Formulation of Theoretical Framework of Teaching Quality Factors Model for Professional Development for UAE Higher Education Institutions

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ABSTRACT

Literature review highlighted unique problems linked to the changes in the standard of teaching with professional development of HEI academics. With these challenges, the HEIs to capitalise on structural changes in a modern society by improving the educational facilities. By adoption quality tools like TQM has improved educational institution in the developed country. In the context of UAE education policy, the higher education institutions were requested to improve the quality of teaching and learning by adopting quality management tool. Hence this paper presents the proposed theoretical framework of teaching quality factors model for professional development for UAE higher education institutions. The framework incorporates reflective practice for academics' professional development programme with quality tools. There are seven elements contributed to the quality academic professional development programme which are design teaching plan; communication skills; expertise skill in the lesson content; individual and occupational; policy and strategy; technological factors; and teaching skills. Hopefully the suggested model is benefit to the stakeholder of the higher education institution.

Introduction

Higher Education has contributed to main economic and social growth in society since the beginning of the 21st century (Aufi and Ali, 2014, Ma, J et al., 2016). Higher education faces many challenges like unstable economy, new technology, the proliferation of knowledge and life-long learning. The upward cost, unpredictable wages, the explosive increase in student demand, quality issues and an explosion of new technology has pushed *Higher Education Institutions* (HEIs) into a steep learning curve according to Wilms and Zell (2003) and Khan (2018). Such specific challenges must therefore be taken into account and attempts must be made to address the anticipated needs of the individuals and communities (Ilie et al., 2017). HEIs are under heavy pressure to adapt in accelerating changes of the modern society. Especially the teaching/learning technology that emphasises for better the education quality (Norton, 2018). HEIs have recently been pushed to use quality methods to take advantage of developments in education and optimise educational and learning processes (O'Sullivan, 2016). Reimers et al. (2019), say that quality education is considered to be one of the fundamental necessities for providing the nation with the information, skills and competences to resolve the challenges emerging from globalisation and *information and communication technology* (ICT). Universities and colleges around the world have embraced new approaches to quality management tools like quality assurance (QA) and *total quality management* (TQM) in order to sustain and to boost quality education (Aufi and Ali, 2014). Increased attention was given in promoting *professional development* (PD) of academics in introducing new methods of quality teaching (Biggs, 2011). In other words, enhanced HE training includes PD in the teaching programmes. Bryan and Clegg (2019) also consider that *professional development programmes* (PDPs) provide academic workers with appropriate and up-to-date skills to help them function efficiently in teaching and training in higher education institution.

Currently, PD is important to upgrade academics' awareness and practise to sustain and improve the quality of education. Hence, UAE government's human resource development policy funded the PD for academics in the HEIs (Ashour, 2019). Financial allocation was provided to support the needs to create, retain and train academic staff of HEIs (Gallagher, 2019). The UAE administration also offers educational opportunities to allow academics to obtain useful knowledge and experience and also essential technical skills on

current labour market as needed in the various fields of sustainable development (Ashour, 2017). The government has encouraged HEIs to invest in improving its workers knowledge and skills. The HEIs are required to actively play its role in enhancing and expanding the human capital based on the fund supported by the government. These will increase the standard of tertiary education where considerable attention should be paid to develop the academics potentials. Zanqar et al. (2019), stresses the need for academics to upgrade and enhance their skills through professional development in the face of fast evolving, expectations for high standards and demands for higher quality. HEIs are able to increase the quality of teaching by concentrating on and linking academic development programmes to improved teaching quality. These institutions are also responsible for enhancing the quality of faculty positions, in particular teaching practises, along with government emphasis on human resources growth. Enhancing the standard of education requires adequate academic advancement in order to learn new and developed knowledge (Kvasnicka et al., 2017). The consequences of enhancing teaching quality (for the related academic PD) should be discoursed in HEIs in-order to promote and improve academic knowledge and skills.

Reflective Practice for Academics' Professional Development programme

Reflection on teaching is considered a major tool for improving the standard of education and learning in the higher education institutions. Thus, by adopting reflective practise in professional development, the academics can introduce improvements by themselves (Vázquez, 2018). Kourkoutas et al. (2017) suggested that reflective practise is beneficial in professional development programme as it help teachers to learn their teaching practise in order to increase the quality of classroom teaching. According to López (2017), reflective practice is based on 'experiential learning' traditionally and 'situated cognition' recently. Experiential learning stresses the effective learning begins with problematic experience in the learning process, while situated cognition stresses the importance of the process and context of learning. McCormack (2016) suggested that a reflective practise in PD project is clustered in four stages cycle. It with a concrete intervention on a problem matter, carefully

assesses the problem, then refines or adjusts the problem, and finally focuses on the chosen issue in order to revisit it. It was recommended three methods to conduct PD reflection practise which are exercising in action research projects, writing in a doctrinal journal and forming a teacher development group, it can be conducted separately or together. These methods offer an opportunity for academics to analyse and represent what they have learned in the desirable transition. The preparation of a suitable environment to perform a good reflexive PD is also very necessary. Also, Melkonian, M., & Areepattamannil, S. (2018), proposed two main techniques for HEIs in planning and co-ordinating an effective reflective project for reflective practise which are organising a meeting with the academics and coordination concerns unique procedures during the conduct of the reflective project. The PD reflective practise is useful for teachers and students. It indicated that students benefiting from enhanced and comprehensive learning experiences in the reflective practise project through promoting their own reflection; expression of preferences; and opportunities to participate.

Adoption of Quality Tools HEIs

Quality system has created efficient activity in business and industry and hence, it should be applied higher education environment. Aleixo, A. M., et.al. (2018) believed that quality system in higher education should be improvised as many HEIs in the world are concerned with efficiency, satisfaction of administrative and training services. Quality has become a common element in the current debate on higher education. Universities and colleges need to secure the benefits of quality system experienced in industrial environments. He claimed that the quality concepts in higher education are not generally recognised by those who believe that the academic business is wholly distinct from any other organisations. Reddy (2018) claimed that education quality is seen as a multi-dimensional phenomenon which can be described from various perspectives. Therefore, it is difficult for a standard definition of quality to be embraced in education sector. However, Harman and Meek (2015) had attempted describe quality in higher education by judging the goal, the importance and value of the achievement level. Sirvanci (2014) says, 'There is a small degree of agreement among the major customer groups in institutions of higher

education such as faculty, students and administrators.' The primary and secondary classes of higher education customers are located, based on their positions, as shown in figure 1.0 according to Kanji and Tambi (2015). As Figure 1.0 shows, higher education customers are primarily grouped internally or externally (divided to primary and secondary in each group). Students are both internally secondary clients (as educational partners) and predominantly external clients (as a principal beneficiary of higher education). Therefore, due to their positions and intentions, there seem to be different clients for higher education quality education.
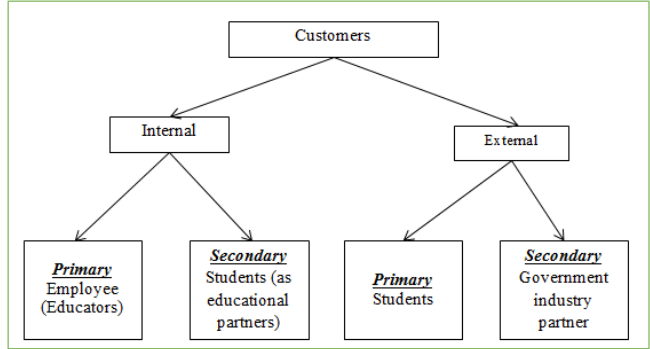

Figure 1.0: Customers for Higher Education

The problem posed in terms of recognising quality customers in higher education may be due to the use in quality education of particular concepts and various purposes. Owlia and Aspinwall assert that higher education has not all displayed the same degree of quality (Tangible, Competence, Attitude, Contents, Supply and Reliability) as Table 1.0.

Table 1.0: Quality Dimensions and Customer Groups

No.	Dimension	Customers
1	Tangibles	Students, staff
2	Competence	Students, staff
3	Attitude	Students
4	Content	Students, staff, employers
5	Delivery	Students
6	Reliability	Students, staff, employers

Table 1.0 indicates that students are clients for all six quality standards while workers are four-dimensional customers and employers are clients only in material dimensions and reliability.

Quality in higher education is often seen as a transforming process that is consistent with the transformation of education. Sahney et al. (2015) argue that education can be considered a transformation mechanism which, through certain processes, transforms input (such as human resources) into output (such as concrete results) (such as teaching and learning). A Horsburch perspective considers quality as a transformative process, using all elements and influences in a background of education to generate graduates. While quality is difficult to define and customers for quality education are defined, HEIs are encouraged to incorporate quality approaches in the higher education context.

Many HEIs have adopted QA as an acceptable quality framework to guarantee the quality of their services. In reality, the government has placed emphasis on improving higher education in line with the demands of a society in a global arena. Gibson (1993) points out that HEIs concentrated further on the use of the QA system in the early 1980s. "A number of European countries have moved into a more market-oriented higher education guideline with a focus on accountability via external quality assurance systems, and the interests of the American accreditation systems have been growing" according to Segers and Abery (1996).

HEIs follow a QA framework to increase education quality through accreditation and standards. Via QA implementation, HEIs expect to increase the quality of their services to meet regional and global needs. "In many countries, quality and how to set up appropriate quality assurance mechanisms are of concern to managers of high-level education systems and institutions," said Harman and Meek (2015). Lenn (1994) shows that, owing to internal HEI reasons such as increasing higher education demand and market promotion, international QA and external reasons, such as international cooperation between higher education agencies, requiring education assurance, have been needed. HEI's internal calls for the adoption of QA systems by individuals and communities and cooperation between organisations. But can QA be interpreted and correctly used in a higher education context as an industrial approach? There were different viewpoints on defining QA according to the debate on the concept of quality in the education context and also in an industrial context. Ketunen (2008) regards QA in higher education as a holistic approach to the development of HEIs, and provides a philosophical framework." The definition of Kettunen focuses on the growth of colleges and universities, without clear reference

to the word 'quality,' possibly because of difficulties in determining quality learning. As in an enterprise setting, in an EH context, QA also focuses on transparency, enforcement and dedication to quality education. Green (1994) notes that QA will be able to achieve accountability internationally in HEIs if it acknowledges the concepts of: open-handed HEIs, quality enhancement in HEIs, self-regulation in HEIs and various stakeholder goals and interests in quality evaluation of HEIs as well as conflict identification between external obligations and quality. The implementation of QA in HEIs occurs in various methods and practises related to all aspects of education. In EL "self-studies and self-assessments; peer review by expert panels; use of relevant statistical information and performance indicators;" and enquiries by key groups including students, graduates, and employers," Harman and Meek (2015) identify some primary QA mechanisms.

HEI implements TQM in order to improve education of quality and to establish a quality culture in the education environment in addition to the adoption of QA. Barnard, S. et.al. (2019) claims that TQM is improving quality in higher-level higher education institutions by creating a broad commitment to QA within the institutions. It has been successfully implemented in commercial organisations; hence TQM can be applied in HEIs in-order to improve the standard of education. In order to take advantage of the TQM values, Kanji, Tambi and Wallace(2015) build a specific quality culture to be adapted for HIE

Appropriated structure must be established to effectively take advantage of the TQM principles in a higher education environment. The key values of the TQM system in higher education are suggested by Venkatraman (2013) as follows: "leadership and quality culture; constantly improving and innovating education processes; employee participation and development; rapid information reaction and management; customers-led quality and the development of partnerships internally and internationally." Vazzana and Winter (2017) stress the need for TQM, as an integrative strategy, to reinforce the teaching-learning process in HEIs and rely on efforts to enhance the standard of teaching and learning from academics and supporting stakeholders. Universities should set a clear structure to use this

approach to educational work in order to implement TQM.

The above concludes that in the industry quality and quality (QA and TQM) methods have been developed to increase product and service quality in order to fulfil clients' expectations. Many HEIs have taken these approaches to improve educational facilities while their implementation in education is faced with obstacles and difficulties due to the disparities between the two contexts. HEIs should plan education background and set clear system mechanisms to adjust and take advantage of QA and TQM approaches to the new situation. Education context. For example, in order to increase teaching efficiency, a learning environment and a classroom setting should be prepared to take advantage of quality approaches. Improving the standard of education will improve teaching practises and offer academics relevant and advanced skills. The issue of teaching quality improvement in higher education will be discussed in the following section in order to identify the implications for the PD of academics.

Theoretical Framework for the Current Study

As developments in today's society are accelerating, the increased demand for better teaching quality is in HEI's. The essence of the labour market in the world has been changed by a global economy, with its connected phenomenal problems, such as fiscal crises, wisdom-based culture and advanced ICT. A new workforce with very skilled abilities must meet the needs of modern professionals in the changing labour market. These kinds of staff are pressuring HEIs to increase the standard of their education to help students learn and grow a new generation of trained staff. Many HEIs globally pay more attention to quality and take unique quality measures such as QA and TQM to enhance the quality of their teaching (Carbone et al, 2019; Gunn, 2018). Since these methods in business and industry have been applied effectively in some cases, HEIs attempt to use quality concepts in the teaching/learning environment. The UAE heterogeneous systems, for instance, introduce a HEI QA structure under a scheme to certify UAE heterogeneous goods in accordance with national rules. Two phases for implementing QA are required: a qualitative audit and an evaluation of standards. The literacy analysis shows that the increased teaching standard is associated with the PD of academics. A suitable PDP should be

prepared to increase academic experience and teaching practice in order to enhance the teaching standard. In this respect, some studies have shown that PD has positive results for academics in education quality and attitudes (Al-Ali, M. (2014). Thus, enhancing the standard of teaching would give PD unique impacts in HEIs to improve the professional knowledge and abilities of academics.

Theoretical model

Literature review has shown that may researches were conducted on investigation of the influence of professional development (PD) on improving the quality of teaching and learning (T&L) amongst the academics in higher institutions. However, there are not many researches on the possible consequence of improving the teaching quality to the professional development of the academics as figure 2.0.
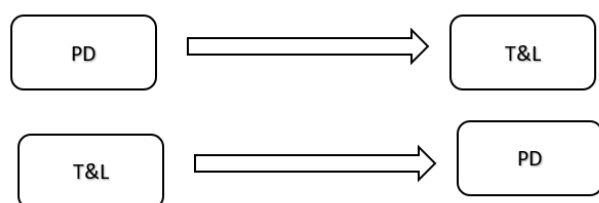

Figure 2.0 interrelated between T&L and PD

Figure xx shows that there is interrelation between quality T&L and quality PD for academics in higher institutions.

Comparing with UAE higher education institutions, there is a disparity between teaching quality and academic professional development (APD). The institutions had embraced quality assurance (QA) in order to perform an external review and evaluation of expectations for the academic professional development. However, it needs to recognise the possible impacts of the APD in enhancing the teaching quality. For quality teaching it should consider the use of education technology in education practises (Alhija, F. N. A., 2017), implementation of QA and TQM (Al-Khalifa, H. S. et.al (2008); Alsharari, N. M. (2018); Alim, S. (2019) and also the current conditions which is relevant for APD activities. There is a lack of study to incorporate current situations in the APD processes. Concurrently with the issue on the enhancement of teaching efficiency and APD for the UAE HEI

needs further research (Alhebsi, A. et.al 2015; Raji, 2019).

Hence there is a gap need to be filled in the teaching quality area and associated with APDs particularly within HEI in the UAE. It is intended to identify the possible improvements in the standard of education to the APD of HEI. Therefore, the proposed theoretical framework for improving the teaching quality based on three points as follow (Abubakar et al., 2019);

- Firstly, teaching quality should be improved in accordance with the profound and accelerating change in the life aspects of modern society and in the evolving academic activity in the higher education sector as a prerequisite for changes in a HEI.
- Secondly, advances in teaching/learning theory and activities within an APD context need to improve the standard of teaching to upgrade the teaching awareness of academics.
- Finally, the use of unique quality methods in business and education (such as QA in HEIs) introduces certain roles and obligations for academics and therefore emphasises higher quality teaching so that the concepts of quality systems are exploited.

Because of these reasons, the teaching quality of HEIs must be preserved and improved. It needs to emphasis the problem of understanding to academics in improving the standard of teaching on the APD. Based on these consequences, effective ADPs should be designed and coordinated to increase the standard of teaching. As a result, the quality of teaching in HEIs can be increased through the growth of academic knowledge and expertise Raji (2019). Thus, the proposed theoretical framework incorporates seven elements which are summarized from previous literature and the elements are design plan factors; teaching skills factors; communication skills factors; technological factors; the expertise skill in the lesson content factors; individual and occupational; policy and strategy factors is presented as figure 3.0.
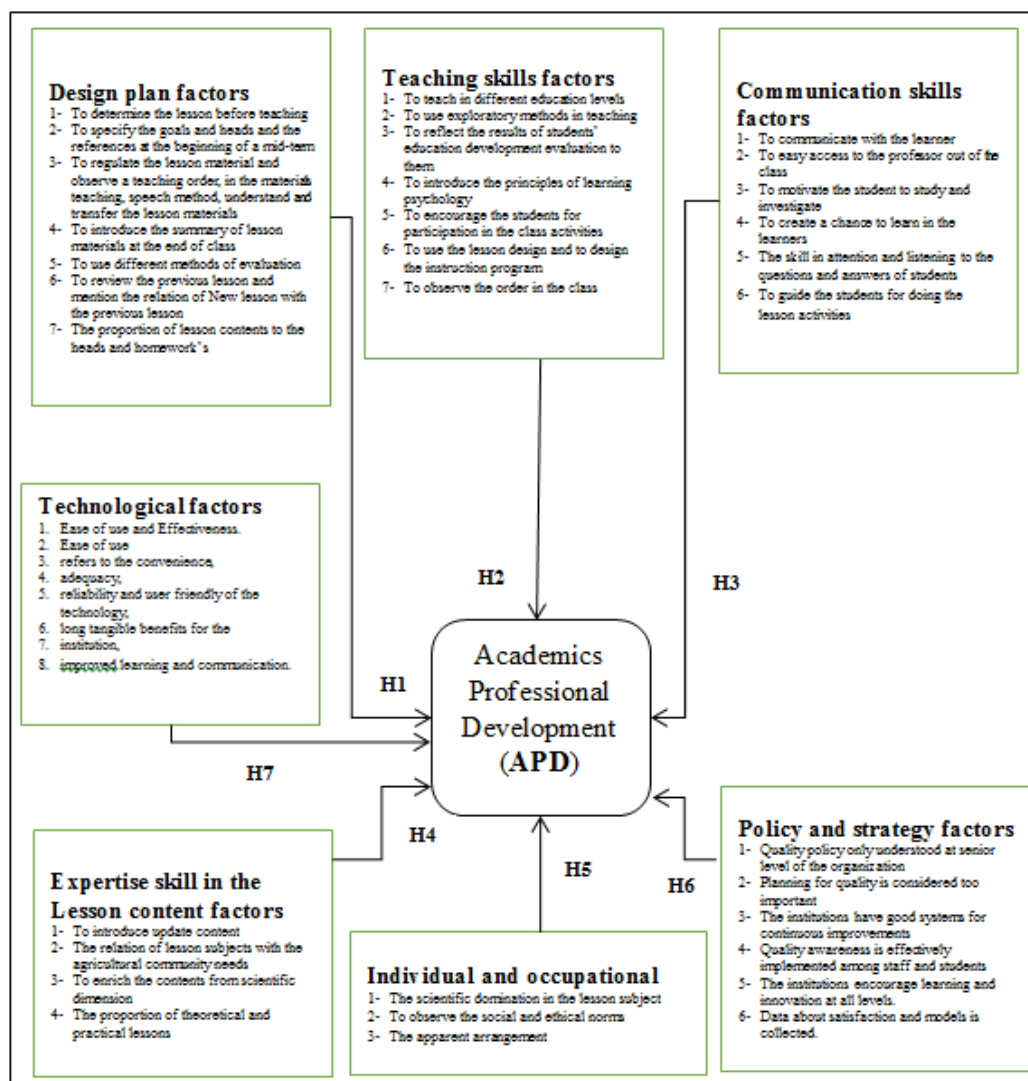
Figure 3.0: Proposed Theoretical Framework of Improving APD for HEIs

The framework will able to assist HEIs to improve the teaching quality of APD based on academic perceptions by focusing on the impacts of improving teaching quality in the PD of academics. It covers academics' understanding of PD criteria, challenges to PD for academics and factors that boost the standard of the pedagogical education of academics in the teaching industry. Hopefully the framework can serve to improve teaching quality and PD for students to become quality academics for UAE HEIs system.

Conclusion

The paper presents a literature review suggested unique problems linked to the changes in the standard of teaching in professional development of HEI academics. These challenges the HEIs to capitalise on structural changes in a modern society by improving the educational facilities. It also examined the existence of an evolving higher education field of academic work and related occupational problems in HEIs. Research on education and learning theories suggested that there is a connection to the value of teaching in helping students learn. Adoption of quality tools like TQM has influenced in improving educational institution in the developed country. In the context of UAE education policy, challenges and strategy was reviewed to improve the quality of education in the university through students' profiles, faculty, curriculum and educational models. This paper presented a theoretical model on improving the academic professional development where it incorporates seven elements which are design teaching plan; communication skills; expertise skill in the lesson content; individual and occupational; policy and strategy; technological factors; and teaching skills. Hopefully the suggested model is benefit to the stakeholder of the higher education institution.

References

[1] Abubakar, N. J., & Freeman, E. (2019, March). Modeling Total Quality Management Framework for Higher Education Institutions In Ghana. In 2019 International Conference on Computing, Computational Modelling And Applications (ICCMA) (Pp. 87-878). IEEE.

[2] Al-Ali, M. (2014). The development of the UAE federal higher education system: Main characteristics and influences.

[3] Aleixo, A. M., Leal, S., & Azeiteiro, U. M. (2018). Conceptualization of sustainable higher education institutions, roles, barriers, and challenges for sustainability: An exploratory study in Portugal. Journal of Cleaner Production, 172, 1664-1673.

[4] Alhebsi, A., Pettaway, L., & Waller, L. (2015). A history of education in the United Arab Emirates and trucial sheikdoms. The Global eLearning Journal, 4(1), 1-6.

[5] Alhija, F. N. A. (2017). Teaching in higher education: Good teaching through students' lens. Studies in Educational Evaluation, 54, 4-12.

[6] Alim, S. (2019). Social Media Use in Career Guidance Delivery in Higher Education in the United Arab Emirates: A Literature Review. International Journal of E-Adoption (IJEA), 11(1), 25-44.

[7] Al-Khalifa, H. S., Al-Ghreimil, N. S., & Al-Yahya, M. M. (2008, October). Towards a better understanding of the IT program at a female Saudi university. In Proceedings of the 9th ACM SIGITE conference on Information technology education (pp. 165-172). ACM.

[8] Ashour, S. (2017). One or multiple paths to quality assurance of higher education institutions in the United Arab Emirates. Quality in HigHer education, 23(3), 183-200.

[9] Ashour, S. (2019). How technology has shaped university students' perceptions and expectations around higher education: an exploratory study of the United Arab Emirates. Studies in Higher Education, 1-13.

[10] Aufi, A., & Ali, M. (2014). Implications of the Improvement of Teaching Quality for Professional Development (PD) of Academics at the Colleges of Applied Sciences (CASs) in the Sultanate of Oman (Doctoral dissertation, University of Waikato).

[11] Barnard, S., Mallaband, B., & Leder Mackley, K. (2019). Enhancing skills of academic researchers: The development of a participatory threefold peer learning model. Innovations in Education and Teaching International, 56(2), 173-183.

[12] Biggs, J. B. (2011). Teaching for quality learning at university: What the student does. McGraw-hill education (UK).

[13] Bryan, C., & Clegg, K. (Eds.). (2019). Innovative Assessment in Higher Education: A Handbook for Academic Practitioners. Routledge.

[14] Carbone, A., Drew, S., Ross, B., Ye, J., Phelan, L., Lindsay, K., & Cottman, C. (2019). A collegial quality development process for identifying and addressing barriers to improving teaching. Higher Education Research & Development, 1-15.

[15] Gunn, A. (2018). Metrics and methodologies for measuring teaching quality in higher education: developing the Teaching Excellence Framework (TEF). Educational Review, 70(2), 129-148.

[16] Harman, G. S., & Meek, V. L. (2015). Repositioning quality assurance and accreditation in Australian higher education. Retrieved April 1, 2019 from http://asiapacific-odl2.oum.edu.my/C09/F409.pdf

[17] Ilie, L., Bondrea, I., & Serban, A. (2017, December). The Entrepreneurial University–a Response of Academic Leadership facing Current Challenges. In ECMLG 2017 13th European Conference on Management, Leadership and Governance: ECMLG 2017 (p. 184). Academic Conferences and publishing limited.

[18] Kanji, G. K., Tambi, A. M. A., & Wallace, W. (2015). A comparative study of quality practices in higher education institutions in the US and Malaysia. Total Quality Management & Business Excellence, 10(3), 357-371. Retrieved from ABI/INFORM Global.

[19] Khan, M. A. (2018). The Role of Modern Education in Improving Business Performance. In Business Education and Ethics: Concepts, Methodologies, Tools, and Applications (pp. 1104-1119). IGI Global.

[20] Kourkoutas, E., Hart, A., Graaf, U., & Kassis, W. (2017). A resilience-based program to promote reflective and inclusive teaching practices in greece during austerity. In Teacher Professional Knowledge and Development for Reflective and Inclusive Practices (pp. 168-178). Routledge.

[21] Kvasnicka, J., Olson, K., Saga, M., Danda, I., Hurley, R., Moody, G., & Wilke, C. (2017). Teaching quality improvement in Tanzania: a model of inter-professional partnership for global health development. Christian Journal for Global Health, 4(1), 34-45.

[22] López, I. C., & Larrea, M. L. (2017). Professional Development and Reflective Practice as Tools to Improve Teaching Practice. Revista de la Facultad de Contaduría y Ciencias Administrativas, 1(1), 117-125.

[23] Ma, J., Pender, M., & Welch, M. (2016). Education Pays 2016: The Benefits of Higher Education for Individuals and Society. Trends in Higher Education Series. College Board.

[24] McCormack, B., & McCance, T. (Eds.). (2016). Person-centred practice in nursing and health care: theory and practice. John Wiley & Sons.

[25] Melkonian, M., & Areepattamannil, S. (2018). The effect of absolute age-position on academic performance: a study of secondary students in the United Arab Emirates. Educational Studies, 44(5), 551-563.

[26] Norton, L. (2018). Action research in teaching and learning: A practical guide to conducting pedagogical research in universities. Routledge.

[27] O'Sullivan, K. (2016). Education Quality in the UAE-Factors in Creating a Knowledge-Based Economy.

[28] Raji, B. (2019). Significance and challenges of computer assisted education programs in the UAE: A case study of higher learning and vocational education. Education and Information Technologies, 24(1), 153-164.

[29] Sirvanci, M. B. (2014). Critical issues for TQM implementation in higher education. The TQM Magazine, 16(6), 382-386. Retrieved from Emerald database.

[30] Vázquez, V. P., & Ellison, M. (2018). Examining teacher roles and competences in Content and Language Integrated Learning (CLIL). Linguarum Arena: Revista de Estudos em Didática de Línguas da Universidade do Porto, 4, 65-78.

[31] Wilms, W. W., & Zell, D. M. (2003). Accelerating change in the academy: Balancing new demands while protecting core values. On the Horizon, 11(3), 16-22. Retrieved from Emerald Management Xtra 150.

[32] Zanqar, F. S. M., Khatibi, A., Azam, S. F., & Tham, J. (2019). The Challenges of Total Quality Management on Education Quality In UAE. European Journal of Economic and Financial Research.

References

[33] Ashour, S. (2017). One or multiple paths to quality assurance of higher education institutions in the United Arab Emirates. Quality in Higher education, 23(3), 183-200.

[34] Ashour, S. (2019). How technology has shaped university students' perceptions and expectations around higher education: an exploratory study of the United Arab

Emirates. Studies in Higher Education, 1-13.

[35] Aufi, A., & Ali, M. (2014). Implications of the Improvement of Teaching Quality for Professional Development (PD) of Academics at the Colleges of Applied Sciences (CASs) in the Sultanate of Oman (Doctoral dissertation, University of Waikato).

[36] Biggs, J. B. (2011). Teaching for quality learning at university: What the student does. McGraw-hill education (UK).

[37] Bryan, C., & Clegg, K. (Eds.). (2019). Innovative Assessment in Higher Education: A Handbook for Academic Practitioners. Routledge.

[38] Byrne, B. M. (2013). Structural equation modelling with LISREL, PRELIS, and SIMPLIS: Basic concepts, applications, and programming. Psychology Press.

[39] Devlin, M., & Samarawickrema, G. (2010). The criteria of effective teaching in a changing higher education context. Higher Education Research & Development, 29(2), 111-124. Retrieved from Taylor & Francis Online.

[40] Heras-Saizarbitoria, I., & Boiral, O. (2015). Symbolic adoption of ISO 9000 in small and medium-sized enterprises: The role of internal contingencies. International Small Business Journal, 33(3), 299-320.

[41] Hair J.F., Hult G.T.M., Ringle C.M., Sarsted M., (2014), A primer on partial least squares structural equations modelling (PLS-SEM), Los Angeles, SAGE.

[42] Hair, J. F. (2010). Black, Wc, Babin, Bj, & Anderson, Re (2010). Multivariate data analysis, 7.

[43] Kornevs, M., Hauge, J. B., & Meijer, S. (2019). Gamification of a Procurement Process for Professional Training of Public Servants. International Journal of Serious Games, 6(2), 23-37.

[44] Kvasnicka, J., Olson, K., Saga, M., Danda, I., Hurley, R., Moody, G., & Wilke, C. (2017). Teaching quality improvement in Tanzania: a model of inter-professional partnership for global health development. Christian Journal for Global Health, 4(1), 34-45.

[45] Ma, J., Pender, M., & Welch, M. (2016). Education Pays 2016: The Benefits of Higher Education for Individuals and Society. Trends in Higher Education Series. College Board.

[46] Mackey, A., & Gass, S. M. (2015). Second language research: Methodology and design. Routledge.

[47] Shareef, K. (2008). Mentoring relationships for collaborative professional development practices in Maldivian primary schools (Master's thesis, University of Waikato, Hamilton, New Zealand). Retrieved from http://resedarchcommons.waikato.ac.nz

[48] Steinhardt, I., Schneijderberg, C., Götze, N., Baumann, J., & Krücken, G. (2017). Mapping the quality assurance of teaching and learning in higher education: the emergence of a specialty?. Higher Education, 74(2), 221-237.

[49] Zanqar, F. S. M., Khatibi, A., Azam, S. F., & Tham, J. (2019). The Challenges of Total Quality Management on Education Quality in UAE. European Journal of Economic and Financial Research.