Towards an Advanced Interactive E-learning for the Language

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Abstract
This research aims to create a smart electronic course, which simplifies the information, and reduces the time and effort in acquiring it actively and interactively, with the implicit message that all courses should be updated and improved to a modern ornament that suits the learner's psychology, inclinations, and possibilities. It also meets the needs of this era and the rapid technological revolution. The significance of the study lies in introducing a pioneering and modern experience that adopted interactive e-learning at Al Yamamah University to use it in teaching languages for native speakers and non-native speakers. Therefore, the main question that this study attempts to answer is: How do we match the digital transformation in language education in a procedural and innovative way? The research includes an explanation of the mechanism of cognitive content management in interactive classes, which is based on a long-standing teaching principle of the art of posting questions. Such a course reinforces the ability of e-learning and explains how to create a smart course by focusing on the mechanism of designing interactive classes, submitting assignments electronically in the modern ways, conducting electronic tests with warning of the process of transition to electronic teaching, and defining its advantages compared to traditional teaching.

Keywords: Distance learning; Electronic learning; Interactive learning; Smart courses; University education development

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Introduction

The need to use technology in education has increased, especially after the Corona pandemic (Covid-19) invaded all countries of the world. Currently, it is essential to follow up modern methods of teaching and learning and demonstrate some of their digital teaching methods, considering that the negative rote learning method prevails in teaching languages, does not keep pace with the technical and digital development, and is not based on the understanding learner's psychology, potentials, and innate aptitude. Ironically, we experience much grumbling and nagging about the nature and characters of this generation and complaints about their limited capacity of understanding, comprehension, and learning, accompanied with our ecstasy of pride and self-esteem upon comparing them to our generations and preceding generations, without bringing ourselves responsible for the shortcomings of education methods we adopt, which we liked and were successful decades ago; thus, we adopted them with the generation which grew up in a different way other than our growing up way. Hence, Dewey. (2019) stated: “When we teach today’s students what we learned previously, we deprive them of their tomorrow”, No surprise that they do not like what we liked.

The modern era witnesses a paradigm shift in the emergence of smart cities that adopt the latest technology to make people's lives easier, make them happy, and save their time and effort. This study aims to make language learning easier for students to acquire information smoothly with recreation without complication, which, in turn, will be positively reflected on teaching quality and Course Learning Outcomes (CLOs)! (Anis, 2019)

Therefore, the essential question of this paper is: How to apply digital transformation on learning the language in a practical creative way through my experience reality at Al Yamamah University? This research aims to upgrade the methods of learning the Language Acquisition and other sciences acquisition through converting them into smart e-curriculum, enhanced with the interactive self-learning principle, in a way that upgrades the level of the learner from a passive and negative recipient who is waiting for information to reach him in order to memorize without understanding, and he will forget it over a period of time, to an active and positive recipient who searches for the information enthusiastically and generate it to understand it depending on this kind of Interactive E-Courses.

Literature Review

Interactive Courses and Cognitive Content Management

It is worth noting that e-learning does not necessarily mean that it is Interactive, as it may be limited to educational videos, in which the learner is just a negative recipient. Therefore, it is necessary to draw attention to make electronic teaching of language more interactive, which is not attainable by just using the method or technology but also it requires information engineering and redesign it to be appropriate with the new electronic method. Furthermore, the imperative need in this age is to further e- knowledge so that we can employ it effectively (Muhammad, 2018; Zamrani, Zahrani, 2020).

Transitioning to the interactive electronic approach requires a similar change in the methods of presenting the scientific content. After the mediation on e-Learning, and what is related to it of the possibility of communicating with each student separately. The dialogue method based on the art
of question was the reliable one, as it ensured the response of the learner moment by moment to the scientific content, with the least possible possibility of distraction or preoccupation.

Although the interactive electronic approach is new, the question mechanism has a long history, and the most famous one for it is Aristotle, who used it in persuasion (argumentation), furthermore, it is indispensable for any age, and since we have the desire to make our learners enjoy free, independent thinking. Aristotle wanted to make his interlocutors reach reality by answering his questions by themselves. Following this principle, the smart curriculum creates the progressive questions that lead the learner spontaneously with his successive answers to the information and convinces him of it spontaneously and smoothly. Moreover, this principle is what stimulates students to answer and discover information by themselves. For this reason, (Mike Sharples) advises us not to teach students what they can learn by themselves, as he thinks that they can learn better while leading the process of learning (Lencastre, 2019) without being dictated to them information that they receive negatively, ineffective, and unproductively. Especially if we realize the multiple functions that questions perform, foremost among them, the rational function as it helps in brainstorming, furthermore, the cognitive function through which they acquire information (Al-Taai, 2019) and finally the entertaining function that motivates them to learn and knowledge with passion (Abu Aqeel, 2014).

Questions are the source of the principle of interaction, as it awakens the mind and makes it ready to answer, in addition to producing and getting information (AlMawdin, 2004). But these questions are three educational approaches of a very simple nature, and it may be such as information that needs clarification, and makes it easier for the student to answer, the purpose of which is to stimulate the learner's mind and pass on the information and produce it smoothly and easily. Therefore, we emphasize the necessity of avoiding difficult or high levels of questions, because the student will be alienated from the subject material if he found difficult questions that he cannot solve. Hence, the process of interactive self-learning will not come to fruition. Rather, this kind of question is supposed to be generally aimed at the realization of the mind and thought, not testing the information, or at least having the information in a way that prepares him to acquire it easily and gradually, as well as the positive effect of answering the questions that encourage him to follow up in the interactive lecture.

Through the educational questions, the professor of the course can identify both the weaknesses and strengths of students, thus, strengthening their weaknesses, focusing on the aspects that require more attention, and through the detailed report that automatically appears on the website to the course teacher, he can identify the questions about which the students failed to answer, hence focuses on them and paraphrases the piece of information, explains it and simplifies it to ensure that comprehension proportion of all information has reached the highest levels. (See figure one).

The second type of question is the evaluative ones that test and demonstrates the extent to which the student understands the piece of information within the lecture, but this time, without any explanatory information. The questions shall be of a slightly higher level than those of the previous educational ones. As for the third type, it is the test questions that measure student learning outcomes.
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The principle of Interactive E-Courses is based on the presentation of preliminary, simplified, and partial information; followed by an educational evaluative fast question on the principles of (Multiple choice), (Matching), (fill in blacks), (True or False); its function is to stimulate the student’s intellect to recall the information and apply it directly and practically; the matter that ingrains and instills it in their minds, makes it feel the euphoria of rapid accomplishment also in line with this the psyche of this generation that inclined to rapidness, and can’t wait for so long, in this way, we satisfy his needs to the direct feeling of the merits of his efforts.

Simplification of any piece of information relies on fragmenting it into initial components, starting from these little details then gradating to the general idea, in this way, it will be easy for students to chew on the information in association with a continuous evaluation, the result of which shows up moment by moment, which ensures the presence of mind and in the process of self-learning. This is what we aspire for the development of both the intellectual processes and mental judgments for a learner, thereby, enhancing his capability of understanding, comprehension, and open-mindedness, surpassing the old process that is based on memorization and indoctrination only (Sanusui, 2014).

We can manipulate voice, and make some moves of certain kinds of educational videos, achieving attention-attracting audio-visual effects most importantly, is to take an action about the educational content and manage it in a manner that creates Intellectual influences that instigate the mental judgments. (Amrani, 2018)

When student knows that the course teacher can monitor all of his movements, activities, and efforts within the website, he will be more eager to increase the efforts; for the impression to remain positive. The website can precisely show the slightest activity that a student does, such as how many times has a student been briefed on each lecture, by the hour, minute, and second, how much time does he take to do the test whether was educational, evaluative, or test, the degree that he has got after answering each question, and in case he makes any mistakes, the (feedback) shows up to him and explains the reason why his answers are wrong, it also explains the correct answer, he doesn’t move from one question to another unless he is acquainted with, has gained, and ingrained the piece of information in his mind, especially if he mistakes it for the first time, thus next time, he will often avoid making the same mistake.

At the end of the students’ detailed table of answers; that contains the name, university number, testing time, and the questions that he answered wrong. On pressing on the entry of the wrong answer, the window of the student’s wrong answer pops up; to be discussed, and after the students’ detailed table of their grades and results; a graph pops up showing visually and simplistically the (average) score and the extent to which it varies (See figures one and two).

**Electronic Tests**

The basic exams for university students are divided into three types: (Quizzes, Midterms, Finals), and the questions within those exams are (Multiple Choice, Matching, Blanks, True and False). This type of (Alternative Assessment) seeks to rebel against the traditional tests that have always been criticized for:
not measuring the scientific, literary, artistic, abilities of learners, also for lacking objectivity, validity, and reliability, and for not being designed accurate and coherent with the content objectives. It focuses only on deaf memorization and indoctrination, and what can be easily evaluated and taught more than focusing on what a student shall learn, in addition, it’s rarely focused on measuring skills and emotional aptitudes, but only the cognitive aspect measurement. (Al-Dhanhani, 2018, p.163)

Therefore, a student has to abandon the memorization only, and has to move to higher levels within learning and understanding in a way provides him with applicability; as it does not only measure his acquisition of the piece of information, as in the traditional questions but it is concerned with testing his ability to self-apply it, as theoretical information is a means as it is supposed to be, not an end.

One of the pros of electronic tests is that it upgrades the education quality and reduce students' feelings of anxiety and tension during the test (Rytkönen, 2019); because it depends on analysis, thinking, and understanding; Students apply what they have learned, while traditional tests rely more on memory (Rytkönen, 2019), that may fail to retrieve the already stored information. furthermore, the students may not be able to remember what he has stored, and this makes him fail in writing it because he forgets a great part of it which becomes an obstacle preventing him to remember the rest of the information. On the other hand, the electronic tests are concentrated on many multiple partial questions that would accurately and objectively measure the student's level of knowledge.

After the students finish the test, the grades are appeared automatically on the website, which enables each student to preview his or her grade as well as the questions he or she answered wrong with correction within his or her account, and there is a possibility to add essay questions. but correcting them is not automatic. it is recommended that the questions shall be varied, and not limited to essay questions that strengthen the faculty of memorization. Yes, but it results in dull thought, a student is concerned only with copying information in a literal manner and then pasting it on a paper seeking for getting the full mark, without leading for creativity, ingenuity, mindfulness, rational judgment, or the approach of information to reality, Which is the most important that the non-essay questions can achieve; this is probably why they have become so widespread lately because of their full objectivity, the inclusiveness of all the vocabulary of the course, and the ability to measure the levels of the cognitive field of recollection, comprehension, and application (Training and Development Unit, 2021).

Electronic Monitoring: These tests are conducted on a mobile phone or in a computer lab, every student log in Learning Management System (LMS) for the language curriculum of the educational institution, once the student clicks on the test file, time starts counting automatically, the student is supposed to answer all the questions before the time up or only the answered questions will be counted. Questions appear in random order among students, which decreases the cheating possibility, teacher of the course can control the setting to show the result directly after each question with a pop-up message that shows the correct answer if the student makes a mistake, with visual effects (Smiley symbols) in proportion to the age group of the student, some of which are encouraging when the student chooses a correct answer and some others are sympathetic when the
student chooses the wrong answer. It is worth noting that such effects left a nice effect on the learner (Alruwais, 2018), making him accept his mistakes without resentment and aims to correct them.

The course teacher can follow the test progress on his mobile phone screen, through a table that includes the students’ names and enrollment numbers, if he found any student violates the test conditions by, for example, testing from outside the classroom or trying to cheat, the teacher can directly cancel the test for that student, he can also know the slow student to urge him to be fast in answering so he won't miss the time. This table monitors moment by moment students' performance to answer questions, in the last row of the table there is an average percentage of student performance per question (See figure 1).

Ensuring the quality of university exams gives a positive impression of the smooth progress of the educational process during the whole academic year. Therefore, educational institutions, whether universities or schools, aspire to achieve the highest levels of professionalism in exams.

Renovation and converting from paper tests to online tests have serious caveats that teachers should be aware of and consider before embarking on this type of test, including, the ease of students moving from the test tab to other tabs, ability to take a screenshot when the test is in the mobile phone, but they are manageable and avoidable matters, by alerting students with the necessity of putting their phones on the table and not to touch it with hands, in such a way, screens will be exposed for the observer, and fortunately, there are modern apps such as (App Store preview), but they are only available on (iOS devices), got over such a problem in their settings, so the student cannot leave the test tab or take a screenshot. There is an ability to add an online cheating detection feature in (Online and Computerized Exams) website, which enhances the electronic monitoring, and the teacher becomes able to observe students from his mobile phone without the trouble of tracking students and following their phone screens.

**Electronic Assignment**

As Virtual Learning Environments (VLEs) become widespread and accessible, it became a necessity to activate and use them to develop the learning process (Abou Saif, 2019). but some may think that this type of electronic homework is disproportionate to the language course that requires handwriting to improve it. However, there is no conflict between the two, the student can write the homework manually and then photograph it and upload it as an electronic copy on the site, so the student does not have to bring a paper homework and the teacher relieves from the burden of carrying the paper homework in each session but all will be saved on the website with the ability to load them into external files for further preservation. The teacher also can record grades on the website to be available for him and the student can return for them to revise his mistakes and the important notes, while that is not available for him with paper homework that usually remains with the teacher, aside from the possibility of losing the paper homework after delivery regardless the reason or the student though that he delivered the homework when he did not, so the website is a reference that cannot make mistakes.

A Practical Example of the Art of Listening: Its purpose is to guide young people to this new and unique type of knowledge acquisition through electronic listening, as possibilities of listening
are more available than possibilities of reading, one can listen while walking, before sleeping or while enjoying watching the natural, etc.

Reading without language knowledge may expose students to make some linguistic mistakes. while listening to a proper language strengthens eloquence for students, so they can later speak with proper standard language as a result of proper eloquence formed by listening, the way our ancient ancestors mastered it through listening. This homework aims to develop different skills for students, which are: Listening, writing, reading, and speaking.

Mechanism: The students are instructed towards a group of smartphone applications and websites that include (audiobooks). Each student will be tasked to listen to an audiobook that is at least eight hours long, then summarize the content of the audiobook within five pages, provided that the summary is handwritten exclusively typed. The student must ensure linguistic integrity while following the instructions and provisions of calligraphy. After finishing the summary, the student shall read and voice record his/her summary to ensure the integrity of his/her pronunciation and articulation of sounds, then the student shall download the voice record on the website to be evaluated and to make notes according to it, which will be available for the student to view so he/she can overcome and avoid any issues. The student also must upload an electronic version of his summary on the website for review as well. When the deadline of task is due, the website is automatically shut down, and any student, who is late for submitting his/her task, won’t be able to upload the summary and voice records on the website unless the professor extends the deadline for specific reasons he/she decides.

The interactive side of the task includes a conversation around it on the website through chatting or a WhatsApp group to make the students interact and communicate with each other and the professor. The students inquire and share their different points of view, as these unique online tasks inspire students with enthusiasm and motivate their competitive spirits to make them do the best they can, thus making them benefit from this on a large scale.

Method
The Methodology is the deductive method, starting from studying an effective model for teaching mechanisms of the language in an interactive electronic way and ending with developing a comprehensive and integrated final perspective. The researcher depended on several methods: my electronic classes which contain more than 300 students every semester, using all capabilities of LMS, reading the most important references about this topic, watching the modern videos about distance exams.

Participants
The Major sample of the study is the students of both genders from Al Yamamah University, numbered about 600 students over the year 2020-2021. The students speak Arabic, while being unspecialized in Arabic language study. Students who are speakers of other languages than Arabic are added to the sample, numbered twenty students. The research instruments were the Non-Directive Interview with some fellow teachers who enriched the research by their views, thoughts and experience, as well as several electronic tests and assignments for students.
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Findings

Previous studies are affected by their limitation to theorizing without implementation, as they lack practical live experiences that pave the way for those who are willing to develop their methods using technology, like those who complain about the failure in moving towards e-learning and call for overcoming without suggesting practical steps for such transformation. Therefore, the previous studies predominantly use a descriptive method in defining the problem (What), and causes of the problem (Why), but it does not go beyond that to tackle answering the most significant question (How). The scientific study that does not fulfill to answer these questions (What, Why, How) are considered incomplete and unproductive in a sufficient way.

We were impressed by the character of the dignified, sober, knowledge-abundant, quiet-talking teacher who had the ability to speak for one or two consecutive hours, self-proud for his richness of cognition and extensive knowledge. Nevertheless, many of this generation believe that this is babble leading them to boredom!

Some teachers may turn a blind eye to innovation and the use of technology because they do not put in an effort while using the traditional method they used for many years. Furthermore, they refuse to get out of the comfort zone that they used to. Hence, this is the conservative reaction to this kind of contemporary teaching, as People fear what they are ignorant of. It is human nature to concentrate on what they know and what they had to experience. The role of the educational institutions is to establish training courses that increase awareness of the importance of activating electronic capabilities and qualifying faculty members to make them easy for them to use. (Haﬁdhi, Abbasi, 2021)

Some of them suppose that the technology will play the role of the teacher. But this doesn't make any sense and is unreasonable for many reasons, the most significant of which is that preparing this kind of Interactive E-Courses will take much longer time than the traditional courses. Although learners may feel comfortable with it later, the role of the teacher is necessary and indispensable, but this time as a guide, instructor, and supervisor, not just a teacher (Halima, 2018; Sanusi, 2014). On the other hand, this curriculum cannot do anything without the teacher because it requires development and changing such as canceling, adding, and simplifying part of the curriculum in a way that keeps pace with ongoing technical developments.

It is no longer exaggeration to state the shocking and regrettable fact, of no without benefit, that time of using paper - which we were pleased and satisfied to touch, preferred better than anything and in which we found gratification - has gone to be replaced by today’s generation which prefers touching smart devices rather than paper, feeling excited and enjoying. Driven by these needs and new trends of today’s generation, we are obliged and required to digital transformation appropriate for them. It does not harm to do this as long as “The whole matter and the aim to which the speaker and the listener proceed is only understanding and explanation. Thus, when you reached understanding and clarifying the meaning of anything, this is the statement and declaration of this thing” (Al-Jahiz, 1926, p56). Therefore, the interconnection between both teacher and learner, whatever named, (speaker and listener, questioner and responder, sender and receiver ...), derives its significance through its ability to “explain”, by which the educational aim is realized.
Discussion

This experience of interactive e-teaching of the Arabic language indicates the many advantages compared to traditional teaching, such as being suitable for the nature of this generation for having visual and auditory effects, which make it easier for the student to acquire information, save effort and time and make him feel excited during educational attainment using smart devices. In addition, they facilitate identifying strengths and weaknesses to overcome them and achieve optimal Course Learning Outcomes (CLOs).

In terms of electronic exams, it was indicated that the feeling of anxiety and stress usual for students became lower than in traditional exams and that the level of understanding and analysis became increased in addition to reducing disadvantages of memorizing and rote learning. Monitoring also differed compared to the past, as tests are conducted on smart devices, which created the concept of electronic monitoring. The professor can control students’ exams from his private laptop, in addition to monitoring their screens presented on his device, while setting before his table. Furthermore, there is the ability to present the exam and the student will be unable to exit it to browse another window or use the internet, or even take a (screenshot) if using the mobile.

Conclusion

This research aimed to create a smart electronic course, which simplifies the information, and reduces the time and effort in acquiring it actively and interactively, with the implicit message that all courses should be updated and improved to a modern ornament that suits the learner's psychology, inclinations, and possibilities. Driven by the pilot live experience in Al-Yamamah University to teach language in an interactive electronic method, the research concludes that The process of transformation from traditional education to interactive e-learning requires the teacher to be provided with technological knowledge to empower him to prepare classes and information architecture and to harmoniously manage them, which enhances the principle of interactive self-learning for students.

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Appendixes

Electronic Exams
Figure 1. Report of Exam

Overall number of students achieving grade ranges

Figure 2. Grade Ranges