Identifying the underlying factors of students’ readiness for E-learning in studying English as a foreign language in Saudi Arabia: students’ and teachers’ perspectives

Abstract—In an era of increased global investment in the use of technology in education generally, Saudi Arabia has intensified its quest to incorporate E-learning in studying English as a foreign language (EFL) in Saudi schools. The benefits for this paradigm shift in focus are not far-fetched because the growth of the internet and the proliferation of computers appear to have had a direct impact on the steady increase in popularity of E-learning, especially in studying EFL. This paper is based on a qualitative research design using group interviews that explored the perspectives of students and teachers on the underlying factors that indicate the readiness of students to use E-learning in studying EFL in Saudi Arabia. The findings identified three underlying sets of immediate factors that included: E-learning self-efficacy, personal drivers and access to the requisite resources. In addition, the study demonstrated how contextual underlying factors such as school and family support help to shape the readiness of students to use E-learning in studying EFL in Saudi Arabia. This paper provides a synthesis of the evidence on what participants considered as the personal and environmental conditions that contribute to successful E-learning implementation.

Keywords—Readiness, E-learning readiness; student readiness; E-learning; Saudi Arabia

I. INTRODUCTION

Globally, English language is currently the most common language of communication amongst people of different first languages in the field of business and commerce as well as in academia. The increasing dominance of English language as a lingua franca throughout the world is traceable to the origins of British overseas possessions and trading posts established by Britain between the late 16th and early 18th centuries. This came as a result of colonialization, international trade and global politics. In Saudi Arabia, the main sectors where the use of English language has gained increasing significance are education and commerce [1]. As a result, as part of the important reforms being introduced in the Saudi educational sector, English is now taught as a main subject in schools, and used as a medium of instruction in colleges and universities [2]. In spite of these latest developments, available studies suggest that students at the basic level do not acquire sufficient English language skills for higher education [3], [4]. This exacerbates the challenge of using English as a medium of instruction in universities and impacts negatively on students’ successful completion of their programmes. Taking this into consideration, the ministry of education has proposed to develop and improve English proficiency among the students through the introduction of E-learning, as a supplementary tool, in the studying English as a Foreign Language (EFL) at the intermediate and high school levels [5]. However, it is felt that the potential benefits of adopting and using E-learning may not be fully realised if the students are not ready to use this kind of technology. This view is supported by [6] who argues that the successful implementation of E-learning requires educational authorities to measure the readiness of students to adopt such technology in order to allow them to benefit from its advantages. Those who are found to lack readiness could be provided with the necessary support to enhance their readiness.

This paper reports the outcome of a qualitative research study designed to explore the underlying factors that indicate the readiness of students towards using E-learning for learning EFL in Saudi schools. The study identified a distinction between the immediate and the contextual, or external, underlying factors that are associated with the readiness of students towards using E-learning for learning EFL in Saudi schools. Despite the fact that many studies have developed and validated a number of surveys to investigate and evaluate students’ readiness for E-learning based on different dimensional factors, which have their merits, it was also evident throughout the literature that all are limited in nature especially regarding their application to this present research context. For instance, they tend to treat learners as if they were isolated individuals and fail to respect the environmental and social settings in which they are embedded. These may be very different in some contexts, e.g. the culture of Saudi Arabia, with significant impact on the readiness of students for E-learning. We argue that a qualitative engagement with individual research participants is an important aspect of approaching these issues. Part of the value of this paper therefore is that it offered students and teachers the opportunity to identify what they considered to be the underlying factors of students’ readiness for using EFL.

To this end, the first section of this paper briefly explores and discusses the surveys of students’ readiness for E-learning highlighting its different dimensional factors as well as its limitations. The second section of the paper discusses the key features of our study design and the methods employed in the research. The third section presents the findings of the study. These findings are juxtaposed with those referenced in the literature review, to provide meaningful interpretations. Finally, the paper concludes by explaining the contributions and limitations of the research, proposing possibilities for further research.
II. Literature

Reference [7] proposed the concept of E-learning readiness in its broader sense in 1998. They defined the notion of E-learning readiness as students’ preferences, confidence, and ability to engage in such technology [7]. Since then, [8] has provided the most acknowledged definition from the field of E-learning. He defines E-learning readiness as, “people’s propensity to embrace and use new technologies for accomplishing goals [in the context of this research, learning goals] in home life and at work” [8, p. 308]. These definitions may seem to be narrow in the way they measure E-learning readiness of students. In this study, what defines E-learning readiness involves a combination of what are considered as immediate factors (e.g. personal drivers, E-learning self-efficacy and access to the requisite tools) and contextual factors (e.g. school and family support) that impact on individuals to use such technology. This definition appears broader in scope and incorporates the context which mediates the social and cultural state of users.

Previously, researchers have demonstrated interest in constructing and validating surveys in order to investigate and evaluate the E-learning readiness of students in various contexts, using various methodologies and adopting different theoretical frameworks. This has led to the development of a number of surveys to investigate and evaluate of students’ readiness based on different dimensional factors. These factors appear to vary widely between studies, but there are also overlaps. For instance, a study designed by [9] in an effort to concretize the concept of E-learning readiness involved a combination of what are considered as immediate factors (e.g. personal drivers, E-learning self-efficacy and access to the requisite tools) and contextual factors (e.g. school and family support) that impact on individuals to use such technology. This definition appears broader in scope and incorporates the context which mediates the social and cultural state of users.

Our study relied on a qualitative approach to explore the underlying factors of students’ readiness to use E-learning for studying EFL in Saudi schools. Qualitative methods are in-depth research instruments used in exploring individual’s and/or groups’ perceptions of particular phenomena, including E-learning [17]. The research approach aimed to gain insights into the meanings and interpretations students and teachers ascribed to their E-learning usage. The qualitative method was used because it is considered best suited for exploring a social reality that is constantly changing from one context to another [18]. In particular, the use of group interviews helped in providing deeper understanding of how research participants constructed meaning for E-learning readiness as well as exploring the underlying factors of their readiness for studying EFL in Saudi schools.
The reliance on group interviews as a data collection instrument had a number of merits including its cost-effectiveness, rapid information gathering and the generation of new ideas [19]. The use of group interviews also allowed the facilitation of discussions between participants on the subject matter of the research in ways that the researcher might not have encountered in individual interviews.

The study implemented a purposive sampling technique and sought voluntary participation [20]. As the aim was to achieve ‘depth’ rather than ‘breadth’ [21], 24 participants (16 students and 8 teachers) were selected. The focus was mainly on students’ readiness but the perspective of teachers was considered valuable because they might also give insights into the underlying factors of students’ readiness for studying EFL in Saudi schools that might not have been considered by students.

The sample of students was selected and grouped based on gender, English proficiency, and whether they had previous E-learning experience, as illustrated in table I below. The decision to include these different criteria was made to ensure that the selected sample was a diverse one within the defined population boundaries. This also ensured a balance in terms of gender, different levels of English proficiency and different students’ experience with E-learning. According to [19, p. 197] “diversity in group composition enriches the discussion, but there also needs to be some common ground between participants-based on how they relate to the research topic or their socio-demographic characteristics”.

### TABLE I. STUDENT PARTICIPANTS ACCORDING TO PROFICIENCY IN ENGLISH, E-LEARNING EXPERIENCE AND GENDER

<table>
<thead>
<tr>
<th>Participant category</th>
<th>Number of teacher participants (male – female)</th>
</tr>
</thead>
<tbody>
<tr>
<td>With E-learning experience &amp; High proficiency in English</td>
<td>1 – 2</td>
</tr>
<tr>
<td>With E-learning experience &amp; Low proficiency in English</td>
<td>3 – 2</td>
</tr>
<tr>
<td>Without E-learning experience &amp; High proficiency in English</td>
<td>3 – 1</td>
</tr>
<tr>
<td>Without E-learning experience &amp; Low proficiency in English</td>
<td>1 – 3</td>
</tr>
<tr>
<td>Total</td>
<td>8 – 8</td>
</tr>
</tbody>
</table>

The sample distribution of teachers was divided based on gender and whether they had E-learning experience, as presented in table II below. Among the core reasons for using these criteria was to maximize diversity as explained above.

In total, there were four group interviews, two groups of eight students (8 males and 8 females) and two groups of four teachers (4 males and 4 females). In both cases, males and females were interviewed separately due to cultural and religious constraints on gender mixing. Collectively, the sample size and sampling distribution method allowed the author to provide the diversity required within the defined population boundaries in order to achieve the research objectives.

The data collected during the group interviews was transcribed manually and then analysed based on themes. The researcher chose thematic analysis as an analytical tool, because it was seen as an ongoing, fluid, and cyclical procedure occurring throughout the data collection stage, as well as involving data entry and analysis phases [17]. The data analysis process involved the following steps: identifying, examining and interpreting themes in textual data and then asking how these themes helped address the research aims. The steps also involved familiarising with the data; generating initial codes; searching for themes; reviewing and naming themes; and finalising the analysis [22]. The data was analysed by treating the data produced by the groups as a whole, rather than focusing on individual contributions [19]. Hence, the group interviews were used as the units of analysis and were treated in the same way as units of individual data. Group analysis was used in this particular study, because it enabled the researcher to compare the differences and similarities between genders, as well as between teachers and students. Data was also triangulated between groups and with other literature to ensure that the process was rigorous. The triangulated data helped to highlight the points of convergence, divergence and complementarity both within the data and with the literature.

Finally, ethical issues raised during the research were dealt with in the strictest confidentiality and data was anonymised in order to protect the identities of the respondents. The findings are presented below detailing the identified underlying factors of students’ readiness for E-learning in studying EFL in Saudi Arabia.

### IV. FINDINGS AND DISCUSSION

The outcome of this study identified three sets of immediate factors underlying students’ readiness for E-learning in studying EFL in Saudi Arabia. These factors are E-learning self-efficacy, personal drivers and access to the requisite resources. Moreover, the study also showed how contextual underlying factors such as school and family support helps to shape students’ readiness for E-learning in studying EFL in Saudi Arabia. The presentations in this section are syntheses of the research outcomes, providing evidence for what participants
considered as the personal and environmental conditions that contribute to successful E-learning.

A. E-learning self-efficacy

E-learning self-efficacy was defined in the research as perception of related abilities, knowledge and skills to use such technology in learning EFL in Saudi Arabia. For instance, it was clear from the data that persons who see themselves as having high E-learning self-efficacy considered themselves more ready to study EFL using E-learning compared to those whose perception is low. Indeed, in a student-centred learning environment, students require some degree of ability, knowledge and skills to facilitate learning. In a study to measure Taiwanese students’ readiness for online learning, [13] emphasise the importance of the self-efficacy factor to explore students’ readiness for E-learning.

In the present study, responses from all four grouped interviews were unanimous in their views that skill and knowledge in computers and the internet are indicators of the students’ readiness to study EFL in Saudi Arabia which will have a positive effect on its implementation. For instance, in the view of the male students who constituted Group 4:

You know, sometimes E-learning requires high skills in computers and use of the internet... some students are not educated enough in schools to manage the use of the computer.

The above quote also summarises the views of most participants. Members of the group both acknowledged the need for skills and knowledge in computing and the internet, in general, for them to be able use E-learning for studying EFL in Saudi Arabia. They also bemoaned the current inadequacy of such skills and knowledge in Saudi schools. In addition, the group showed the link between the skills in computers and internet in one hand and the school support to gain these skills. However, the literature review in E-learning readiness has failed to show the importance of such a link. Group 1, which represented female teachers, also mentioned that:

we hope to see E-learning as a tool to support and practice what the students are learning in the classroom, but we think that administrators need first to give students appropriate skills for this type of technology.

This suggested the need for the use of E-learning in studying EFL but at the same time called for skills development by way of training students. Training, it has been suggested, plays a major role in building the skill of students to use E-learning [23]. The group here felt that in order for them to be able to E-learning for EFL, there is the need for the appropriate authorities to help develop their skills in the use of such technology. This was a crucial point because it shows that having such skill may impact positively on respondents’ readiness to study EFL using E-learning. Similarly, Group 3, made up of female students, noted that:

we do not have enough skill in using the computer and internet through the school to be able to use E-learning, but at least we have good skills in using computer and internet outside the school.

This group recognised their inefficiencies in the use of technology for studying EFL in school but were quick to acknowledge their capability of using technology outside the school. This implies a belief that skill and knowledge in the use of technology for activities such as gaming might not necessarily mean skill and knowledge in using the same technology for studying EFL in school. Perhaps there is here an implicit recognition [24] that to use E-learning for studying EFL, users need metacognitive skills such as the ability to identify resources for learning, select and implement learning strategies, monitor personal performance and effectively apply the skills and knowledge to reach their learning objectives.

Another contribution made by members of Group 1 emphasised the need for skill in using E-learning for studying EFL when they stressed that:

it is not just the students who do not have enough skill to use E-learning. We can guarantee that some teachers also have difficulties in using E-learning.

The above implied that the ability of teachers to help students who are studying EFL in Saudi Arabia also depended on their skill level. It was therefore a concern to the participants that both students and teachers do not have the needed requisite skills that facilitate their studying EFL using E-learning. Members of Group 1 attempted to trace the root cause of the problem when they identified that:

based on weakness in teaching computer subjects in school from the early stages, this is why some students if not most have little of the knowledge and skill in using computers and the internet needed to use E-learning successfully.

The narrative in the above quotation suggested the need to introduce students to computing subjects even at the primary school level. If this were done, it is thought that students would grow up with the skill and knowledge that will enhance their readiness to use E-learning in studying EFL. Lack of skill and knowledge can also discourage people from using E-learning in many respects. For example, in the words of members of Group 3:

Because we don't have any skill in this technology, we will have anxiety about E-learning, so we think this kind of lack of skill will stop us using E-learning.

The above comment exemplified views that the lack of skill and knowledge in the use of technology makes students more anxious and less able to use E-learning for studying EFL. This is likely to impact on their motivation to use E-learning for EFL. Students who become disillusioned might become less driven to use it; but for students who may still be highly motivated, they are likely to get extremely frustrated. Most teachers and students also agreed that there is currently a lack of the requisite skills and knowledge in using E-learning in education generally.

In addition, social support such as family was also identified as a significant factor that enhances the individual’s self-efficacy to use E-learning for studying EFL in Saudi Arabia.

You know, my dad is a mathematics teacher, and sometimes he helps me to access some websites that are designed to help students learn mathematics.
The above quotation from a female student demonstrated one clear example whereby family support to use E-learning is seen to enhance an individual’s readiness to use E-learning for studying. The context also demonstrated that there is a positive relationship between the two based on the particular student’s experience. For instance, because her father is a teacher and provided her with access to E-learning at home, she seemed to like it and hence developed a positive view of it. This view laid emphasis on the significance of social support in enhancing students’ level of self-efficacy, which in turn, indicates their readiness to use E-learning in studying EFL in Saudi Arabia.

B. Access to requisite resources

Access to requisite resources was another factor that was identified in relation to students’ readiness to use E-learning for studying EFL in Saudi Arabia. However, it is worth noting that little attention has been paid to access to requisite resources as an underlying factor that indicates students’ readiness for E-learning in the E-learning readiness literature. In this study, access to requisite resources relates to the availability of equipment, i.e., computer and internet access, not only in the school but also at home. The more access students have to the equipment and technology, the more control they have over when, where and how they can pursue their studies. Regarding access to requisite resources at home, the groups interviewed expressed varied opinions, with an emphasis on how having access to requisite resources can and does (or would) impact on their readiness to use E-learning in studying EFL in Saudi Arabia. For instance, the members of Group 1 stressed the lack of these requisite resources can impact on students’ readiness to use E-learning for studying EFL in Saudi Arabia. From the data, all the groups considered as important the accessibility of the requisite resources in schools in order to facilitate students’ use of E-learning in studying EFL in Saudi Arabia. Participants were also unanimous in their views on how the lack of these requisite resources can impact on students’ readiness to use E-learning for studying EFL in Saudi Arabia. For instance, members of Group 3 suggested that, “...... [to use E-learning] that needs availability of internet and computer at school”. Moreover, members of Group 4 also commented that:

... the condition of computers in the school should be new and fast to help applying this type of learning.

The difference between the two views is that, while on the one hand, members of group 3 emphasised the need for facilities to be made available; members of group 4, on the other hand stressed the need for the right or appropriate equipment. This raises the question of availability and highlights the need for modern and smarter equipment in Saudi schools. Collectively the views nonetheless highlight the point that one of the most important elements that impact on students’ readiness to use E-learning for studying EFL is to have the appropriate equipment. It was also suggested that access to the requisite resources is an important underlying factor in exploring the readiness of students towards using E-learning for learning EFL in Saudi. On the other hand, non-accessibility of requisite resources, or requisite resources that are in poor condition will yield negative results. That is because the more access students have to the equipment and technology, the more they are ready to use E-learning flexibly (as to when, where and how they can pursue their studies). Access to the requisite resources was therefore identified as a fundamental factor that indicates students’ readiness to use E-learning in learning EFL in Saudi.

C. Personal drivers

In line with the literature review, the two sets of personal drivers that were identified as factors impacting on the E-learning readiness of students were attitudes and motivation. Personal drivers are thought of as a set of psychological factors that indicate the students’ readiness to use E-learning for studying EFL in Saudi. This section focuses on the responses of students and teachers on how these factors impact on the readiness of students to use E-learning for studying EFL in Saudi.

1) Attitudes towards E-learning

In general, according to [26, p. 229], “the successful use of educational technology depends largely on the attitudes of [the user] and their willingness to embrace new technology”. More specifically to the E-learning readiness literature, [13] argues that attitudes towards E-learning is one of the important
underlying factors indicating students’ readiness for E-learning. In the present study, participants were quite clear and elaborate in their views on how students’ attitudes indicate their readiness to use E-learning for studying EFL in Saudi. A comment by members of Group 1 suggested that:

You know, positive attitudes will help users [students] to use E-learning: if they are negative, students will not use E-learning.

This view meant that the E-learning readiness of students with a positive attitude towards the use of E-learning for studying EFL is relatively better compared to those who do not have a positive attitude. This position concurs with the suggestion [27] that the degree to which a learning technology is used depends on the attitude of users towards it, regardless of how powerful and good the technology is.

A different view that sought to link users’ experience to their attitudes towards E-learning was aptly captured in the following view also expressed by members of Group 1:

Some students are growing up with this kind of technology in their daily lives. This means that most of the students have experience with this kind of technology, so they will have a positive attitude towards E-learning, for sure, because of their experience.

This is consistent with the work of [28], who emphasised that attitudes towards the use of the computer are influenced by different variables, such as personal computer experience. Other views expressed included those of members of Group 2 and members of Group 4. Members of Group 4 again contributed that:

Sometimes we find difficulties in understanding the context, not because we can’t use the computer, it’s about an explanation of substance that needs a teacher. So, for us, we don’t think E-learning will enhance [our] learning ...

The members of this group provided an instance where respondents appeared to have a negative attitude towards the use of E-learning for studying EFL in Saudi. Primarily, the group felt that it was going to be difficult to use E-learning for studying EFL in cases where there no explicit support of teachers. Their point here is that if users’ beliefs indicate favourable consequences, then their attitudes will be positive. However, if their beliefs indicate troubled or unfavourable consequences, then their attitudes would be negative.

2) Motivation

The findings of the present study appear to be broadly consistent with those of [13] who considered motivation as another underlying factor that impacts on the readiness of students to use E-learning. For example, according to members of Group 2:

Giving incentives and awards to students ... who use E-learning will encourage other students ... to use the technology.

The group suggested that the readiness of students to use E-learning for studying EFL will be enhanced if they are provided with some form of incentives or rewards. These incentives would result in students having a more positive attitude towards the use of E-learning for studying EFL. Commenting on another dimension to how motivation can impact on the readiness of students to use E-learning for studying EFL, a member of Group 3 suggested that ‘I consider the use of E-learning to obtain information easily as a good motivator’.

Furthermore, the student groups appeared to be motivated by the use of E-learning for studying because of the opportunities it offers them. For instance, members of Group 3 stated that:

You know, we are impressed by it because we can get information without effort and wasting time. It is really amazing.

For this group, using E-learning for studies is effortless and time saving. As a result, they were willing to use the technology, which was also indicative of their readiness to use E-learning for studying EFL. Responses from the groups also acknowledge the positive impact adopting E-learning could have on the readiness of students to study EFL using such technology. Finally, members of Group 3 explained that:

If you want to work, don’t wait for someone to thank you. The incentive is not an important aspect, but it could raise the morale of students.

This comment suggests that the motivation of students to use E-learning for studying EFL does not always need to be material or external. Instead, the readiness of students to use such technology for studying EFL comes from within, which is sometimes more powerful.

V. Conclusion

This qualitative research study aimed at exploring the immediate underlying factors that indicate the readiness of students, as well as the contextual/external underlying factors associated with students’ readiness to use E-learning for studying EFL in Saudi schools. To meet the objective of this paper, first, the paper identified and discussed the literature on students’ readiness for E-learning, highlighting its different dimensional factors and limitations. These were highlighted to signal the need for a broader and more comprehensive account of the underlying factors of students’ readiness for using E-learning. Second, the research methodology for the current study was stated and discussed, providing justification for the particular methods used and the categories of participants selected. The methodology provided a direct opportunity for students and teachers to explore the underlying factors that account for the readiness of students to use E-learning for studying EFL in Saudi Arabia. The data collected provided insights which could not have been achieved using other research methods. Finally, the research findings and discussion were presented, based on the qualitative data revealing a broader and more complex sense of what constitute the underlying factors of students’ readiness, at least in the context of this research.

Unlike the reviewed literature, this study identified three underlying sets of immediate factors of students’ readiness for E-learning in studying EFL in Saudi Arabia. These factors are E-learning self-efficacy, personal drivers and access to requisite resources. Moreover, the study also showed how the contextual underlying factors such as the school and family support help to
shape and impact on the readiness of students to use E-learning for studying EFL in Saudi Arabia. The support students receive from the school and family appears to have a crucial role in shaping the decisions of these students. However, we are aware that the notion of “support” is complex and may involve many issues. The broader social setting of the learners and teachers will have important hidden implications concerning e.g. the underlying conceptualisations of teaching and learning, the roles of students and staff, the relationships between families and learners, the extent to which learners function as autonomous individuals. The majority of studies on students’ readiness for E-learning have been carried out in settings that can be broadly characterised as Western, and tend to be somewhat similar to each other in these social terms. Perhaps because they don’t differentiate greatly between the studies, such factors are often not considered in the literature. Our study reflects that in a setting such as Saudi Arabia, social factors may more sharply contrast with many previous studies. The setting is arguably one that is significantly less individualistic; [29]’s theory of “cultural dimensions” has been used by various researchers such as [30], [31] to indicate that Saudi culture is relatively highly “collectivist”. This may tend to imply that learners require more support, of various kinds, and that “readiness” needs to be seen to a certain extent as an attribute of the whole group rather than the individual students. We contend that factors such as school and family support are important in all contexts, but commonly overlooked.

These underlying factors of students’ readiness, we suggest, play an especially significant role in determining students’ readiness for E-learning in studying EFL in Saudi Arabia and similar collectivists’ societies. Fig. 1 below shows a visualisation of the interrelationships among the various factors in the context of students’ readiness.

![Factors underlying students’ readiness for E-Learning in EFL](image)

**Fig. 1.** Factors underlying students’ readiness for E-Learning in EFL

The additional significant contribution of this research is that it has highlighted the need to examine the interrelationships between and among these identified underlying factors, in exploring the readiness of students to use E-learning for studying EFL in practice. Each of these underlying factors that indicate students’ readiness was considered necessary but not sufficient in itself to demonstrate students’ readiness to use E-learning in studying EFL in Saudi Arabia. Although the research appears to have met its set objective, it is still limited in terms of its scope. This might have implications for its implementation and makes it susceptible to being described as limited in terms of its geographical coverage. However, the outcome of this research can be used as a basis for future research including the conduct of comparative studies with other districts within the country and/or between countries.

On the basis of this research outcome, it is proposed that future research should include: firstly, developing and validating a reliable survey for each of the immediate underlying factors (E-learning self-efficacy, personal drivers, access to requisite resources) and the contextual underlying factors (e.g. school and family support); secondly, examining the relationship between each of the immediate underlying factors as well as the extent to which these factors account for the variance to explain the readiness of students in different contexts; and thirdly, examining the relationships between the immediate underlying factors and the contextual underlying factors. In conclusion, the study emphasises that to understand the readiness of students to use E-learning for studying EFL in Saudi Arabia requires the balancing of all the underlying factors, both immediate and contextual, that are explored and discussed in this paper.

**REFERENCES**


