Did they Manage to Meet Students' Needs? English Language Instructors' Experiences of Remote Instruction Differentiation

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Received: August 25, 2022 Accepted: October 17, 2022 Online Published: October 21, 2022

doi:10.5430/wjel.v12n7p28 URL: https://doi.org/10.5430/wjel.v12n7p28

Abstract

The COVID-19 pandemic has impacted English language teaching (ELT) in many ways, and it has pushed language educators to the limit. Due to the shift to virtual education, the non-mediated in-person support that many instructors used to acknowledge their students' needs, is no longer available. A question of significant relevance to this ongoing emergency shift is: How do English language instructors differentiate remote instruction? Differentiated Remote Instruction (DRI) is the pedagogical approach that is needed for successful e-learning and remote teaching. Guided by three main research questions, this study examines the adoption and challenges of differentiated remote instruction (DRI) in online classrooms by English language college instructors during COVID-19 in the Saudi context. The study adopted a mixed-methods approach, and the examination is based on online surveys filled out by 172 English language instructors and a thematic analysis of six semi-structured interviews. Analysis has yielded interesting findings on the differentiation practices and challenges among virtual language instructors. Findings show that there are some factors related to 1) students; 2) instructors; and 3) technological issues that affect and challenge the implementation of DRI in EFL virtual classrooms. Moreover, despite the DRI challenges faced by the EFL instructors, they did attempt to find methods to deal with them. These methods were related to effective teaching through online platforms (LMS), early diagnosis and interventions for problem and weak learners, specific tailoring of lessons and activities, and dedicating one-on-one online sessions for students in need.

Keywords: differentiated remote instruction, English language instructors, Saudi context, English language teaching (ELT), online teaching

1. Introduction

The spread of the COVID-19 pandemic has caused a big crisis, which has led to profound changes in all governments in all aspects in general, and the education sector in particular (Lukas & Yunus, 2021). Saudi Arabia, as a precaution to contain the spread of the virus, reacted quickly and ordered an immediate and mandatory suspension of attendance at educational institutions from March 8, 2020. Closing schools and universities have necessitated the need of shifting from face-to-face learning in traditional classrooms to e-learning and remote education, to enable students to continue their education and ensure that no student is left behind. The transition of the standard face-to-face classes to virtual learning was made possible due to easy Internet access and the use of technological tools. With the transition to a digital educational environment, *Blackboard Learn*, a learning management system (LMS), was utilized by almost all Saudi universities. Such an online platform was ideal for instructors to deliver virtual classes, provide content and accessible materials, evaluate students' performance, and measure learning objectives (Hoq, 2020). Yet, it could not even come close to the impact and quality physical classrooms can provide. Lukas and Yunus (2021) stated that, along with the shift, adjustments "were necessary to employ effective instructional pedagogy, teachers' technological readiness to conduct e-learning and giving constructive support to all needed" (p. 344).

It has been vital, critical, and challenging to provide and deliver the same quality of instruction offered in the traditional classroom. For example, one of the current tendencies in the theory and practice of teaching is the individual abilities of learners, which should be acknowledged in e learning. On a larger scale, students have different abilities, needs, preferences, and learning styles, all of which require educators to differentiate instruction.

Thus, differentiated instruction (DI) is a need for successful e-learning and remote teaching.

DI is defined as the pedagogical approach that involves the methods in which instructors plan, design, implement, and evaluate "varied approaches to what students need to learn, how they will learn it, and/or how they can express what they have learned to increase the likelihood that each student will learn as much as he or she can as efficiently as possible" (Tomlinson, 2003, p. 151). In addition, according to Tomlinson (2017), DI in any teaching and learning environment deals with the following elements:

1) **Content**: Includes the resources used to teach students and what they learn.
2) **Process**: Entails the various approaches instructors use in teaching and the ways students make sense of the information they receive.
3) **Product**: Focuses on the outcomes of learning that students show to demonstrate the things they have learned.

In that regard, since the focus of this study is on the virtual teaching and learning environment, the researchers of this study decided to adopt the term differentiated remote instruction (DRI) and use it interchangeably with DI throughout the article.

2. Previous Related Work

DI has been a focus of study in various global educational contexts. Students differ in their learning levels and skills and each of them faces its unique challenges. Tomlinson (2017, p.vii) stated, "students come to us with an array of challenges: physical, cognitive, emotional, and economic", and instructors are required to have differentiated instruction applications that would enable them to deal with these challenges.

In traditional classrooms, some instructors may understand the concept of DI and have the desire to implement it in their classrooms, but not without difficulty since they may face some restrictions that prevent them from doing so (Melesse, 2018; Eller et al., 2019). These restrictions may be related to time, the difficulty of access to resources, heavy teaching loads, in addition to the instructors' mentalities, as they may not know how to work with different levels of students successfully (Melese, 2019; Dagnew, 2017; Wu et al, 2015). Accordingly, Hersi and Bal (2021) confirmed that some instructors' self-reported practices indicate that they desire to implement DI strategies in their classrooms but their actual implementations of DI in the classrooms fall short. This, as they report, was due to "individualized planning, self-directed learning, and student autonomy" which all affect the outcomes and success of DI implementation in teaching (p. 67).

Moreover, in some educational contexts, the problem and lack of implementation of DI in a classroom relate to the instructors' limited knowledge of differentiated instruction and its application resulting in poor practice (Melese, 2019). In other cases, Gheyssens et al. (2020) found that some instructors may show hindrances preventing them from implementing DI practices in their classrooms. Some problems they mentioned were lack of student response to their efforts, doubts about their efforts and, some instructors reported, that they do not believe that there are benefits to the students from DI. All of these factors, and perceived challenges, can affect the implementation of DI in classrooms.

There are a few studies on DI conducted in the Saudi educational contexts in traditional classrooms. Alghamdi and Azam's (2018) study was on female pre-science teachers' implementation of DI in their classrooms. Their findings suggest that many teachers were not sufficiently trained on methods of implementing DI in Saudi teacher education programs and consequently faced difficulties and demotivation in applying DI in science classrooms. Another study by Khan and Asif (2018) was conducted on the implementation of DI in special needs classrooms and confirmed, "Teachers need to be trained in special education strategies for effective use and maximum results" (p.133).

Some studies on DI have focused only on school education and one region of the Kingdom (e.g., Aldossari, 2018). Aldossari's study focuses on strategies and challenges of DI in the Saudi general education context with a focus on English language learning in traditional classrooms. The study attempted to identify the most important challenges facing Saudi general education teachers in applying the differentiated instruction strategy in the traditional classroom. The researcher found that some of the challenges were related to 1) the school environment (e.g., classroom sizes, lack of interest in administration for the need of implementing DI by instructors, overload of teacher responsibility); 2) teacher-related challenges (e.g., lack of knowledge, preparedness, and experience of DI implementation); 3) student-related challenges (e.g., weakness in learning motivation, slow learning abilities, difficulty in adopting DI focused skills in the classroom). The previous studies of DI implementation were generally centered on the implementation of DI in non-virtual classrooms in the pre-COVID 19 eras.

Challenges of teaching, learning, and DI implementation are not only specific to traditional classrooms but were also highlighted in online teaching contexts. Beck and Beasley (2021) claim that even experienced virtual schoolteachers may be effective in one area of DI, yet, fail to deliver in others. According to them, this may be because teachers at some levels do not fully practice DI in their virtual classrooms and require more training to fully be able to manage differentiation in online classrooms. Within the Saudi context, EFL, and other courses, taught online during the COVID-19 pandemic provided their array of challenges from instructors and students alike. According to Al-Samiri (2021), student progress may become hindered when learning in an online context due to many factors some of which include students' lack of motivation and insufficient technological readiness from both students and teachers.

Another study by Alturise (2020) on university faculty members and students in Saudi Arabia expressed the challenges they faced with online learning during the COVID-19 pandemic. Some instructors reported that they were not satisfied with online teaching since they were not able to fulfill their course objectives and practical skills. Moreover, some students also reported their satisfaction with online learning claiming that the environment did not allow discussions with their instructors and collaborative teamwork with their peers, as they would have in traditional classrooms.

Relatedly, that is not to say that there are few benefits to remote learning, specifically during the COVID-19 pandemic such as health safety and distance procedures in addition to the flexibility of time for classes as examples. Studies have also focused on the challenges and concerns shared by students and instructors dealing with remote online classes within the Saudi context with issues such as motivation, face-to-face interactions, lesson planning, and engagement amongst others (Alshlowiy et al. 2021; Al-bogami & Elyas, 2020; Hoq, 2020).

In addition, some studies have also shown that one of the issues facing teachers or instructors and students with remote online learning was the opinion of the ineffectiveness of using technology for teaching and learning (Lukas & Yunus, 2021; Tanveer et al., 2020). Not only did this problem stem from students' unwillingness to engage in learning using technology but as Alshlowiy et al's (2021) study showed "that resistance to technology in the present context seems to stem more from teachers than from students" (p.7). Previous research has shown that teaching and learning in virtual contexts did not come without its challenges. Therefore, teacher instructors must acknowledge the roles they have in providing their students with the best possible methods and variations of instruction that can help remedy the different issues they may face in the online classroom.

Although there are a few studies conducted on e-learning and its challenges during the COVID-19 era, there is limited research that focused on the adoption of differentiated remote instruction (DRI) by English language instructors during this pandemic. Therefore, this study was set to explore the differentiation practices and challenges among virtual language instructors during the pandemic.

3. Significance of the Study

It has been emphasized in the literature that meeting individual students' needs is of important consideration for teachers and the teaching profession, whether it is face-to-face or virtual. This research study would help support the professional education practice in general, and in Saudi Arabia in specific, by identifying the challenges instructors face when working in virtual English language classrooms with mixed skill levels and the kind of support needed to help them overcome these challenges.

4. Research Questions (RQ)

The following research questions were formulated to serve the main objectives of the study:

1. Do English language instructors differentiate online instruction during Coronavirus?
2. How do English language instructors differentiate online instruction during Coronavirus? In specific, what elements of differentiated instruction do English language instructors identify to use frequently in their online classrooms?
3. What challenges do English language instructors report to have encountered when implementing DRI in their online classrooms?

5. Methodology

Study's Instruments

This study adopted a mixed-methods cross-sectional research design, hence, data came from diverse sources. Collecting data from different sources (quantitative and qualitative) provides a more comprehensive understanding of a research problem, thus enriching the depth of findings (Creswell, 2007; Dornyei, 2007). Data obtained from

qualitative measures are considered to be highly rich and useful due to the dense description of the situation being studied (Merriam & Simpson, 2000). The survey methodology, as well as semi-structured interviews, were utilized to collect the data of the study.

A. Questionnaires

For the quantitative analysis, the surveys were distributed amongst English language instructors teaching at governmental or private universities in Saudi Arabia. The purpose of conducting surveys was to explore:

- The adoption of the three aspects of DI, namely, content, process, and product; and
- The challenges encountered when applying this approach in the virtual environment.

A questionnaire was developed, validated, and administered to the English language instructors to respond to 42 items, excluding the demographic questions, based on their application of DI and the challenges encountered while differentiating remote instruction. The corresponding researcher's background knowledge of DI has enabled him, with the assistance of the co-author of this study, to generate and adopt suitable statements that could be used in the instrument.

Written in the English language, the questionnaire consisted of six main sections. The first part of the questionnaire had a section on the respondents' demographic information (6 items). The remaining sections comprised 42 five-point Likert scale items. Responses ranged from 1 (referring to "S*trongly Disagree*") to 5 ("*Strongly Agree*"). Thus, higher mean scores were later interpreted as high levels of English language instructor agreement with the statement(s) reflected by each item's mean score or subscale total score. Furthermore, an open-ended question was added to the questionnaire, with the potential to gain more understanding from the instructors on the challenges that had been encountered when applying DRI and meeting the students' needs in an online classroom environment. The average time required for the respondents to complete the questionnaire was 17:17.

To ensure the validity and reliability of this new instrument, a full professor of English, who is an expert in English language assessment and the pedagogical practices was consulted for his feedback on the validity and appropriateness of the instrument. This expert examined the items and found all items of the questionnaire to be appropriate and comprehensive for this study. However, some guidance and advice tips were suggested in terms of administering the questionnaire. After the validation process, the questionnaire was administered to 35 English language instructors who met the same criteria of eligibility, and no modifications were reported to be necessary. The internal consistency of the survey was determined through reliability testing. Cronbach's alpha value was found to be $\alpha \geq 0.724$. Although this value is slightly lower than the expected value, it is still acceptable, as it shows that all the items of the survey provided answers to the research question.

The distribution of the questionnaire was designed and administered electronically via *Microsoft Forms* which is an electronic survey platform. This has enabled the researchers to avoid any possible prejudice and to ensure that information about all the participants remained completely anonymous. The objectives and purposes of the study were clarified to the participants, and they were requested to be as accurate as possible.

B. Instructors' Semi-structured Interviews

Besides the questionnaires, qualitative data collection was also employed in this study, and interviews were selected as a technique. The purpose of the interviews, therefore, was to allow the researchers to fathom the interviewee's perspectives (Merriam, 1991) and to find out what is in their minds (Best & Kahn, 2006). Likewise, semi-structured interviews are the most common type in applied linguistics research (Dornyei, 2007), due mainly to less rigidity (Mackey & Gass, 2005).

After the administration of the questionnaire, volunteer participants were invited to participate in a follow-up semi-structured interview that focuses on better understanding their expertise on the practices and challenges of differentiating instruction in virtual classrooms. The interviewees contributed to the study by attending a 20-minute semi-structured interview session. The interview session was conducted on the voice and video application Zoom, and it was recorded using the recording feature available on the application. The interviews were semi-structured and included a set of predetermined open-ended questions in which the researcher has the freedom to follow up on specific topics and to ask additional questions. The interview average time length was 22 minutes.

Data Analysis

The data gathered from the survey respondents were analyzed quantitatively and descriptively. IBM Statistical Program for Social Science (SPSS® version 26) was employed to analyze instructors' responses to the questionnaire items in terms of frequency, percentage, mean, and standard deviation (SD) to verify instructors' application of DI in

online classrooms. Methods such as T-test, one-way ANOVA, along with correlation analyses were used in the analysis of the data. The 5-point Likert-type scale questionnaire (*Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree*) was given a code from 1 to 5. Bearing in mind the negative statements, code 1 was assigned if the student response was *Strongly Agree*, code 2 was in case of *Agree*, code 3 was for the *Neutral* option, code 4 was for *Disagree*, and code 5 for *Strongly Disagree*.

Concerning the qualitative data, thematic analysis, proposed by Braun and Clarke (2006), was used to interpret and organize the themes in the responses given from the open-ended survey question as well as semi-structured interviews. Data were analyzed and reported using six phases for developing thematic analysis: 1) establishing familiarity with the data, 2) generating initial codes, 3) searching for themes, 4) reviewing themes, 5) defining and naming themes, and 6) producing the report. By examining the valid responses, the frequency of certain themes was noted in the texts.

Study Participants

Convenience sampling was used in the present study. The total number of language instructors who participated in this research was one hundred and seventy-two **(**males and females). The participants were in-service English language instructors who worked at different government and private universities across the Kingdom of Saudi Arabia. These participants were selected based on the three following specific criteria: 1) an English language instructor; 2) teaching in a Saudi college/university; and 3) teaching/taught online classes during the COVID-19 pandemic.

Survey Subjects' Demographics

As shown in Table 1, there was a balance identified between male (n=85 /49.41%) and female (n=87 /50.58%) participants. Most of the participants held a master's degree qualification (n=116/ 67.44%) with 42 (24%) participants who held a doctorate. In terms of academic ranks, the majority of them were language instructors (55.81%) whereas the remaining ones reported ranking in academic professorial positions such as an assistant professor (n=22), associate professor (n=6), and full professor (n=2). More than 50% of the participants reported having teaching experience of more than ten years (n=90). All four English language skills were reported to have been taught vastly by the participants. Interestingly, more than 51% of the subjects reported that they were either experts or proficient in terms of their technological literacy.

Table 1. Subjects' demographics from the surveys

#	Question	Option	N	%
Q1	What is your gender?	Male	85	49.41%
		Female	87	50.58%
Q2	What is your highest qualification?	Doctorate degree	41	23.83%
		Master's degree	115	66.86%
		Bachelor's degree	13	7.55%
Q3	What is your academic rank?	Professor	2	1.16%
		Associate Professor	6	3.48%
		Assistant professor	22	12.79%
		Lecturer	41	23.83%
		Lan. Instructor	96	55.81%
		Teaching assistant	5	2.90%
Q4	How many years of teaching experience do you have?	0-2 years	15	8.72%
		3-5 years	26	15.11%
		6-10 years	40	23.25%
		More than 10 years	88	51.16%

6. Study Results

The following sections present and discuss the results based on the stages followed in the research. Quantitative analysis will be provided first, then followed by the qualitative results.

Results of Quantitative Analysis

The results of the survey analysis will be presented according to 1) *Instructors' application of DI in their virtual classrooms* and 2) *Instructors' challenges when differentiating instruction in their virtual classrooms.*

A. Instructors' application of DI in their virtual classrooms

Based on the results, displayed in Table 2, it was found that English language instructors' implementation of DI,

when online learning was adopted, was generally at a level of "Neutral" (mean= 3.1923, SD=.71982).

Table 2. Descriptive data of English language instructor's application of DI

Domain	Mean	SD	F	*Sig*	Level of adoption
Content	3.1686	.71981	*35.065*	*.000*	Neutral
Process	3.1786	.73395	*32.765*	*.000*	Neutral
Product	3.2375	.71173	*34.796*	*.000*	Neutral
Total	3.1923	.71982	*34.627*	*.000*	Neutral

In terms of gender, an independent sample t-test was employed to examine any significant difference between male and female instructors (see Table 3)**.** It appears there were no statistically significant differences (P>.05) between males and females reported when implementing DRI in language online classrooms during COVID-19. This means that both male and female English language instructors practiced and adopted DRI similarly when teaching online.

Table 3. Results of a T- test on instructors' application of DI based on the gender

Practices	*Gender*	*N*	*Mean*	*Std. Deviation*	*T*	*Sig*
Content	*male*	*85*	3.2790	.72439	*2.005*	*.576*
	female	*87*	3.0608	.70278		
Process	*male*	*85*	3.2824	.74161	*1.845*	*.461*
	female	*87*	3.0773	.71616		
Product	*male*	*85*	3.3361	.72432	*1.808*	*.252*
	female	*87*	3.1412	.68978		
Total	*male*	*85*	3.2965	.72756	*1.890*	*.409*
	female	*87*	3.0906	.70145		

However, on conducting a one-way ANOVA test, it appeared there are associations between instructors' online classroom practices of DRI and the following factors: 1) educational level; 2) academic rank, and 3) years of teaching experience. These will be discussed and illustrated next.

As seen in Table 4, there was a relationship (at the level of significance of 0.001 less than 0.05) between the participants' educational qualifications and their DI practices while teaching online during COVID-19. English language instructors who held a doctorate had the highest value of grade average (mean=3.99, SD=.606), while those with a bachelor's degree had the lowest average value (mean=2.57, SD=.456). Doctorate holders showed higher implementation and practices of DI in all content, process, and product aspects of DI with mean scores of 3.96 (SD=.584), 3.98 (SD=.627), and 4.03 (SD=.613), respectively. This indicates that the higher education degree the language instructor holds, the more he/she tends to implement DRI in his/her online classrooms, and vice versa.

Table 4. Results of a one-way ANOVA test on instructors' application of DI based on levels of education

Practices	Highest educational level	N	Mean	Std. Deviation	F	Sig
Content	*Bachelor's degree*	*14*	2.5612	.48998	*61.301*	*.000*
	Master's degree	*116*	2.9532	.54562		
	Doctorate degree	*42*	3.9660	.58419		
	Total	*172*	3.1686	.71981		
Process	*Bachelor's degree*	*14*	2.5519	.44316	*59.435*	*.000*
	Master's degree	*116*	2.9632	.55486		
	Doctorate degree	*42*	3.9827	.62703		
	Total	*172*	3.1786	.73395		
Product	*Bachelor's degree*	*14*	2.6327	.45767	*62.587*	*.000*
	Master's degree	*116*	3.0234	.52411		
	Doctorate degree	*42*	4.0306	.61387		
	Total	*172*	3.2375	.71173		
Total	*Bachelor's degree*	*14*	2.5771	.45626	*61.963*	*.000*
	Master's degree	*116*	2.9772	.53842		
	Doctorate degree	*42*	3.9914	.60634		
	Total	*172*	3.1923	.71982		

Similarly, in regards to participants' academic ranks, analysis of a one-way ANOVA test showed statistically significant differences at the level of significance of 0.001 less than 0.05 between the academic ranks of the participants and their DRI implementation in the online classroom. To illustrate, Table 5 shows that participants with professorial ranks (i.e., assistant professor (mean=4.06, SD=.431), associate professor (mean=4.58, SD=.137), and professor (mean=4.88, SD=.719)) tended to use DRI in their virtual classrooms more frequently than those in positions of a language instructor (mean=2.85, SD=.535), lecturer (mean=3.24, SD=.521), teaching assistant

(mean=3.04, SD=.563).

Table 5. Results of an one-way ANOVA test on participants' DI adoption according to academic ranks

Practices	*Academic Rank*	*N*	*Mean*	*SD*	*F*	*Sig*
	Language instructor	96	2.8259	.54219		
	Lecturer	41	3.2404	.50653		
	Teaching assistant	5	3.0000	.62270		
Content	*Assistant professor*	22	4.0455	.39527	*35.065*	*.000*
	Associate professor	6	4.4762	.11664		
	professor	2	5.0000	.00000		
	Total	172	3.1686	.71981		
	Language instructor	96	2.8447	.55241		
	Lecturer	41	3.2106	.54334		
	Teaching assistant	5	3.0545	.53242		
Process	*Assistant professor*	22	4.0661	.45253	*32.765*	*.000*
	Associate professor	6	4.6061	.14845		
	professor	2	4.8182	.12856		
	Total	172	3.1786	.73395		
	Language instructor	96	2.9003	.51742		
	Lecturer	41	3.3031	.52895		
	Teaching assistant	5	3.0857	.55879		
Product	*Assistant professor*	22	4.0909	.45293	*34.796*	*.000*
	Associate professor	6	4.6429	.14983		
	professor	2	4.8571	.00000		
	Total	172	3.2375	.71173		
	Language instructor	96	2.8550	.53516		
	Lecturer	41	3.2449	.52170		
	Teaching assistant	5	3.0480	.56313		
Total	*Assistant professor*	22	4.0673	.43141	*34.627*	*.000*
	Associate professor	6	4.5800	.13799		
	professor	2	4.8800	.05657		
	Total	*172*	3.1923	.71982		

Another key finding is, that *teaching experience* was reported to be a significant predictor of instructors' adoption and application of DRI (at the level of significance of 0.001 less than 0.05). As shown in Table 6, the more years of teaching experience the instructors had, the higher application of DRI was implemented in their online classrooms. This means staff members with more than 10 years tended to apply DI in general, and their practices encompassed content, process, and product.

Table 6. Results of a one-way ANOVA test on participants' DI application according to teaching experience

Practices	*Years of teaching experience*	*N*	*Mean*	*Std. Deviation*	*F*	*Sig*
	0-2 years	*15*	2.2952	.70497		
	3-5 years	*27*	2.8730	.62689		
Content	*5-10 years*	*40*	3.2143	.60609	*14.281*	*.000*
	more than 10 years	*90*	3.3825	.66277		
	Total	*172*	3.1686	.71981		
	0-2 years	*15*	2.3455	.64301		
	3-5 years	*27*	2.8586	.62392		
Process	*5-10 years*	*40*	3.2159	.59549	*13.107*	*.000*
	more than 10 years	*90*	3.3970	.70989		
	Total	*172*	3.1786	.73395		
	0-2 years	*15*	2.4190	.62612		
	3-5 years	*27*	2.9418	.61030		
Product	*5-10 years*	*40*	3.2714	.59017	*13.625*	*.000*
	more than 10 years	*90*	3.4476	.68234		
	Total	*172*	3.2375	.71173		
	0-2 years	*15*	2.3520	.65013		
	3-5 years	*27*	2.8859	.61656		
Total	*5-10 years*	*40*	3.2310	.59285	*12.448*	*.000*
	more than 10 years	*90*	3.4071	.68495		
	Total	*172*	3.1923	.71982		

Furthermore, significant differences were found between instructors' DI application and their literacy in technology (at the level of significance of 0.001, less than 0.05). Participants who reported that they were proficient or expert

users of technology had the highest general score average (mean= 3.43, SD .867, mean= 3.69, SD=.907) compared with novice or advanced-beginner participants (mean= 2.30, SD= .913, 2.68, SD=.553) (see Table 7). Differences were also found in DI practices of content, process, and product among instructors with varying levels of technical competence.

Table 7. Results of a one-way ANOVA test on participants' DI application based on technological literacy

Practices	Technological literacy	N	Mean	Std. Deviation	F	Sig
Content	*Novice*	4	2.2857	.88063	*9.791*	*.000*
	Advanced beginner	26	2.6538	.56594		
	Competent	67	3.1130	.57009		
	Proficient	65	3.4000	.72720		
	Expert	10	3.7286	.82602		
	Total	172	3.1686	.71981		
Process	*Novice*	4	2.2727	.99586	*9.653*	*.000*
	Advanced beginner	26	2.6713	.55986		
	Competent	67	3.1031	.56748		
	Proficient	65	3.4364	.74312		
	Expert	10	3.6909	.90727		
	Total	172	3.1786	.73395		
Product	*Novice*	4	2.3571	.82065	*9.122*	*.000*
	Advanced beginner	26	2.7527	.55189		
	Competent	67	3.1770	.56659		
	Proficient	65	3.4703	.72480		
	Expert	10	3.7429	.85926		
	Total	172	3.2375	.71173		
Total	*Novice*	4	2.3000	.91360	*9.659*	*.000*
	Advanced beginner	26	2.6892	.55302		
	Competent	67	3.1266	.56257		
	Proficient	65	3.4357	.73035		
	Expert	10	3.7160	.86789		
	Total	172	3.1923	.71982		

C. Quantitative Results of Instructors' Challenges when Differentiating Instruction in their Virtual Classrooms

Although no statistically significant differences were found between males and females on the challenges they reported to have encountered when applying DI in their online classrooms (Table 8), some associations were observed with: 1) participants' *highest level of education;* 2) their academic ranks; 3) their length of teaching experience, and 4) technological competency. Those variables are discussed next.

Table 8. Results of a T-test on the DI challenges encountered based on gender

Challenges	*Gender*	*N*	*Mean*	*Std. Deviation*	*T*	*Sig*
Academic	Male	85	2.8471	.90531	1.506	.629
	Female	87	2.6379	.85295		
Administrative	Male	85	3.0824	.83398	2.109	.744
	Female	87	2.8123	.84557		
Cultural	Male	85	2.2059	1.15803	.967	.322
	Female	87	2.0460	1.00762		
Technical	Male	85	3.1353	.82154	.290	.421
	Female	87	3.0977	.87882		
Total	Male	85	2.8471	.75560	1.767	.209
	Female	*87*	2.6578	.64569		

First, survey participants differed in the challenges of DI application in the online environment depending on their highest level of education. Statistically significant differences (at the level of significance of 0.001 less than 0.05) showed that doctorate holders faced fewer challenges in the adoption of DI in the online environment (see Table 9). Instructors with bachelor's degrees had the lowest average value; meaning, they faced more challenges than others. This means that the higher the educational level the English language instructor holds, the more he/she is likely to apply DI in the virtual classroom.

Table 9. Results of a one-way ANOVA test of DI challenges based on participants' highest level of education

Challenges	*Highest educational level*	*N*	*Mean*	*SD*	*F*	*Sig*
Academic	*Bachelor's degree*	*14*	2.1548	.64538	*32.610*	*.000*
	Master's degree	*116*	2.5230	.69779		
	Doctorate degree	*42*	3.5397	.92086		
	Total	*172*	2.7413	.88289		
Administrative	*Bachelor's degree*	*14*	2.3333	.78446	*29.386*	*.000*
	Master's degree	*116*	2.7557	.74776		
	Doctorate degree	*42*	3.6746	.68070		
	Total	*172*	2.9457	.84828		
Cultural	*Bachelor's degree*	*14*	2.0000	.85485	*10.724*	*.000*
	Master's degree	*116*	1.9095	.89102		
	Doctorate degree	*42*	2.7619	1.37592		
	Total	*172*	2.1250	1.08435		
Technical	*Bachelor's degree*	*14*	2.8929	.71195	*8.788*	*.000*
	Master's degree	*116*	2.9784	.80863		
	Doctorate degree	*42*	3.5714	.85234		
	Total	*172*	3.1163	.84872		
Total	*Bachelor's degree*	*14*	2.2857	.44998	*42.324*	*.000*
	Master's degree	*116*	2.5524	.53732		
	Doctorate degree	*42*	3.4560	.71626		
	Total	*172*	2.7513	.70650		

Similarly, statistically significant differences were found at the level of significance of 0.001 less than 0.05 between academic ranks and DI challenges online. As shown in Table 10, it was less challenging to apply DI in the online classroom by those English language instructors in the positions of full professor, associate professor, or assistant professor, compared with other ranks. Generally speaking, professors had the highest value of grade averages (mean=4.076, SD=.761), followed by associate professors (mean=3.82, SD=.269), assistant professors (mean=3.50, SD=.701), lecturers (mean= 2.78, SD=.705), and teaching assistants (mean=2.50, SD=.457).

With some differences in the academic, administrative, cultural, and technical types of DI challenges, English language instructors holding the position of *language instructor* had the lowest average value in general DI challenges. This means that they found it challenging to effectively apply DI in the online classroom (mean=2.48, SD=.493). Furthermore, teaching assistants encountered, even more, academic and cultural challenges of DRI than instructors.

Table 10. Results of a one-way ANOVA test of DI challenges based on participants' academic ranks

Challenges	**Academic rank**	**N**	**Mean**	**SD**	**F**	**Sig**
Academic	*Language instructor*	*96*	2.4566	.68452	*14.685*	*.000*
	Lecture	*41*	2.7195	.84446		
	Teaching assistant	*5*	2.4333	.85473		
	Assistant professor	*22*	3.5455	.86554		
	Associate professor	*6*	4.1667	.36515		
	professor	*2*	4.5000	.23570		
	Total	*172*	2.7413	.88289		
Administrative	*Language instructor*	*96*	2.6215	.75024	*14.004*	*.000*
	Lecture	*41*	3.0407	.74980		
	Teaching assistant	*5*	3.0000	.88192		
	Assistant professor	*22*	3.7273	.55048		
	Associate professor	*6*	4.0000	.42164		
	professor	*2*	4.6667	.47140		
	Total	*172*	2.9457	.84828		
Cultural	*Language instructor*	*96*	1.8854	.85372	*3.717*	*.003*
	Lecturer	*41*	2.2683	1.15703		
	Teaching assistant	*5*	1.8000	.57009		
	Assistant professor	*22*	2.8182	1.44375		
	Associate professor	*6*	2.3333	1.40238		
	professor	*2*	3.2500	1.76777		
	Total	*172*	2.1250	1.08435		
Technical	*Language instructor*	*96*	2.9531	.74720	*5.398*	*.000*
	Lecturer	*41*	3.0976	.95668		
	Teaching assistant	*5*	2.7000	.44721		
	Assistant professor	*22*	3.7500	.70289		

	Associate professor	*6*	4.0000	.63246		
	professor	*2*	2.7500	1.76777		
	Total	*172*	3.1163	.84872		
	Language instructor	*96*	2.4832	.49358		
	Lecturer	*41*	2.7824	.70583		
	Teaching assistant	*5*	2.5077	.45703		
Total	*Assistant professor*	*22*	3.5070	.70127	*18.156*	*.000*
	Associate professor	*6*	3.8205	.26941		
	professor	*2*	4.0769	.76150		
	Total	*172*	2.7513	.70650		

Participants' challenges with DI application online were seen to be associated with teaching experience. With statistically significant differences at the level of significance of 0.001 (less than 0.05), it was found that as teaching experience increases, fewer challenges of DRI application can be encountered. As illustrated in Table 11, staff members with more than 10 years of teaching experience had the highest value of grade averages, which means they found it less challenging to adopt DI when shifting to online mode (mean=2.96, SD= .709). This was followed by instructors with 5- 10 years of experience and then those who had 3-5 years. Staff members with limited experience (i.e., 0-2 years) had the lowest average value. In other words, they are more likely to face more challenges of DI online.

Table 11. Results of a one-way ANOVA test of DI challenges based on participants' teaching experience

Challenges	**Teaching experience**	**N**	**Mean**	**SD**	**F**	**Sig**
	0-2 years	*15*	2.0667	.72045		
	3-5 years	*27*	2.1975	.63049		
Academic	5-10 years	*40*	2.8583	.84610	*9.801*	*.000*
	more than 10 years	*90*	2.9648	.87356		
	Total	*172*	2.7413	.88289		
	0-2 years	*15*	1.9556	.69996		
	3-5 years	*27*	2.7160	.83566		
Administrative	5-10 years	*40*	2.8917	.74493	*12.353*	*.000*
	more than 10 years	*90*	3.2037	.78005		
	Total	*172*	2.9457	.84828		
	0-2 years	*15*	1.9000	.82808		
	3-5 years	*27*	1.9630	1.04629		
Cultural	5-10 years	*40*	2.1000	.88579	*.661*	*.577*
	more than 10 years	*90*	2.2222	1.20884		
	Total	*172*	2.1250	1.08435		
	0-2 years	*15*	2.5333	.69351		
	3-5 years	*27*	2.8333	.95071		
Technical	5-10 years	*40*	3.0625	.83349	*5.597*	*.001*
	more than 10 years	*90*	3.3222	.78365		
	Total	*172*	3.1163	.84872		
	0-2 years	*15*	2.0872	.49925		
	3-5 years	*27*	2.3789	.59083		
Total	5-10 years	*40*	2.7808	.59266	*11.309*	*.000*
	more than 10 years	*90*	2.9607	.70908		
	Total	*172*	2.7513	.70650		

Finally, statistically significant differences at the level of significance of 0.001 less than 0.05 have shown that instructors' challenges with DI application online were affected by their technological literacy. As displayed in Table 12, English language instructors who identified themselves as experts in the use of technology had the highest value score averages (mean=3.33, SD= .808). This means that they faced fewer challenges compared with others. Advanced beginner and novice users of technology had the lowest average value with average scores of (mean=2.25, SD=.862 and mean=2.21, SD=.567, respectively). These users had more difficulty applying DRI in their online classrooms.

Table 12. Results of a one-way ANOVA test on DI challenges based on participants' the technological literacy

Challenges	Technological literacy	N	Mean	SD	F	Sig
Academic	Novice	*4*	2.0833	.96705	*11.196*	*.000*
	Advanced beginner	*26*	2.0256	.56900		
	Competent	*67*	2.6244	.79632		
	Proficient	*65*	3.0846	.83859		
	Expert	*10*	3.4167	.90353		
	Total	*172*	2.7413	.88289		
Administrative	Novice	*4*	1.8333	1.03638	*5.144*	*.001*
	Advanced beginner	*26*	2.5128	.81230		
	Competent	*67*	2.9602	.71191		
	Proficient	*65*	3.1026	.86185		
	Expert	*10*	3.4000	.99132		
	Total	*172*	2.9457	.84828		
Cultural	Novice	*4*	2.6250	1.37689	*.804*	*.524*
	Advanced beginner	*26*	1.9423	1.01318		
	Competent	*67*	2.1418	.99547		
	Proficient	*65*	2.0846	1.14417		
	Expert	*10*	2.5500	1.36321		
	Total	*172*	2.1250	1.08435		
Technical	Novice	*4*	3.0000	.40825	*4.876*	*.001*
	Advanced beginner	*26*	2.6154	.81618		
	Competent	*67*	3.0522	.78882		
	Proficient	*65*	3.2923	.87897		
	Expert	*10*	3.7500	.54006		
	Total	*172*	3.1163	.84872		
Total	Novice	*4*	2.2500	.86203	*8.944*	*.000*
	Advanced beginner	*26*	2.2160	.56736		
	Competent	*67*	2.6935	.58941		
	Proficient	*65*	2.9669	.69829		
	Expert	*10*	3.3308	.80844		
	Total	*172*	2.7513	.70650		

Instructors' Challenges when Differentiating Instruction

Results of Qualitative Analysis

The qualitative data in this research were obtained from: a) one open-ended survey question and b) instructors' semi-structured interviews. Both instruments aimed to understand the challenges encountered by language instructors when applying the DI approach in their online classrooms during COVID-19.

A. Analysis of the Survey Open-ended Questions

As mentioned earlier, the open-ended question added at the end of the survey asked participants to report, by writing, any challenge(s) they had encountered when applying DI in their online classrooms. Eighty-eight detailed responses (51%) were provided in this regard with several DI challenges raised in each response. The two authors of this research identified and coded emerging themes from the question. The challenges were then classified based on the scope under which the reported challenge falls. Those scopes were: 1) student; 2) instructor; and 3) technical. The coding scheme is presented in Table 13.

Table 13. Most challenges of applying DI in virtual classrooms (based on survey qualitative data)

#	Scope	General Theme	Secondary Theme	Frequency	%
1	**Student**	Engagement		29	33%
		Interaction		8	9%
		Involvement		6	7%
		Participation		15	17%
		Motivation		19	22%
		Others	Encouragement	1	
			Plagiarism	3	
			Time management	1	
			Attendance	2	
			Culture	1	
			Distraction	2	
			Assessment	1	
			Demanding	1	
2	**Instructor**	Class management		11	13%
		Assessment & teaching methods		4	
		Demanding		2	
3	**Administration**	Policy	Online policy	1	
			Class size	6	7%
			Student attendance	1	
		Curricula	Limited freedom	2	
			Curricula	3	17%
		Admin		16	
4	**Technical**	Technology		12	14%
		Student		2	
		instructor		1	

As shown in Table 13, in the student scope, there are 13 student-related challenges reported by the participants when they applied DI during the shift to online learning. Although they varied in frequency, the top three challenges were engagement (n=29), motivation (n=19), and participation (n=15), respectively. Examples for the engagement challenge included responses, such as, "students' engagement", "Actual attendance of the students" and "Some students don't respond. They don't speak or chat". Instructors' feedback such as "The lack of motivation" and "Lack of motivation in online learners" reflected motivation to be another major problem that hindered the instructors' application of DRI.

For the scope of an instructor, *class management* was reported as the most challenging DI application online (13%), while *class size*, which is categorized as a policy-related problem, was found to be an administrative challenge in applying DI in the virtual classroom. Examples of excerpts are below:

> "Monitoring students' participation throughout the semester is very challenging." (Participant 64)
>
> "A large number of students." (Participant 41)
>
> "...the maximized students groups number." (Participant 71)
>
> "inability to get familiar with students and their needs, and students' isolation and lack of community." (Participant 20)

In terms of the scope of technical challenges, three categories were identified. The first one related to challenges in the technology itself, and it was the highest (14%). Examples of responses are: "Network issues.", "Poor connection.", and "Some students have a poor internet connection.". Other technical challenges included either students' challenges with technology or instructors' challenges with technology.

B. Analysis of Instructors' Semi-structured Interviews

In a question that asked about whether the survey respondent is interested in taking part in a Zoom interview, a total of 41 participants answered 'yes'. Hence, provided their email addresses, the researchers randomly contacted 20 of them, and six English language instructors (three males and three females) participated in the subsequent semi-structured interviews. Their information is displayed in Table 14, and further elaboration follows.

Table 14. Summary of demographic information of interviewees

Interviewee	Gender	Nationality	Highest qualification	Teaching experience (in years)
Participant 1	Male	Pakistani	Master's	13
Participant 2	Female	Saudi	Post-graduate diploma	Over 15
Participant 3	Male	Sudanese	Master's	Over 15
Participant 4	Male	Sudanese	Master's	Over 10
Participant 5	Female	Saudi	Master's	Over 15
Participant 6	Female	Jordan	Master's	7

- **Participant 1** was an experienced language instructor, holding two MA degrees in relevant fields (i.e., linguistics and English literature) as well as two professional certificates, namely, CELTA and TESOL. He has taught English for approximately 13 years.
- **Participant 2**, from the eastern region, held a BA in English and a two-year post-graduate diploma in gifted education. With over 15 years of teaching experience, she has taught English at different colleges and universities in Saudi Arabia, and for numerous majors and multiple students' levels.
- **Participant 3**, a Sudanese nationality, had taught EFL courses for multiple institutions, and currently at a governmental university's languages institute. He had over 15 years of English language teaching. He is a master's degree holder.
- **Participant 4** is an experienced EFL instructor having worked at several Saudi public universities. He has taught English to students with various majors. He held two masters' degrees, one of which is in education, beside a CELTA certificate.
- **Participant 5** was a CELTA certified English language instructor with 16 years of teaching experience. She was from India and had taught at multiple local and international universities.
- **Participant 6** has worked for several years, and at different private and public institutions. She had 6 years of teaching experience at the school level and 7 years at the college level. Her specialty was in teaching and linguistics.

Analysis of Interview Transcripts

The qualitative phase of the study has divulged interesting information on the challenges faced by the English language instructors in the adoption of DI in their online classrooms during the COVID-19 pandemic. To this end, the interview responses were transcribed, summarized, and separated into common themes. In both qualitative data sources, interrater reliability was calculated through joint-probability of agreement. Both authors jointly coded the data thematically, and most themes were agreed upon. The disagreement was settled after further discussion. The main themes are shown in Table 15.

Table 15. Themes of interview transcripts analysis

#	Main Theme	Sub-theme	Details
1	Application of DI	Assessment methods	Summative assessment
			Formative assessment
			Diagnostic assessment
		Time allocated for activities	-
		Task requirements	-
2	Challenges of applying DI	Fake engagement	-
		Not being able to see students	-
		Class size in online courses	-
3	Key strategies for overcoming DI online obstacles	Effective use of LMS platforms	-
		Diagnosis of students' problems and early intervention	-
		Designing and tailoring activities based on students' needs	-
		Sparing time for a student-instructor discussion	-

It was essential to first ask the interviewees about the strategies of DRI they had applied in their classrooms to meet students' needs. The participants reported several strategies they had used online. Those were: 1) assessment methods; 2) differentiation of time allocated for tasks; 3) task requirements, and 4) teaching styles. Concerning the first, formative and diagnostic assessment methods were the assessment types that were administered in their online classrooms. Participant 4 noted that he "used to dedicate the first three weeks to knowing the students' abilities.". Participant 1 also reported:

We had some formative assessments. There were assignments, writing assignments, and quizzes. And for the summative assessment, in the first mid-term, we asked them to come to university and take the test online. The tests were on Blackboard online, but they had to come to the university. But when the cases increased, you know the coronavirus cases reported. So, we asked students to stay at home and give them online tests. [Participant 1]

Interview transcripts have shown that instructors used to differentiate time allocated for in-class activities based on students' abilities and language proficiency levels. In light of this, participant 1 stated:

> When I write lesson plans, I come up with activities like, for example, gap filling. So, suppose it takes, an example of writing, so one weak student, who takes some time just to answer. And the brilliant one completes the activity within seconds. So, I tried my best to give them some comprehension questions. So, some sentences are false, so I wanted to correct them. It could be simple for them [the weak students] but it takes some time for them. But the brilliant students may get demotivated when waiting for them to finish the activities and when the teacher gives them more activities. [Participant 1]

Besides the differentiation of time, some instructors reported differentiating requirements of tasks/homework assignments assigned to students. For example, the type of questions could be tailored depending on students' abilities. The excerpt below provides a description of one strategy followed by participant 1.

> I ask cloze questions, for the weak students, they come up with a yes or no because they can't construct complete sentences. So at the same time, I tried to challenge the brighter, to ask them some open questions to get more and more information. The best thing: I think this is personalization; this is to personalize the materials. It can be anything: like speaking, reading, or anything. [Participants 1]

Teaching styles were also reported in the interview data to be another aspect of differentiating remote instruction. In particular, *gamification*–the use of games in educational settings– was favored. Participant 5 described, "Based on students' problem, I deal with weak students, but there is another problem: good students feel bored. That's why I try to design most of the activities through games like Kahoot and other games". All interviewees believed that although online classrooms can provide learning opportunities similar to traditional classrooms, DRI in the language classroom was, admittedly, challenging. This was observed even by stakeholders which necessitated further action. For example, one participant indicated:

> Yeah, it's a little bit challenging, but I got used to it. They [the administration] discovered that online classes are a little bit not enough for the students, and they found that some skills should be taught face to face on campus. … and then they [implemented] a new method which is hybrid learning. [Participant 2]

Based on the interviewees' input, in terms of the curriculum and the course content, DI could be applied. Nevertheless, it was the 'environment' and the 'process' that had the most impact on e-teaching concerning DI application. As participant 4 put it when describing the environment issue, "In online, it's different! When you are in a physical class, you can talk to the students right in front of you.". Participant 5 also thought that body language is missing in the virtual classes. According to her, she would not be able to assess students' comprehension. Additionally, participant 3 described, "It is the process that effected the style of teaching…and there is a big gap between doing activities online versus traditional classrooms.". DRI was even challenging for classes with *kinesthetic* or *tactile* types of learners. This challenge was described:

> When we are in the traditional class, we can satisfy each student according to his learning style. But, then went online, I have no idea how kinesthetic learners are to be satisfied. In a real classroom, you can ask them to just come to the blackboard and draw a picture or whatever, but online, this is missing. [Participant 3].

The participants provided concrete examples of the challenges they encountered when applying the DRI approach. Fake engagement, not being able to see the students, and class size in online courses are some recurrent challenging aspects of e-learning and education identified from interview manuscripts. To participant 3, the main challenge of DRI was that "students are logged in but they are not there.". Similarly, participant 5 reported that when she calls on students, she was not sure if students are there to respond. Furthermore, participant 2 highlighted, "Some students write in the chat, some of them can answer using the microphone, but video calls are not allowed. So, the only choice here is using the audio or the chat.". Participant 5 emphasized, "I do not know if they are there or not.". Participant 4 believed that if students were required to open cameras, it would have been easier to know their needs and abilities. Concerning class size, participant 3 noted, "One of the challenges I faced and still facing is the big number of students in the class. The average is 40 and sometimes above 45.". Class size is an important factor in both students' and instructors' experience in the world of remote instruction (Lowenthal, et al., 2019). Another emerging theme

from the interview data was about ways participants had attempted to overcome the challenges of implementing DI in the virtual class. While several ways were identified, the most commonly cited methods were as follows:

1. Effective use of LMS Platforms by Instructors.

"What helped me a lot was that I was able to use *Blackboard Learn* well. I used discussion board forums a lot. Students were asked to provide feedback on their learning." [participant 5]

2. Diagnosis of Students' Problems and Early Intervention

"I diagnosed some of the problems at the beginning of the course. So, I used to assign activities; sometimes it's not individually, but I tried to put them in groups, with their levels in mind." [participant 6]

3. Designing and Tailoring Activities based on Students' Needs

"I used to assign certain activities to, for example, weak students. I also tended to give extensions." [participant 3]

4. Dedicating Time for a One-on-One Discussion

Some instructors mentioned that they needed to allocate time for students to ask questions or reflect on their e-learning. Some of them dedicated time at the end of the virtual session, as the case with participant 3 who stated:

> If the number of the class is big, students may not feel comfortable expressing themselves well. So, I used to have like 10 minutes at the end of the class. I allow students who finished their exercises to leave the class so that the psychological environment is going to be a little bit relaxing and then weak students can express themselves well.

Despite all the strategies they applied to reach a successful online differentiated classroom, it was believed that it is way easier to apply the DI in traditional classrooms than in virtual ones.

7. Discussion and Conclusion

This investigation explored the application and challenges of DI/DRI faced by EFL instructors during the shift to the online mode due to COVID-19. The quantitative analysis focused on two aspects. The first is related to EFL instructors' application of DRI with their students in Saudi universities/colleges. The results showed that the gender of the instructors did not play a major role in their applications of DRI in the online classrooms. However, some other factors impacted their adoption of DRI. For example, instructors with more formal education, higher academic rankings, more years of teaching, and academic experience in addition to more technological literacy and competence implemented DRI more successfully. Therefore, it could be assumed that instructors who were more exposed to teaching experiences with students were more trained in DI implementation in their virtual classrooms. On the other hand, just as the previous research suggested (Alghamdi & Azam, 2018; Khan & Asif, 2018; Aldossari, 2018) the instructors who were less inclined to apply DI in their classrooms were the ones with lesser teaching experience, and who might have been exposed to less adequate training on DRI.

Furthermore, when it comes to the challenges of DRI facing instructors, there were also no significant differences between the males and females. On the other hand, the quantitative results show that EFL instructors with higher formal educational levels are more successful in implementing DRI in their virtual classrooms. Consequently, they faced lesser challenges in implementing DRI in their online classes. Likewise, higher academically ranked instructors with more years of teaching experience were shown to implement DI in their virtual classrooms more effectively than other instructors who were less academically ranked with lower years of teaching experience.

The second part of the research was dedicated to the qualitative analysis of the results. The results of the qualitative analysis yielded information reported by the EFL instructors on the methods some instructors used to implement DRI in their classrooms. These methods included: 1) differentiated assessment types; 2) time allocations for various tasks; 3) differentiating requirements for the tasks; and 4) differentiating teaching styles. With regards to the challenges, those instructors faced when applying DRI, three main areas that instructors found to be the most challenging. The first is related to students, then instructors, and finally to technical issues. One of the major challenges related to students, as reported by the instructors, was their lack of engagement and their lesser motivation in the online classroom. This finding correlates with some of the aforementioned issues and challenges of online teaching in the previous literature (e.g., Alsamiri, 2021; Alshlowiy et al., 2021; Al-bogami & Elyas, 2020; Hoq, 2020). Instructors themselves also reported challenges for their inability to adopt RDI in their virtual classrooms with issues such as administrative policies and classroom sizes and these issues were also reported in previous studies as related to DI application in traditional classrooms (Aldossari, 2018).

Finally, another common issue found in previous studies (Lukas & Yunus, 2021; Tanveer et al., 2020; Alshlowiy et

al., 2021) in addition to this one was technical issues. Many instructors reported some of the challenges that they faced in online teaching were due to problems with internet connections and/or not being able to see or hear the students in the classroom during synchronous class meetings all affected their application of DRI in the virtual context. Some instructors reported that the inability to physically see their students while they were teaching, and being unable to distinguish if they were actually in the virtual classroom or not, negatively affected their application of DRI. Since they were not able to include kinaesthetic activities and develop lessons that involved group work and engaging activities. Therefore, the qualitative analysis showed that some instructors were able to implement DRI to some extent about the teaching content. Nonetheless, the process and online teaching environment were more challenging in the effectiveness of the application of DRI. However, despite the DRI challenges faced by the EFL instructors, they did try to find methods to deal with them. Some reported that they tried to make the best use of the LMS available to them for effective teaching, other methods included early diagnosis and interventions for problematic learners, specific tailoring of lessons and activities, and dedicating one-on-one online sessions for students in need. Therefore, the findings show that it is true that virtual teaching can be challenging for DRI implementation. But, it could be attained if instructors were willing to develop more ways to work around these ordeals and deal with the teaching and learning challenges faced during this COVID-19 era.

8. Study Limitations and Future Research

The present investigation was subject to some limitations. First, data in stage one was based on instructors' self-reporting. Instructors through the online survey reported that they followed ways to determine student needs. However, we cannot be so sure if they actually practiced DI strategies or not. The interviews served to compare datasets for convergence, complementarity, and divergence purposes. Moreover, student engagement has sparked researchers' extensive attention already. One key finding in this research relates to students not being as engaged in virtual classrooms as in the physical ones. Future research may aspire to focus on why students in the Saudi context do not engage well in online classrooms. Related to this notion, as a recommendation, the efforts that instructors pay to motivate students' enrollment and engagement in online classes are also worth exploring. Finally, the role of the instructor's availability outside the online classroom in knowing and understanding students' needs and abilities is important. Things like virtual office hours or one-on-one online conferences deserve future investigation.

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