Empowering General Studies and English Language Education 4.0:
Activities, Challenges, and Future Foresight for Face to Face, Flipped Learning, and Online Tutorial

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ABSTRACT

Education 4.0 has been a buzz word in the past few years in tertiary education. Educators have continuously asked how to transform higher education to meet the changes resulting from the 4th Industrial Revolution (4IR). The General Studies and English language program have gone through several instrumental changes to meet the demands of Educational Revolution 4.0 in the United Arab Emirates. These changes directly impacted the pedagogies of teaching and learning environments. The primary focus of this paper is on how the General Studies and English language program in a tertiary educational institution in the United Arab Emirates has transformed the educational key elements of teaching and learning to meet the changes that came with the 4th Industrial Revolution. The changes implemented are in the areas of digitalized learning and with the goal of preparing students for uncertain futures. An overview of the present challenges is discussed in addition to a discussion of recommendations.

KEYWORDS

4IR, Digitalization, Education 4.0, Educational Technologies, Future Foresight, Teaching and Learning

HIGHER EDUCATIONAL CONTEXT 4.0

Traditional educational teaching and learning approaches are no longer valid to prepare our students for their uncertain future. The Industrial Revolution 4.0 (IR 4.0) has a directly resulted in enabling new possibilities for Education 4.0 especially with the endless opportunities of technology tools that impact all fields. The higher educational context for this paper is set in the Arabian Gulf in the United Arab Emirates (UAE) in Dubai where innovation and a close attention are paid to IR 4.0 and its impact on all areas such as governance and education. The emphasis on innovation is seen as the national strategy for innovation was launched in 2014 in Dubai (UAE National Innovation Strategy, 2015). The announced strategy included four main tracks: creation of stimulating environment with supportive policies, support for innovative practices, establishment of innovation spaces, curriculum upgrade to encourage innovation and entrepreneurship (2015).

As a result, six years later in 2020, the student persona 4.0 is envisioned. The president and CEO of the Higher Colleges of Technology Dr. Abdullatif Al Shamsi has presented the three key elements of what a student persona 4.0 includes (Al Shamsi, Feb. 12, 2020). These characteristics include digital, entrepreneurial, and professional capabilities. These three characteristics that the educational

leaders have identified as required from the undergraduate students in the UAE to increase their employability opportunities are developed through purposeful reimagined educational curriculum and environments. In the General Studies and English Language program within the tertiary educational institution, teaching and learning were reconstructed to meet this new era and to be aligned with the innovation strategy set by the country's leaders in the UAE.

The General Studies and English Language program is an integral part of any student's study plan in this tertiary educational program described for this paper. Students are required to take 33 credit hours of General Studies and English Language courses for a bachelor's degree, 27 credit hours for a higher diploma, and 18 credits for diploma degrees as described in the academic catalog of the institution. The academic catalog for 2019-2020 includes a revised list of offered courses to align with developing the 4.0 persona (HCT Catalog, 2019-2020). To develop a student person 4.0, several instrumental changes were implemented in the General Studies and English Language program. First, a new model for teaching and learning was introduced. The approach of lectures and learning by doing were replaced by applying a blended learning approach utilizing technology and maximizing the best of what the traditional teaching approach offered; valued face to face time with the teacher. Second, digitalized learning was imbedded into the teaching model by applying flipped learning and online tutorial sessions which are discussed in detail in the next sections of this paper. Third, professional certifications were added to the offered courses. The importance of future studies in education 4.0 was in updating a General Studies course entitled life and future skills in which students receive an industry certification in future foresight.

REIMAGINED TEACHING AND LEARNING APPROACH

The General Studies and English language program changed the traditional teaching approach of lectures and in-class teaching to blended learning. The general definition of blended learning is a mix of face to face with online teaching. The purpose was to maximize the benefit of human interaction and technology. The blended learning approach included face to face lessons, online tutorials, and flipped learning.

Blended learning was designed to achieve several goals: to engage students, increase retention, and develop new habits for life-long learning. To develop a new habit, identifying the cue and designing the right rewards is needed (Duhigg, 2012). The habit to be developed was independent learning and life-long learning. The cue identified were attendance and grades while the reward was not attending class twice a week but only once. The cues and rewards were selected based on the understanding the specific profile of students. Different cues and rewards may be needed at different tertiary institutions. However, cues and rewards are not enough as Duhigg (2012) explained in his book on the power of habit. Craving is also needed to establish a new habit. The key question in tertiary education is for educational leaders to discover how to develop the craving for long-term learning so students would continuously crave to upskill.

Furthermore, educational leaders in the General Studies and English Language program applied the blended learning design to create learning environments that are ubiquitous, have active knowledge creation, include collaborative learning, and are metacognitive and differentiated. Learning was ubiquitous because students had the options to do the flipped and online tutorials at the times and places that suit them. Students engaged in knowledge creation as they actively participated in the face to face lesson activities through discussions and applied projects. Collaborative learning tasks were designed in both face to face and flipped tasks using online technology tools. Metacognition happened as students participated in Socratic debates and arguments that helped them to think critically and reflect. Differentiation within this blended learning design was in the adaptive process and responsiveness to students' needs through the purposeful use of technology as described in the activities section.

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