



Dr. Nauman Ahmad

Dr. Nauman Ahmed is a faculty member in the Department of Mathematics and Information Technology at the Centre for Preparatory Studies, Sultan Qaboos University. He holds a Ph.D. in Computer Science and Informatics from the University of Huddersfield in the UK. With 23 years of teaching experience, he has presented papers at international conferences, published research articles in international peer-reviewed journals, actively served as an advisor and associate editor for numerous journals and conference boards, trained hundreds of teaching faculty, and provided review services to local and international communities. He has been honored as a distinguished teaching faculty and a distinguished researcher by the CPS, SQU. Additionally, he participated as a panelist and delivered keynote speeches at international conferences.

In this interview, he talks to us about how he went through his research journey in his career.

RESEARCH SPOTLIGHT

A Researcher's Journey

1. How did you become interested in research? What inspired you to pursue research?

I developed an interest in research through my academic journey and teaching experience. My passion for enhancing academia and improving the teaching and learning processes motivated me to pursue research. The initial challenge that led me to embark on my research journey was related to finding the ways to support students not only as a teacher, but as a mentor to maintain mentor-mentee relationships.

2. Can you describe the focus or area of your research?

My primary research interests focus on the division of learning materials into micro-learning content and their implementation through Information and Communication Technologies. Additionally, I am engaged in research related to inclusive education, active learning techniques, identifying challenges and opportunities in teaching and learning, implementing Augmented Reality (AR) and Virtual Reality (VR) in education, integrating Artificial Intelligence (AI) tools, and integrating 21st Century Skills with the curriculum. I also work on developing pedagogical frameworks for educational leaders to enhance teaching and learning processes and improve the rankings of higher educational institutions through effective decision-making.

3. How has your research evolved or changed over the years?

My research has evolved in response to the changing circumstances brought by the pandemic (COVID-19). It has adapted to the growing requirements of 21st Century Skills and the integration of Information and Communication Technologies, with a specific focus on integrating Artificial Intelligence tools and their overall impact on pedagogy.



Training session for teaching and supervisory staff - Public and private Omani educational institutions arranged by MOE

4. Could you share the most significant or ground-breaking findings from your research?

Learners face challenges in memory retention, time management, deep understanding of the content, and information recall, and there was no structured framework that offers a combined and organized plan to systematically solve these problems for learners. The most significant findings of my research are linked to offer the active learning framework that had connected these scattered dots as separate problems and standalone solutions from the literature, to solve these issues as active learning techniques, titled "The Framework of Learner Centred Active Learning Techniques to Improve and Achieve Intended Learning Outcomes".

Moreover, the use of Micro Learning content in pedagogy through the use of Information and Communication Technologies through WhatsApp, Twitter, Audio Podcasts, Video Podcasts, Micro Text Messaging and Gamification are ground-breaking findings that had impacted the intended learning outcomes of learners in a positive way and elevated the understanding and test scores of the experimental groups.

There also have been several unexpected discoveries and serendipitous moments throughout my research journey. One instance that comes to my mind is when I was conducting a blended learning test on an experimental group on a completely different topic, and I came across a unique phenomenon that had never been studied and documented earlier in an organized and controlled manner, and I offered it as a structured active learning framework.

5. Are there any key milestones or accomplishments in your research journey?

Key milestones and accomplishments in my research journey include being awarded the titles of "Distinguished Teaching Faculty" and "Distinguished Researcher" by the Centre for Preparatory Studies at Sultan Qaboos University. Additionally, I have received recognition for outstanding papers at international conferences and was honoured with the "Academic Excellence" award by the Pakistani ambassador in Oman.



Distinguished Teacher Award - SQU University Day

6. What methodologies, tools, or techniques do you commonly use in your research? Why? and how have they evolved over time?

I employ various techniques and tools in my research, such as Micro Learning, use of Information and Communications Technologies (ICT), blended learning, survey questionnaires, statistical comparisons, and the development of pedagogical frameworks for students, teachers, managerial heads of educational institutions, parents, and other key stakeholders. These methods and frameworks play a crucial role in enhancing teaching and learning practices. The use of these tools has gained popularity and evolved, especially during the COVID-19 pandemic, along with the current emergence of artificial intelligence tools.

" While conducting research on teaching and learning, one memorable experience happened when I faced a challenging problem that required an innovative approach. I embraced the opportunity to think outside the box, collaborated with a network of professionals, and conducted a comprehensive literature review to devise a creative solution. This experience contributed to my growth as a researcher. "

7. How do you typically approach collaborations with other researchers or institutions?

I collaborate with various journals and conference boards, indicating my willingness to work with other researchers and institutions, collaborate, and exchange ideas. Furthermore, I provide advisory services to international conferences and a prestigious magazine. I serve as a member of international organizing committees for conferences and as a reviewer for various peer-reviewed journals.



Training Session - Teaching and Supervisory Staff - Omani Educational Institutions, arranged by MOE

8. Can you describe the impact of your research on your field or on society at large?

I have worked in various areas of teaching and learning that positively impacted Omani educational institutions and beyond. I will discuss a few examples here. My offered frameworks have assisted educational institutions. I delivered keynote speeches and presented my research to the Vice Chancellors and Rectors of European educational institutions to improve the international rankings of their universities, and to implement inclusive education to support disabled learners, along with the assessment of their institutional readiness for online education, especially in a post-pandemic scenario, through the involvement of pedagogical stakeholders. The framework for VARK learners supported Visual, Auditory, Read/Write, and Kinaesthetic learners through the use of videos, audio podcasts, Twitter, and gamification to enhance their understanding of learning content and achieve the intended learning outcomes.

I presented my research at the 22nd International Hybrid ELT Conference in Oman in 2023. It was well received by attendees, and some of them were from the Ministry of Education (MOE) in Oman. Due to their request to our CPS management to present the research to train their teaching faculty and supervisors in Oman. I conducted training sessions on my research, titled "The Framework of Learner-Centred Active Learning Techniques to improve and Achieve Intended Learning Outcomes". The training sessions were arranged by the MOE, and I trained more than 140 teaching and supervisory staff from government, private, and international educational institutions (monolingual and bilingual).

9. What motivates and drives you to continue your research journey?

My motivation to continue the research journey is driven by the passion for improving academia and making a positive impact on education.

10. How do you balance your research work with other aspects of your life, such as family and personal interests?

I manage my research work, family time, and personal interests through work-life balance strategies, including effective time management, family and self-care, defining boundaries, and effective communication that maintain balance between professional responsibilities and personal life. It is important to note that my wife and kids have been integral to this balance, providing unwavering support and understanding. Their encouragement and willingness to give me the time and space needed for conducting my research have played a crucial role in the success of my endeavours. This support not only enhances my overall well-being but also strengthens my ability to excel in both my professional and personal domains.

11. What advice do you have for aspiring researchers who are just starting their research journey?

My advice for aspiring researchers is to emphasize the importance of continuous learning, collaboration, and the pursuit of innovative solutions to research questions. Moreover, attend conferences and stay updated in your area of interest. In particular, I recommend participating in the ELT conference organized by the Centre for Preparatory Studies at Sultan Qaboos University, with a focus on attending as many sessions as possible. This will enable you to acquire new skills, keep up with industry trends, grab networking opportunities, and ultimately contribute to your professional growth.

"As an active researcher and frequent conference participant, I stay informed about the latest developments through conferences, academic networks, and by reading articles from journals, conference proceedings, books, and newspapers."

LIST OF PUBLICATIONS

Ahmad, N. (2023). "The Framework of Inclusive Education for Vice Chancellors of Universities Based on the Goals of Sustainable Development through Visual Digital Dashboard." *E-Leader International Journal*, 16(1). <https://www.g-casa.com>, ISSN 1935-4819, Chinese American Scholars Association, New York, USA.

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Ahmad, N. (2021). "A Conceptual Framework of Instruction after COVID-19 Pandemic - VIAUTWGA Hybrid for VARK Learners." *Proceedings of 12th International Conference on e-Learning*, Belgrade Metropolitan University, Belgrade, Serbia, 80-85.