

Researching professional English as a foreign language lecturer in the industry 4.0: A curriculum perspective

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Article Info

Article history:

Received Jul 23, 2021

Revised Jun 25, 2022

Accepted Jul 30, 2022

Keywords:

Curriculum development

English lecturers

Industrial revolution

Islamic higher education

ABSTRACT

The issue of professional English as a foreign language (EFL) lecturer in the industrial revolution 4.0 (IR 4.0) era has received considerable attention. However, very few studies on this subject have been conducted in Indonesia, particularly at State Islamic Universities. To address this gap, researchers conducted a qualitative study to examine how EFL lecturers maintain their professionalism in the IR 4.0 era and the curriculum approach that best meets current teaching and learning needs. The researchers applied a purposive sampling approach in selecting the participants for this study. There were 11 EFL lecturers from a state Islamic university in Banda Aceh, Indonesia chosen to participate in this study. The findings of this study indicate that EFL lecturers must continue to learn and improve their digital and technological competency in order to maintain their professionalism. In terms of curriculum approach, EFL lecturers believe that taking an interdisciplinary approach and providing more opportunities for students to focus on applied skills are essential parts of their teaching professionalism in the IR 4.0 era.

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1. INTRODUCTION

Today's rapid technological advancement has ushered in the Industrial Revolution 4.0 (IR 4.0) era, in which technological advancements have influenced numerous aspects of our lives, one of which is English education [1]. Indonesian English lecturers frequently face difficulties in the teaching and learning process due to a lack of expertise in instructional technologies and contemporary teaching approaches, a lack of educational tools, a lack of supportive educational facilities and environments, a lack of technical infrastructure, and a lack of students' motivation to learn [2].

Due to the rapid advancement of information technology, EFL lecturers and students must adapt to the inevitable developments involving the internet of services (IoS) and the internet of things (IoT) in teaching and learning [3], [4]. Collins [5] noted that this situation presents a challenge for EFL lecturers, as they must learn how to effectively utilize and implement technology in teaching and learning settings. As educators, EFL lecturers should work professionally to help tertiary education institutions achieve their educational goals.

In addition to teaching English, EFL lecturers shape students' spiritual, ethical, and moral values, national identity, and social relationships. Using various curriculum approaches and technologies, students learn about the opportunities and challenges of IR 4.0. [6]. There is a shortage of empirical research on EFL lecturers' professionalism in IR 4.0 at Islamic higher education institutions, particularly in Indonesia. This research focuses on two major issues: ii) Ways EFL lecturers maintain their professionalism in the IR 4.0 era; and ii) The curriculum approach that best suits current teaching and learning needs. As such, the purpose of this study is to discover the EFL lecturers' efforts to maintain and develop their professionalism, as well as the curriculum approach that meets current teaching and learning needs.

In this IR 4.0, the orientation of education and the curriculum in higher education has shifted. Lecturers must adapt to the new teaching methods used in post-secondary education. Lecturers' instruction and teaching practices must evolve to keep pace with technological advancements and to incorporate innovative educational methods. Over the last decade, a growing trend toward integrating higher education curricula into real-world settings has emerged in response to contemporary workplace ideals [7]. Academia has begun to reshape the purpose of education and the curriculum to develop future generations capable of navigating a complex world, using technology, and working together to solve problems [8]. Several university curricula now focus on general graduate characteristics, indicating that specific discipline knowledge and skills contribute to graduates' career opportunities [9], [10]. As a result, university curricula must meet current market demands.

Also, EFL lecturers must conceptualize the EFL curriculum and teaching materials linked to career paths to help increase EFL students' job opportunities. Given the pervasiveness of technology in many facets of contemporary society, adjusting the EFL curriculum is viewed as a critical component of preparing for empowered education that fits the needs of stakeholders. As a result, this move will enable graduates to pursue a variety of career paths, including those as teachers, researchers, and other types of professionals. English proficiency is also a plus in many Asian countries, including Indonesia [11]. However, EFL students must be proficient in English and other skills required for today's job market. Employers' requirements for qualifications are rapidly evolving as a result of the rise of IR 4.0. The characteristics associated with higher-order thinking and innovation, such as collaboration, strategic thinking, and problem-solving, are now regarded as desirable. Routine or manual cognitive abilities are rarely required in this digital era. Meanwhile, expert thinking and complex communication skills are necessary components of competencies, as these two abilities are regarded as capable of resolving a variety of complex problems [12]. Marwala's study corroborates Levy [13], indicating that students today must possess abilities that machines do not have.

Today, technology affects every aspect of the teaching and learning process. Previously, lecturers used traditional approaches to teaching and learning, in which the lecturers became the focal point of the learning process. However, these days, whether lecturers like it or not, they must be familiar with the technology. Technological innovation has profoundly altered the higher education system, making it more accessible to people from all over the world. The orientation of teaching and learning has been tailored to the abilities that students must possess in order to compete and succeed in today's workplace. Thus, when developing a curriculum for higher education, it is necessary to align educational objectives with the IR 4.0 framework [14], [15].

To broaden students' comprehension, existing curricula should be oriented toward an integrative curriculum orientation, in which students acquire specific knowledge from a variety of sciences. Students are expected to think critically about a given subject. In this way, students are enabled to articulate a viable alternative to a social problem they may face in life. With regard to this, EFL lecturers are urged to empower students' critical thinking by utilizing a variety of teaching methods that stimulate students' higher-order thinking abilities.

Since the teaching and learning framework and educational orientation in IR 4.0 are different from those in the previous period, EFL lecturers, as a critical institution in the development of higher education, particularly in English learning, are advised to continue developing their knowledge and competencies. As such, if an EFL lecturer employs an instructional strategy that is incompatible with the EFL students' needs, the process of EFL teaching and learning can be unpleasant. As a result, EFL lecturers must carefully plan, introduce, and evaluate EFL teaching and learning methods that align with the IR 4.0's orientation.

Professional lecturers in Indonesia are those who exemplify core skills, which refer to the knowledge, abilities, and practices that must be acquired, ingrained, and perfected in order to carry out teaching and learning tasks effectively. Marbun [16] and Indonesian regulation no 14 year 2005 [17] on teachers and lecturers stipulate that there are four competencies that should be possessed by lecturers to be professional figures: personality, pedagogical, professional, and social. To be a good role model for students and society, a lecturer must be able to objectively evaluate his or her own performance and develop his and her competence in a self-sufficient and sustainable manner.

Pedagogical competence refers to a lecturer's capacity to manage the learning process, which includes knowledge, educational foundation, learning plans, application of teaching, use of technology in

learning, evaluation of learning outcomes, and exploring students' potential [18], [19]. Madhavaram and Laverie [20] conclude that pedagogical competence is closely related to "the ability of an individual to use a coordinated, synergistic combination of tangible and intangible resources to achieve efficiency and/or effectiveness in pedagogy".

Additionally, professional competence is defined as lecturers' capacity to learn and teach subjects in accordance with the standards set by educational unit programs. The EFL lecturers, in this case, must be familiar with the concepts and methods of scientific disciplines that are relevant to the programs offered by the educational unit they are teaching in [12], [21]. Finally, lecturers should be able to communicate effectively with their students and colleagues. As a lecturer, social competence is defined as the ability to communicate verbally and in writing, to use communication and information technology, to collaborate with students, other educators, educational personnel, leaders of educational units, and parents of students, as well as to socialize with members of the surrounding community [22].

Individuals' commitment to continually improving their knowledge and skills necessary for their job performance is defined as professionalism in general [23]. To put it another way, in order to maintain professional competence, EFL lecturers should pursue additional studies/academic qualifications or participate in other relevant activities that are aligned with the primary tasks and functions of their respective professions. As a result, EFL lecturers may use their resources to ensure that their responsibility to provide students with specific skills and qualifications specified in the curriculum is met.

2. RESEARCH METHOD

2.1. Research design

A case study was conducted at an Islamic university in Aceh, Indonesia. We conducted a case study in the hope of eliciting information about EFL lecturers' teaching professionalism in IR 4.0. Hence, a workable solution would be conceived later to help them improve their professionalism.

2.2. Participant

From 34 permanent lecturers, the researchers purposefully selected eleven EFL lecturers, six males and five females, who taught at the English Education Department of a State Islamic University in Aceh, Indonesia. The sample was chosen based on lecturers' teaching experience (more than three years of experience) and being familiar with the use of technology in teaching and learning. We selected participants based on their age and gender in order to ascertain their perspectives on the barriers they encountered and the strategies they used to advance their teaching professionalism in this technologically advanced era. The disparities in age and gender between lecturers cast a new light on the use of technology in the teaching and learning process [24]. Without a doubt, the generation that grew up with technology (digital natives) has significantly different perceptions and experiences with digital media than the previous generation (digital immigrants) [25]. Anonymity is used to document the research findings in order to protect the confidentiality, privacy, and safety of the participants.

2.3. Data collection

The main data for this study came from face to face semi-structured interviews with the EFL lecturers of the English Education Department of a State Islamic University in Banda Aceh. To collect critical information about the professionalism of EFL lecturers, the researchers devised interview questions that probed issues in IR 4.0. The primary focus of this research was on the efforts involved in enhancing the professionalism and curriculum outlook of EFL lecturers in accordance with IR 4.0. Face-to-face interviews with each participant lasted approximately 30 to 60 minutes.

2.4. Data analysis

We completely transcribed the interview responses in order to gain valuable insight into EFL lecturers' perceptions of maintaining their professionalism as well as curriculum approaches that meet today's technologically advanced world. Transcribing entails identifying, simplifying, abstracting, and extracting pertinent information, remarks, and recommendations that pertain to the research topic [26], [27]. To validate the data, we employ the member checking procedures in which the transcribed data are returned to the participants to verify their accuracy and correspondence with their experiences [28]. We coded the data from the interviews to create a conceptual framework, which involved categorizing the data. Furthermore, we identified common emerging themes and classified them [29], [30].

3. RESULTS AND DISCUSSION

3.1. Strategies to maintain professionalism in IR 4.0

3.1.1. Lifelong learning

Most participants believe that continuing to learn new things and improving existing skills and knowledge are critical strategies for maintaining professionalism in the current era. As the Industrial Revolution is drawing to a close, EFL lecturers must possess the skills and willingness to experiment and look for new ways to utilize advancements in digital technology [31]. In the interview, one of the participants stated

“One of the best ways to deal with industrial 4.0, in my opinion, is to keep learning new skills, especially technical skills. As an English lecturer, I am constantly refining my English core skills as well as practical strategies for effectively transferring those skills to students. Without a doubt, technological skills are a requirement for classroom professionalism.”

Another participant admits to regularly attending seminars, workshops, and other teaching-related events to improve her teaching skills and confidence. This participant states that she gains experience speaking, debating, presenting, and utilizing updated technological devices in front of large audiences by attending such events. This is what the participant reports

“I try to attend seminars and other activities that will help me improve my teaching skills. This seminar requires us to present the evolution of contemporary knowledge using technology to make it more interesting and understandable.”

Harefa [32] claimed that lecturers are students. As such, they should be able and willing to learn, either from educational practice with students or peers, or from the advancement of science and technology. Furthermore, lecturers must be aware of and willing to empower themselves before empowering others, as well as continue to learn how to be professional lecturers. EFL lecturers are strongly encouraged to update their teaching and technological skills [10]. Two participants agree that lecturers must constantly update their skills and knowledge. These participants believe that lecturers must keep learning in order to remain professional when teaching their students in the IR 4.0 era.

With the advancement of technology, it is important for lecturers, who serve as information sources, to ensure that they have sufficient and up-to-date information and skills that they can pass on to their students. This is consistent with the findings of Brown *et al.* [33], who discovered that improving lecturers' teaching and learning abilities may help to ensure that students learn and obtain new information from their lecturers by enhancing lecturers' teaching and learning abilities.

3.1.2. Enhance digital and technology skills

Digital or technical expertise is the knowledge and ability to use technology effectively, such as Internet search and the use of valuable information for personal and professional purposes [34]. In light of the industrial revolution 4.0, all participants agree that it is critical to develop technological competence in order to be professional EFL lecturers. The following quotation reflects the participants' views on the importance of enhancing their technological competencies:

“In today's classroom, technology and digital skills are critical. We, therefore, need to improve our technological abilities to professionally teach our students.”

Another participant is also in agreement with the participant stating that:

“In order to improve their teaching skills, EFL lecturers at Islamic educational institutions must also improve their ICT skills. I am aware of EFL lecturers who are hesitant to teach online due to their inability to use technology.”

Another participant asserts that there is a stigma associated with Islamic educational institutions and their lecturers being technologically illiterate. They believe technology is unimportant; at times, they are more concerned with matters concerning the afterlife. Some lecturers at Islamic universities sometimes forget that Islam also encourages its *ummah* to consider the life cycle on earth. As educators, we must balance our earthly and heavenly lives. Professional lecturers must constantly improve their teaching abilities, which include technological abilities, as technology is integral to the teaching and learning process. We, as Islamic university lecturers, are sometimes technologically illiterate.

Additionally, this participant believes that increasing EFL lecturers' digital and technological proficiency, particularly at Islamic universities, has the potential to eliminate negative issues regarding the technological proficiency of both lecturers and students at Islamic religious education institutions. One participant resonates with this negative stereotype.

“I think Islamic religious education institutions' lecturers and students must improve their technological competence in order to discard various negative stereotypes about this Islamic institution, such as our poor quality of human resources in terms of information technology mastery.”

Most participants believe that EFL lecturers must learn how to better utilize digital and technological resources in order to assist students in achieving their academic goals. They also believe that education in IR 4.0's primary goal is to improve learners' digital competencies and skills across all levels, as well as to increase the use of digital technologies for learning [35].

Despite positive reactions to the enhancement of lecturers' and students' technological competence, concerns about technology and its misuse in higher education have also risen. When it comes to the fear of technology being abused in education, the majority of participants believe that it depends very much on its users. With regard to this, one of the participants asserts that both lecturers and students have a responsibility to master and use technology for the sake of knowledge improvement, not for other technological-oriented crimes.

3.2. Curriculum approach

3.2.1. Interdisciplinary curriculum

EFL lecturers in Islamic higher education generally agree that the current EFL curricula should enhance students' ability to think and act creatively in order to help meet the community's needs. The participants therefore strongly encourage EFL lecturers to use the materials and theories taught in class and put them into practice, as four participants opinion that the ability to conceptualize and apply the information gained from the classroom to real-world situations is what the students require today. They recognize that this is something that can be taught. From a variety of different knowledge perspectives, in addition, it is possible to analyze the materials that are used in the teaching and learning process. They believe that an interdisciplinary curriculum is one of the answers to this teaching and learning approach.

During the discussion, participants raise critical thinking skills issues that students should have. Participants acknowledge that EFL students have to be motivated to use their critical thinking skills in analyzing teaching and learning materials provided by their lecturers. The EFL lecturers are encouraged to use various case studies and other reasoning and critical thinking related materials as part of students' assignments and homework. Integrating EFL materials into Islamic related materials can also be a solution to improve students' critical thinking skills.

“I often integrate the EFL reading materials into Islamic related teaching values. For instance, I choose an English reading text about the rain process and ask students to think about it from a scientific perspective, and at the same time, I also ask students to think about it from an Islamic teaching perspective.”

This participant adds that teaching and familiarizing students with thinking critically and solving various problems through case studies will enhance students' competence in facing and solving various problems in their real life. One participant also ascertains that

“In the fourth industrial revolution, humans are compelled to adapt to rapid technological advancement. This may have a detrimental effect on some individuals. Social conflicts or conflicts over work assignments can occur incessantly.”

Additionally, implementing an interdisciplinary curriculum has the potential to strengthen students' reasoning skills through providing ample exposure to issues that arise in their classroom environments. It is believed that interdisciplinarity discussion series foster students' ability to think broadly and critically [36]. Four participants assert that teaching an interdisciplinary or integrated curriculum enables students to utilize their critical thinking skills from various dimensions. Students will be able to look at an issue and find its solution from a religious, social, or cultural standpoint. This curriculum approach will, in the end, increase students' creativity as well as their collaborative skills [37], [38].

3.2.2. Practical skills

All participants believe that, in the context of contemporary developments in technology, the EFL program should emphasize applied skills. The participants strongly encourage EFL lecturers to adapt their teaching methods from a theoretical to a practical approach whenever possible, in order to assist students in the development of practical abilities. It is hoped that students are not only equipped with theoretical principles, but they are also taught how to apply those principles in real-world situations. While this does not imply that EFL lecturers should neglect pedagogical and English language skills-related theories, it does suggest that they should strive to balance theory and practice. The lack of empirical approaches to teaching EFL students at this university has been repeatedly reported as expressed in the following excerpt:

“What we see at the current time is that most EFL lecturers at our department only teach our students about theories, rarely do we empower their minds to put all their talents into practices.”

When we ask for clarification on what the participants meant by practical skills, they state that students should be provided with instructions and hands-on training on how to create a practical product as part of the culmination of the theories they have learned.

When it comes to applying the theory of English as a foreign language in real-world circumstances, students should receive considerable hands-on training and supervision. As an example, in the "Novel Reading Course", we should be able to guide our students toward the ability to write a short story or a novel, rather than simply reading a novel as a pleasurable activity.

Some other participants agree and state that, as the job opportunities in the Fourth Industrial Revolution are so competitive, our students must be equipped with applied skills. Another participant also agrees that practical skills should be integrated into EFL classes, acknowledging that EFL lecturers need to help their students obtain life skills once they finish learning a specific subject.

“Skills and abilities to create various interesting EFL learning resources and materials, including animation, games, and other learning products, can be generated through Writing and Entrepreneurship courses.”

Supporting the thoughts, three participants aspire that *“We always require our students to create a short film as a final product for our Literature topic.”* Numerous educational practitioners have proposed the idea of creating a specific product as a manifestation of applied skills learning outputs [39], [40]. They argue that in this competitive job market, university graduates should be able to work independently; they should be able to generate various related self-employment opportunities through their innovative and creative skills and ideas.

4. CONCLUSION

It is widely acknowledged that the rapid growth of technological advancements has had a substantial impact on teaching and learning approaches, including on English language instruction. Technology enables EFL lecturers to be more efficient in their teaching and provides excellent opportunities for personal development. However, this change presents challenges for EFL lecturers, who must devise a strategy for improving their professionalism. To increase their professionalism in teaching and the quality of their teaching output, EFL lecturers should take several significant steps, including keeping on learning and continually improving their technological competence.

To successfully teach in this industrial revolution era, in addition, our research also reveals that EFL lecturers should integrate theories of EFL related teaching and learning materials formatted for a certain course or topic into practical or empirical studies. Integrating the EFL curriculum concepts from the theoretical base to practical activities is part of the way to enhance the EFL students' practical skills. It is hoped that this practical base teaching strategy may gradually assist EFL graduates to expand their employment opportunities in this industrial revolution age.

This study provides information for EFL lecturers in dealing with the challenges of teaching in the IR 4.0 era. Even though the number of participants involved in this study is rather small, the findings provide significant information on enhancing the EFL lecturers' teaching professionalism both in employing technology and appropriate curriculum approaches. The limitation of this study can function as an important consideration for further researchers to involve not only lecturers but also students and other third parties to seek their opinions regarding the best practice of enhancing EFL lecturers' competences in implementing curriculum approaches that best meet the IR 4.0 world.




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