

Evidence-based materials showing engagement in continuous and professional development activities

My engagement in continuous and professional development is grounded in the belief that effective teaching requires ongoing learning, reflection, and renewal. As an early career educator teaching large and diverse cohorts in computing, I have sought to develop not only disciplinary expertise but also stronger capacities in inclusive pedagogy, assessment design, mentorship, and community-engaged learning. My professional development has taken place through **five interconnected pathways: reflective refinement of teaching practice, innovation in learning and assessment, service-learning and intercultural engagement, mentorship across disciplinary and age boundaries, and dissemination through professional communities.**

First, I treat teaching itself as an ongoing site of professional learning. Since joining The Hong Kong Polytechnic University, I have continuously refined my courses through student feedback, consultation patterns, assessment performance, and close observation of where students struggle or disengage. Rather than treating feedback as evaluative only, I use it diagnostically to improve my teaching. For example, when students indicated the need for more hands-on and industry-relevant learning, I redesigned later opportunities to include AIoT-related projects involving robotic systems, humanoid robots, and practical computing applications. When students found foundational programming concepts difficult, I introduced more line-by-line tracing, scaffolded lab explanations, and low-stakes quizzes to reinforce understanding. This cycle of evidence, reflection, redesign, and implementation has been central to my development as a more responsive and inclusive educator.

Second, I have actively developed my expertise in technology-enhanced learning and assessment innovation. My work on adaptive learning and computerised adaptive testing has functioned as professional development in teaching as much as technical development. Through designing more personalised forms of assessment, I have deepened my understanding of learner variability, formative feedback, and scalable support for students with different levels of preparedness and confidence. This work has informed my teaching by encouraging more learner-responsive explanation, better scaffolding, and greater precision in assessment design. It has also strengthened my ability to connect educational theory with practical implementation in higher education settings through experimentation, conference dissemination, and iterative refinement.

Angelo A. Jimenez, President, University of the Philippines, Philippines – Dr. Mohammed “consistently transform complex concepts into intuitive, engaging learning experiences” and make “challenging topics accessible” while building “student confidence through steady progress.”

Third, I have pursued formal and experiential development in service-learning and community-engaged pedagogy. I completed a Continuing Education Course certificate in service-learning pedagogy and practice, which strengthened my understanding of how academic learning can be connected meaningfully with community needs, reflection, and student development. This learning was further deepened through service-learning engagement in the Philippines, where I worked across educational and community contexts shaped by different social, linguistic, and resource realities. The experience broadened my perspective on inclusive teaching, intercultural communication, and the importance of designing learning that is context-sensitive rather than based on assumed norms. It also reinforced my commitment to education as a relational and socially responsive practice. The educational value of this engagement was affirmed in external testimony from **Hon. Angelo A. Jimenez, President of the University of the Philippines**, who highlighted my clarity, inclusiveness, and ability to

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make complex concepts accessible while building student confidence through structured learning. These experiences have influenced my teaching in Hong Kong by making me more attentive to learner diversity, belonging, and the role of empathy in disciplinary learning.

Fourth, my professional development has also been strengthened through mentoring learners across age groups and disciplinary contexts. In addition to undergraduate teaching and supervision, I currently guide seven secondary-school students through the PolyU Junior Research Mentorship Program on interdisciplinary topics including brain modelling and surgical robotics. This experience has extended my pedagogical repertoire by requiring me to translate complex ideas for younger learners, support inquiry-based learning, and mentor across disciplinary and developmental boundaries. My work in this area has also been recognised by **Dr. Wai Hon-Wah, Director of the Industrial Centre at PolyU**, who noted my ability to support diverse learners through patient instruction, practical demonstrations, hands-on experimentation, and mentorship in undergraduate laboratory settings.

Dr. Wai Hon-Wah, Director, Industrial Centre, PolyU, Hong Kong observed that Dr. Mohammed “connected diverse learners, clarified intricate concepts, and demonstrated patient, thoughtful instruction alongside practical demonstrations,” while fostering “a rigorous yet inclusive learning environment.”

Finally, I view dissemination and collegial exchange as important parts of professional development because teaching improves when it is shared, discussed, and challenged within a professional community. Through invited talks, **faculty development activities**¹, workshops, and **academic outreach**, I have both learned from others and articulated my own developing practices in inclusive computing education, adaptive assessment, and interdisciplinary mentorship. Taken together, these activities show that my engagement in professional development is continuous, evidence-informed, and closely tied to improvement in teaching practice. I do not see development as separate from teaching; I see it as the process by which teaching remains reflective, humane, and responsive.



¹**Invitation for 5-Day Faculty Development Program (FDP): Making the Invisible Visible: Understanding Workplace Culture and Organizational Values in Higher Education**, Department of Physiotherapy, Manav Rachna International Institute of Research & Studies (MRIIRS), Faridabad, 27 April 2026