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Assessing Language Lecturer Preparedness for E-Learning Implementation[1]

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ABSTRACT

The main aim of this study is to assess the preparedness of UIN Ar-Raniry language lecturers in executing e-learning. It seeks to ascertain whether psychological, technological, human resource, equipment, and content preparedness represent legitimate and trustworthy characteristics of e-learning preparedness. This study utilized the e-learning preparedness model established by Chapnick (2000) as its framework. The sample comprised 200 lecturers from the Language Development Center of UIN Ar-Raniry. The current study included three modified questionnaires derived from three primary sources: Teddy (2008), Trayek (2013), and Murphy, Coover, and Owen (1989). Thirty-seven items were included to assess the five constructs proposed in this study. This study employed descriptive statistics, including frequency counts and percentages. The study revealed that among 200 respondents, the majority supported the deployment of e-learning, indicating that most English and Arabic language instructors possess a greater level of preparedness for e-learning integration. The study concluded that lecturers at the UIN Ar-Raniry Language Development Centre are prepared to integrate e-learning into their pedagogical approaches. Consequently, it is recommended that UIN Ar-Raniry consolidate their efforts to improve the knowledge and skills of lecturers about content preparedness, technological preparedness, human resource preparedness, and equipment preparedness.

INTRODUCTION

E-learning provides several advantages to universities, educators, and students. The university finds e-learning more efficient, as e-learning courses are less expensive to administer than traditional face-to-face instruction (Njenga & Fourie, 2010; Welsh, Wanberg, Brown, & Simmering, 2003), and it enables the institution to reduce costs associated with printing (Hayaati, Alwi, & Fan, 2010). E-learning enables lecturers to disseminate instructional content, fosters improved communication between students and instructors, and enhances cooperation, interactivity, and capability (Liaw, Huang, & Chen, 2007). The e-learning platform

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enables instructors to upload course materials, generate online quizzes, assess students, and facilitate online discussions. E-learning enhances student motivation by facilitating the exchange of ideas and information (Cavas et al., 2009), fostering greater self-confidence, promoting engagement in the learning process, and encouraging collaborative communication among students through online platforms (Fageeh, 2013), while also providing increased flexibility in terms of time and location (Jochems, Merrienboer, & Koper, 2004). In summary, whether provided through an open-source platform like Atutor, Claroline, Dokeos, Freestyle Learning, or Moodle, or through a commercial platform such as Blackboard, eCollege, or IntraLearn, e-learning facilitates the accessibility of resources and services, enabling course materials to be available anytime and anywhere. Consequently, the use of e-learning offers numerous advantages for the university, the instructors, and the students alike.

The advancement of e-learning coincides with the expansion of language studies and has transformed the methods by which students acquire these disciplines (Dastjerdi, 2015). The provision of facilities, such as computer technology, has transformed the delivery of language learning, particularly by facilitating new vocabulary training (Arkin, 2003). The extensive resources and educational opportunities provided by computers and the Internet, integrated into e-learning, have introduced novel methods, tools, and tactics for language training aimed at learners. In other words, it is widely recognized that e-learning technology induces substantial transformations in language courses (Liu & Zhao, 2011; Talebinezhad & Abarghoui, 2013; Xing, 2008).

E-learning can enhance students' acquisition of a second language more effectively than conventional methods. Utilizing e-learning technologies can enhance the engagement of diverse learning methodologies and augment students' linguistic performance productivity (Alharbi, 2012). It not only affords learners the option to regulate their own educational process, but also grants them immediate access to an inexhaustible reservoir of material over which the teacher has no authority (Lam & Lawrence, 2002). It also enhances pupils' knowledge, including writing skills, and fosters critical thinking abilities (Alsalem, 2005). E-learning facilitates language practice with lessons in grammar and vocabulary, games, pronunciation, and more. Moreover, pupils utilizing blended learning systems achieved significantly superior scores compared to those educated through traditional methods regarding information acquisition (Badawi, 2009). These examples illustrate the advantages of e-learning in the instruction and acquisition of a language.

E-learning is a method employed in education that has been utilized by numerous colleges globally (Abulibdeh and Hassan, 2011). The objective of implementing e-learning in education is to advance educational processes and improve methodology and teaching methods by transitioning from traditional to current educational systems, facilitated by technology (Al-Furaydi, 2013). E-learning must not only transform the educational system but also improve the quality of teachers' content delivery to students, as teachers are a significant factor influencing the success of e-learning (So & Swatman, 2006). Regrettably,

some educators remain unprepared due to inadequate proficiency in using e-learning as their contemporary methodologies and tactics. This unpreparedness may not solely stem from a deficiency in capabilities, such as technological proficiency, but also from additional factors, including psychological preparedness and material availability (Keramati, Afshari-Mofrad, & Kamrani, 2011). Consequently, the educators are not yet prepared to adapt, which may hinder the implementation of e-learning.

Prior investigations into e-learning preparedness have concentrated on four principal themes. Numerous research have investigated the preparedness of teachers for e-learning implementation, evaluating various factors that facilitate its successful execution (Keramati et al., 2011; Lee & Tsai, 2010). Additional research has concentrated on the perceptions and intentions of principals, staff, instructors, and students about the preparation of e-learning (Adnan D. Alwadie, 2011; Alenezi, 2012; Mulwa & Kyalo, 2013; Shraim & Khlaif, 2010; Shroff, Deneen, & Ng, 2011). Several investigations into e-learning preparedness have been conducted at the university, concentrating on the medical faculty (Khalid et al., 2014; Ranjbarzadesh, Biglu, Hassanzadeh, & Safaei, 2013; Ruiz, Mintzer, & Leipzig, 2006). Numerous research have investigated how teacher self-efficacy, knowledge, and experience affect the degree of technology integration in the classroom (Mishne, 2012; Paraskeva, Bouta, & Papagianni, 2008). Additional research has emphasized the obstacles and challenges posed by the government regarding the adoption of e-learning (Mirza & Al-Abdulkareem, 2011; Panda & Mishra, 2007).

While there have been various studies on the application of technology in language instruction, particularly in English language education, only a limited number of investigations have concentrated on the utilization of e-learning in language subjects (Agboola, 2005; Alharbi, 2012). A multitude of academics have concentrated on the application of technology, particularly computers, referred to as CALL (Computer-Assisted Language Learning) by educators in language instruction (Mahmoudi, Samad, & Razak, 2012; Mokhtari, 2013; Talebinezhad & Abarghoui, 2013; Xing, 2008). Consequently, the current study aims to assess lecturers' preparedness for utilizing e-learning in language instruction.

Numerous universities in Indonesia have commenced the implementation of e-learning inside their educational frameworks (Hendrastomo, 2007). Nevertheless, certain prior studies concentrated mostly on student views, which are identified as influencing the execution of e-learning, rather than on the actual preparedness of lecturers (Andra, 2012). This study, consequently, tackles this gap by concentrating on lecturers' perceptions. Furthermore, stakeholders in educational organizations should regard e-learning preparedness evaluation as a critical metric to evaluate. Consequently, to enhance the application of e-learning at UIN Ar-Raniry, it is essential to assess the preparedness of language lecturers to integrate e-learning into their teaching methodologies.

Bukaliya and Mubika (2011) carries out research in the Chegutu District of the Mashonaland West Region to assess the ICT competencies of rural and urban secondary school teachers. They discovered that

the majority of teachers lacked experience with computers due to their absence from ICT training or workshops. Furthermore, the studies indicated that a considerable proportion of these educators lacked skills in information technology. The teachers lacked the requisite skills and knowledge of computers, including fundamental software, to effectively give a lesson. The conclusion indicated insufficient computer hardware and minimal expertise. The educators were not well prepared to implement e-learning in their instruction.

Panda and Mishra (2007) and Ngulube, Shezi, and Leach (2014) asserted that the absence of computer hardware, alongside insufficient training and workshops, has resulted in teachers and students lacking the requisite skills and knowledge to effectively utilize ICT technologies. Furthermore, the incorporation of e-learning into education is not solely their duty, but also involves all stakeholders, including policymakers within institutions. The findings indicated that adequate provision for technological infrastructure is essential prior to the integration of IT into education. This study evaluated all these elements to measure the language lecturers' preparedness in applying e-learning.

Thowfeek, Lanka, and Hussin (2008) examined lecturers' perspectives on e-learning adoption in Sri Lanka and found that they exhibited a highly positive psychological preparedness to embrace e-learning as a novel approach to educational methods and techniques in their institutions. They identified six elements that may influence the deployment of e-learning at the university: instructor preparedness, student preparedness, e-learning infrastructure, institutional support, motivation and incentives, and the e-learning system itself. Furthermore, enhancements for network administration, staff and student training, as well as suitable policies and incentives, have been implemented. These characteristics have been utilized to assess the preparedness of lecturers in embracing e-learning, positioning them as frontrunners in the deployment of e-learning in Sri Lanka.

Universitas Islam Negeri Ar-Raniry (UIN Ar-Raniry) is an Islamic university located in Indonesia. In October 2014, the institution transitioned from State Islamic Institute (IAIN) to State Islamic University (UIN). The new status prompted numerous modifications. One initiative was the development of a new website and the preparation for e-learning at the university. Furthermore, policymakers at UIN Ar-Raniry revised numerous regulations to facilitate and promote the integration of technology inside the educational environment. The university is partnering with other universities and research institutions to enhance its educational quality. Additionally, to enhance the educational experience, UIN Ar-Raniry has implemented innovations to streamline administrative processes and information dissemination, including training for lecturers on reporting student scores via the university's online system. Previously, lecturers recorded the scores and conveyed them to the administrative staff, but this method was deemed ineffective.

METHODS

This research utilized an ex-post facto design and specifically employed a cross-sectional survey method for data collecting. The survey method was selected because it facilitates data collection from the full population required for this study, offering a cost-effective and efficient approach to acquiring substantial data from respondents. This strategy enables the researcher to tackle a diverse array of questions to assess the variables. A Likert scale in questionnaire will serve as the instrument for assessing the level of e-learning preparedness, data obtained from the questionnaire will thereafter be analyzed.

Chapnick e-learning readiness framework was utilized in this research. This model was selected as it was the inaugural e-learning assessment model created in 2000. Furthermore, it included all elements suggested by alternative e-learning assessment models and was deemed appropriate for the aims of this research. Chapnick delineated the eight dimensions of e-learning preparedness. Only five of them were employed in this study: content preparedness, human resource preparedness, equipment preparedness, psychological preparedness, and technology preparedness.

The questionnaire was formulated and modified based on three primary sources: Teddy (2008), Trayek (2013), and Murphy, Coover, and Owen (1989). Ten elements were extracted from Teddy (2008), comprising two items related to psychological preparedness, five items pertaining to human resource preparedness, one item concerning content preparedness, and two items addressing equipment preparedness. Nine items were utilized from Trayek (2013), comprising five items related to psychological preparedness, one item concerning human resource preparedness, and three items addressing equipment preparedness. Fourteen measures were adapted from Murphy et al. (1989), comprising eight questions related to technology preparedness and six ones pertaining to content preparedness.

Furthermore, the researcher created a self-developed questionnaire. The procedure yields a total of fourteen items, comprising both adaptations and new developments. The response options are Strongly Agree (5), Agree (4), Neutral (3), Disagree (2), and Strongly Disagree (1). The self-created questionnaire items were validated by five specialists in instructional technology, research methodology, and educational psychology. They possessed extensive expertise and knowledge in both format and substance, enabling them to ascertain the appropriateness of the items as measures of the constructs. Each expert provided essential observations and offered diverse comments and recommendations about the questionnaire item content. The feedback was utilized to enhance the goods prior to undergoing a pilot study. In accordance with the experts' recommendations, several things were rephrased or eliminated, while others with similar meanings were consolidated into a singular concept.

The study population comprises all language lecturers at UIN Ar-Raniry, including those specialising in English and Arabic. The survey encompasses all 200 lecturers from the Language Development Centre

(LDC) as respondents (LDC, 2014). This university is selected because it is the sole institution in Aceh that employs numerous language instructors under LDC, offering instruction in three languages. Furthermore, no research has been conducted regarding e-learning at this university prior.

RESULTS AND DISCUSSION

Psychological Preparedness

Seven (7) items pertaining to psychological preparation were included in the questionnaire. All items got majority approval, with percentages ranging from 69% to 93.5%. Approximately 94% believed that e-learning can enhance teaching and learning at UIN AR-Raniry; none opposed this assertion, while merely 6.5% of respondents expressed uncertainty. Furthermore, a majority expressed a willingness to provide time for e-learning (91%), preparedness to incorporate it into their instruction (89.5%), and confidence in their capacity to execute e-learning (80%). Despite a smaller proportion of lecturers finding it easy to acquire e-learning abilities (72.5%) and to execute e-learning (69%), the statistics suggest that the majority of lecturers were psychologically prepared to adopt e-learning. The response patterns indicate that the UIN Ar-Raniry lecturers of English and Arabic questioned in the study were psychologically prepared for the adoption of e-learning at the university.

Technological Preparedness

A majority of the lecturers, specifically between 56% and 94%, concurred with the concepts signifying technological preparedness. Over 80% indicated proficiency in computer usage (94%), data manipulation within a system/file (89.5%), and browser utilization for accessing e-learning platforms (82%). A substantial percentage of instructors, between 70% and 74%, concurred that they possess the ability to organize and manage files, disseminate news and announcements, and use the e-learning platform. Furthermore, two-thirds of lecturers possess the ability to input grades (67%), develop learning materials (almost 70%), and design online quizzes (62%). Nonetheless, a smaller proportion of instructors reported utilizing DropBox (56%), whereas approximately 35% expressed uncertainty regarding its use. It is noteworthy that fewer than one-fifth were unaware of how to construct a Dropbox. The response pattern indicates that over half of the surveyed UIN Ar-Raniry lecturers of English and Arabic were technologically prepared to adopt e-learning.

Human Resource Preparedness

In contrast to psychological and technological preparedness, human resource preparedness garnered a lower percentage of agreement from the professors, ranging from 39.5% to 61.5%. Approximately 62% of

the instructors concurred that the ICT workshops offered by the institution may enhance their skills required for e-learning. The responses indicated the highest level of agreement regarding the issue, followed by the assertion that the university possesses adequate IT resources to help the teachers (57%). Furthermore, a majority of respondents concurred that the institution provided sufficient assistance for lecturers (51.5%), and that the technical support for e-learning was likewise adequate (50.0%). Overall, while about 50% of the professors expressed uncertainty regarding the sufficiency of technicians (nearly 40%) to assist e-learning, the replies suggested that the questioned lecturers possess the necessary human resources to implement e-learning.

Content Preparedness

Approximately 69% indicated that their information was prepared in PowerPoint for e-learning; nearly 64% possessed pertinent weblinks for student reading references, 63% had content in accessible formats for e-learning, and 62% had audio content available. Nonetheless, a limited number of responders indicated preparedness for screencasts, movies, and online quizzes. Fifty-nine percent (59%; n = 118) of the lecturers said that they possessed questions prepared for conversion into online quizzes, while between 53% and 54.5% had video tutorials (screencasts) and video materials available. Furthermore, it is noteworthy that 45% of the professors concurred that the university provided accessible e-learning materials.

Equipment Preparedness

The consensus on the university's equipment preparedness was notably inadequate. Of the five e-learning preparedness measures assessed in this study, only one surpassed 50% agreement among respondents. For instance, merely 57% concurred that the university possessed the requisite IT infrastructure for e-learning. The majority of respondents were uncertain regarding the quality of the university's Internet connectivity, maintenance, and infrastructure. The results indicate that between 46% and 57% of lecturers concurred that the IT infrastructure adequately supported e-learning at the university, 46% affirmed that the Internet connection was satisfactory, and nearly 43% reported that the availability of computer labs sufficiently facilitated e-learning (42.5%). Furthermore, almost 43% of the teachers expressed uncertainty regarding the university's capability to offer adequate IT infrastructure. The response pattern indicated that the majority of respondents were uncertain whether the university could provide lecturers with adequate facilities, infrastructure, and maintenance for the execution of e-learning.

The results revealed that a significant majority of the polled lecturers are psychologically prepared to implement e-learning, with over 90% indicating preparedness to integrate it into their teaching. The results indicate that the lecturers held beliefs and perceptions that e-learning offers advantages such as flexibility in time and location, as well as ease in delivering instructional materials to enhance student engagement in the

classroom. The aforementioned benefits will foster favorable attitudes towards the adoption of e-learning, as previous studies indicate that psychological preparedness is a pivotal factor for assessing e-learning adoption (Keramati et al., 2011; Park, Roman, Lee & Chung, 2009; Teddy, 2008; Tsakonas & Papatheodorou, 2008). Psychological preparedness is a critical determinant of the success of e-learning adoption, significantly influencing users' intentions to engage in continuous e-learning usage. When lecturers recognize that e-learning is user-friendly and advantageous for their instruction, they are inclined to integrate it into their teaching and learning tactics due to their satisfaction with it. Consequently, it is advantageous to understand the lecturers' attitudes on the use of e-learning.

Regarding technological preparedness, just 62% of respondents indicated possessing the majority of the skills necessary for utilizing e-learning platforms. This implies that the remaining 33% were either uncertain or lacked the requisite abilities for utilizing technology in e-learning. Technological preparedness is regarded as a crucial aspect, since it reflects teachers' beliefs of their capability and proficiency in educational practices. The efficacy of e-learning is purportedly influenced by the instructional application of information technology, encompassing lecturers' proficiency in utilizing e-learning platforms, operating computers as instructional tools, accessing the internet, navigating learning management systems (LMS), uploading and managing files, conducting e-learning sessions in the classroom, and preparing e-learning materials. Consequently, enhancing the technological proficiency of lecturers should be a priority, as numerous studies on e-learning preparedness emphasize it as the second most critical factor in the e-learning adoption process (Hassanzadeh et al., 2012; Keramati et al., 2011; Selim, 2007).

Approximately 52% indicated that the university has sufficiently supplied support, including facilities for e-learning utilized by the teachers. This indicates that 48% lacked confidence in the university of UIN Ar-Raniry's human resources to effectively plan, integrate, and sustain the adoption of e-learning. Furthermore, the university is obligated to establish a dependable human support system to augment the skills required by lecturers for the implementation of e-learning. This includes offering training for college staff and faculty in updated technological competencies and ensuring that staff and faculty are adequately trained for e-learning execution. Numerous studies (Chapnick, 2000; Goi & Ng, 2008; Teddy, 2008) have identified human resource preparedness as a crucial determinant influencing the degree of preparedness for e-learning adoption. Lecturers with a higher degree of education are more inclined to adopt innovations, as they perceive technological advancements as beneficial for facilitating their work. This will also influence the satisfaction levels of the lecturers and their willingness to persist in utilizing the e-learning system. Consequently, it is imperative for the institution to evaluate the allocation of human resources that will foster more favorable attitudes towards the utilization of instructional technology among instructors.

Regarding content preparedness, 63% indicated that they possessed materials suitable for instructional purposes. The findings indicated that the majority of lecturers were prepared with the topic or

materials for e-learning utilization. Nevertheless, the data figures must be enhanced, as content and materials for e-learning serve as vehicles for knowledge development and the learning process, according to the quality of virtual learning. Their reliance primarily hinges on the quality of the e-learning content. Furthermore, e-learning content must align with students' needs by providing appropriate and abundant materials and resources. When e-learning information is appropriate, abundant, and aligns with students' requirements, motivation to engage in e-learning is enhanced. Consequently, lecturers are typically required to not only provide e-learning content but also to serve as e-learning content developers.

Finally, around 57% indicated that the IT infrastructure at UIN Ar-Raniry is capable of adequately supporting e-learning. The statistics indicated that just fifty percent of respondents concurred that the university was prepared to implement e-learning regarding facilities and infrastructure. To guarantee the efficacy of e-learning implementation, the university must adequately prepare facilities and infrastructure, including ICT accessibility for both lecturers and students, reliable Internet connectivity, computer laboratories, and electronic devices to facilitate instructional delivery, as suggested by prior research (Lou & Goulding, 2010; Tanrıkulu, Tugcu & Yilmaz, 2010; Thong, Hong & Tam, 2002). The university's support for e-learning implementation significantly influences instructors and students to utilize e-learning to enhance instructional methods.

While all five components garnered over 50% agreement from respondents, only Psychological Preparedness approached 100% agreement, whereas the remaining four constructs earned less than 65% agreement. The potential for this occurrence warrants investigation in future research, as it may assist the institution in enhancing its educational system with the application of e-learning.

CONCLUSION

The assessment of e-learning preparedness is essential alongside the associated elements or dimensions within the educational domain. By comprehending these dimensions, the institution will ascertain what preparations are necessary prior to the implementation of e-learning. This study has identified several pertinent issues, namely the e-learning preparedness of English and Arabic lecturers at the Language Development Centre (LDC) of UIN Ar-Raniry, the foundational aspects of their e-learning preparedness, and the disparities in e-learning preparedness between English and Arabic lecturers. The results of this study should be effectively utilized by university management, stakeholders, and lecturers to enhance the quality of e-learning outcomes.

The examination enables lecturers to evaluate their preparedness for utilizing e-learning in their instruction, encompassing psychological, technological, human resources, content, and equipment preparedness. The study's findings suggested that instructors should psychologically prepare themselves to eliminate hesitancy and skepticism regarding the use of e-learning in their instruction. Moreover, they must

possess proficiency in e-learning to effectively use it and address fundamental issues encountered inside the e-learning environment. Furthermore, it is advantageous for the institution to assess the preparedness of lecturers to embrace e-learning, enabling enhancements in facilities, infrastructure, and upkeep to elevate the quality of instruction. This study aims to motivate future research to identify significant underlying elements that can enhance e-learning preparedness and improve the education system in Aceh.

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