategy for digital transformation in Pakistan's higher education system. This research offers useful insights for policymakers, academic leaders, and development partners who want to modernize higher education through global educational technology while overcoming contextual obstacles.*

**Keywords:** Artificial intelligence, digital divide, ICT integration, LMS



**Perceptions to Principles: Capturing Stakeholder Voices (Parents, Teachers, Leaders, and Students) to Co-Create Culturally Relevant AI Policy in Pakistan**

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*From Perceptions to Principles: Capturing Stakeholder Voices (Parents, Teachers, Leaders, and Students) to Co-Create Culturally Relevant AI Policy in Pakistan examines how different school community members understand the ethical questions that come with the growing use of Artificial Intelligence in education. This qualitative study draws on semi-structured interviews with parents, teachers, school leaders and middle school students from Grades 6 to 8. The aim is to gather authentic and context-specific insights about the use of AI within Pakistani schools. The research is guided by the Human Centered Design principles introduced by Don Norman, which highlight the importance of designing tools and policies that are shaped by the real needs, values and experiences of users. The study also takes support from the Technological Pedagogical Content Knowledge framework to understand how teachers make sense of the relationship between technology, pedagogy and subject content. Alongside this, the Ethics of Care provides a lens for examining the relational and moral considerations that emerge when AI interacts with students' learning and wellbeing. Through a thematic analysis of the interviews, several shared ideas begin to appear. Stakeholders frequently speak about the need for transparency, cultural alignment, data privacy, fairness and student protection. These insights help in shaping a set of guiding principles that can inform a policy framework for responsible and contextually appropriate AI adoption in Pakistani schools. By placing the voices of school communities at the centre of the study, this research offers a grounded contribution to the ongoing conversation on ethical and culturally responsive uses of AI in education.*

**Keywords:** Culturally responsive policy, ethical ai in education human-centered design

## **Students' Perceptions of Artificial Intelligence for Learning: A Qualitative Study Guided by the Technology Acceptance Model (TAM) in a Convent Girls' School in Karachi**

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*This study explored secondary school students' perceptions of Artificial Intelligence (AI) integration in enhancing learning and academic support at a girls' convent school in Karachi, Pakistan. Guided by the Technology Acceptance Model (TAM), the research examined students' awareness, perceived usefulness, ease of use, and the contextual factors influencing AI acceptance. A qualitative approach was adopted, employing purposive sampling to select 16 senior students (Grades 6–8) who had prior knowledge of AI and had spent at least three years in the school. Data were collected through focus group discussions and analyzed using thematic analysis, wherein systematic coding and categorization identified the key dimensions shaping students' acceptance of AI: perceived learning benefits, accuracy and language limitations, over-dependence and academic dishonesty concerns, usability and prompting challenges, and the need for institutional safeguards. While students recognized AI's usefulness in simplifying concepts, improving revision, and offering instant support, reflecting TAM's perceived usefulness and ease-of-use constructs, they also highlighted risks related to incorrect outputs, reduced creativity, and over-reliance. Students recommended supervised, time-bound AI use through school-managed devices and structured guidance. The findings emphasize that students' acceptance of AI is shaped not only by its perceived benefits but also by reliability, ethical considerations, and emotional responses. The study underscores the need for clear policies, digital literacy training, and responsible implementation frameworks for meaningful and safe AI integration in school learning.*

**Keywords:** Artificial Intelligence, AI-assisted learning, convent girls' school, students' perceptions

## **Exploring Learners' Acceptance of Chat GPT in English Language Education: A Technology Acceptance Model Approach**

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*The rapid advancement of Artificial Intelligence (AI) has redefined contemporary approaches to teaching and learning, particularly in language education. Among AI innovations, Chat GPT, developed by Open AI, has emerged as a transformative tool offering interactive, adaptive, and personalized language learning experiences. However, limited research has explored how learners perceive and accept this technology through established theoretical frameworks. This study applies the Technology Acceptance Model (TAM) to examine English language learners' acceptance of Chat GPT. Key constructs included Perceived Usefulness (PU), Attitude Toward Use (ATU), Perceived Social Influence (PSI), and Behavioral Intention to Use (BIU), with Perceived Ease of Use excluded due to low internal consistency. A quantitative cross-sectional design was adopted, surveying 200 English language learners (103 males, 97 females), aged 18–40, from diverse educational backgrounds. Data were collected through an online questionnaire and analyzed using SPSS (Version 27). Results revealed significant positive correlations among PU, PSI, ATU, and BIU, with attitude and behavioral intention showing the strongest association ( $r = .77, p < .001$ ). Regression analysis indicated that social influence was the most significant predictor of learners' behavioral intention ( $R^2 = .317, p < .001$ ). The findings highlight the critical role of social acceptance and perceived educational value in integrating AI-driven tools like Chat GPT into language curricula. The study offers actionable insights for educators, curriculum developers, and policymakers aiming to enhance lifelong learning and digital literacy through AI-assisted language instruction.*

**Keywords:** Artificial Intelligence in education, chat GPT, English language learning

## *8th Theme*



## *Research-to-Policy Pathways*

## **Effects of Civic Engagement Programs on Student Environmental Awareness**

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*As environmental problems continue to grow worldwide, teaching young people how to care for the planet has become essential. Schools play a major role in shaping students' understanding of sustainability and encouraging responsible behavior. Although many schools include environmental topics in their lessons, hands-on activities often have a stronger impact on helping students develop long-term eco-friendly habits. This study examines how school-based civic engagement programs promote environmental responsibility by involving students in real-life projects related to waste management, resource conservation, and sustainable practices. A mixed-methods approach was used to understand the effects of these programs. Data were collected through pre- and post-participation surveys, interviews with students, teachers, and program facilitators, and direct observations of activities. Students took part in several sustainability projects, including a Smart Waste Management System where they sorted waste and measured reductions over time; the Drastic Plastic Campaign, which encouraged communities to reduce plastic bag use; Organic Soil Production through composting food waste; and Harvesting Hope, where students planted and cared for fruit trees to support local food needs. The results showed that students became more aware of environmental issues and began adopting eco-friendly habits, such as reducing plastic use and managing waste responsibly. Participation also helped them build leadership, teamwork, and a sense of community responsibility. The study highlights the value of including practical sustainability projects in schools. Research by Flouri & Buchanan (2004) and the OECD (2002) shows that parental involvement strongly shapes children's behaviors, suggesting that engaging families can further strengthen students' environmental awareness. Future research should explore long-term impacts and how these programs can be expanded and adapted across different schools and countries.*

**Keywords:** Civic engagement, environmental awareness, experiential learning



## **Parental Engagement Initiative to Bridge the Literacy Gap**

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*As the school day ends, educators aspire to extend their students' educational growth and development into their home environments. Educators encounter challenges when some students' academic growth is confined to the school day, with little to no reinforcement at home. The underlying causes include an inadequate understanding of the child's literacy development, their access to meaningful resources, and ineffective communication between school and home. It is a question that educators confront: how can we establish effective channels of communication with families to increase active parental involvement in literacy education, thus enabling students to engage in discovery-based experiences at home. Recognizing that parental involvement is a pivotal factor in children's literacy practices, greater than the influence of family background variables such as socio-economic status, family size, and parental education level (Flouri & Buchanan, 2004), we designed an interactive program to engage parents from diverse educational backgrounds in understanding and supporting their children's literacy and academic development. Additionally, research highlights that fostering reading enjoyment is more crucial for children's educational success than their family's socio-economic status (OECD, 2002). Exposure to reading and the world of stories has been made an important element in each module of the program. The poster presentation highlights the intervention of parental engagement programs: PARWAAZ, Family Literacy Program, and URAAN, which equip parents of Pre-Primary and Primary children with essential literacy knowledge to enhance their child's skills in reading and writing. The literacy program takes place every two months. Parents actively participated in intervention activities with their children, where the teachers facilitated the connection between parents and children. Parents learn phonics instruction as part of our language program and learn to create resources to reinforce learning at home. Research suggests many parents believe they are not competent enough to adequately instruct their children. Therefore, this program also bridges this gap by giving interactive homework to the child and guiding parents with the instructions used to teach the children. The evaluation of this program showed highly positive results, as seen in increased parent-child interactions. Parents reported that they gained new knowledge through teacher-led sessions and their interaction with other parents. Findings indicated that parents exhibited a high level of knowledge, skills, and attitudes in their children's literacy development, and their interactions became more supportive and literacy focused.*

**Keywords:** Family literacy, literacy interventions, parental empowerment, parental engagement

## **Assessment Policy and Practice in Pre-Service Teacher Education: A Study of Affiliated B.Ed Colleges in Sindh**

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*In Sindh, affiliated B.Ed colleges operate under assessment policies that blend college-based internal marks with university-set external examinations. A recent provincial roundtable on reimagining assessment in teacher education in Sindh recommended a shift toward more competency-based approaches. However, in affiliated colleges assessment remains predominantly exam-oriented, and the current internal–external structure continues to position the B.Ed largely as a content-delivery programme rather than a competency-based one. Drawing on debates on competency-based teacher education and assessment for accountability, this qualitative multiple-case study examines how assessment policy is interpreted and enacted in two purposefully selected affiliated B.Ed colleges in Sindh, and how it shapes teaching, learning and notions of accountability. Data were generated through focus group interviews with B.Ed students (n = 10), semi-structured interviews with teacher educators (n = 8), and individual interviews with a principal and an assessment liaison faculty member. All interviews were transcribed, translated into English, and analysed thematically using constant comparison and peer debriefing to enhance trustworthiness. Findings indicate that assessed work is dominated by written examinations, with internal marks often distributed through additional tests or attendance-based policies that leave little space to evaluate practicum, professional skills or wider learning domains. Internal assessment rarely uses rubrics or performance tasks, and external papers remain content-heavy, lack tables of specification, and show weak alignment with B.Ed course outcomes and aims. The findings suggest that strengthening pre-service teacher education in Sindh will require clearer communication of assessment policy, co-designed internal and external assessment tools, and more systematic dialogue between universities and affiliated colleges.*

**Keywords:** Assessment policy, internal and external assessment, exam-oriented culture

## **Governance and Policy Gaps in Pakistan's SDG 4 Reporting: An Analysis of Education Management Information System Functionality**

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*Reliable education data is the backbone of effective policymaking, guiding decisions on resource allocation, curriculum development, and long-term planning. In Pakistan, the Education Management Information System (EMIS) is intended to serve as the primary tool for monitoring education indicators and progress. However, fragmented governance structures, inconsistent data collection methodologies and limited technical capacity have significantly weakened its functionality, leading to inefficiencies in tracking key education metrics. This study aims to critically assess the governance and policy gaps affecting EMIS in Pakistan, identifying systemic weaknesses and proposing actionable solutions. By examining institutional frameworks, reporting practices and inter-agency coordination, the research sheds light on the challenges preventing EMIS from serving as a reliable source of educational data and hindering to report SDG 4 indicators at international forums. Employing a qualitative research approach, the study integrates document analysis and semi-structured interviews with key stakeholders at federal and provincial levels. Furthermore, the Data Flow Analysis Framework (DFAF) by OECD is utilized to evaluate data accuracy, integration, and timeliness across various administrative layers. Findings reveal significant inconsistencies in provincial reporting mechanisms, weak collaboration between national and provincial agencies and gaps in essential education indicators such as early-grade learning and digital literacy. The study recommends establishing a national EMIS governance framework, investing in digital infrastructure and enhancing capacity-building programs for data personnel, ensuring Pakistan develops a transparent, efficient, and responsive education data system that informs evidence-based policymaking.*

**Keywords:** Education data governance, education management information system (EMIS), sustainable development goal 4 (SDG 4), SDG 4 indicators reporting

## **Exploring the Impact of Teachers' Harsh Behaviors on Students' Mental Health in Educational Settings**

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*The present study investigates the effects of teachers' harsh practices on students' mental health in educational institutions. Through a qualitative research design, this work is concerned with students' personal responses, real feelings, and experiences with harsh teacher behavior, including scolding, emotional pressure, disrespect that harms a student's reputation, and strong disciplinary actions. Students who experience anxiety, depression, or emotional distress often cite teachers' harsh behavior as a major contributing factor. Semi-structured interviews will be used to collect data, allowing participants to share their experiences of harsh teacher behavior. We will utilize thematic analysis to examine patterns and themes that emerge regarding feelings of distress, anxiety, self-esteem issues, and changes in academic motivation. The results of the current study are expected to have implications for educators, administrators, and policymakers regarding the significance of positive teacher–student relationships and the creation of psychologically safe and supportive school environments. In conclusion, the study aspires to understand and discuss teachers' behavior, focusing on how these behaviors affect student motivation and improve students' well-being, while also promoting healthier classroom practices. The researchers also want to shed light on the emotional toll of such negative classroom experiences that many students silently endure. By bringing these issues to the fore, the study hopes to promote a reconsideration of disciplinary policies in institutions in favor of student-friendly policies. The results could also help in training future teachers to focus on aspects such as empathy, patience, and communication. In the end, these are patterns that contribute toward creating learning contexts where every kid feels respected, valued, and emotionally safe.*

**Keywords:** Anxiety, harsh teacher practices, mental health, student motivation

## **Secondary Schools as Learning Organization: A Comparative Study of Rural and Urban Areas**

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*The purpose of this research study was to assess the functioning of urban and rural secondary schools as learning Organizations and to compare the rural and urban secondary schools' functioning as learning Organizations. To achieve the objectives of the present research study researcher used a descriptive research design within a quantitative approach. Peter Senge's five-discipline model of learning organization was used as a theoretical framework for the study. The respondents of this research study were teachers teaching at rural and urban public sector secondary schools working under the Federal Directorate of Education, Government of Pakistan. The sample of the study was drawn by using a proportionate stratified random sampling technique where two strata were formed (rural and urban schools). The total population of the study was 1671 teachers in both urban and rural secondary schools. The sample size of the present research study was 334 teachers. To collect the data survey questionnaire was adapted by the researcher based on Peter Senge's five-discipline model of a learning organization. To compare the data of urban and rural secondary schools independent sample T-test was applied using SPSS. The findings of the study show that both rural and urban public sector secondary schools in Islamabad are functioning as learning organizations. The comparative result of the study shows that there is no significant difference between the functioning of rural and urban secondary schools as learning organizations. When changing teaching practices, teachers are recommended to assess and reflect how new teaching practices will have impact on school, Heads of the schools are recommended to share educational objectives with teachers and facilitate teachers with professional development opportunities.*

**Keywords:** Learning organizations, rural & urban schools, secondary schools



## *9<sup>th</sup> Theme*



## *Upskilling for the Future Workforce*

**Exploring the Dominant Discourses and Factors Influencing High School Teachers' Identity at Public Sector Schools in Sukkur, Sindh**

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*The purpose of present study is to exploring the dominant discourses and factors, which are influencing high school teachers' identity at public sector schools in Sukkur, Sindh, Pakistan. In particular, it aims to understand the ways through which teachers perceive their roles in the neoliberal era. The change in education system globally has influenced educational policies worldwide including Pakistan, which has triggered unease between teachers believes and institutional expectations. This study explores the interaction of different dominant discourses such as neoliberal, religious, cultural, socio-economic and educational ones and role of various factors such as personal, institutional, and societal factors that are influencing teachers' identity. For data collection, the researcher conducted semi-structured interviews with eight (i.e., 04 male and 04 female) high school teachers having at least one year teaching experience. The findings proposed that systematic evaluation and privatization create tensions between teacher's personal motivation and instructional values, which may direct to divided teachers' identities. In the same way, religious, cultural, and institutional boundaries also influence their efficacy and role perception. The current study also shows teachers' struggle in creating balance between internal desires and external pressures. Considering the findings of this study, there is dire need for context relevant professional development programs for teachers. This study is useful for policy makers, academic coordinators, teacher educators, head teachers, and institutional leaders, so that, they may create an inclusive and positive environment for teachers where their identities are positively flourished.*

**Keywords:** Dominant discourses, dominant factors, neoliberalism, teacher's identity

**Exploring Teacher-Student Relationship for Undergraduates' Well-being, Academic Achievement and Motivation**

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*Teacher-student relationship is one of the critical aspects of learning process that serves as a fundamental to education, influencing learners and environment. This study examines the significance of teacher-student relationship in nurturing 21st century skills with the emphasis on students' well-being, academic achievement and motivation, targeting final-year undergraduate students. The literature recognizes the importance of teacher-student relationship, however, there is still significant gap which justifies that this area is still under exploration on how the relationship between a teacher and student can be used to improve student performance. Based on the self-determination theory, this qualitative study explores how teachers' support help students in fulfilling their needs and improving performance. The data were gathered from 12 participants of which six were male, and six were female. The data were processed through six steps of thematic analysis. The findings revealed that positive teacher-student relationships improve students' academic outcomes, motivation, confidence, resilience, and general well-being, which are crucial for learning. The large class size, insufficient training of the faculty in relational pedagogy, and time constraints hindered the establishment of meaningful relationships. The results highlighted the necessity of fostering positive teacher-student relationships within higher education institutions for enhancing comprehensive growth and support learning outcomes in the 21st century. The research offers critical insights to the teachers, university administrators, and policy makers for establishing responsive and student-centered learning experiences, and highlighting the need of universities to deliberately nurture positive teacher-student relationships as a form of strengthening 21st century learning skills throughout the institution.*

**Keywords:** Academic achievement, motivation, teacher-student relationship, well-being

## **Exploring Women's Leadership in STEM Through the Pioneering Legacy of Marie Curie: A Systematic Literature Review**

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*The study addresses the advancement of women leaders in STEM. Women's leadership in STEM is essential for equity, inclusive innovation, and diverse scientific progress; however, women remain significantly underrepresented in leadership roles. Marie Curie's pioneering achievements serve as a powerful symbol of scientific excellence and a role model for women envisioning themselves as capable leaders in science and technology. The review aims to explore how Marie Curie's achievements influence contemporary women's participation in STEM as well as to examine the current challenges and strategies identified in scholarly literature. A systematic literature review was conducted using major electronic bibliographic databases to identify studies on women in STEM, leadership challenges, and strategies inspired by Marie Curie's legacy. Only peer-reviewed English language publications (1990-2025) meeting the inclusion criteria were selected, while opinion-based or non-evidence-based sources were excluded. Findings indicate that Marie Curie's legacy continues to inspire women in STEM by strengthening representation, promoting scientific integrity, and modeling leadership characterized by vision and resilience rather than gender. Despite this influence, women in STEM continue to face challenges such as gender stereotypes, limited mentorship, and restricted access to leadership roles. To overcome these challenges, the review identifies several effective strategies, including strong mentorship and sponsorship networks, gender-inclusive institutional policies, early STEM education for girls, and global networking opportunities that create supportive professional communities and expand leadership pathways. Insights from this analysis can help women pursuing STEM careers, particularly in contexts modeled after Western practices, to better understand pathways for leadership advancement.*

**Keywords:** Women leadership, STEM, Marie Curie, gender equity, diversity, inclusion

## **Impact of Peer Observation on the Quality of Teaching and Learning in Primary Classrooms**

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*This study examines the impact of peer observation on the quality of teaching and learning in early primary classrooms at Generation's School, Karachi. Rooted in reflective practice theory (Dewey, 1933; Schön, 1983), the research explores how structured peer observation can enhance teachers' professional growth, self-efficacy, and classroom effectiveness. The study adopted a qualitative-dominant method design involving 24 teachers and 200 students from Grades I and II. Data were collected through interviews, classroom observations, and student questionnaires, complemented by thematic and comparative analyses between teachers who engaged in peer observation and those who did not. Findings revealed that teachers participating in peer observation demonstrated improved lesson design, student engagement, and use of differentiated and student-centered pedagogies. They also reported heightened self-reflection, professional confidence, and collaboration within their teaching community. Peer observation further contributed to a culture of trust and collective learning, reinforcing teaching as a collegial rather than isolated endeavor. The study underscores peer observation as a powerful, non-evaluative form of professional learning that fosters reflective dialogue, mutual feedback, and sustained instructional improvement. It advocates institutionalizing peer observation frameworks within teacher development programs to promote collaborative professionalism and enhance educational outcomes.*

**Keywords:** Peer observation, reflective practice, teacher professional development



## **Developing Basic Literacy Skills among Adult Women through Culturally Responsive Pedagogy: An Action Research**

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*Despite national efforts to improve literacy, Pakistan continues to face a high rate of adult illiteracy, particularly among women from lower socio-economic backgrounds. This research study aim to develop basic literacy skills among adult females. To achieve the objective of the present research study researcher used action research design within the quantitative approach. The participants of the present research study were four adult females working as support staff at Begum Nusrat Bhutto Women University Sukkur, who had never attended school and demonstrated no foundational literacy in pre-test. The study aimed to build their basic reading, writing, numeracy, and communication skills using a structured one-month intervention guided by a Basic Literacy Framework by UNESCO that emphasized real-life literacy tasks. Participants attended four one-hour classes each week, with each session focused on one literacy domain. Instruction included reading headlines and simple paragraphs, writing names and short sentences, counting and recognizing numbers up to 1000, performing simple operations, and practicing everyday communication. Data were collected through pre and post-tests and compared for analysis. The early results indicate meaningful improvement across all domains, suggesting that an action research approach combined with contextualized adult-learning strategies can effectively support literacy development among adult beginners in workplace settings*

**Keywords:** Adult literacy, daily life literacy, numeracy, reading skill

## **Investigating the Barriers and Opportunities for Women in Accessing and Utilizing Technology Resources in University Settings**

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*This study examines the barriers and opportunities experienced by women in accessing and utilizing technology resources within university environments. Utilizing a quantitative survey approach, data was collected from female university students highlighting gender disparities, challenges, and potential pathways for promoting digital inclusion. Findings reveal significant barriers including inadequate access to resources, unequal distribution of facilities, prevailing gender biases, and underrepresentation in technology fields which hinder women's engagement with technology. The respondents emphasized the necessity for inclusive environments, mentorship networks, industry collaborations, and specially tailored training programs to enhance both confidence and digital competence among women. The discussion underscores that addressing both structural and sociocultural barriers is crucial for ensuring equitable technology access and fostering women's participation in technology-related domains. Key recommendations include the establishment of mentorship initiatives, scholarships for equitable tech access, digital literacy workshops, industry partnerships for real-world exposure, and promotion of inclusive environments to actively counter gender biases. Ultimately, the study serves as a call to action for universities to foster supportive, inclusive, and technologically empowering settings to bridge the gender gap in technology engagement and contribute to long-term gender equity in the digital landscape.*

**Keywords:** Digital inclusion, digital literacy, gender barriers, higher education, technology access

## **Compulsive ChatGPT Use in Academia: Implications for Teaching Effectiveness and the Moderating Impact of Academic Self-Efficacy**

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*The emerging use of AI-based tools, including ChatGPT, introduces new possibilities to improve teaching methods and professional growth of teachers. This paper investigates the beneficial outcomes of excessive use of ChatGPT on the effectiveness of teaching, especially considering the mediating effects of teacher professional learning and technical skills. In addition, the study assesses whether academic self-efficacy can moderate the association between the use of ChatGPT, teacher professional learning and teacher technical skills. Based on the social cognitive theory, the presented theoretical framework assumes that increased rates of ChatGPT usage encourage teachers to pursue lifelong learning and enhance their technical skills, thus developing better teaching performance. A structured questionnaire was used to survey a sample of 455 teachers at higher-education institutions, and the data obtained were processed through structural equation modelling (SEM). The projected findings imply that meaningful and efficient use of ChatGPT and high academic self-efficacy can enhance learning, technical skills, and overall teaching efficacy among teachers. The current paper contributes to the emerging body of research on AI in education by clarifying favorable ways in which the application of technology can improve the effectiveness of teaching practices in modern classrooms.*

**Keywords:** ChatGPT usage, teaching effectiveness, academic self-efficacy, teacher professional learning, technical skills development

## *10<sup>th</sup> Theme*



## *Blended & Hybrid Learning Journeys*

## **Readiness and Barriers in ICT integration in ESL Classrooms: Strategies for Effective English Language Instruction**

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*Technology has served as the catalyst of the transformation for almost all the disciplines and fields of life. Technological advancement has already transformed education in many ways. English language teaching and learning has also greatly benefited from this transformation worldwide. However, in Pakistani context, English language instruction has yet to reap maximum benefits from the integration Information and Communication Technologies. This research aims to investigate the readiness of ESL teachers to integrate ICTs into their classrooms. Moreover, the research also intends to identify potential barriers and their solutions for ESL teachers. In order to achieve these goals, the research employed the mixed-method approach and adopted the sequential exploratory research design to readiness of ESL teachers and identify the barriers and their possible solutions. The data was collected from 36 ESL teachers serving in IBA community colleges. The TPACK framework has been utilized in this research as the conceptual framework. Data has been collected in two steps, as required in the sequential exploratory research design. Quantitative data was collected via adapted questionnaire and analyzed through SPSS version 29.0.10. The semi-structured interview protocol was developed to collect qualitative data, which was analyzed using thematic analysis using Braun and Clarke model. The study concluded that ESL teachers possess moderate level of readiness to integrate ICTs, due to various barriers, which may be enhanced through tailored interventions and institutional support. The implications of the research may include the need for tailored professional development initiatives for ESL teachers to address the potential barriers and for the improved integration of ICTs in English language classrooms.*

**Keywords:** English language teaching, integration of ICTS in language instruction, teacher preparedness for technology



## **Scrolling, Delaying, and Stressing: How Social Media and Procrastination Shape Test Anxiety**

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*Excessive social media use and increasing academic pressure among university students have raised concerns about their influence on students emotional well-being and academic functioning. This study examines the impact of social media use and procrastination on test anxiety. The sample consisted of 270 university students ( $M = 110$ ,  $F = 160$ ), with a mean age of  $\bar{X} = 20.8$  years, recruited through convenience sampling. Social media use was assessed using the Social Media Use Questionnaire (Xanidis & Brignell, 2016), procrastination was measured using the Lay Procrastination Scale (Lay, 1986), and test anxiety was evaluated through the Westside Test Anxiety Scale (Driscoll, 2004). Correlation analysis showed positive relationships among social media use, procrastination, and test anxiety. Regression analysis indicated that both social media use and procrastination significantly predicted test anxiety, suggesting that higher problematic digital engagement and lower self-regulation contribute to increased academic stress. These findings highlight the need for university-level interventions promoting healthier digital habits and stronger self-regulation skills among students*

**Keywords:** Academic stress, social media use, test anxiety, procrastination.

## **STEM AND STEAM SPARK BEYOND THE CLASS ROOM**

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*This study examines the impact of research-based STEM and STEAM initiatives on student learning outcomes in Pakistan, where the national curriculum's limited emphasis on STEM subjects constrains innovative pedagogical approaches. Through a longitudinal analysis of 18 years of academic performance data of a reputable international school organization, this research reveals a positive correlation between STEM and STEAM-focused co-curricular activities and improved academic results. The findings suggest that incorporating research-based learning initiatives can significantly enhance students' academic performance and equip them with essential 21st-century competencies. The study highlights the importance of prioritizing innovative learning approaches that foster critical engagement and future readiness.*

**Keywords:** STEM, STEAM, research-based learning, co-curricular activities, 21st-century skills, academic performance.

## **ChatGPT Use in Academia: Implications for Teaching Effectiveness and the Moderating Impact of Academic Self-Efficacy**

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*The emerging use of AI-based tools, including ChatGPT, introduces new possibilities to improve teaching methods and professional growth of teachers. This paper investigates the significant outcomes of ChatGPT on the effectiveness of teaching through teacher professional learning and technical skills. In addition, the study assesses whether academic self-efficacy can moderate the association between the use of ChatGPT, teacher professional learning and teacher technical skills. Based on the social cognitive theory, the presented theoretical framework assumes that increased rates of ChatGPT usage encourage teachers to pursue lifelong learning and enhance their technical skills, thus developing better teaching performance. A structured questionnaire was used to survey a sample of 437 teachers at higher-education institutions, and the data obtained were processed through structural equation modelling (SEM). The projected findings imply that meaningful and efficient use of ChatGPT and high academic self-efficacy can enhance learning, technical skills, and overall teaching efficacy among teachers. The current paper contributes to the emerging body of research on AI in education by clarifying favorable ways in which the application of technology can improve the effectiveness of teaching practices in modern classrooms.*

**Keywords:** Academic self-effacing, Chat GPT, technical ski

## **Impact on Blended Learning on Students Academic Performance**

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*Blended learning is a teaching approach that combines traditional classroom learning with e-learning elements. It offers flexible access to diverse learning for the better engagement of students by using online tools and resources they are already using or with which they are familiar. This approach became widely accepted in Pakistan during the time of COVID-19 when education was disrupted due to the pandemic. Traditional classes were totally shifted to digital learning. This sudden shift forced both students and teachers to utilize digital platforms, online lectures and e-learning tools. The purpose of the study is to investigate the positive and negative impacts of blended learning on students academic performance. This research used a quantitative approach utilizing survey questionnaires to collect the data. A purposive sample was made of 100 students from a public sector university from different departments. After an in-depth analysis of the results, it has been revealed that blended learning is more flexible, has made students more independent in their learning, and has improved their overall academic performance. Thus, this study concluded that blended learning improves students' motivation, understanding and time management but some challenges like internet access and digital skills are still problems today. So if teachers and institutions ensure proper support for blended learning, it can enhance students' academic performance and foster student learning outcomes.*

**Keywords:** Blended Learning, e-learning, academic performance, student motivation, digital skills

## **Challenges of Blended Learning Implementation in Semi-Government and Private Schools of Sukkur, Sindh**

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*Blended learning is a significant pedagogical model in the contemporary educational system. It is a pedagogical approach that integrates the most effective features of classroom learning with digital learning resources and online materials. Other than depending on traditional modes of teaching, technology may be employed to bring more flexibility and effectiveness in the teaching and learning process. Modern applicability of blended learning technologies lies in how it increases students' autonomy, self-directed learning capabilities, and helps them develop critical thinking as well as digital literacy skills. Moreover, it also helps teachers to be more productive in creating constructive, interactive, and motivating learning processes. However, many teachers often face challenges while implementing blended learning effectively in semi-government and private schools in Sukkur, Sindh. The goal of the study is to examine the challenges teachers face while implementing blended learning in their classrooms. Seven semi-government and private schools of Sukkur, Sindh, were selected to collect quantitative data using structured survey questionnaires from 60 teachers, 30 from semi-government schools and 30 from private schools. The problems identified as a result of data analysis included communication barriers, lack of training, partial technical support, low interaction during online sessions, and inability to design digital content that was compatible with the learning process in the classrooms. It is recommended that schools should provide complete technical support, and offer organizational training schemes or workshops on blended learning to support teachers so they can teach effectively and engage more students.*

**Keywords:** Autonomy, blended learning, pedagogical approach, students, self-directed



## *11th Theme*



## *21st-Century Skills and Quality Teaching*

## Transforming Classrooms through Innovation: A Path to Skill Development and Equity

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*This practice-based action research examines how transdisciplinary, innovation-driven pedagogies can strengthen 21st-century skill development and promote equitable learning across creative and technical subjects. Conducted over three years (2022–2025) in the Gen RABT (formerly known as Education Technologies) Department at Generation's School, the study integrated project-based, design-based, and technology-enhanced learning across Design & Technology, Art & Design, and ICT & Robotics. Guided by experiential learning, visible learning, and reflective practice frameworks, the research operationalized cyclical processes of planning, acting, observing, and reflecting to refine curriculum design and strengthen teacher inquiry. Student participation expanded from 250 to over 1,000 learners across Grades V–VIII, demonstrating institutional uptake and curricular scalability. Evidence from classroom observations, student artefacts, teacher reflections, and testimonials indicates marked improvement in creative confidence collaboration, problem-solving, and engagement. Teachers transitioned from content deliverers to reflective facilitators, while interdisciplinary challenges connected mechanical reasoning, aesthetic exploration, and coding-based problem-solving. Findings highlight how transdisciplinary learning designs can embed lifelong competencies—creativity, collaboration, resilience, and inquiry—within the curriculum. The study offers a scalable model for integrating innovation, research, and inclusive skill development in school settings.*

**Keywords:** Design-based learning, EdTech integration, innovation-driven pedagogy, 21st-century skills

## **The Role of Critical Thinking in Teaching at Secondary School Level: A Qualitative Study**

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*The aim of this study was to find out the view of secondary school teacher about Critical thinking in their teaching. Critical thinking has the significance role in every field of the life especially in teaching and learning processes. It is a process of self-reflective practices to improve the performance of teachers at their schools. Critical thinking as a twenty first century skills enhances the capacity and capability and can equip teachers as well as students' learning performance. A qualitative research method was used for this study and phenomenological approach was conducted for the data collection. Ten teachers were selected for the interview as participants of the study. For the data analysis thematic analysis was done by using Braun and clerk (2006) six steps procedure. A semi structured open ended questionnaire was used for the interview. The findings of the study clearly identify the clear role of critical thinking in teaching secondary school level and offers recommendations to better align teaching methodologies, assessment strategies, and teacher training with the goal of enhancing critical thinking skills.*

**Keywords:** Critical thinking, secondary education, teaching practices, qualitative study, pedagogy, Pakistan

## **The Role of Observation and Observer in Collaborative Pedagogic Reflection in Lesson Study: An Action Research of Private Schools of Sindh, Pakistan**

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Lesson Study as a model of professional learning designed to promote collegial and collaborative learning has been receiving increasing attention from academics. This model empowers teachers to take ownership of their professional growth and perceive improvement as a shared responsibility through collective planning, implementing and reflecting on a lesson. A significant component in this process is observation during the process of implementing the lesson. The purpose of the study is to explore the role of observation and observer in facilitating collaborative pedagogic reflection within the Lesson Study cycle. A qualitative action research design was employed to investigate the observer's role and the collaborative reflective process in lesson study in a private sector school in the context of Sindh. Data were collected through semi-structured interviews to capture teachers' experiences, reflections, and perspectives on the observation process. The findings reveal that the observation within the lesson study shifts from evaluation to collaborative reflection. Observer acts as a co-learner, stepping into students as well as teachers' shoes and offering constructive feedback grounded in evidence of learning. Lesson Study provided both observer and observee a continuous reflective space to identify and question assumptions, uncover hidden challenges, and refine pedagogy through shared inquiry and contextual understanding. The process promotes mutual trust, collective ownership of learning, and sustained professional dialogue. Unlike conventional observation models, Lesson Study promotes formative, cyclical, and collaborative practices that enhance teachers' reflective capacity, which leads to meaningful pedagogical change. The findings inform policymakers to implement the Lesson Study model for teachers' professional growth. It suggests reframing classroom observation from a judgmental tool to a collaborative and reflective practice. Observation should prioritize students' learning needs and profiles, focusing on learning effectiveness rather than rigid predetermined criteria.

**Keywords:** Lesson study, collaborative reflection, observation, pedagogic reflection, teachers' professional learning

## **Improving Urdu Writing Skills among the Students with Learning Disabilities using the Cognitive Load-Aware Scaffolded Program for Writing (CLASP-W)**

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*This study was conducted to evaluate if Cognitive Load-Aware Scaffolded Program for Writing (CLASP-W) is an effective strategy to improve the Urdu writing skills among the students with learning disabilities. A quasi-experimental pre-test–post-test control group design was used to evaluate the effectiveness of CLASP-W where a total of forty participants were divided into two groups; the experimental group and the control group. A pre-test was conducted before the intervention. The experimental group (n=20) was given specially designed institution i.e. CLASP-W as intervention for 8 weeks (32 sessions) while the control group (n=20) continued with the traditional instructions. After intervention a post test was conducted. An Urdu Writing Assessment Rubric (inter-rater reliability = 0.71) was developed and used to collect data from pre-test and post-test. Data was analysed using descriptive and inferential statistics. Results of the study revealed that there was no difference in performance of both groups at the beginning ( $p = 0.44$ ). Results of post-test analysis showed that the experimental group demonstrated a significant improvement when compared to the control group ( $p < .001$ ) with a large effect size ( $d = 1.35$ ). Results of within-group analysis highlighted that control didn't show significant improvement ( $p = .089$ ) while the experimental group showed a significant gain in score ( $p < .001$ ,  $d = 2.10$ ). It is confirmed by the results of this study that CLASP-W is a useful strategy to improve the writing skills among the LD students. Findings of the study also highlight the significance of CLT based writing instruction in inclusive classrooms.*

**Keywords:** CLASP-W, Urdu writing skills, learning disabilities, cognitive load theory

## **Impact of Team Work on Prospective Teachers' Readiness for Teaching Learning Process**

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*The success of the teaching-learning process greatly depends on the readiness and collaboration skills of prospective teachers. This study explores the impact of teamwork on prospective teachers' readiness for the teaching-learning process. The main objective of the research is to understand how cooperative activities, group discussions, and peer collaboration contribute to the professional growth and preparedness of teacher trainees. The main objective of the research is to assess how cooperative activities, group discussion, and peer collaboration contribute to the professional growth and preparedness of teacher trainers. To achieve the objectives of the present research study researchers used descriptive research design under a quantitative research approach. Data was collected through questionnaires from 350 B.Ed students studying in both public and private sector institutions. The findings revealed that teamwork enhances communication, confidence, problem-solving ability, and overall teaching readiness among prospective teachers. The study concludes that incorporating teamwork strategies into teacher education programs can significantly improve the effectiveness and engagement of future educators in the teaching-learning process.*

**Keywords:** Descriptive research design, prospective teachers, peer collaboration



## **Strengthening Quality Teaching Through 21st-Century Skill Integration: A Qualitative Study of Teacher Practices, Challenges, and Classroom Readiness**

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*The rapid transformation of global societies has heightened the need for education systems to integrate 21st-century skills within teaching and learning. Quality teaching now extends beyond curriculum delivery to cultivating learners who can think critically, collaborate effectively, solve complex problems, and adapt to technological and social change. This study explores the relationship between 21st-century skills and quality teaching by examining how teachers understand, apply, and experience these competencies in real classroom settings. A qualitative exploratory design was employed to gain in-depth insights into teachers' instructional practices. Using purposive sampling, a group of in-service teachers from diverse subject backgrounds were selected to participate. Data were collected through semi-structured interviews and classroom observations, and analyzed thematically to identify patterns in teacher perceptions, pedagogical choices, and skill-based teaching approaches. Findings reveal that teachers increasingly recognize the importance of creativity, digital literacy, communication, and problem-solving in fostering student readiness for future challenges. Participants reported that learner-centered strategies—such as project-based learning, inquiry activities, and technology-enhanced instruction—significantly improve student engagement and real-life application of knowledge. However, challenges such as limited professional development, insufficient technological resources, and time constraints hinder consistent implementation. The study concludes that integrating 21st-century skills within quality teaching requires systemic support, ongoing teacher training, and a shift toward reflective and differentiated instructional practices. Creating skill-rich learning environments ensures equitable opportunities, strengthens student motivation, and prepares learners to become responsible and innovative global citizens.*

**Keywords:** 21st-century skills, quality teaching, teacher perceptions, learner-centered pedagogy, classroom innovation.

## *12th Theme*



## *Education Across Media, Psychology, Economics & Policy*

## **Transforming Classrooms through Mental Health Inclusive Training: Mixed-Method Explanatory Sequential Study in Schools of Sukkur and Khairpur**

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*The global adolescent mental health crisis is intensifying, with one in seven young people aged 10–19 experiencing a mental disorder and suicide ranking as the third leading cause of death among those aged 15–29. Schools are increasingly recognized as key settings for promoting mental well-being; however, education systems in low- and middle-income countries often lack the capacity to address students' mental health needs. This study represents Phase 2 of a larger project conducted in peri-urban Sindh, Pakistan. Building on Phase 1 findings that identified low teacher mental health literacy, limited classroom behavior management skills, and weak inclusion practices, Phase 2 evaluates a structured teacher training intervention on mental health literacy, depression, anxiety, suicide prevention, and inclusive pedagogy. The training is based on localized WHO-EMRO Mental Health in Schools modules. An explanatory sequential mixed-methods design will be employed with 307 teachers from eight schools in Sukkur and Khairpur. Quantitative pre- and post-assessments, six months apart, will utilize the Mental Health Literacy Scale and the Strengths and Difficulties Questionnaire. Qualitative data will be collected through focus group ChatGPT Use in Academia: Implications for Teaching Effectiveness and the Moderating Impact of Academic Self-Efficacy discussions and classroom observations and analyzed using Braun and Clarke's thematic analysis framework. The study expects improvements in teacher confidence, empathy, and inclusive practices, alongside enhanced student engagement and behavior, with implications for scaling mental health interventions in low-resource educational contexts.*

**Keywords:** Mental health inclusive training. schools of Sukkur and Kairpur, seuential study in schools

## **Exploring Incorporation of Peace Education in four Higher Education Institutions of Pakistan.**

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*The awareness on peace is crucial to cultivate a nonviolent mindset and a tolerant attitude among students. This study examined the integration of peace education into higher education and level of awareness among students at the university level. Interpretive phenomenological method was considered best fit, as the purpose was to find the significance of peace education from the outlook of the participants, and to understand the realistic picture in the selected higher education institutions. This study identified gaps in peace integration and institutional support through interviews with university faculties, and three focus group sessions with students. Whilst some programs, like Peace and Conflict Studies, exhibit strong commitment, others, like Political Science, International Relations, English and Computer Science lack structured approaches and straightforward incorporation of peace education. The findings highlight the necessity for transdisciplinary curriculum reforms. It recommends the training of faculty to handle sensitive topics, and promote comprehensive understanding through stakeholder engagement in real-world problem-solving. The study also underscores the need to establish profound links between the HEC policy guidelines and SDG 4.7 and SDG 16 to promote global citizenship and foster inclusive and more tolerant academic environments. Education promotes cultural understanding, respect for diversity, tolerance and these all elements strengthen social cohesion. These values are necessary to learn and practice global citizenship too. Education for sustainable development (ESD) and education for global citizenship is interlocked and mutually yields many benefits. Peace education is the tool that can achieve both targets: sustainable development and global citizenship. Therefore, higher education institutions must give students the necessary knowledge, abilities, and skills to identify their role in creating a peaceful world.*

**Keywords:** Global citizenship, inclusive society, peace-education, sustainable development

## **Job Embeddedness and Employee Bootlegging Behavior: The Mediating Role of Perceived Organizational Support**

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*This study aimed to investigate the relationship between Job Embeddedness and Employee Bootlegging Behavior with the mediating role of Perceived organizational support in the employees of Home textile industry in Pakistan. The first hypothesis stated that there would be significant positive correlation between Job Embeddedness and Employee Bootlegging Behavior. While the second hypothesis predicted that Perceived Organizational Support would mediate the relationship between Job Embeddedness and Employee Bootlegging Behavior. This study was based on cross sectional quantitative research design. A total of 382 participants working in the home textile industry in Pakistan (Karachi, Lahore and Faisalabad) were selected through purposive sampling method. The data was collected through online and physical questionnaires. The measures include Job Embeddedness Scale (Crossley et al., 2007), Employee Bootlegging Scale (Criscuolo et al., 2013) and Survey of Perceived Organizational Support (Eisenberger et al., 1986). The result indicated a significant weak positive correlation between Job Embeddedness and Employee Bootlegging Behavior with the mediating role of POS that serves as a mitigating factor. This study contributed to the understanding of how these variables work within the Home textile industry in Pakistan.*

**Keywords:** Home textile industry, employee bootlegging behavior, job embeddedness, perceived organizational support

## **The Teacher as a Murabbi: A Case Study in Nurturing Student's Mental Health in a Pakistani School**

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*The mental health and well-being of children have emerged as critical concerns in today's fast-paced, technology-driven society. Teachers, as key influencers in children's lives, play a pivotal role in shaping not only academic success but also emotional and psychological development. This study explores teachers' paradigms in raising children, focusing on strategies that promote mental health, resilience, and overall well-being. Using a qualitative methodology, this research incorporates interviews with experienced educators, classroom observations, and a review of contemporary literature to identify best practices for nurturing children within educational settings. The findings indicate that teachers who prioritize emotional connection, active listening, and supportive classroom environments significantly enhance students' mental health. Key strategies include creating safe spaces for emotional expression, integrating social-emotional learning (SEL) into the curriculum, and fostering collaboration with parents to ensure consistent support. The study concludes that raising children from a teacher's perspective extends beyond academic instruction; it involves cultivating a holistic environment where children feel valued, understood, and empowered. Recommendations include investing in professional development programs and prioritizing teachers' well-being to sustain effective student support.*

**Keywords:** Teacher student bonding, mental health, student well-being, social emotional learning



## Teachers as Environmental Researchers: Promoting School-Based Inquiry on Karachi's Pollution Problems

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*Karachi's intensifying environmental issues—ranging from air pollution and inadequate waste management to urban heat and unsafe water—highlight the need for teachers to actively promote environmental inquiry in schools. This study investigates the emerging role of teachers as environmental researchers and evaluates how teacher-led inquiry projects can enhance students' understanding of local pollution challenges. Guided by Inquiry-Based Learning (IBL) and Teacher-as-Researcher frameworks, the research adopts a mixed-methods approach involving surveys from 185 teachers, classroom observations in eight secondary schools, and analysis of 24 student projects conducted across urban and peri-urban areas. Findings show that while 72% of teachers are willing to engage in environmental research, only 34% have received formal training in data collection or project-based pedagogies. Schools in high-pollution districts such as Korangi, Baldia Town, and Liaquatabad reported more frequent inquiry activities, often motivated by the visible effects of pollution on daily life. Student projects included monitoring air quality with low-cost sensors, mapping dumping sites, and examining drinking water quality. Quantitative data reveal a 29% rise in student environmental awareness in schools where structured inquiry projects were implemented. Observations further indicate improved engagement, critical thinking, and scientific curiosity. However, 58% of teachers reported limited access to research resources, and 41% cited administrative concerns related to fieldwork and curriculum pressure. Despite these constraints, teacher-led projects strengthened school–community connections, with some efforts prompting local clean-up actions. The study concludes that equipping teachers with training, support, and affordable tools can significantly advance school-based environmental inquiry and foster environmentally responsible future citizens.*

**Keywords:** Teacher-led inquiry, environmental research, school-based projects, pollution in Karachi, environmental education

## **Exploring the Social & Cultural Factors Influencing Entrepreneurial Mindset of Undergraduate Students: Implications for Improvement at School Level**

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*Entrepreneurs bring capital change and contribute to the economic growth of a country. This study investigates the social and cultural factors influencing the entrepreneurial mindset of undergraduate students in Pakistan, with a focus on family, peer, and societal norms. Using a qualitative phenomenological research design, data were collected through semi-structured interviews with faculty members teaching entrepreneurship at 12 universities in urban Sindh. The findings reveal three core themes: Family and Peer Influence, Social Support Networks, and Social Norms and Cultural Values. The study highlights the need for early entrepreneurial education and culturally sensitive interventions in academic curricula to align family expectations with entrepreneurial goals and foster collaborative peer networks. Recommendations include integrating entrepreneurship education at school levels, enhancing parental awareness, and leveraging social networks to support entrepreneurial aspirations. These findings emphasize the critical role of multi-stakeholder efforts in shaping an entrepreneurial culture, which can contribute to reducing unemployment and fostering sustainable economic growth.*

**Keywords:** Entrepreneurial education, entrepreneurial curriculum, social factors, norms & culture, family and peer influence

## **Exploring the Perception of ECE Teachers on Play-based Teaching on Students' learning outcomes at the ECE level**

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*This phenomenological qualitative study explores the perceptions of early childhood education (ECE) teachers in public schools of Sukkur, Sindh, regarding the effectiveness of play-based instruction in enhancing learning outcomes. The research investigates how teachers compare play-based practices with traditional methods, identifies barriers to implementing play in classrooms, and addresses the lack of context-specific studies on holistic child development through play in the region. Using an interpretivist paradigm with constructivist ontology, purposive sampling was employed to select 6–7 ECE teachers. Data were collected through semi-structured face-to-face interviews and analyzed using thematic analysis to highlight teachers' lived experiences. Ethical considerations including informed consent, anonymity, and institutional permissions were rigorously observed. Findings indicate that teachers view play-based learning as essential for holistic child development, contributing to cognitive, social, emotional, linguistic, and physical growth. They recognized multiple forms of play, such as free play, inquiry-based play, collaborative play, and playful learning. However, significant challenges hinder implementation, including limited time, lack of learning materials, overcrowded classrooms, linguistic complexities in Sindhi and Urdu, and variations in student performance. These concerns often restrict the full integration of play-based instruction in ECE settings. The study offers practical insights for improving teacher training through scaffolding techniques, the Zone of Proximal Development (ZPD), and alignment with Sindh's ECE guidelines. Recommendations emphasize creating child-centered environments, ensuring adequate resources, and balancing structured and play-based approaches to enhance engagement and reduce developmental delays. This research is unique in applying theories of Piaget, Vygotsky, Montessori, and Dewey to under-resourced Pakistani contexts, highlighting localized barriers and strategies to strengthen holistic ECE practices.*

**Keywords:** Play-based learning, early childhood education (ECE), holistic child development

# ABSTRACTS

## *Two Minutes Research Challenge*



## Research Methodologies, System Design, and Implementation Factors of Artificial Intelligence in Education (AIED) in Pakistani Higher Education: A Systematic Literature Review

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*Artificial Intelligence in Education (AIED) refers to intelligent computational systems designed to enhance learning, teaching, and institutional decision-making. As Pakistan's higher education sector increasingly encounters AI-driven tools, the existing research remains scattered, conceptually heavy, and methodologically inconsistent, creating uncertainty about how AI is actually understood and applied. This study was undertaken to address this gap by examining how AIED is researched, conceptualized, and evaluated within Pakistani universities, focusing on three core variables: research methodologies, AI system design, and reported advantages and challenges. A systematic literature review, guided by PRISMA procedures, analysed peer-reviewed studies published between 2020 and 2025, and the selected literature was synthesised thematically. The findings show that Pakistani AIED research is dominated by descriptive and review-based methods, with very few empirical or experimental studies capable of validating AI tools in real educational contexts. Although AIED systems are frequently described as adaptive, personalised, and data-driven, most remain theoretical due to limited infrastructure, weak technological capacity, and inadequate institutional support. The review also found that benefits such as automation, improved engagement, and personalised learning are widely claimed but rarely demonstrated, while challenges—including insufficient faculty training, poor digital infrastructure, and the absence of national AI policy—appear consistently across studies. Overall, the study provides a consolidated understanding of the current state of AIED research in Pakistan and highlights critical structural and methodological gaps that must be addressed to enable meaningful, evidence-based AI integration in higher education.*

**Keywords:** Advantages and challenges, artificial intelligence in education, higher education, research methodologies

## **EdTech for Curricular Inclusion**

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*In the future, the integration of Educational Technology (EdTech) into school curricula will play an increasingly vital role in strengthening inclusive education. This study will explore how upcoming digital tools, advanced learning platforms, and evolving learning management systems are expected to support curricular inclusion by meeting the diverse needs of learners, including students with disabilities and learning challenges. It will examine how future technological features—such as more sophisticated accessibility tools, AI-driven adaptive learning resources, and personalized instructional support—will help create equitable and flexible learning environments. A mixed-methods approach will be used to collect data from secondary school teachers and students, focusing on their anticipated perceptions, potential challenges, and emerging best practices regarding technology-based inclusion. The study predicts that, when EdTech is strategically implemented, it will enhance student engagement, participation, motivation, and academic performance for all types of learners. Furthermore, the research will emphasize that effective use of EdTech in the future will depend heavily on continuous teacher training, improved digital infrastructure, and strong policy frameworks. These elements will be essential for ensuring that schools can maintain sustainable, long-term inclusive practices supported by technology. As education systems continue to evolve, EdTech is expected to become a central tool for promoting equal learning opportunities for every student.*

**Keywords:** Accessibility, future curriculum integration, educational technology, inclusion



## Using Design-Based Research Model: Developing and Testing a Cross-Curricular Lesson Planning Model for B.Ed. Student-teachers in Karachi's Private Universities

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*This study focuses on designing and testing a model within the classroom through B.Ed. Student-teachers at private universities in Karachi, using a Design-Based Research (DBR) Model, conducted a study to design, test, and refine cross-curricular instructional approaches suited to local classroom realities. This study included five phases. This pathway includes conducting initial interviews with student teachers, workshop for student-teachers designing cross-curricular lesson units, supporting student-teachers in implementing these units, observing the process and collecting reflections, and refining the model based on real feedback. This is a qualitative case study, with data generated through semi-structured, open-ended interviews conducted face-to-face or online, then workshop, classroom observations, and post-implementation discussions. Through thematic analyses, the study provides insights into how teachers experience the challenges and opportunities of cross-curricular teaching and how iterative refinement influences instructional practices and student learning. The results offer a practical, evidence-based model for cross-curricular lesson planning, with implications for interdisciplinary teaching, teacher education, and improving learning in Pakistani classrooms.*

**Keywords:** Cross curriculum, challenges, curriculum integration, design-based research (DBR)

## **Role of Spiritual Intelligence in the Holistic Development of University Students- a Phenomenological Study of two Universities in Karachi**

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*Spiritual intelligence can enhance an individual's abilities to live a fully functional life. Spiritual intelligence and an individual's psychological are interconnected (Anwar, S. 2023). The holistic development of students corresponds training a well-rounded individual who is not only advanced in cognitive domain, but also in emotional, social, physical, and moral domains (UNESCO, 2025). The three non-academic domains of holistic development- social, emotional and moral can be transformed by attaining spiritual intelligence (Ateeq et al., 2025). It is crucial in shaping well-rounded individuals. SDGs 4.7 and 16 also target at students' cognitive, emotional, psychological, social, and spiritual wellbeing. SDGs encourages stakeholders to prepare students for global citizenship. This study will explore the role of spiritual intelligence through understanding the perspectives and experiences of university students, at two private universities of Karachi. Eight semi-structured interviews and four focus group discussions will be conducted. King's SISRI-24 and Carol D. Ryff's (1989) scales will provide research lens for exploring and interpreting the perspectives and experiences related to spiritual intelligence.*

**Keywords:** Global citizenship, holistic development, psychological well-being, spiritual intelligence

## **TA Comparative Analysis of Inclusive Education Policies and Classroom Implementation in Pakistan and Malaysia**

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*Inclusive education has become a priority worldwide. However, its progress and incorporation differ across countries. Pakistan and Malaysia, are two developing Asian countries, but they widely differ in terms of policy commitment, resources and classroom practices. The purpose of this study is to compare and understand how both countries translate inclusive education policies into real classroom implementation. This study will also identify the gaps in school systems that hinder equitable learning for students with diverse needs. The comparison of these two systems will provide us the practical insights for policy improvement and guide schools towards a more effective inclusion. The study adopts a comparative qualitative design, drawing on policy analysis and classroom-level observations. The Data for this study will be collected through national policy and strategy documents, peer-reviewed journal articles and systematic reviews, technical reports and country profiles from international agencies, and, credible working papers and doctoral theses that offer contextual or implementation details of both countries. This comparative approach will help us to understand how policies are integrated and adapted in our classrooms. As this is an ongoing study, the anticipated results of this research are expected to highlight their common problems and promising approaches that can shape future reforms and strengthen inclusive education frameworks in Pakistan and Malaysia.*

**Keywords:** Education, inclusive, Malaysia, Pakistan

## **A Qualitative Study: Teacher – Student Pedagogical Belief’s Congruence, Its Effects on Critical Thinking of Pakistan’s Public Secondary School Students**

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*Critical thinking is widely acknowledged as a basic 21st-century ability; however, students in Pakistan’s public secondary schools continue to display limited reasoning, inquiry, and analytical abilities despite continuous curricular improvements. Research in Pakistan remains highly focused on teachers’ teaching beliefs and self-perceived effectiveness, very few studies have thoroughly examined the link between teacher-student belief alignment and its effect on cognitive outcomes as a critical thinking and learning achievements of the students. This study tackles this essential gap by analyzing teacher–student educational belief congruence and its effect on students’ critical-thinking development inside Karachi’s public secondary schools. Grounded on Social Constructivist Theory and Expectancy–Value Theory, the study conceptualizes belief congruence as a relational state that impacts motivation, engagement, and chances for higher-order thinking. Using a qualitative, phenomenological design, data will be collected from six teachers and twelve students through semi-structured interviews, classroom observations, and document analysis. The study examines how aligned or misaligned beliefs regarding learning, inquiry, and knowledge construction influence classroom interactions, task design, and students’ cognitive engagement. The expected findings aim to provide empirical insight into how belief congruence supports or constrains critical-thinking opportunities, offering a new theoretical lens for understanding learning processes in Pakistan’s public schools. The study’s practical contributions include guiding teachers in identifying belief mismatches, supporting student-centered instructional adjustments, and informing policy and teacher-education programs on fostering belief alignment to enhance cognitive outcomes. Ultimately, the research seeks to advance a more relational, evidence-based approach to improving students’ critical-thinking development.*

**Keywords:** Belief congruence, critical thinking, pedagogical belief

## **An Analysis of Classroom Practices and Challenges of ECE Trained Teachers**

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*This study investigates the practical implementation of Early Childhood Education (ECE) training by pre-service and in-service teachers in Khyber Pakhtunkhwa, Pakistan, focusing on classroom practices, perceived challenges, and organizational and demographic influences on teaching quality. Using a convergent parallel mixed-methods design, data were collected from 517 surveyed ECE-trained teachers, supplemented by 66 semi-structured interviews and 48 classroom observations. The research employed an adapted Kirkpatrick evaluation framework examining four domains: Content Knowledge, Pedagogical Skills, Assessment Techniques, and Classroom Management. Survey results revealed high teacher satisfaction and confidence in the training program's relevance and applicability. However, classroom observations and interviews uncovered significant systemic barriers—including overcrowded classrooms, resource shortages, inconsistent support, and administrative challenges—that hinder consistent application of child-centered pedagogical approaches. Teachers emphasized a greater need for adequate materials and technology over further training, highlighting that material support is essential for effective pedagogy. Despite challenges, teachers demonstrated commitment and adaptive strategies to implement training principles. Variations in satisfaction and practice were observed across gender, qualifications, and rural-urban contexts, emphasizing the importance of context-sensitive and equitable interventions. The findings underscore the need for comprehensive policies addressing teacher capacity-building alongside systemic reforms in infrastructure, resource provision, and ongoing support to enhance ECE quality sustainably. This research offers evidence-based recommendations for policymakers, program designers, and school leaders to advance the translation of ECE training into effective classroom practice.*

**Keywords:** Early childhood education (ECE), pedagogical challenges, teacher training

## **Factors Influenced Job Satisfaction Among Public Sector High School Teachers: A Quantitative Study**

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*Teachers play a vital role in the education system. The Sindh Education and Literacy Department, through the Reform Support Unit, has introduced several school improvement initiatives, including in-service training, competitive recruitment, salary enhancements, biometric attendance, and need-based transfers. Teacher satisfaction is central to the success of these reforms and to improving the quality of education in Sindh's public schools. This study aims to assess the level of job satisfaction among teachers and examine the factors that influence it. A quantitative approach was used, and data were collected through a questionnaire from 305 high school teachers. The analysis was conducted in SPSS using both descriptive and inferential statistics. Salary, work-life balance, administrative support, and teacher input were treated as independent variables, with job satisfaction as the dependent variable. The findings show that work-life balance and administrative support have a positive influence on teacher job satisfaction, while salary and teacher input do not show a significant effect.*

**Keywords:** Job satisfaction, administrative support, work-life-balance, public sector school



## Global Citizenship Education and Sustainable Development in Pakistan: A Review of Educational Approaches in the Last Five Years (2020–2025)

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*This study examines how Global Citizenship Education (GCE) has been integrated with Sustainable Development (SD) in Pakistan over the past five years (2020–2025). Using a systematic literature review guided by Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA), the study analyzes peer-reviewed research to explore three key areas: the teaching approaches used to connect GCE with sustainability, the impact of these approaches on students' knowledge, values, and behaviors, and the challenges teachers face in implementation. For a deductive thematic analysis approach, 25 to 35 articles will be selected. The aim to conduct this research is to reveal that whether private, rural and urban schools adopt discussion-based, experiential and project-oriented strategies or not. It also investigates whether classrooms remain dominated by traditional, exam-focused teaching or by 21st Century teaching skills. It will also investigate if using participatory activities in the classroom helps students become more empathetic, culturally aware, and responsible toward the environment. This research will also inquire whether limited teacher training, curriculum rigidity, and cultural sensitivities continue to hinder effective implementation. The study will conclude that strengthening teacher support and encouraging reflective, student-centered learning are essential for advancing GCE and sustainable development in Pakistan.*

**Keywords:** Challenges, impact on students, SDG integration, teacher training

# ABSTRACTS

## *“Action Research Gala” (Poster Presentation)*



**Abstract ID: ICE25050**

## **Using Positive Error Management Strategies to Increase Student Engagement in Elementary English Classroom**

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*This action research explored how Positive Error Management (PEM) strategies can enhance student engagement in an elementary English classroom. The study was conducted with 11 students of Grade 7 at a government school in F. B. Area, Karachi. A three-cycle action research design was used, with student engagement measured through a five-point Likert-scale questionnaire administered as pre-test and post-tests in each cycle. Across cycles, students were taught using PEM strategies that treated errors as learning opportunities rather than failures. Mean scores increased from 2.91 (pre-test) to 3.53 (Cycle 1), 4.01 (Cycle 2), and 4.40 (Cycle 3), indicating a steady rise in engagement. The findings suggest that PEM strategies can create a supportive classroom climate where students feel safe to participate, take risks, and learn from their mistakes.*

**Keywords:** Positive error management, student engagement, action research, public school

**Abstract ID: ICE25057**

## **Enhancing Memory through Simple Classroom Tools for Grade 7 Students**

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*This action research study examines how low-cost, evidence-based strategies—such as flashcards, mind maps, and mnemonic devices—can significantly improve memory retention in Grade 7 learners. Conducted in a government school in Karachi, the study shows a substantial 119% increase in mean test scores from pre-test to post-test, along with improved student confidence, engagement, and metacognitive awareness. The findings highlight that simple, strategic tools rooted in cognitive science can greatly enhance learning even in resource-limited classrooms.*

**Keywords:** Classroom tools, memory, students

## **Fostering Creativity and Collaboration through Quality Teaching Practices in Middle Schools Classrooms**

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*The growing emphasis on 21st century education highlights the urgent need to cultivate skills such as creativity, collaboration, critical thinking and communication among learners. These competencies equip students to thrive in an interconnected, technology driven world. This study investigates how quality teaching practices can foster creativity and collaboration among Middle school students in Grades VII, VIII and IX. Guided by the constructivist framework, the research adopts a qualitative design supported by limited quantitative data to enrich understanding. Data was collected through semi structured interviews with teachers, focus group discussions with students, classroom observations and a short student perception survey. The findings reveal that teachers employ a range of strategies, such as project based learning, inquiry based tasks and group problem solving to encourage students to think creatively and work collaboratively. Students reported feeling more engaged and confident when given opportunities to express their ideas and collaborate meaningfully with peers. However, challenges including rigid curricula, limited resources and assessment pressures were found to hinder the consistent implementation of creative and collaborative learning practices. The study concludes that quality teaching is not merely about content delivery but about designing purposeful, student centered experiences that nurture essential 21st century skills. It recommends professional development programmes, flexible curricula and innovative assessment approaches to support teachers in embedding creativity and collaboration in daily instructions. The implications of this research emphasize the need for educational institutions to rethink teaching approaches aligning them with global skill demands and lifelong learning goals.*

**Keywords:** 21st century skills, quality teaching, creativity, collaboration

## Improving Mental Well-Being of 6th Grade Students using Mindfulness Techniques

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*This action research explores the effectiveness of mindfulness techniques in improving the mental well-being of 6th grade students. The study was conducted with 15 students at a government girls secondary School in Karachi, 3 cycles action research design was used with mental well-being assessed through strength and difficulties questionnaire (SDQ) as a baseline assessment pre-test and after each cycle. Across cycles, students set of mindfulness activities such as grounding, mindful breathing, visualization, worry box writing and self-affirmation. Mean scores increased from 40.33 (baseline) to 46.4 (cycle 1), 55 (cycle 2), and 64.9 (cycle 3) finding suggest that embedding short mindfulness practices into daily routine can significantly support students' emotional help focus, and stress management.*

**Keywords:** Emotional health, mental well-being, mindfulness, pre-test, stress management

## **Using role play methodology to Enhance Student Participation in the Elementary English classroom**

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*This action research explored how the Role-Play methodology can enhance student participation in an elementary English classroom. The study was conducted with Grade 6 students at a government school in Karachi. A three-cycle action research design was used, and student participation was measured through pre- and post-tests using Likert-scale questionnaires. Across cycles, students engaged in structured role-play activities designed around real-life situations, dialogue practice, and group performances. Mean participation scores increased steadily from 1.43 (baseline) to 2.08 (Cycle 1), 2.77 (Cycle 2), and 4.11 (Cycle 3). Findings indicate that role-play enhances confidence, reduces hesitation, encourages interaction, and fosters a more active and enjoyable English learning environment.*

**Keywords:** Elementary Classroom, role-play, three-cycle action



## Feedback as Educational Justice: Enhancing English Literacy in Marginalized Karachi Classroom

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*In Pakistan's government girls' secondary schools, English is taught as a second language within systems marked by overcrowded classrooms, limited instructional resources, and heavy exam-driven teaching. Feedback is one of the most effective strategies to improve students' learning outcomes, yet it remains underdeveloped, often reduced to vague terms such as "good," "okay," or "try harder." Despite recent nationwide assessments indicating ongoing difficulties, learners still face challenges in basic English literacy (ASER Pakistan, 2023; PEC, 2022). One contributing factor is the minimal guidance they receive on effective learning strategies. Meanwhile, tech-driven feedback systems are reshaping classroom globally. While private schools increasingly experiment with digital feedback apps, students in public schools remain dependent on minimal, inconsistent teacher comments. This study investigates how constructive and dialogic feedback can strengthen English learning in a government girls' secondary school, offering an alternative model suited to low-resource classrooms. Drawing on contemporary feedback theories (Hattie & Timperley, 2007; Carless & Boud, 2021) and emerging work on feedback literacy in AI-mediated education, the research explores how meaningful feedback practices shape students' confidence, comprehension, and participation. A qualitative action research design was implemented across two cycles, involving pre/post-tests, classroom observations, focused group discussions, and interviews with the English teacher. Findings disclose a substantial improvement in student's language accuracy, word choice, and engagement among learners. Showing that when feedback become specific, timely, and forward-looking, students shift from passive receivers to active meaning-makers. Despite the absence of digital tools, the teacher's redesigned feedback system functioned as a form of low-tech innovation, narrowing some of the gaps that AI feedback tools might otherwise fill. The study concludes that constructive feedback is an essential equity tool in Pakistan's public education system. In girls' schools especially, where learners often lack academic confidence, purposeful feedback strengthens voice, agency, and long-term engagement.*

**Keywords:** Action research, constructive feedback, feedback literacy, student engagement

## **Encouraging Water Conservation Awareness in Schools: Testing the Impact of Awareness Campaign on Grade 7 Student: Water Usage Habits**

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*Pakistan is experiencing severe water scarcity, yet environmental education in government schools remains largely textbook-driven, examination-oriented, and disconnected from students lived ecological realities. Research conducted in Pakistan highlighted that school teach environmental topic but student rarely do inquiry-based activities, they just learn the concept but do not develop the skills to act on it. Similarly, global studies also shared that experiential learning and specifically campaign-based action oriented environmental education, improves pro environmental behaviors, builds civic responsibilities and long-term ecological stewardship in young children. However, in Pakistan, low-resource public schools have limited use of these active learning approaches, and this area is not well studied. Therefore, this qualitative action research addressed this gap by observing the effectiveness of an awareness-campaign methodology for building water-saving habits among 20 students of seventh-grade girls at a government girls' secondary school in Karachi. Grounded by Creswell's cyclical Action Research model, three experiential learning cycles were implemented on six lessons that incorporate Science and Social Studies concepts, students led campaign activities, engaged in positive discussions, created awareness campaign promotion material, and motivational messages to their families and school community. Data from semi-structured teacher interviews, focus groups with students, reflective journals, and lessons were thematically analyzed. Baseline findings revealed the incomplete understanding, limited environmental authority, and the control of rote teaching strategies. Post intervention proved the effective impact on students by demonstrating enhance critical thinking, understanding, confident public speaking and unleash their creativity as well transform young students in an agent of positive change. Teachers stated a methodological shift towards learner-centered strategies. This Action Research participates to Pakistani and global scholarships by displaying the impact of campaign-based, experiential and critical strategies can shift environmental learning exceed awareness towards sustained behavioral and promote positive change in community.*

**Keywords:** Awareness campaign methodology, active learning, environmental education, experiential learning.

## **Using Constructive Social Emotional Learning Technique to Increase Students' Engagement in the Elementary Science Education**

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*This action research explored how Social-Emotional Learning (SEL) strategies can enhance student engagement in an elementary science classroom. The study was conducted with 9 students in a government school in Karachi, using a quantitative-methods approach. Data were collected through pre and post-intervention questionnaires, classroom observations, interviews, and teacher reflective journals. SEL strategies such as think-pair-share, group problem-solving, presentations, emotional check-ins, and cooperative learning activities were integrated across three action research cycles. Findings revealed a consistent increase in student confidence, participation, teamwork, and emotional regulation. Students who were initially shy, disengaged or hesitant began participating actively, communicating better, and displaying improved behavior. The results suggest that SEL-based teaching can create a supportive, safe, and motivating science classroom environment where students feel emotionally secure and more willing to engage in Learning.*

**Keywords:** Emotional stress, social emotional behavior, problem solving skills, student's engagement, feel confident in science classroom through SEL

## Parental Engagement Initiative to Bridge the Literacy Gap

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*As the school day ends, educators aspire to extend their students' educational growth and development into their home environments. Educators encounter challenges when some students' academic growth is confined to the school day, with little to no reinforcement at home. The underlying causes include an inadequate understanding of the child's literacy development, their access to meaningful resources, and ineffective communication between school and home. It is a question that educators confront: how can we establish effective channels of communication with families to increase active parental involvement in literacy education, thus enabling students to engage in discovery-based experiences at home. Recognizing that parental involvement is a pivotal factor in children's literacy practices, greater than the influence of family background variables such as socio-economic status, family size, and parental education level (Flouri & Buchanan, 2004), we designed an interactive program to engage parents from diverse educational backgrounds in understanding and supporting their children's literacy and academic development. Additionally, research highlights that fostering reading enjoyment is more crucial for children's educational success than their family's socio-economic status (OECD, 2002). Exposure to reading and the world of stories has been made an important element in each module of the program. The poster presentation highlights the intervention of parental engagement programs: PARWAAZ, Family Literacy Program, and URAAN, which equip parents of Pre-Primary and Primary children with essential literacy knowledge to enhance their child's skills in reading and writing. The literacy program takes place every two months. Parents actively participated in intervention activities with their children, where the teachers facilitated the connection between parents and children. Parents learn phonics instruction as part of our language program and learn to create resources to reinforce learning at home. Research suggests many parents believe they are not competent enough to adequately instruct their children. Therefore, this program also bridges this gap by giving interactive homework to the child and guiding parents with the instructions used to teach the children. The evaluation of this program showed highly positive results, as seen in increased parent-child interactions. Parents reported that they gained new knowledge through teacher-led sessions and their interaction with other parents. Findings indicated that parents exhibited a high level of knowledge, skills, and attitudes in their children's literacy development.*

**Keywords:** Parental engagement, family literacy, literacy interventions, parental empowerment

## Enhancing Application of Science Concepts through Case Based Learning

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*Engaging students in applying scientific concepts remains a persistent challenge in traditional classroom settings, where learning often emphasises memorisation rather than conceptual understanding. To address this challenge, the study employed a Human-Centered Design (HCD) methodological approach to implement and evaluate a case-based learning (CBL) intervention aimed at enhancing Grade 7 students' application skills in the topic of Forces. The study was conducted in a private school in Karachi with 23 students over six days. A researcher-developed "Forces Application Test" (FAT) served as a pre- and post-test to quantitatively measure learning gains. The test was validated through a Content Validity Index (CVI) process with nine experts, achieving a CVI of 1. Qualitative data were collected through classroom discussions' and reflective journals. For Quantitative analysis pre- and post-test scores were analysed using a paired-sample t-test indicated a statistically significant improvement in application skills ( $p < 0.05$ ) with a large effect size ( $r = 0.87$ ). Qualitative findings highlighted increased attention, active participation, and deeper engagement. Careful designing of cases was necessary to ensure alignment with the topic, which ultimately supported the application of knowledge. Overall, the findings suggest that CBL can enhance students' application skills, highlighting the potential for middle-school teachers to adopt context-driven, student-centered strategies that transform classrooms into environments where learning is engaging, relevant, and connected to everyday life.*

**Keywords:** Application skills, case-based learning (CBL), human-centered design (HCD), student engagement

## Parental Engagement Initiative to Bridge the Literacy Gap

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*As the school day ends, educators aspire to extend their students' educational growth and development into their home environments. Educators encounter challenges when some students' academic growth is confined to the school day, with little to no reinforcement at home. The underlying causes include an inadequate understanding of the child's literacy development, their access to meaningful resources, and ineffective communication between school and home. It is a question that educators confront: how can we establish effective channels of communication with families to increase active parental involvement in literacy education, thus enabling students to engage in discovery-based experiences at home. Recognizing that parental involvement is a pivotal factor in children's literacy practices, greater than the influence of family background variables such as socio-economic status, family size, and parental education level (Flouri & Buchanan, 2004), we designed an interactive program to engage parents from diverse educational backgrounds in understanding and supporting their children's literacy and academic development. Additionally, research highlights that fostering reading enjoyment is more crucial for children's educational success than their family's socio-economic status (OECD, 2002). Exposure to reading and the world of stories has been made an important element in each module of the program. The poster presentation highlights the intervention of parental engagement programs: PARWAAZ, Family Literacy Program, and URAAN, which equip parents of Pre-Primary and Primary children with essential literacy knowledge to enhance their child's skills in reading and writing. The literacy program takes place every two months. Parents actively participated in intervention activities with their children, where the teachers facilitated the connection between parents and children. Parents learn phonics instruction as part of our language program and learn to create resources to reinforce learning at home. Research suggests many parents believe they are not competent enough to adequately instruct their children. Therefore, this program also bridges this gap by giving interactive homework to the child and guiding parents with the instructions used to teach the children. The evaluation of this program showed highly positive results, as seen in increased parent-child interactions. Parents reported that they gained new knowledge through teacher-led sessions and their interaction with other parents. Findings indicated that parents exhibited a high level of knowledge, skills, and attitudes in their children's literacy development, and their interactions became more supportive and literacy focused.*

**Keywords:** Family literacy, literacy interventions, parental empowerment, parental engagement



## Competency-Based Learning Pathways

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*Developing strong reading skills in early learners is critical for academic success, yet Urdu presents unique challenges due to its complex letter–sound correspondences and phonological inconsistencies. Many children struggle to decode text accurately, which can undermine reading fluency, comprehension, and overall confidence. Young Urdu readers often struggle to decode text due to the language’s complex and inconsistent letter–sound relationships. A single sound may correspond to multiple letters, while individual letters can represent different sounds depending on their position in a word. These inconsistencies make decoding difficult and frequently lead children to rely on rote memorization rather than systematic reading strategies. Such dependence weakens fluency, reduces confidence, and limits comprehension. This study investigates the effectiveness of Competency-Based Learning Pathways in improving decoding accuracy and reading fluency among children learning Urdu through systematic phonics instruction. The program is structured around sequential, teachable units that introduce high-frequency sounds first, gradually incorporating exceptions and variations, enabling learners to apply consistent decoding strategies. The design also draws on the Pakistan Reading Project (PRP) framework, which provides evidence-based approaches to early-grade reading, including phonemic awareness, structured scope and sequence, and explicit letter–sound instruction. Implemented sequentially, beginning with high-frequency sounds and gradually introducing exceptions, the approach strengthens decoding accuracy and promotes automaticity. Findings indicate that explicit Urdu phonetic instruction significantly enhances students’ word-reading skills, fluency, and overall comprehension. As decoding becomes more efficient, learners are better able to focus on meaning, engage with text, and develop a positive orientation toward reading. The study concludes that a systematic phonics program tailored to Urdu’s unique phonological structure offers a powerful pathway to improved literacy outcomes and lays a strong foundation for future academic success.*

**Keywords:** Early literacy, letter–sound relationships, reading fluency, comprehension, systematic phonics instruction, Urdu phonics

## Two-Group Teaching in Early Childhood Development: Large Classes: A Pathway to Impactful Teaching

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*Early Childhood Development (ECD) represents a foundational period where children build essential cognitive, social, emotional, and motor skills that influence their long-term learning trajectories. However, in many educational settings, particularly those with resource constraints, teachers often manage large class sizes that hinder meaningful interactions, individualized attention, and effective instructional delivery. Large classrooms can create challenges such as disengagement, behavioral difficulties, and limited opportunities for differentiated learning. As a result, educators are compelled to explore innovative strategies that can optimize learning despite these limitations. One promising instructional approach is two-group teaching, a model in which the class is divided into smaller, more manageable groups to improve focus, engagement, and teacher-student interaction. This paper examines the effectiveness of two-group teaching in large ECD classrooms and demonstrates how this method can enhance both instructional quality and child development outcomes. By organizing students into two groups: one participating in teacher-led instruction and the other engaged in independent, hands-on, or peer-supported activities, teachers can create a more balanced and responsive learning environment. Teacher-led sessions allow for targeted instruction, immediate feedback, and active participation, while the independent group fosters autonomy, creativity, problem-solving, and social collaboration among children. This structured rotation not only maximizes learning time but also enables teachers to closely monitor developmental progress and tailor their strategies to meet diverse learning needs. The two-group teaching approach further supports holistic development by encouraging children to practice self-regulation, make choices, and engage in purposeful play, key components of high-quality ECD practice. Additionally, the strategy improves classroom management by reducing crowding, noise, and behavioral disruptions, creating a calmer and more productive learning environment. Implementation requires thoughtful planning, developmentally appropriate materials, clear routines, and continuous observation, but the long-term benefits are significant. Overall, this model offers a practical and impactful solution for educators working in large early childhood classrooms. It addresses the challenges of limited resources while promoting meaningful engagement, individualized learning, and child-centered pedagogy. The findings highlight the potential of two-group teaching to transform classroom experiences, enhance teacher effectiveness, and support children's holistic growth during the most critical years of development.*

**Keywords:** Early childhood development (ECD), large classrooms, two-group teaching, instructional strategy, differentiated learning, holistic development

## Enhancing Engagement of Grade 3 Students Through Intrinsic Motivation Strategies

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*This action research investigated the effect of activity-based strategies on enhancing the intrinsic motivation of Grade 3 students. The study was conducted in a private elementary school (XYZ) in DHA, Karachi and followed three cycles of intervention. Each cycle applied a different activity-based lesson plan i.e. pair activities in Cycle 1, group activities in Cycle 2 and student led activities in Cycle 3. Data were gathered through a range of tools including pre and post lesson plans, observation checklists, student self-assessment checklists, field notes and samples of student work. A qualitative approach was employed and the results were presented in quantitative form to highlight measurable improvements in student motivation and engagement across the three cycles. The data was analyzed through Thematic analysis to identify recurring themes and assess the effectiveness of teaching methods. This study provides valuable guidance for teachers. Activity based lesson plans that incorporate pair work, group tasks and student led approach when supported by reflection tools can effectively foster intrinsic motivation and strengthen engagement in Grade 3 classroom.*

**Keywords:** Activity-based strategies, intrinsic motivation, primary level, students' engagement

## **Impact of Reading Strategies on Critical Thinking of Grade 10 Students at XYZ School**

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*This action research project investigated how the integration of active reading strategies supported by active reading strategies and tools to enhance students' critical thinking, engagement, and learning performance across three instructional cycles. The study examined students' baseline behaviours, comprehension challenges, and participation patterns before implementing targeted improvement strategies. Through the use of guided reading, annotation tools, group discussions, digital organizers, and multimodal activities, students gradually demonstrated increased motivation, improved inferential reasoning, and deeper analytical engagement with texts. The thematic analysis revealed recurring patterns related to behavioural challenges, teacher adaptation, classroom management, reflective professional growth, and gradual student improvement. As different reading strategies and structured collaborative practices were embedded into instruction, students exhibited greater autonomy, confidence, and participation in both oral and written tasks. The findings highlight the importance of adaptive pedagogies, continuous teacher reflection, and strategically designed reading interventions in strengthening critical thinking and fostering sustained academic growth in middle-school learners.*

**Keywords:** Critical thinking, reading strategies, autonomy, confidence

## Strategies to Overcome Mathematics Anxiety in Students

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*This action research study investigates practical classroom strategies to reduce mathematics anxiety of Grade 8 students. Over the course of three cycles, this study examined approaches that could help students feel calmer and confident with math: emotional routines, peer support, real-life examples of math in practice, visual step-by-step guidance, and low-pressure practice using digital resources. Data collection consisted of teacher reflection journal, student self-reflection forms, peer observation notes, classroom behaviours, and performance on two school-based tests. These findings revealed that the six focus students showed strong anxiety at the start, such as freezing, shaking legs, avoiding eye contact, and hesitating to attempt questions. These behaviors became lighter as students responded positively to breathing exercises, affirmations, cooperative learning, familiar real-life contexts, and structured visuals. Apparent emotional improvement came earlier than academic progress. During the second test, one student showed a strong improvement, three improved slightly, one showed no difference, but all six showed clearer emotional stability and better control during the test conditions. This paper concludes that emotional support for reducing math anxiety needs to be sustained, instructional steps clear, and the classroom a safe place. Practical daily strategies can help anxious students participate more confidently and manage their fear of mathematics.*

**Keywords:** Affective strategies, classroom interventions, emotional regulation, mathematics anxiety

## The Impact of Structured Warmup and Movement-Based Energizer on Student Attention in an Inclusive School in Grade VI

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*The purpose of this action research was to examine how structured warm-ups and movement-based energizers influence student attention in an inclusive Grade VI classroom. I aimed to understand whether predictable routines could help students settle faster, remain attentive for longer periods, and participate more confidently, as suggested by previous work on structured learning and attention (Erwin et al., 2022; Silva-Capella et al., 2021). The study was completed over two cycles. Cycle 1 involved unstructured warm-ups and energizers, while Cycle 2 implemented structured routines, including Quick Write, Daily Reading Recap, Vocabulary Jump, and the Four Corner Game. Data were gathered through behavior engagement checklists, observation notes, reflective journals, and co-teacher discussions. The analysis focused on comparing attention levels, transitions, and participation across both cycles, reflecting approaches described in movement and behavior studies (Broad et al., 2023; Mazzoli et al., 2021). Findings showed that structured routines significantly improved student attention and learning flow. Transition times decreased from an average of 150 seconds in Cycle 1 to 25 seconds in Cycle 2. Students appeared calmer, more focused, and more confident participating. These outcomes align with research showing that structured movement and predictable routines enhance attention, self-regulation, and engagement (Fochesatto et al., 2024; Lynch et al., 2022). The study suggests that structured warm-ups and purposeful movement energizers can meaningfully support focus and inclusivity in diverse classrooms. Future research could explore long-term effects or extend the approach to other subjects.*

**Keywords:** Attention, energizer, structured, warmup



## Impact of Three Forms of Novels on Enhancing Critical Thinking and Metacognition

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*This action research study was conducted in an 8th-grade English Literature classroom of 26 girls to explore how different forms of novels support students' critical thinking and metacognitive development. Implemented over three cycles—three weeks of a plain-text novel (Widow's Might), four weeks of an illustrated novel (The Swiss Family), and three weeks of a graphic novel (Oliver Twist)—the project used qualitative tools such as PETAL, PEARL, and annotation sheets to analyze students' responses. Findings revealed that 80–85% of students showed notable improvement in critical thinking, interpretation, and character analysis across the cycles. Illustrated and graphic novels provided scaffolding for learners who struggled with plain text, while stronger readers preferred text-only formats for imaginative engagement. Beyond the intended outcomes, the study also showed growth in collaboration, communication, confidence, creativity, and artistic expression. Even previously shy students, including one with a speech difficulty, demonstrated remarkable participation and humor during the graphic novel cycle. Overall, the research concludes that using three forms of novels—plain, illustrated, and graphic—effectively caters to diverse learners and enhances both cognitive and non-cognitive skills in middle-school literature classrooms.*

**Keywords:** Collaboration, confidence, critical thinking, metacognition

## **Impact of Short Brain Breaks During Math Lesson on Grade 8 Students' Performance and Engagement in Class**

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*This action study investigates the effect of three structured brain breaks (Physical, Creative and Outdoor/Nature based) on the engagement and mathematical performance on grade VIII students. The interventions were implemented across multiple instructional cycle to explore how purposeful pauses influences learners' behavioral, emotional and cognitive readiness for mathematics learning. Using a qualitative method approach data was collected from pre-post assessments, student feed forms, peer observation and teachers' journals showed considerate improvement in engagement, motivation and emotional preparedness suggesting that brain breaks helped them regulate stress, refresh cognitive focus and continuing their learning tasks with improved energy. These improvements were frequently observed by peers and documented through teachers' reflection emphasizing positive shift in the classroom climate. Although academic performance remained steady throughout cycles. The findings imply that while brain breaks may not immediately affect quantitative academic achievements, they play a significant role in building conditions essential for deeper learning, such as enhanced focus, reduce weariness, heightened interest and strengthened student-teacher connection all of which are crucial foundations for long-term academic growth and learners' well-being.*

**Keywords:** Academic performance, brain breaks, engagement, motivation

## **Enhancing Engagement of Grade 3 Students through Intrinsic Motivation Strategies**

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*This action research investigated the effect of activity-based strategies on enhancing the intrinsic motivation of Grade 3 students. The study was conducted in a private elementary school (XYZ) in DHA, Karachi and followed three cycles of intervention. Each cycle applied a different activity-based lesson plan i.e. pair activities in Cycle 1, group activities in Cycle 2 and student-led activities in Cycle 3. Data were gathered through a range of tools including pre and post lesson plans, observation checklists, student self-assessment checklists, field notes and samples of student work. A qualitative approach was employed and the results were presented in quantitative form to highlight measurable improvements in student motivation and engagement across the three cycles. The data was analyzed through Thematic analysis to identify recurring themes and assess the effectiveness of teaching methods. This study provides valuable guidance for teachers. Activity based lesson plans that incorporate pair work, group tasks and student led approach when supported by reflection tools can effectively foster intrinsic motivation and strengthen engagement in Grade 3 classroom.*

**Keywords:** Activity-based strategies, intrinsic motivation, primary level, students' engagement

## Enhancing Logical Reasoning in Middle School Students Through Cross-Curricular Integration

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*This action research study examined the effectiveness of a cross-curricular STREAM (Science, Technology, Research, Engineering, Arts, and Mathematics) approach in improving logical reasoning skills among Grade 5 students. In the selected classroom, subjects were traditionally taught in isolation, limiting students' ability to form conceptual connections or apply learning in real-life contexts. Initial observations showed that while students demonstrated basic factual recall, they struggled to explain reasoning, identify cause-and-effect relationships, or transfer concepts. For instance, although many could name parts of a plant, they were unable to relate those parts to human needs or environmental survival—highlighting the need for integrative, reasoning-focused instruction. To address this, a three-cycle, six-week intervention was implemented, featuring one integrated STREAM lesson per week. Cycle 1 emphasized observation, drawing, and scientific explanation through activities such as examining leaves and sketching plant structures. Cycle 2 centered on real-world applications using the topic of natural resources, where students created mind maps, matched resources with uses, handled real objects, and designed posters on water conservation. Cycle 3 introduced scenario-based worksheets and collaborative poster-making, requiring students to analyze situations and justify decisions. Data were collected through observation checklists, student work samples, reasoning responses, group artifacts, and teacher reflections. These tools captured students' growth in explanatory depth, conceptual connections, and reasoning accuracy. Results showed a consistent improvement in students' ability to articulate multi-step reasoning, especially during visual, hands-on, and collaborative tasks. Integrative activities strengthened vocabulary, communication, and confidence, while group work supported peer learning and deeper cognitive engagement.*

**Keywords:** Cross-curricular integration, logical reasoning, Primary education, STREAM approach

## Effect of Collaboration to Enhance Communication Skills

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*Being able to communicate effectively is essential for success in every walk of life. Collaborative learning experiences, in which students actively participate and interact, offer a promising alternative to traditional learning methodologies which have long been used to enhance communication skills. My research study investigates how the communication abilities of my 6th graders improved with the help of interactive learning experiences. I found the selected collaborative activities that could perfectly increase the communication skills and comprehend the underlying mechanisms behind this progress are the main goals, though I faced challenges due to the majority of the children having low economic backgrounds and absence of multimedia and latest Tech-tools. Based on social learning theories, specifically Vygotsky's sociocultural theory and Bandura's social cognitive theory, this study investigates how social interactions, collaboration, teamwork, and group assignments proved to be effective in enhancing communication skills. This qualitative research was carried out in the school located at Korangi Creek, in 6th grade. The review of the literature emphasizes the beneficial relationship between the collaborative learning experiences and a range of communication abilities, such as digital, intercultural, active listening, verbal, nonverbal, interpersonal, compositional writing, and presentation skills. Through an examination of educational environments, classroom dynamics, and feedback systems, the research seeks to identify practical approaches to all interactive learning and teamwork that promote communication skills. My research offered insightful information to educators and other stakeholders, highlighting the importance of collaborative learning in improving communication skills. The results are taken through using the communication checklists and rubrics I created to observe the skills improving on providing them opportunities to interact and express themselves. Throughout the study, participant confidentiality and informed consent will be preserved as ethical requirements.*

**Keywords:** Communication skills, collaboration, digitalization, AI

## **Integrating AI Tools in Geometry Instruction: Effects on Grade 11 Students' Engagement and Academic Performance in a Pakistani Private School**

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*This action research investigated how structured use of Artificial Intelligence tools can support student engagement and academic performance in Grade 11 Mathematics in a secondary classroom in Karachi, Pakistan. The study followed a four-week action research cycle. Week 1 established a baseline using classroom observations, a pretest on targeted geometry concepts, and a Google Forms survey exploring attitudes toward Mathematics and comfort with digital tools. Weeks 2 and 3 introduced Khan Migo and Magic School through guided routines that emphasised attempt first, justify choices and verify reasoning. Teacher observation checklists, brief class discussions and reflective journaling captured learner experiences during implementation. Week 4 evaluated impact using an equivalent posttest, a follow up survey and a small group discussion to gather qualitative insights. Data were analysed through thematic analysis and triangulation across assessment outcomes, observation evidence and student voice. Findings suggest that AI tools were most effective when embedded within clear classroom routines that promoted reasoning and verification, leading to improved participation, greater confidence and clearer conceptual understanding in topics requiring multi step problem solving and visualisation. Practical constraints such as connectivity issues, limited device access and distraction risks highlighted the importance of offline alternatives, explicit classroom norms and responsible use guidelines to ensure that student thinking remains central.*

**Keywords:** AI tools, geometry, student engagement, academic performance



# ABSTRACTS

## *“Project Display” (Edupreneurship)*



## **Wise Root Parenting Hub**

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*Wise Root Parenting Hub is a Pakistan-based initiative designed to provide culturally relevant, practical, and affordable parenting support for families across the country. Recognising that most parenting resources are Western and not aligned with Pakistani household realities, the hub offers locally contextualised workshops focused on behaviour management, discipline, study habits, and emotional regulation. Parents receive ready-to-use English and Urdu toolkits including routines, reward charts, and study planners—along with continuous support through WhatsApp groups, short videos, and voice notes. The program follows a flexible delivery model combining online sessions, in-school training, and hybrid options to ensure accessibility for busy parents. Affordable subscription plans and school partnerships make the service reachable for diverse communities. Led by educators, parenting coaches, and child-development specialists, Wise Root Parenting Hub aims to strengthen family relationships, promote healthy child development, and build a nationwide community of confident, informed Pakistani parents.*

**Keywords:** Development, hub, parent, support

## **The Braincrew**

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The Brain Crew Summer Camp addresses a critical gap in Pakistan's educational landscape by providing meaningful, enriching summer programming for children aged 4-8 years in the DHA and Clifton areas of Karachi. As working parents increasingly seek quality childcare solutions that extend beyond mere supervision, there is growing demand for programs that nurture young minds through structured yet playful learning experiences during the long summer break. The problem is multifaceted: traditional summer camps often lack educational rigor, while academic programs may be too intensive and fail to incorporate the creative, hands-on exploration essential for early childhood development. Parents focused on holistic child development struggle to find options that balance digital literacy, creativity, wellbeing, and fundamental academic skills in a safe, nurturing environment. Additionally, limited availability and short program durations create accessibility challenges for families seeking consistent summer care. The Brain Crew Summer Camp offers an innovative solution through its carefully designed curriculum spanning June 16 to July 4, operating Monday through Thursday from 12-2 PM. The program delivers small-group guided sessions combining science experiments, phonics and reading, storytelling, mental math, yoga, arts and crafts, Urdu, and introductory technology skills including Canva for creating presentations. This integrated approach ensures children develop critical thinking, literacy, creativity, and digital competencies simultaneously. Built on the foundation of last year's successful camp iteration, the program emphasizes child-centered, safe learning environments led by experienced educators. By addressing both academic and wellbeing needs through balanced, engaging activities, The Brain Crew creates a trusted solution for discerning parents seeking more than conventional childcare offering instead a transformative summer experience where young minds genuinely thrive.

**Keywords:** Early childhood education, Holistic development, Summer camp, Working parents

## **Primepath A level College**

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*PrimePath is Pakistan's first fully online, affordable Cambridge A Level college designed to bridge educational inequities and expand access to high-quality international education. The initiative addresses critical market gaps, including high tuition costs, geographic limitations for students in underserved regions, and the lack of flexible learning models. By leveraging certified teachers, structured virtual classrooms, and interactive digital platforms, PrimePath delivers a comprehensive and accessible learning experience nationwide. The program integrates live and recorded lessons, virtual whiteboards, and learning management systems with performance analytics to support personalized learning and parental engagement. In addition, PrimePath offers real-world practical exposure through partnered science lab sessions and ensures data security through robust cloud-based platforms. With a scalable roadmap, the project aims to begin with 120 students, achieve break-even within the first year, and expand nationally. PrimePath aspires to transform Pakistan's education landscape by making globally recognized qualifications accessible to diverse learners across socio-economic backgrounds.*

**Keywords:** Authenticated, affordability, interactive classrooms, Structured virtual classroom,

**StudyNest - Edtech Venture**

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*StudyNest is an ambitious EdTech venture redefining how Pakistani students access academic support in an increasingly digital world. Despite a rapidly growing education sector, students continue to face persistent challenges: expensive private tutoring, inconsistent teaching standards, limited access to qualified subject experts, and a lack of personalized learning pathways. These gaps are even wider for students outside major cities, while tutors themselves struggle to find credible, stable platforms to showcase their expertise. This imbalance between learning needs and accessible, dependable academic help forms the central problem which StudyNest aims to solve. StudyNest introduces a modern, technology-driven solution an online learning ecosystem that unites AI-powered tutor matching, interactive live tutoring, recorded and animated lessons, and personalized career counselling into one seamless platform. By combining intelligent algorithms with verified tutors and bilingual instruction, StudyNest ensures that every learner receives tailored, high-quality support aligned with their grade level and curriculum. The platform's digital classroom, equipped with collaborative tools and automated progress tracking, enhances engagement and learning outcomes. As a two-sided marketplace, StudyNest sustains itself through commissions, premium subscriptions, content sales, and counselling fees. Guided by the Diamond–Circle–Square strategic framework, the startup demonstrates clarity in value creation, operational feasibility, adaptability to external trends, and strong resource alignment. Operating within a tutoring market worth PKR 50–60 billion and propelled by rising digital adoption post-Covid, StudyNest is ideally positioned for rapid expansion. Ultimately, StudyNest delivers more than tutoring it provides equal learning opportunities, empowers educators, and paves the way for a more inclusive, future-ready education system in Pakistan.*

**Keywords:** AI-powered tutor matching, EdTech, personalized learning, inclusive Education

# Thank You

