



# Towards New Instructional Design Models in Online English Literature Courses During COVID-19 for Sustainability Assurance in Higher Education

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## ABSTRACT

The study explores the effect of using new instructional design models in online English literature courses in higher education and explores the effect of their use on students' performance. This is to assure sustainability in higher education. The study shows the effect of using ADDIE instructional design model along with universal design for learning on students' performance in online English literature courses in higher education. The study also highlights the major challenges that university professors face when applying the two designs together in online learning. A quantitative approach is applied by distributing a five-part questionnaire to 47 English literature professors from different universities in Jordan who are asked to use both models when planning their online courses. In the last part of the questionnaire, these professors are asked to state the main challenges that they face and are exposed to when applying the two designs together in online learning process. The results of the study reveal that students' performance increased. There are a few studies that have been conducted to explore new instructional design models to be used in planning online English literature courses in higher education and their effect on students' performance to assure education sustainability.

**Keywords:** ADDIE, UDL, online learning, instructional design, higher education, education sustainability

## INTRODUCTION

Just as in other parts of the Middle East, most students in Jordan have problems expressing themselves in English. This is true whether they are students in school, at university, at college, or in their postgraduate studies. Moreover, IELTS applicants from Arab countries score lower marks on the exam and are ranked the lowest in English language proficiency (Alhabahba et al., 2016). Most of these students have good receptive skills such as listening and reading; however, they are rather weak when it comes to productive skills in English like speaking and writing.

In most Jordanian schools, and especially in public schools, the curriculum focuses on teaching reading and grammar instead of focusing on all four English language skills (reading writing, listening, and speaking). This makes it difficult for students to enroll in English language programs at universities and colleges because their courses, along with their objectives and outcomes, are designed to enhance and improve their students' skills and bring those skills into the 21st century so that each graduate meets the requirements for entering the labor market. For this reason, university and college English courses need to be designed in a way that will improve their students' communication, critical thinking, analytical and other skills. This is especially true in English courses since English is considered to be the most challenging of courses in the Arab world. Further, this has to be considered even more carefully when it comes to online learning since the mode of content delivery is totally different from classroom learning.

Due to the long lockdown in many countries as a result of the COVID-19 pandemic, academic organizations all around the world—including those in Jordan—have moved to online teaching and learning, whether it be synchronous or asynchronous. Krsmanovic (2022) states that as a response to COVID-19 and the lockdown, it was a hard decision for higher educational institutions to choose between teaching through fully online courses or through blended courses to achieve the learning outcomes and to assure the sustainability of the learning and teaching process. Hu and Huang (2022) state that COVID-19 created a challenge for all instructors, teachers, and stakeholders to put all their efforts in delivering the best in online learning. Zhang (2022) discusses how online teaching and learning has only gained importance and since it was first applied in early 2020 because of the COVID-19 pandemic. Indeed, the move to online teaching and learning happened suddenly without any planning. It was a hasty response to a situation that needed urgent action taken that left teachers, professors, and students unaware and unprepared when it came to online learning. Unfortunately, this was the case in all countries of the Arab world, including Jordan. The pandemic “has shaken the existing paradigms in education, forcing the scientific knowledge produced to be reconsidered” (Ari & Schmitt, 2022, p. ii). The education system has been seriously affected by the COVID-19 pandemic (Rehman et al., 2021; Maican & Cocorada, 2021). Both instructors and students had the responsibility of coping with the new situation in adapting new learning and teaching strategies, especially that they were both not ready for the change. The main dilemma was the instructors and students’ unawareness of e-learning and ICT (Cifuentes-Faura, 2020; Maican & Cocorada, 2021).

The pandemic has awakened organizations and institutions on the role of identifying a specific sustainability model to be used without having urgent interruptions (Crawford & Cifuentes-Faura, 2022). As a response, Jordan’s Ministry of Higher Education and Scientific Research has integrated online teaching and learning in the academic programs of all universities and colleges within the kingdom after being exposed to all its advantages (E-Learning Policy Paper, 2020). This is to assure education for sustainability (EfS), which is to integrate educational practices and strategies to guarantee sustainability in education. Sustainability was embedded in education by the decade of education for sustainable development 2005-2014 by UNESCO (Leal Filho et al., 2015; Mulà & Tilbury, 2009). EfS could help create decisions that would be applicable in all urgent situations, conditions, or phenomena.

As a result, all university and college professors and instructors work hard to design online content for their courses, whether asynchronous or synchronous. Added to that, English language professors and literature students need to put more effort into designing courses that integrate the students in their online lectures, whether synchronous or asynchronous, because students have difficulties expressing themselves in face-to-face lectures (Although it may be beneficial for some students to speak English and use English language behind a screen having no one around them, giving them more confidence). Czerkowski and Bumen (2013) state that higher education curriculum needs to be developed “using academic and professional content standards at the national and state level” (p. 1480). Salameh (2012) discusses some problems that English literature students face when studying English literature, especially poetry. Peskin et al. (2010) state that some English native speakers have issues when it comes to studying English as well. Salameh (2012) adds that students find studying English subjects, and specifically English literature, difficult due to their ignorance of certain aspects of the English language such as structure and the four basic language skills. According to Huwari (2019), this is also because students in Jordan and other Arabic regions generally have problems in their speaking skills and in expressing themselves. Moreover, Huwari (2019) also provides several other reasons for their weaknesses in their speaking skills such as “linguistic matters (like pronunciation, grammar, and vocabulary), psychological factors (inhibition and lack of motivation), learning environment (topics of speaking modules and limited time), [and] lack of practicing” (p. 203). Salah (2021) adds that Arabic native students face problems with using English as a second language that result in the blending of English with Arabic. Hussein and Al-Emami (2016) discuss the reasons why Arabic native speakers find studying English literary texts difficult. They state that “the students’ level of language proficiency”, “the texts’ linguistic and stylistic degree of difficulty” and “the degree of cultural (un)familiarity to be crucial issues which impact the productivity of the teaching-learning process”. They also suggest that “[n]arrowing the distance between students and the text by relating the themes and characters of the literary work to the students’ personal experiences”, and “by making students read independently” would help these students better comprehend English literary texts (p. 125).

Yao (2021) states that in traditional face-to-face English language classes and lectures, lecturers and instructors can create and enhance material that motivates students into participating and learning unlike online learning where the instructor needs to integrate activities that suit the students' interests. Zhang (2020) adds that the students show less collaboration and motivation in online learning compared to face-to-face teaching and learning. This has forced many professors and teachers of English and English literature to enroll in many training workshops and search for different online instructional designs that will help them provide better online courses for their students and ensure the quality of their learning by reaching the outcomes and objectives of the course. Brewer et al. (2001) declare that online learning needs special and careful planning since it "can either facilitate or impede the learning process" (p. 12). VanSickle (2003) also adds that, generally, the interests of students and specifically, their use of internet need to be taken into consideration when planning online learning. Many methods and designs have emerged to meet the needs of students by enhancing their comprehension and teaching them in a way that increases interaction between students and their teachers (White, 2000). Abernathy (2019) adds that planning for online teaching can be developed and improved through using traditional teaching and learning methods that can also be applied to online planning. Almelhi (2021) discusses how today's students are interested in technology and how instructors need to integrate technology in the process of teaching and learning while at the same time attracting the attention of students to gain more participation and collaboration.

When considering the design of any online course, there are well-established best practices for traditional teaching and learning that effectively translate and apply to the online environment. In fact, a lot of research emphasizes the need for consistency in best practices regardless of the modality. When focusing on teaching English literature to Arabic native speakers in universities and colleges, more effort has to put into designing the courses. English literature depends mainly on creative, critical, and analytical thinking, especially when applying or approaching a literary text from the lens of literary theories. It basically focuses on the voices of the students to show deep and thorough analysis. This may not occur in online teaching since students are always hesitant and usually do not have enough courage to use the English language. This is in spite of the fact that being behind a screen may help some students participate and express themselves. Bunsom et al. (2011) comment on teaching English literature to non-speakers of English by saying that it is very challenging to both lecturers and students as if almost forcing the students to read and appreciate literary texts even if they can be hard and difficult to understand.

As a response to such problems and issues, and because many designs have emerged to be used in online learning, the study aims at using ADDIE instructional design model with universal design for learning (UDL) to see its effects on the performance of undergraduate students in online English literature courses. The study also highlights the main challenges that professors of English literature may face when applying the two designs together in their online courses. The designs are used to increase student learning and ensure the quality of both teaching and learning in online English literature courses.

## LITERATURE REVIEW

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### ADDIE Instructional Design for Online Learning in Higher Education

First introduced in the United States military, it was known as ADDIC (analysis, design, development, implementation, and control) (Branson, 1978; Nadiyah & Faaizah, 2015); however, it was later changed to ADDIE (analyze, design, develop, implement, and evaluate) when it first came into use as an instructional design model in teaching (Tzu-Chuan et al., 2014). Designed by the Center for Educational Technology at Florida State University, the design is used today by many instructors for its flexibility (Maddison & Kumaran, 2017).

Shelton and Saltsman (2007) state that ADDIE has been used by some undergraduate lecturers (whom Shelton & Saltsman, 2007 call "brave") as way of moving away from traditional teaching even before COVID-19 lockdowns became a thing. However, it should be noted here that these instructors - whom some consider to be the best at using the ADDIE model-believe that teaching online leads to "inadequacy and being ill-prepared" (p. 14). To them, the ADDIE model is "a generic instructional model that provides an organized

process for developing instructional materials" (p. 14). In their paper, they merge the third and fourth stages (develop and implement), thus giving them four rather than five stages in using the model (p. 15).

Moreover, Soto (2013) states that the ADDIE model has always been known as the best and most widely used instructional model in and for online teaching and learning. Abernathy (2019) adds that the use of the model plans for the engagement and learning of students. In fact, Tu et al. (2021) designed an online course using ADDIE and the results have shown how students taking this course became self-confident and satisfied. This is why many online course designers have adapted the model. Put simply, it provides them a logical, effective, and satisfying plan that insures better learning (Lin, 2012; Zhang, 2019). It has specifically been used in higher education as an effective design model that provides a structurally clear learning design (Fang et al., 2011).

Ozdileka and Robeck (2009) explore the "operational priorities of instructional designers" through "a thematic content analysis" that was conducted through the survey responses of 29 instructional designers who work in education. They concluded that states the importance of the analysis step in the ADDIE model. This is due to the fact that the interests, levels, background knowledge, and other characteristics of learners are taken into consideration more than any other step or stage. Accordingly, it was found that there are certain stages or steps that are more important than the rest and, thus, need more attention. Moreover, this may mean that certain stages such as the "analysis" stage may have better consequences if they are taken more seriously.

Bamrara and Chauhan (2018) explore the need analysis for training and its application. It highlights how the tools of information and communication technology can be used in the analysis of data patterns through the use of ADDIE to "explore the correlation between techniques/approaches of training need analysis and evaluation of training program for n=100". For example, Koc (2020) uses ADDIE in designing an academic writing course for university teachers because of the importance of such a course and the weaknesses that most university students have in academic writing. The course was created in Turkey for undergraduate and graduate students from different departments. The study concluded with the fact that using the ADDIE model design has improved the academic writing of students.

ADDIE instructional design has recently been used in teaching online English language courses in higher education; however, it has not been used to design online courses for teaching English literature in higher education. Balanyk (2017), for instance, has designed free online English language courses for the virtual academic bridge program for non-native English speakers who want to start their undergraduate studies using the ADDIE model.

Yao (2021) uses the ADDIE model for blended English language courses in Shandong Vocational College. Yao (2021) justifies its use by explaining how postgraduate students are obsessed with electronic devices. As a result, they would be attracted to online learning and motivated to use it. In turn, this will help students improve their English and help instructors overcome the difficulties of teaching English online.

Additionally, Zhang (2020) also used the ADDIE model to construct collaborative communication for the online college community learning English to increase the competence and performance of the learners. According to Zhang (2020), the model's use was effective and improved the competence and performance of the learners. Furthermore, Almelhi (2021) applied the design for improving EFL creative writing skills of college students. The sample was randomly selected and consisted of 60 students from the English Department. A checklist was used to assess the students creative writing. The study concluded with the improvement of the EFL creative skills of students.

Finally, Rahmadhani (2021) has developed a textbook, which he considers effective and practical since it originally focuses on grammar, ignoring the communicative side (speaking), which could have a negative impact on the students' English language skills. For this reason, research & development (R&D) is used through the ADDIE model. In the end, the study concluded with improving the textbook in a way that meets the objectives of learning English speaking skills.

### **Universal Design Learning in Online Learning in Higher Education**

According to Czerkawski and Bumen (2013), UDL is a "pedagogical model that emphasizes learner's individual differences by providing them access to quality education" (p. 1480). Its three main principles are

representation, expression and engagement that enhance and improves student learning in higher education. Additionally, they state that UDL has been incorporated in higher education for online learning.

Moreover, UDL is defined by the Center for Applied Special Technology (CAST) as “a set of principles for curriculum development that give all individuals equal opportunities to learn” in a way that meets all the needs, backgrounds, and levels of students (2003, p. n. d.). Rose et al. (2006) also point out that during implementation of the model, individual needs of the students is what the three UDL principles are based on.

Dell et al. (2015) have integrated the principles of the UDL model—presentation; action and expression; and engagement and interaction—into guidelines for online curriculum development in higher education. The design also helped in providing proper access for students with disabilities. Moreover, Dell et al. (2015) also use the Rose and Mayer (2008) model and its three principles (ACCESS Project, 2010; Center for Applied Special Technology [CAST], 2013; He, 2014; Rose & Mayer, 2008). He (2014) conducted a case study on an online teacher education course that was designed based on UDL principles to help prepare teachers for the increasing number of learners during their professional practice. This was an opportunity for the teachers to experience online learning before using it with their learners. In the end, the results of the study revealed that the 24 participating teachers have shown confidence and self-efficacy in online learning.

Rao and Tanners (2011) used elements of UDL principles and combined two different approaches—the CAST approach (using the three principles of UDL: multiple means of representation, expression, and engagement) and the Goff and Higbee approach—in an online university course. As a result, twenty-five students responded as satisfied with the course for different reasons: they have different choices and ways to access course materials, the activities support their learning, and the interaction motivates the students. They add that the design is flexible and could be added to an online course in various ways to suit the needs and interests of their students.

Houston (2018) presents the principles of UDL and how they could be integrated in online learning. In addition, she explores the challenges that could face the instructor in embedding the design into online learning. Fovet (2020) highlights the challenges and their solutions for framing a development plan for how the UDL model could be continuously used in higher education for online teaching and learning based on his own experiences and practices. Rose et al. (2006) explore the applications of UDL in university courses and give examples. The authors highlight the continuous development of the course with the implementation of the principles of UDL in university courses. Moreover, this study aims at exploring the effect of using ADDIE instructional design model together with universal learning design on the undergraduate student performance in online English literature courses in higher education. As an example, Hu and Huang (2022) use the UDL to explore its effectiveness in improving the proficiency of English language students. The findings reveal that, by applying the three principles of UDL, the academic performance of the students has increased in a way that each student has been integrated into online learning.

As noted previously in the literature review, the use of ADDIE and UDL has been used separately to design online courses for undergraduate students in higher education. Up to the researcher’s knowledge, and based on the researcher’s literature review, only a few studies have been conducted on the use of both models together in online teaching in higher education. One example is the study by Trust and Pektas (2018) who have used the ADDIE model with UDL to enhance the professional growth of teachers around the world in an online course in a way to meet the various needs of learners. Surveys of their past courses show that all learners achieved the outcomes of the course.

Rao et al. (2014) also applied both designs when planning three online courses. The study reveals that using the two designs enhanced both the valuing organization of students and the interaction of instructors while also offering flexibility. Added to that, up to the researcher’s knowledge, there are a few studies that have been conducted to explore new instructional design models to be used in planning online English literature courses in higher education (universities) and their effect on students’ performance to assure education sustainability. Furthermore, the study tries to answer the following questions:

1. **Question 1:** What is the effect of using the ADDIE model together with the UDL in online learning on the performance of English literature undergraduate students?
  - a. **H1:** *There is a significant effect from the ADDIE model of instructional design on student performance in online English literature courses.*

2. **Question 2:** What are the challenges that face instructors in using both models in online learning of English literature?
  - a. **H2:** *There is a significant effect of UDL on English literature undergraduate student's performance in online learning.*

## MATERIALS AND METHODS

### Participants

A total of 47 professors of English literature from different public and private universities in Jordan were chosen to apply both the ADDIE model, with its principles of analysis, design, development, implementation, and evaluation, and UDL with its principles of engagement, representation, action, and expression when planning for one of their courses in English literature. These courses include the novel, the short story, comparative literature, contemporary literature, and classical literature among others. The same professors who applied the two designs were asked to respond to a questionnaire to ensure that they have followed the right steps and processes. Finally, in the last part of the questionnaire, they were asked to state the challenges that they faced during the application and how they overcame them.

### Data Collection and Analysis

A quantitative approach was used for collecting the data where a five-part questionnaire was distributed to 47 English literature professors who were asked to use both models in planning for their online courses. The respondents were asked to respond to each point by choosing from a numerical scale rated 1 to 5 with 1 being "totally disagree" to 5 being "totally agree".

The first part of the questionnaire consists of points related to information about the respondents. Next, the second part consists of the points regarding the application of ADDIE model through its stages of analysis, design, development, implementation, and evaluation.

The second part questions whether or not the instructor has applied the 26 points related to the five stages after they were asked to apply them. As a result, the second part is worth a total of 26 points.

Continuing on, the third part is made up of questions regarding the application of the UDL and its three principles: representation, engagement, and action and expression. This part is worth 52 points based on questions about whether or not the instructor applied the 52 points related to the three principles after they were asked to apply them.

The fourth part is about the performance of the students and is worth 24 points with one point for each questions asked of the professors in this part of the questionnaire.

Finally, the fifth part is where the professors stated the challenges they faced while using the two designs when planning their online English literature courses and how they overcame them. The data collected from the questionnaires have been analyzed through using the Pearson correlation coefficient and multiple regression analysis.

### Procedures

The researcher went through the following procedures in order to conduct the study:

1. The researcher thought of how to help the professors/instructors of English literature increase the performance of their undergraduate learners in online learning.
2. The researcher examined previous literature reviews to find out what scholars and other researchers attained in applying and implementing online English literature courses.
3. The researcher read about both the ADDIE instructional design model designs and UDL and their stages and principals.
4. The researcher asked 47 professors that had shown interest in online learning to use both designs in planning their online English literature courses.
5. After starting the learning process, and the researcher sent the questionnaire to the professors to collect data at the end of the semester.

**Table 1.** Means, standard deviation (SD), and correlations

	Mean	SD	1	2	3	4	5	6	7	8
Analysis	4.27	.349								
Design	4.10	.842	.344*							
Development	4.24	.617	.406**	.370*						
Implementation	4.14	.795	.197	.150	.088					
Evaluation	4.28	.394	.785**	.551**	.483	.122				
Engagement	4.14	.284	.709**	.521**	.492	.181	.63**4			
Representation	4.17	.635	.517**	.611**	.218	.079	.445**	.639**		
Action & expression	4.27	.353	.740**	.485**	.382	.32*7	.731**	.763**	.694**	
Student performance	4.15	.381	.733**	.467**	.345	.305*	.663**	.832**	.744**	.906**

Note. \*Sig<0.05 & \*\*Sig<.01

- The researcher analyzed the responses of the questionnaire using the Pearson correlation and multiple regression analysis.
- The researcher drew certain conclusions by discussing the results and linking them to the participating scholars who had the same results.

## RESULTS AND DISCUSSION

The data taken from the responses on the questionnaire were analyzed, and the descriptive statistics are shown in **Table 1**.

**Table 1** depicts means, standard deviation, and correlations for all constructs in study model. The mean scores for ADDIE model of instructional design dimensions range from 4.1 to 4.28. In addition, the mean scores for UDL dimensions ranged from 4.14 to 4.27, and the mean score of students' performance equals 4.15. The Pearson correlation results show that students' performance is significantly associated with ADDIE model of instructional design dimensions and UDL. This shows how using both models, ADDIE and UDL, have helped in improving undergraduate student performance in online English literature courses.

### Hypothesis Testing

#### ***H1: There is a significant effect from the ADDIE model of instructional design on student performance in online English literature courses***

A multiple regression analysis was performed to identify the effect of ADDIE model of instructional design on student's performance. In this model, the value of  $R^2$  indicates 64.1% of the variability in English literature undergraduate student performance which can be explained by the ADDIE model of instructional design. This variance is highly significant as indicated by the F-value ( $F=13.552$  and  $p<0.01$ ). Thus, it could be concluded that H1 is accepted.

Based on the results shown in **Table 2**, the stages analysis ( $\beta=.557$  and  $p<0.01$ ), design ( $\beta=.287$  and  $p<0.05$ ), and implementation ( $\beta=.236$  and  $p<0.05$ ) are positively and significantly associated with English literature undergraduate student performance. On the other hand, the effect of the stages, development ( $\beta=.019$  and  $p>0.05$ ), and evaluation ( $\beta=.030$  and  $p>0.05$ ) on English literature undergraduate student performance is not significant.

Note from the results that all of the ADDIE stages have a positive effect on English literature undergraduate student performance, but the three stages—analysis, design, and implementation—are statistically significant. This is because in the analysis stage the professors have identified the learning needs of the students taking English literature courses, whether those needs are related to the course itself and the background knowledge and skills that the courses require. Moreover, the participants also look at whether or not those needs are related to technical skills so that the professors understand the needs of their students and uses integrated electronic platforms in their online English literature courses.

Another important action that most of the professors take is identifying the learning objectives or outcomes of their online course. Whether it occurs asynchronously or synchronously, the main step in any teaching and learning process is to define the outcomes of the course. These outcomes need to be measurable and specified. Since the current stage has a positive and significant value on the mentioned

**Table 2.** Results of multiple regression analysis-1

Constructs	$\beta$	t-value
Analysis	.557	3.451**
Design	.287	2.341*
Development	.019	.169
Implementation	.236	2.280*
Evaluation	.030	.162
R <sup>2</sup>		0.641
F-value		13.552**

Note. \*Sig<0.05 & \*\*Sig<.01

students, that means the outcomes have been well defined and can be measured. According to and aligned with the outcomes, the content and the material of the course are assigned and identified in relation to the fact that the courses are given online. In this case, the professors need to think of the content and how it will be delivered online. This means that the content needs to be defined with the resources used for delivering the content.

The way the results show how the stage of analysis has a positive and significant effect on student performance proves that the points that go under the stage have been taken into consideration, thus student performance has increased. Drljača et al. (2018) state that the analysis stage outlines how learning will be delivered and acquired. This assures a successful learning experience for the students. They also state that it is a “purposeful and iterative” step that, if done properly, will indicate a good learning experience for the students and lead to an increase in their performance (p. 5). Shelton and Saltsman (2004) also declare that the analysis stage is the stage where the syllabus is designed, “the environment is prepared”, and “the learning community is nurtured to grow and become self-sufficient” (p. 55). They add that if everything is taken into consideration during the analysis stage, then the learners will be engaged in the learning process, all frustrations will be alleviated, and a learning community will be successfully nurtured.

The second stage the showed significant and positive impact on the performance of undergraduate English literature student is the design stage where the professors have prepared the content in units and sequenced segments and have prepared the storyboards and the drafts for the e-content design. This definitely cannot happen without defining the platforms and the applications that are used in teaching online English literature courses in order to be able to design the e-content accordingly. Still, as mentioned in the previous stage, in order to completely think of the e-content and its design, it needs to be aligned with the outcome. And thinking about the outcomes, needs the thinking of the assessment strategies and the tools as well. As a result, the assessment strategies and tools need to be defined here, and as a sequence, the teaching strategies have been defined and assigned too of how to deliver the e-content. At the end of the design stage, everything is ready for the development stage. According to Greer (2016), the success in a well-designed online course shows its positive and significant impact on the learners of the course. This is what happened in the English literature courses. The positive and significant impact of the design shows that the professors have taken all points of each stage into consideration.

The third stage that has a positive and significant impact on the performance of English literature undergraduate students is the Implementation stage. In this stage, the aim of the professors is to start the learning process with their e-content, their resources, and their activities they will use to deliver the content. This means that the professors have detected the time. This is the stage where any mistakes will appear and where strengths will help in delivering the content. Richey et al. (2010) discuss the importance of this stage, saying that the results of the first two stages—analysis and design—appear in this stage. In the Implementation stage, the outcomes are being achieved and assessed through the process of learning. Dousay and Logan (2014) add that the Implementation stage is evaluated by the production itself. Since the performance of the students increased in the literature courses, it is safe to say that the Implementation stage contained all the material, resources and activities needed to achieve the learning outcomes of these courses.

Conversely, the two stages that showed a positive, but non-significant impact on the performance of the students in the courses of English literature are development, and evaluation. In the development stage, the professors finish designing their content, produce it, test it on e-learning and technology and fine tune them until they are ready to implement. After they are ready, the professors then start uploading everything on the



**Table 3.** Results of multiple regression analysis-2

Constructs	$\beta$	t-value
Engagement	.295	3.394**
Representation	.161	2.057*
Action & expression	.569	6.116**
R <sup>2</sup>		0.880
F-value		98.160**

Note. \*Sig<0.05 & \*\*Sig<.01

platform and get feedback from the designers. This stage may not be significant, but it is a positive for student performance in online English literature courses since everything needed for the learning process is planned in the analysis stage and is designed in the design stage. Whatever the e-content is, when properly designed in alignment with the outcomes (and taking into consideration the platforms and the applications used), they can be easily uploaded on these platforms and applications. This is enhanced by the university limiting the number of platforms so that there are not too many which could make the students feel overwhelmed. That is, they should try to choose one platform that is flexible, user-friendly, and can offer all the tools that both the students and professors need. Although Dousay and Logan (2014) think that the development stage is challenging and has to be taken seriously, Gagné et al. (2004) state that whatever has been planned for, designed, and approved by stakeholders, would mostly lead to good outcomes. This is what happened in the case of the 47 professors who participated in this research.

Moving to the second positive but also insignificant stage we find according to Greer (2016), showing systematic planning in the design stage shows good results in the evaluation stage. Gauging the responses of the professors, it can be inferred they have formatively assessed and evaluated each stage after finishing it. This why, at the end of the learning process, they achieved their course outcomes and their evaluation showed positive results. Each stage has been self-assessed and evaluated by the professors themselves with peer reviews being conducted by their colleagues. This has its own effect on the successful learning process that happened in these courses along with how the students were engaged and how much their performance increased.

After discussing the results of the use of the ADDIE model, the discussion moves on to how the use of the ADDIE model show a significant impact and effect on the students' performance in online English literature courses. As a result, the second hypothesis is ready to be presented:

## ***H2: There is a significant effect of UDL on English literature undergraduate student's performance in online learning***

A multiple regression analysis was performed to identify the effect of the UDL on the performance of online English literature undergraduate students. In this model, the value of R<sup>2</sup> indicates 88% of the variability in the performance of students which can be explained by UDL. As indicated by the F-value (F=98.160 and p<0.01), this variance is highly significant. Based on the result shown in **Table 3**, engagement ( $\beta$ =.295 and p<0.01), representation ( $\beta$ =.161 and p<0.05), and action and expression ( $\beta$ =.569 and p<0.01) are positively and significantly associated with students' performance; thus, it could be concluded that H2 is accepted.

The UDL has three main principles: engagement, representation, and action and expression. The results show that the use of these principles with the ADDIE model has positively increased the performance of the students of English literature, especially that, as mentioned earlier, university students usually find it hard to appreciate literary texts because they have problems understanding and using English language. Starting with Integration, the professors have used this principle in the first two stages of the ADDIE model. They have thought of the needs, levels, and backgrounds of the students when writing the outcomes, defining the assessment strategies and tools, the teaching methods, and the material and other resources. The way to engage students in the learning process has specifically been the core of planning in the analysis stage. Add to that the design stage when the professors choose the platforms and the applications to be used in online teaching. The activities that have been assigned to assess student learning have also been chosen in a way that integrates all students regarding their gender and interests. In the development stage, the principle of integration has been used when technical issues have been overcome and when the platforms and applications have been checked to assure all students can access them. Dell et al. (2015) declare that the

**Table 4.** Challenges

No	Challenges
1	Internet issues and bundles of students
2	The difference in English language competence among students
3	Low number of instructional designers in the universities
4	Professors' little awareness of e-applications
5	Student participation in online learning
6	Assessment in online teaching

presentation principle offers different opportunities for the students and their need to acquire knowledge; thus, it should be used in planning online courses.

The second principle is representation. This was used in the first two main stages. The professors tried to integrate visual aids, images, and videos when choosing the resources. They were also integrated in the storyboards, the drafts and when choosing the content of the courses. The professors also chose one or two platforms through which they delivered their material. Moreover, they also tried to integrate activities through games that were suitable to the age of their students and uploaded the links of these activities and games to the already assigned platforms. These games and activities are able to be accessed through mobile phones any time of the day until the due date. The professors have also tried to ask some keynote speakers to attend their online classes to enrich the lectures and to encourage the students to appreciate literary studies. The analysis part has also focused on presenting pre-questions or brainstorming questions for the students to guide them to a certain way of thinking. All these points were taken into consideration by the professors and enhanced how important and significant this principle is if taken seriously in literature lectures. Furthermore, they can positively affect the student comprehension and enhance the achievement of the course outcomes.

The third principle that had a positive and significant impact on the performance of students taking online English literature courses is action and expression. This principle aims at respecting the ways and means in which students learn. The professors improved this principle in planning for their online English literature courses, especially during the analysis and design stages. The professors chose and integrated different kinds of resources such as videos, audios, and readings. Even the activities have been chosen to suit all learners. Moreover, these are activities that need the students to express themselves through speaking, writing, reading or a mix of all three. They are also allowed to act in virtual meetings or recorded aids. This helped the students gain more knowledge and helped them in expressing themselves in different ways to assure equal opportunities for all the learners in these online courses. Self- and peer assessment were also integrated and assigned to add a kind of entertainment to the class while at the same time developing self-assessment and confidence in the students.

From the discussion, the impact of the two designs on the performance of the students in online English literature courses is positive and significant. Rao et al. (2014) agree on the effect of using both models in online courses. They state that although their application during planning for online learning takes time and effort, in the end, they save time and effort for the professors during the learning process. This is similar to the study of Trust and Pektas (2018) who use both designs when planning an online course. They state that all learners achieved the outcomes of the course.

Part four is added to the questionnaire for the respondents (professors) to add any challenges or issues that they were exposed to while using both models in planning their online English literature courses and how they overcome them. **Table 4** shows these challenges which are put in order of frequency.

The first two challenges the professors faced during the learning process are internet issues and bundles of students along with the difference in English language competence among students. These two issues were mentioned by most of the participating professors; however, they overcame them by recording the virtual lectures, which gave the students the chance to review these recordings and pause and repeat to help them keep up with the subject of the lecture. This was especially useful for the students with language issues. The third and fourth issues are the low number of instructional designers in the universities and some professors not having enough knowledge of the different e-applications available and how to use them. The professors have overcome these two challenges by trying to stick to the same tools that occur in the platforms they are already using in their online courses.

The fifth challenge—student participation in online learning—has been overcome by using the pre-questions, brainstorming questions, and the audio-visual tools and aids added in the analysis and design stages. Assessment in online English literature learning is a major problem because of the open resources. It is not a problem in summative assessments since according to the regulations, students need to attend the summative assessments at the universities. On the other hand, formative assessments are submitted online where students have access to these open resources, and can, thus, copy and paste from different websites. The professors have overcome this problem by assigning task-based assessments with rubrics. These kinds of assessments rely on the students using their own ways to render their answers. It could be noticed that the challenges that these professors have faced and been exposed to are challenges that face most university professors who also got used to these challenges during the long lockdown period of COVID-19.

## CONCLUSION

In sum, the study shows the positive effect of using both the ADDIE instructional design model and the UDL on undergraduate student performance in online English literature courses. The study reveals some major challenges that professors face when applying the two designs together in online learning. The Pearson correlation results show that student performance is significantly associated with the ADDIE model of instructional design dimensions and the UDL. This shows how using both models have helped improve undergraduate student performance in online English literature courses. The results show that the analysis, design, and implementation stages are positively and significantly associated with the performance of English literature undergraduate students. On the other hand, the effect of the development and evaluation stages on the performance of English literature undergraduate students is not significant. The results also reveal that engagement, representation, and action and expression are positively and significantly associated with student performance. The study could be considered one of the few studies that explore instructional design models used in planning online English literature courses for the aim of assuring the sustainability of education in higher education, in specific to assure the sustainability of effective learning and teaching in higher education. The study concludes with the following suggested recommendations:

1. More studies should be conducted on education sustainability in higher education.
2. More studies should be conducted on online instructional designs and models to assure education sustainability in higher education
3. More studies should be conducted on integrating other instructional designs in planning for English literature courses in higher education.
4. More studies should be conducted on integrating other instructional designs in online learning.
5. More studies should be conducted on student assessment in different instructional designs for online learning.
6. More studies should be conducted to explore the challenges that can occur when integrating other instructional designs in online learning.

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