

Impact of Technologies in Learning & Teaching Processes during Covid -19 in Teaching Applied Chemistry in Polytechnic System

Dr. Mudrika I Ahmed

Sr. Lecturer, Department of Chemistry
Government Polytechnic, Nagpur, Maharashtra, India
mudrika.ahmed2@gmail.com

Abstract: *This article is a proposal for an empirical study planned to study the impact of social media in learning and teaching processes during COVID-19 and its expected impact on post COVID-19. This study will be exclusively focus on teaching applied chemistry in Polytechnic system using the help of Technology blended learning at secondary level.*

Keywords: Applied Chemistry, Blended Learning, Integrated Learning, Pedagogy, Technology

REFERENCES

- [1]. Bala, M. (2018). Use of ICT in higher education. Multidisciplinary Higher Education, Research, Dynamics & Concepts: Opportunities & Challenges For Sustainable Development (ISBN 978-93-87662-12-4), 1(1), 368-376.
- [2]. Beyoglu, D., Hursen, C., & Nasiboglu, A. (2020). Use of mixed reality applications in teaching of science. Education and Information Technologies, 25(5), 4271-4286.
- [3]. Boelens, R., Van Laer, S., De Wever, B., & Elen, J. (2015). Blended learning in adult education: towards a definition of blended learning.
- [4]. Donnelly, D., McGarr, O., & O'Reilly, J. (2011). A framework for teachers' integration of JCT into their classroom practice. Computers & Education, 57(2), 1469-1483.
- [5]. González-Galan, J. (2020). Media education in the ICT era: Theoretical structure for innovative teaching styles. Information, 11(5), 276.
- [6]. Hussain, I. & Suleman, Q., 2017. Effects of Information and Communication Technology (ICT) on Students' Academic Achievement and Retention in Chemistry at Secondary Level. Journal of Education and Educational Development, 4(1), pp.73-93.
- [7]. Kaur, M. (2013). Blended learning-its challenges and future. Procedia-social and behavioral sciences, 93, 612-617.
- [8]. Krause, M., Pietzner, V., Dori, Y.J. & Eilks, I., (2017). Differences and developments in attitudes and self-efficacy of prospective chemistry teachers concerning the use of ICT in education. Eurasia Journal of Mathematics, Science and Technology Education, 13(8), pp.4405-4417.
- [9]. Ojha, L. K. (2016). Using ICT in chemistry education. International Journal of Innovation, Creativity and Change, 2(4), 156-64.
- [10]. Pema, J., & Aksela, M. (2009). Chemistry teachers' and students' perceptions of practical work through different JCT learning environments. Problems of Education in the 21st Century.
- [11]. Rana, K., & Rana, K. (2020). ICT Integration in Teaching and Learning Activities in Higher Education: A Case Study of Nepal's Teacher Education. Malaysian Online Journal of Educational Technology, 8(1), 36-47.
- [12]. Rusek, M., Starkova, D., Chytry, V., & Bilek, M. (2017). Adoption of JCT innovations by secondary school teachers and pre-service teachers within chemistry education. Journal of Baltic Science Education, 16(4), 510.
- [13]. Savec, V. F. (2020). The opportunities and challenges for ICT in science education. Teknologian kehittäminen, 1(1),
- [14]. Savec, V. F. (2020). The opportunities and challenges for ICT in science education. Teknologian kehittäminen, 1(1),

- opetuksessa, 1(1), 1-1. Tigaa, R. A., & Sonawane, S. L. (2020).
- [15]. An International Perspective: Teaching Chemistry and Engaging Students During the COVID-19 Pandemic. *Journal of Chemical Education*, 97(9), 3318-3321.
- [16]. Torres-Madrofiero, E. M., Torres-Madrofiero, M. C., & Ruiz Botero, L. D. (2020). Challenges and Possibilities of ICT-Mediated Assessment in Virtual Teaching and Learning Processes. *Future Internet*, 12(12), 232.
- [17]. Valtonen, T., Kukkonen, J., Kontkanen, S., Sornilunen, K., Dillon, P., & Sointu, E. (2015). The impact of authentic learning experiences with ICT on pre-service teachers' intentions to use ICT for teaching and learning. *Computers & Education*, 81, 49-58.
- [18]. Yaylak, E. (2019). The attitudes and opinions of prospective teachers towards the use of technology in education. *International Journal of Education Technology and Scientific Researches*, 4(9), 149-175.
- [19]. Yen, S. C., Lo, Y., Lee, A., & Enriquez, J. (2018). Learning online, offline, and in-between: comparing student academic outcomes and course satisfaction in face-to-face, online, and blended teaching modalities. *Education and Information Technologies*, 23(5), 2141- 2153.
- [20]. Zhou, Q., Hu, J., & Gao, S. (2010). Chemistry teachers' attitude towards ICT in Xi'an. *Procedia-Social and Behavioral Sciences*, 2(2), 4629-4637.
- [21]. Giri, S., & Dutta, P. (2020). Identifying Challenges and Opportunities in Teaching Chemistry Online in India and COVID-19. *Journal of Chemical Education*, 98(2), 694-699.