Realising the Vision of Technology Integration: A Case Study of K-12 Private Schools in the United Arab Emirates

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Abstract

Heralded by the release of government policies such as *Vision 2021,* the United Arab Emirates (UAE) has joined the worldwide impetus for the integration of Information Communications Technologies (ICTs) into its K-12 education system as a central plank of reforms to its economy and education system. This presents challenges for schools in both public and private sectors in the UAE as they strive to adhere to national government and local education authority guidelines and standards for educational innovation. Whilst the UAE Government has invested heavily to support technology integration in public schools, private schools must fund their own technology integration initiatives. In a context of strong growth in the private K-12 sector and reported high teacher turnover rates, private school leadership faces particular challenges related to decision-making about investment in suitable technologies and support systems, including teachers' professional development. This chapter reports some preliminary findings from a qualitative case study investigating the teacher, school and system-wide factors impacting on technology integration in selected private schools located in four Emirates. The study combines policy analysis with semi-structured

interviews of a purposive sample of private school K-12 educators to yield a detailed understanding of the challenges faced by private sector UAE schools in implementing technology integration in response to national government policy directives. The findings will inform the development of an implementation framework providing guidance regarding critical success factors for effective technology integration in private schools with particular implications for school leadership and teachers' professional learning.

Keywords: Educational change, ICT, innovation, national education policy, private schools, professional development, teachers, technology, technology integration, UAE

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Introduction

The integration of digital technologies into schooling is a "complex process of educational change" that has been a feature of the education landscape in recent decades and one that continues to present challenges for 21st century schools and educators globally (Tondeur, van Braak, Ertmer, & Ottenbreit-Leftwich, 2016, p. 555). The current Covid19 pandemic has brought these issues into sharp focus as schools, teachers, students and parents across the globe adapt to new models of teaching and learning that leverage digital technologies to enable continuity of education amidst school closures and other disruptions to daily life (UNESCO, 2020). According to the Orgagnisation for Economic and Cultural Development (OECD) (2019), the impact of integrating Information Communications Technologies (ICTs) into schooling can be considered in terms of:

- the mandate for technology integration with respect to the need for students to develop digital literacy and competencies in order to "flourish in the digital age"

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to the "myth" of a values-neutral "technological imperative" (Hoffman, 2006, p. 10) which they claim is designed to serve the vested interests of those who stand to profit from the proliferation of educational technologies rather than, and possibly even at the expense of, those whose interests the education enterprise is meant to serve. Putting meaningful pedagogical innovations front and centre of technological integration in schools, as recommended by Tondeur et al. (2017), serves as a guiding principle for school leadership moving forward into the post-Covid19 era.

References

Abu Dhabi Education Council's e-Learning initiative. (2013). In ADEC. Retrieved from https://www.adec.ac.ae/en/MediaCenter/News/Pages/

AdvancEd. (2017). *AdvancEd performance standards for school systems*. Retrieved from https://www.advanc-ed.org/sites/default/files/documents/APS_Systems.pdf

AdvancEd. (2018). *AdvancED policies and procedures for accreditation and certification*. Retrieved from https://www.advanc-ed.org/sites/default/files/documents/AdvancED-Policies-and-Procedures.pdf.

Alkhyeli, H., & Van Ewijk, A. (2018). Prioritisation of factors influencing teachers' job satisfaction in the UAE. *International Journal of Management in Education12*(1), 1-24, ISSN: 1750385X; 17503868

Almekhlafi, A. G., & Almeqdadi, F. A. (2010). Teachers' perceptions of technology integration in the United Arab Emirates school classrooms. *Educational Technology & Society, 13* (1), 165–175

Alsharief, T. (2018). Pre-service teachers' perceptions of the barriers to ICT ni noitargetni tuf riehture instructional practice in a Gulf State. *(Doctoral dissertation, University of Liverpool, United Kingdom).* Retrieved from: https://livrepository.liverpool.ac.uk/3026617/1/H00025528_Sep2018.PDF

Andersson, S. B. (2006). Newly qualified teachers' learning related to their use of information and communication technology: A Swedish perspective. *British Journal of Educational Technology, 37*(5), 665-682

Angélli Genlott, A., Grönlund, Å., & Viberg, O. (2019). Disseminating digital innovation in school—leading second order educational change. *Education and Information Technologies,* doi.org/10.1007/s10639-019-09908-0

Archambault, L., & Crippen, K. (2009). Examining TPACK among K-12 online distance educators in the United States. *Contemporary Issues in Technology and Teacher Education, 9*(1), 71-88.

Atl, M., & Guessoum, N. (2010). eLearning in United Arab Emirates. In U. Demiray (Ed), *E-Learning Practices*. Turkey: Anadolu University

Beidas-Strom, S., Rasmussen, T. N.,& Robinson, D. O. (2011). *Gulf Cooperation Council Countries (GCC): Enhancing economic outcomes in an uncertain global economy.* Retrieved from https://www.imf.org/external/pubs/ft/dp/2011/1101mcd.pdf

Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal, 9(2), 27-40.* doi:10.3316/QRJ0902027

Bradshaw, P., Twining, P., & Walsh, C. (2012). The vital program: Transforming ICT professional development. *American Journal of Distance Education*, *26*(2), 74–85

Braun V, &Clarke, V.(2006).Using thematic analysis in psychology. *Qualitative Journal of Research in Psychology 3,* pp.77–101.

Buabeng-Andoh, C. (2012). Factors influencing teachers' adoption and integration of information and communication technology into teaching: A review of the literature. *International Journal of Education and Development using Information and Communication Technology (IJEDICT),(8)*1, pp. 136-155

Clark, N. (2014). The major international school curriculums. *World Education News and Reviews*. Retrieved from https://wenr.wes.org/2014/07/the-major-international-school-curriculums.

Davis, H., Hartshorne, P., & Ring, G. (2010). Being an innovative teacher: Preservice teachers' conceptions of technology and innovation. *International Journal of Education 2*(1), 1-28.

Dawson, K. (2006). Teacher inquiry: A vehicle to merge prospective teachers' experience and reflection during curriculum-based, technology-enhanced field experiences. *Journal of Research on Technology in Education, 38*(3), 265-292.

Department for Education. (2016). *Standards for British schools overseas*. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/572360/BSO_standards_23Nov16.pdf

DiPietro, M., Ferdig, R.E., Preston, M., & Black, E.W. (2008). Best practices in teaching K-12 online: Lessons learned from Michigan Virtual School teachers. *Journal of Interactive Online Learning, 7(*1), 10-35.

Educational Profession Licensure. (2018). *Teaching licensing system. United Arab Emirates Ministry of Education*. Retrieved from: https://tls.moe.gov.ae/#!/about.

Eom, S. B., & Wen, H. J. (2006). The determinants of students' perceived learning outcomes and satisfaction in university online education: An empirical investigation. *Decision Sciences Journal of Innovative Education, 4*(2), 215-235

Erstad, O., Eickelmann, B., & Eichhorn, K. (2015). Preparing teachers for schooling in the digital age: A meta-perspective on existing strategies and future challenges. *Education and Information Technology, 20*(4),641-654

Gao, P., Choy, D., Wong, A. F., & Wu, J. (2009). Developing a better understanding of technology-based pedagogy. *Australasian Journal of Educational Technology, 25*(5), 714-730.

Garrison, R. (2003). *Cognitive presence for effective asynchronous online learning: The role of reflective inquiry, self-direction and metacognition*. Retrieved from https://www.researchgate.net/publication/228585404_Cognitive_presence_for_effective_asynchronous_online_learning_The_role_of_reflective_inquiry_self-direction_and_metacognition

General Assembly (2015). *Transforming our world: the 2030 agenda for sustainable development report no. A/RES/70/1*. United Nations.

Ghavifekr, S., Kunjappan, T., Ramasamy, L., & Anthony, A. (2016). Teaching and learning with ICT tools: Issues and challenges from teachers' perceptions. *Malaysian Online Journal of Educational Technology, 4*(2), 38-57*development report no. A/RES/70/1*. United Nations.

Gil-Flores, J., Rodríguez-Santero, J., & Torres-Gordillo, J.-J. (2017). Factors that explain the use if ICT in secondary-education classrooms: The role of teacher characteristics and school infrastructure. *Computers in Human Behavior, 68*, 441-449

Godwin, S. (2006). Globalization, education and emiratisation: A study of the United Arab Emirates. *The Electronic Journal on Information Systems in Developing Countries EJISDC27*(1), pp. 1-14 http://www.ejisdc.org

Goodwin, A. L., Low, E. L., Ng, P. T., Yeung, A. S., & Cai, L. (2015). Enhancing playful teachers' perceptionof ICT use in the classroom: The role of risk taking as a mediator. *Australian Journal of Teacher Education, 40*(4), 132-149.

Gray, D. E. (2014). *Doing research in the real world*. London: SAGE

Hew, K. F., & Brush, T. (2007). Integrating technology into K-12 teaching and learning: Current knowledge gaps and recommendations for future research. *Educational Technology Research and Development, 55*(3), 223-252. doi:10.1007/s11423-006-9022-5.

Höckel, K. (2015). *Better skills, better jobs, better lives: A strategic approach to skills policies for the United Arab Emirates*. OCED

Hoffman, B. (2006). When means become ends: Technology producing values. Seminar.net *Media, Technology and Lifelong Learning, 2*(2), 1-12. Retrieved from http://seminar.net/volume-2-issue-2-2006-previousissuesmeny-114/66-when-means-become-ends-technology-producing-values

Horn, M., & Staker, H. (2011). *The rise of K–12 blended learning*. Mountain View CA.: Innosight Institute

Hvidt, M. (2013). *Kuwait programme on development, governance and globalisation in the Gulf States: Economic diversification in GCC countries: Past record and future trends*. Retrieved from The London School of Economics and Political Science: http://eprints.lse.ac.uk/55252/

Jigsaw Consult. (2016). MBRSLP research report 2015 – 2016. London: Author

Kamal, K., & Trines, S. (2018, August 10). Education in the United Arab Emirates. Education system profiles. Retrieved from: https://wenr.wes.org/2018/08/education-in-the-united-arab-emirates

Kay, R. H., & Knaack, L. (2005). A case for ubiquitous, integrated computing in teacher education. *Technology, Pedagogy and Education, 14*(3), 391-412

Kingdom of Saudi Arabia. (2016). *Vision 2030 Kingdom of Saudi Arabia*. Kingdom of Saudi Arabia: Author.

Kozma, R. B. (2003a). ICT and education: A global phenomenon. In R. B. Kozma (Ed.). *Technology, innovation, and educational change: A global perspective*. Eugene, OR: International Society for Technology in Education (pp. 1-18)

Kozma, R. B. (2003b). Technology and classroom practices: An international study. *Journal of Research on Technology in Education, 36*(1), 1-14.

Kozma, R. B. (Ed.). (2003c). *Technology, innovation, and educational change: A global perspective*. Eugene, OR: International Society for Technology in Education.

Kuwait. (2017). *New Kuwait 2035 Kuwait national development plan*. Kuwait: Author.

Maceda, C. (2017, July 3). *UAE school fees 'second highest in the world': HSBC study*. Retrieved from http://gulfnews.com/business/money/uae-school-fees-second-highest-in-the-world-hsbc-study-1.2052333

Mohebi, L. (2019). Leaders' perception of ICT integration in private schools: An exploratory study from Dubai (UAE).Social Science Research Network,Elsevier. Retrieved from https://www.researchgate.net/publication/333994622_LeadersPerceptionLeadersPerception_of_ICT_Integration_in_Private_Schools_An_Exploratory_Study_from_Dubai_UAE

National Qualifications Authority. (2015). *Teacher standards for the UAE. United Arab Emirates*. Retrieved from https://tls.moe.gov.ae/#!/downloads-v2.

New England Association of Schools and Colleges. (2019). *Accreditation handbook 2019*. Retrieved from https://cpss.neasc.org/sites/cpss.neasc.org/files/Downloads_pdf/2019_Accreditation_Handbook.pdf.

OECD. (2018). *Trends shaping education 2018 spotlight 15: A brave new world*. Retrieved from [[https://www.oecd.org/education/ceri/Spotlight-15-A-Brave-New-World-Technology-and-Education.pdf]].

OECD (2019).TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners. OECD Publishing. doi: 10.1787/1d0bc92a-en

OECD. (2019). *Countries must make teaching profession more financially and intellectually attractive*. Retrieved from https://www.oecd.org/education/countries-must-make-teaching-profession-more-financially-and-intellectually-attractive.htm

Owen, G. T. (2014). Qualitative methods in higher education policy analysis: Using interviews and document Analysis. *The Qualitative Report*, *19*(26), 1-19. Retrieved from https://nsuworks.nova.edu/tqr/vol19/iss26/2

PISA. (2019). *PISA 2021 ICT Framework*. OCED

Pricewaterhouse Coopers [[PwC]]. (2016, August 17). *Understanding the GCC education Sector: A country by country guide.* Retrieved from https://www.pwc.com/m1/en/industries/education/publications/education-country-profile-uae.pdf

Private Schools in the UAE. (2017, March 7). Retrieved fromhttps://government.ae/en/information-and-services/education/school-education-k-12/joining-k-12-education/private-schools-in-the-uae

Ridge, N. Y., Shami, S., & Kippels, S. M. (2016). Private education in the absence of a public option: The cases of the United Arab Emirates and Qatar. *FIRE: Forum for International Research in Education, 3*(2),pp. 41-59. Retrieved from https://files.eric.ed.gov/fulltext/EJ1133015.pdf

Selwyn, N. (2014). *Distrusting educational technology: Critical questions for changing times.* New York: Routledge.

Stake, R. E. (2003). Case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *Strategies of qualitative inquiry (2nd ed.).* London: SAGE.

Stake, R. E. (2005). Qualitative case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (p. 443–466). London: SAGE

Sustainable Development Goals. (2017). *From goals to reality: UAE and the 2030 agenda for sustainable development.* The UAE portal for the Sustainable Development Goals. Retrieved from https://uaesdgs.ae/UAESDGs/report1/en/index.html#2

Swain, C. (2006). Preservice teachers' self-assessment using technology: Determining what is worthwhile and looking for changes in daily teaching and learning practices. *Journal of Technology and Teacher Education, 14*(1), 29-59

Tamim, R., Borokhovski, E., Pickup, D., & Bernard, R. (2015). *Large-scale, government-supported educational tablet initiatives.* Commonwealth of Learning. doi: 10.13140/RG.2.1.2359.7849

Tondeur, J., Braak, J.V., Ertmer, P. A., & Ottenbreit-Leftwich, A. (2016). Understanding the relationship between teachers' pedagogical beliefs and technology use in education: A systematic review of qualitative evidence. *Education Technology Research and Development65*, pp. *555–57*.doi: 10.1007/s11423-016-9481-2

Twining, P., Raffaghelli, J., Albion, P., & Knezek, D. (2013). Moving education into the digital age: The contribution of teachers' professional development. *Journal of Computer Assisted Learning, 29*(5), 426-437

Ulrichsen, K. C. (2016). *The Gulf States in international political economy*. DOI: 10.1057/9781137385611

United Arab Emirates Ministry of Education. (2020). *Education 2020 Strategy. The UAE portal for the Sustainable Development Goals*. Retrieved from https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/federal-governments-strategies-and-plans/education-2020-strategy

United Arab Emirates Ministry of Education. (2020). *Ministry of Education strategic plan 2017-2021.* (2020, October). Retrieved from https://www.moe.gov.ae/En/AboutTheMinistry/Pages/MinistryStrategy.aspx

United Arab Emirates. (2010). *UAEvision 2021.* UAE: Author.

UNESCO. (2020). The futures of education after COVID-19 regional dialogue synthesis report. Retrieved from https://en.unesco.org/sites/default/files/synthesis_report_future_of_education_webnair_1.pdf

Webb, C. (2019). The innovation imperative: Adding fire to the fuel of genius in UAE schools? Paper presented to the *Future of Education International Conference.* Retrieved from https://conference.pixel-online.net/FOE/files/foe/ed0008/FP/4935-SOE3276-FP-FOE8.pdf

Wright, V. H. & Wilson, E. K. (2005). From preservice to inservice teaching: A study of technology integration. *Journal of Computing in Teacher Education, 22*(2), 49-55