

## Proposing a Blended MOOC Framework for Iraqi Higher Education (Current Status, Needs, Challenges, and Opportunities)

Qusay Abboodi Ali<sup>1\*</sup>, Norshuhada Shiratuddin<sup>2</sup>

<sup>1</sup>Department of Computer Science, Tikrit University, Iraq

<sup>2</sup>School of Multimedia Technology and Communication, Universiti Utara Malaysia, Malaysia

**\*Corresponding author**

*Qusay Abboodi Ali*

**Article History**

*Received: 08.02.2018*

*Accepted: 15.02.2018*

*Published: 30.03.2018*



**Abstract:** There are many challenges and difficulties faced by the Iraqi learners in their studies inside the traditional classroom. These are attributed to a number of reasons such as the limitation of time, the difficulty of understanding the course material, the limited interaction among the learners and between them and the lecturers, and the delay in providing feedback, and so on. The emergence of Massive Open Online Courses (MOOCs) had an impact on the learning process for the past few years. Yet, there are still a number of questions about how to meet the learners' needs of through distance learning via MOOC particularly for the Iraqi learners, as evidenced by the very high drop-out rates in the current MOOC courses. The researchers also do not understand deeply the learners' needs, the different learners' cultures and experiences in MOOCs. To help build such a concept, the researchers of this study conducted an in-depth investigation on the motivated learners and their perceptions and experiences of learning by a qualitative survey (interviews) at Baghdad & Tikrit Universities. The aim of this study is to examine whether Iraqi Higher Education Institutions need blended MOOC to support the traditional learning in Iraq. The results display that the majority of the participants need the blended learning to reduce the obstacles and challenges in the traditional learning and current MOOCs models. The findings also disclose that the students prefer learning through blended learning based on their environment (language and culture) rather than the current MOOCs courses.

**Keywords:** MOOC, BMOOC, UX, VLE, Traditional Learning, Online Learning, HEIs.

### INTRODUCTION

Iraq has a large number of public and private universities in the academic and scientific fields. The total number of universities approved by the Ministry of Higher Education in Iraq is more than 25 (235 college) distributed all over the country [1]. Indeed, the traditional learning approach in the Iraqi universities face many challenges such as learning management, activities, teaching methods and learning methods. In addition, the lecturers and learners face many challenges in the traditional learning such as information retrieval learning in real-time, interaction, collaboration and many others challenges [2, 3]. Besides, IT facilities are available in each Iraqi university such as computer, Internet laboratories, learning facilities, multimedia tools. Therefore, the universities need to develop and manage the aspects of effective learning environment to reduce the resources of traditional learning and to increase the level of online learning environment [2, 3].

Massive Open Online Courses (MOOC) help many individuals to overcome the obstacles in the traditional learning and they also give motivation for the learners to learn and obtain knowledge. The phenomenon of MOOC is understood as a possible solution to overcome certain problems in the traditional learning such as the learning methods, the traditional teaching methods, the cost, and the infrastructure development. Although models of current MOOCs have been approved on in the world, researchers in the educational field know very little about the learners' experiences and their needs during MOOCs courses as well as how these courses can address those needs based on the learners' experiences. Despite the point that efforts have been exerted to understand the user experiences (UX) [4-8], still there are questions on how these courses satisfy the learners' needs based on ux, culture and language, as evidenced by the very high dropout rates in these courses [16]. Yet, these MOOCs models still focus on the traditional education models (i.e. the traditional teacher-centered) so far and they neglect the learner-centered model [9, 10].

Furthermore, there are pedagogical discussions on the MOOC challenges such as openness issues that include a number of points: a) the variety of MOOC participants [11], b) lack of balance between the online experience and offline learning experience [12], c) lack of integration among the MOOC courses and the higher learning system [13, 14], d) the MOOC syllabus is not synchronized with the required universities curriculum for credit [12], e) lack of effective feedback and assessment [11], f) lack of interaction with the video lectures [15], and g) adopting teacher-centered learning process (centralized learning model) [13, 16]. In addition to what have been mentioned, MOOCs face high drop-out rates of course participants due to the complexity in the courses and the diversity of MOOC learners' perspectives [17, 18]. The culture and level of language skills result in misunderstanding of the video content [9, 19]. Although many studies have looked at some issues such as the learners' retention and participation, little research has been directed to study the learners' motivation and user experience (UX) in these courses (MOOC) [20, 21]. Milligan stressed that understanding the nature of the learners and their participation is critical to the success of any provision of online education. Therefore, to eliminate these challenges in MOOC, it is important for learners to interact with the video lectures. MOOC providers must focus on the diversity of languages and cultures. Also, learners must be guided in interaction with MOOC courses as an effective solution for the problems in the traditional learning.

However, a new strategy must be defined to improve the performance of the Iraqi educational institutions and to keep up with technology in the world. In addition, it helps the learners to reduce the use of the main sources of the traditional learning environment. This is considered an important advantage to promote the learners to study inside their countries and not to study in universities abroad. The learners at Higher Education Institutions (HEIs) in Iraq are looking after using new learning methods in the MOOC to help reintegrate the civilian life and continue their education based on their needs [22]. A note worth stating is that the HEIs in Iraq have undergone a series of reforms to improve the Iraqi educational environments through meeting the challenges that hinder the improvement in the educational level [1].

Therefore, this study aims to propose a blended MOOC framework for HEIs in Iraq via examining whether Iraqi Higher Education Institutions need blended MOOC to support the traditional learning. This blended learning can be combined together by MOOC components and face-to-face learning (the traditional learning). Hence, the blended course can be used to build a successful hybrid learning course based on the learners' needs, culture, and language in the learning process.

## **LITERATURE REVIEW**

Massive Open Online Courses (MOOCs) are accessible for a large number of participants from different countries. MOOCs support learners to actively engage in learning and construct their own learning experience in a set of domains regardless of any tuition fees, entry requirements, age, location, income, and education background [16]. Yet, most MOOC models still focus on the traditional education models (i.e. traditional teacher-centered) so far. They neglect the learner-centered model (i.e. learner culture, language, needs, perceptions, and experiences) [9, 10]. In addition, Different criticisms on the use of MOOCs have been raised despite their popularity [16].

From other side, the blended learning approach refers to the integration of the classroom interactions (face-to-face) with online learning lectures (i.e., learning via technology). This improves the learning process and meets the students' educational needs [22]. Researchers such as Graham & Drysdale confirmed that although interest in blended learning is high in the world, efforts started to integrate and apply the theories in the blended learning domain [54, 55]. Early research in the blended learning field explored the best results for designing web-based learners' interactions in the learning process [56, 57]. This combined online learning management systems with the traditional curricula (Classroom) [58, 59]. It also identified the role of technology based on learning in facilitating the different ways of knowledge [59, 60]. In addition, Anant Agarwal (CEO of edX) confirmed that the higher education institutions and MOOCs providers were moving for adapting and creating large MOOCs classrooms so as to create a blended model of MOOC [61]. This was a great opportunity to resolve the hurdles that face MOOCs and traditional learning in the learning process.

### **Information Technology Community in Iraq**

In recent years, the information technology has become one of the most important factors associated with the development of Iraqi society. It has been growing very quickly among the users in Iraq. The number of users began to increase after 2003 [23]. Recently, the online status and access to the social media have been greatly improved. The last data was collected on civilian by the internet in 2009. At that time, nearly 325,900 Iraqis used the internet at home in each city to take the rank 126th so as to reach to the global internet [23]. Also, there are more than 26 internet service providers in each city [24]. This shows a significant improvement in the use of information technology in Iraq [25].

A major shift has been occurred in the Iraqi society over the past five years with regard to how to deal with two issues: (i) the modern technology through the acquisition of personal computers and (ii) the internet factor as a primary source of daily life. Most of

Iraqi individuals use the internet daily particularly in the higher institutions in Iraq [26]. These institutions provide all the means of the information technology such as the computers labs, the internet availability in all the Iraqi universities, and the daily correspondences among the universities [26, 27].

### **Effect Culture on Learning Process**

Learners of MOOCs have different cultures which reflect the cultural differences of these learners across the Internet. Moreover, certain issues would also be highlighted such as the use of language and communication tool, time zone differences, and multicultural content with respect to learning offers [40-42]. based on [43, 44], the Chinese learners involve in an online learning in the American universities and face social and cultural factors such as the educational patterns and the rules of school, language, and cultural values.

Moreover, the learners of MOOCs participate from all over the world. They speak English in different levels based on their different cultures. Thus, the examples used in MOOCs or bMOOCs should be presented in such a way that can be understood by everyone regardless of the cultural background. Also, developers should consider the variety in the cultural values such as everyday objects, animals, symbols and food [62, 19]. In addition, the level of language skills can be a source of misunderstanding in the video content in the courses [9, 19].

Moreover, the issue of language is very important by which the current MOOC does not consider the different languages of the learners as not all the learners are native English speakers. Therefore, using one language for the course such as English is one of the influential factors for the learners to learn the curriculum in the learning process [45].

### **Effect UX and VLE on Learning Process**

MOOCs have been accepted in the community and this phenomenon is really a scientific invention. Yet, researchers know very little about the learners' needs and when they study via MOOC as well as how successful is the MOOC to meet their cultural needs. In comparison with the long-learn concept of a virtual learning environment (VLE), MOOCs are considered a relatively new phenomenon. It differs from the learning environments in several ways such as the scope and level of learners, control and flexibility, the roles of the instructor and learner, and the learners' motivation and results. Despite the point that an investigation has been conducted to understand the user experiences (UX) for these environments [8, 6], [7, 5], there are differences in UX cases in these environments. Thus, educators called for a study to examine the user experiences in the context of MOOCs [21, 28]. Milligan discusses that understanding the nature of the participants helps provide effective courses in the MOOC [21].

Moreover, there are a lot of high dropout rates in the MOOC [20, 29-31]. As a result, it is difficult to completely capture user experiences associated with retention course problems. Besides, many important ideas have been neglected particularly those ideas associated with the expertise of the user [32]. A few years ago many studies have been using the method of data to investigate the registration and retention within large data groups [33-35]. However, an attention should be given to the learners' motives, the perceptions and experiences of learning in MOOCs, and understanding how to act with learning components that could lead to lower high dropout rates.

Virtual learning environments (VLE) have been developed from the learning management systems for opening the current courses source (e.g, Moodle) [36, 8]. Besides, they have been adopted most by (HEIs). The MOOCs present educational advantages in the educational environments which are similar to the virtual learning environments. In terms of the educational differences, MOOCs have been designed and implemented differently because of the openness. Moreover, MOOCs are separated from the aforementioned environments based on certain characteristics:

(i) The aim of MOOCs is to make the course content available to a great deal of individuals as much as possible. The number of learners in MOOCs usually ranges from tens of thousands to hundreds of thousands the scale of VLE is usually close to the traditional classroom and is smaller than MOOCs at the same time. Hence, MOOCs need to be designed differently to accommodate a large number of learners. Therefore, the instructors of MOOCs are expected to play a role in the practical training and provide personal feedback in the learning environment. Besides, the learners in MOOCs environments take a greater role in shaping their own learning experiences [36]. For example, in a MOOC, the instructor works more as a facilitator [37, 38, 36], to strengthen the area of learning connections. In addition, the instructors often rely on the automatic evaluation and grading peer instead of providing feedback [39].

(ii) The essential task of MOOCs is to provide the subjects freely and openly accessible to the general public, while VLEs are adopted by HEIs on the basis of the traditional university course scheduling, format, and registrations [8, 6]. Therefore, most of learners cannot choose the VLE that suits their needs and they only obtain a certificate of completing the MOOCs. In this vein, the participants in these environments are captive audience [8] and the learners cannot choose the favorite VLE, but must use the learning content and online tools to learn only. Open Nature's MOOCs create residents who select themselves to participate in this approach for the learning purposes [36].

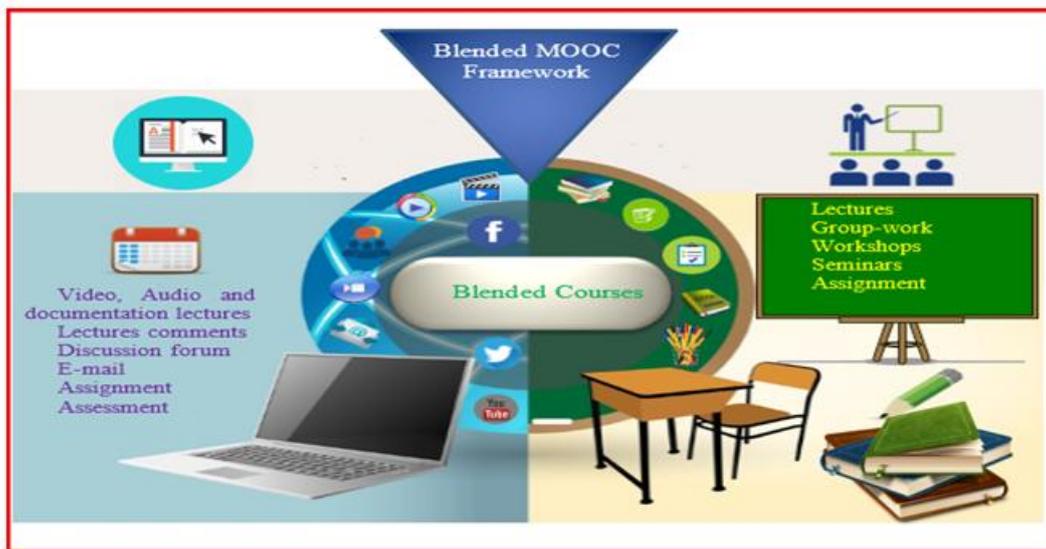


Fig-1: Proposed Blended MOOC Framework

This learning framework aims to integrate classroom interaction methods with online interaction methods to increase the interaction with the material. Therefore, the blended course can be used to build a successful hybrid learning course between the traditional learning and the learning via MOOC. This type of learning (blended learning) helps the lecturer to save the lecture time for meaningful discussion and identifying and clarifying misconceptions. In return, it solves the problems related to the limited interaction and increases the participation in the classroom (i.e the traditional Learning) and in online learning (i.e. MOOC) in the same time. Therefore, this blended framework resolves some of the obstacles that face MOOCs. Moreover, this blended MOOC framework brings the human interaction to the natural MOOC environment. It also promotes student-centered learning, supports the interactive design of the video lectures, provides effective assessment and feedback, and

considers the diverse perspectives of the MOOC participants. Besides, this framework clarifies many aspects that should be taken into account to develop MOOC based on blended environments. Thus, this study aims to determine the Iraqi learners’ needs for the blended MOOC based on their cultures and experiences with the current MOOC courses. This creates knowledge and high interaction among individuals in addition to sharing news, communicating or exchanging ideas, exchanging and commenting among themselves anywhere and anytime. This reduces the expenses of the traditional learning environments in the Iraqi universities and overcome the obstacles and challenges in the traditional learning.

**RESEARCH METHODS**

This study is conducted in different colleges at Tikrit & Baghdad Universities. The participants of this study consist of 18 respondents as in Figure-2.

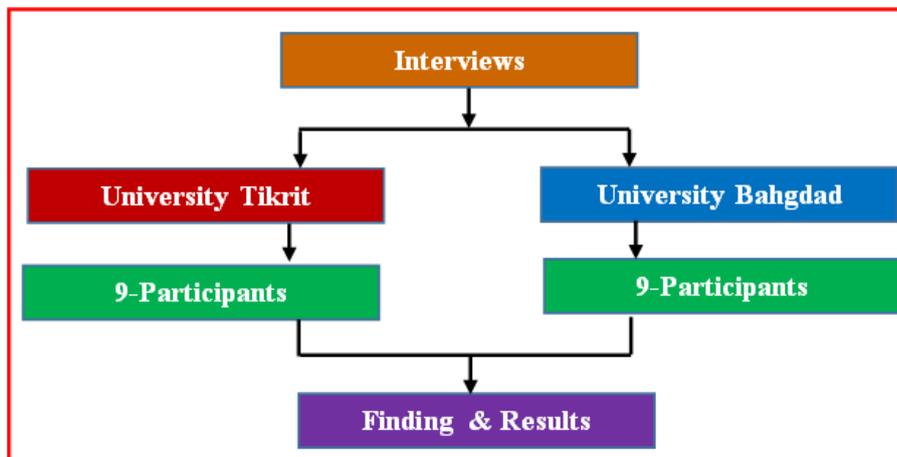


Fig-2: Research Method Approach

They are as follows: (a) 12 undergraduates, (b) 1 MA and 2 PhD postgraduates, and 3 lecturers. The researcher has posted an announcement in the colleges of Tikrit & Baghdad universities about blended learning. The interviews are semi-structured. They are

conducted with the interviewees by face to face, viber, facebook and skype. The researcher has gathered a demographic information about each participant (e.g., gender, age, occupation and specialty) as stated in Table-1.

**Table-1: Participants Demographic Information**

Respondents	Occupation	Gender	Age	Nationality	Interview	Specialty	Classroom Subject
R1	Undergraduate Student	M	22	IRAQI	Fact to Face	Computers science	Java programming
R2	Undergraduate Student	F	23	IRAQI	Skype	Computers science	Human Computer Interaction (HCI)
R3	PhD student	F	30	IRAQI	Fact to Face	Accounting	financial
R4	PhD student	M	34	IRAQI	Fact to Face	Economy	International economy
R5, R6, R7	Prof, Ass. Prof, Ass. Lec.	M,M,F	38,36,29	IRAQI	Fact to Face	Business Computers science Pharmaceutics	Management, Networking, Pharmaceutics
R8	Undergraduate Student	F	22	IRAQI	Whatsup	Business management	Human Resource Management
R9	Undergraduate Student	F	22	IRAQI	Skype	Computers science	Social Network Analysis
R10	Undergraduate Student	M	23	IRAQI	Fact to Face	Computers science	Basic JavaScript
R11	Undergraduate Student	F	21	IRAQI	Fact to Face	Mathematics	statistics
R12	MA student	M	27	IRAQI	Fact to Fce	Computers science	IT (Research methodology)
R13	Undergraduate Student	M	22	IRAQI	Facebook	Engineering	architectural design
R14	Undergraduate Student	F	22	IRAQI	Fact to Face	Computers science	Web Development
R15	Undergraduate Student	M	24	IRAQI	Viber	Engineering	Communication
R16	Undergraduate Student	M	21	IRAQI	Fact to Face	Computers science	Database (sql server)
R17	Undergraduate Student	M	22	IRAQI	Fact to Face	Computers science	Java programing
R18	Undergraduate Student	F	23	IRAQI	Fact to Face	English	Grammar

Furthermore, the researchers have interviewed the participants to investigate the needs of Iraqi Higher Education Institutions for blended MOOC to support the traditional learning. Each interview took around thirty minutes to an hour. All of the interviews are written. The interviews have provided rich information about the respondents' opinions through six questions. The interviews have provided rich information about the participants' opinions on certain issues such as fulfilling

the current needs, connecting with others, course content, lack of pressure, communicating with community, Manage Learning Time, the bMOOCs as in classroom, and Interaction with Peers. These factors are obtained from the participants based on three important issues: a) classroom challenges, b) current MOOC challenges, and c) bMOOCs as an opportunity to support the traditional learning as reported in Table-2.

**Table-2: Participants Demographic Information**

Issues	Factors	NO	Questions
<b>Classroom Challenges</b>	1. Fulfilling Current Needs	Q1	What challenges or obstacles have you encountered in the classroom or with your lecturers? (Can you cite some specific instances of these obstacles?)
	2. Connecting with Others	Q2	Do you use social media or internet technology to discuss the learning material with your friends or lecturer (Email, viber, whatsApp and facebook)?
<b>Current MOOC Challenges</b>	1. Course Content 2. Lack of Pressure 3. Communicating with Community	Q3	How do you describe the current MOOC courses? Explain the positive and negative issues, please?
<b>Blended MOOC as an Opportunity</b>	1. Manage Learning time	Q4	Do you think the blended learning via MOOC will help you to manage your time, information, plan and resources, and evaluate your own work?
	2. The BMOOCs as in Classroom	Q5	Do you support the existence of blended learning in your university based on language and cultural factors? (Please clarify your opinion on this issue).
	3. Interaction with Peers	Q6	Do you support the design of blended learning courses in your university that can help you to increase the interaction with your friends and other learners from another universities in Iraq? (Please explain your opinion on this point).

### DATA ANALYSIS

The researchers of this study have applied the grounded theory in this interview. This method emphasizes the processes at one time for data collection and analysis [46]. The initial analysis of the data sessions is conducted after the first few interviews to determine the core issues. Learner motivations, perceptions, and learning behaviors are identified as the key concepts from the first stage of analysis. When those main themes are identified, axial coding is used to identify categories. Themes and categories are further refined through an iterative coding process that involves all the authors. The results presented as a coding guideline are used to guide the next round of coding. When the second round of the analysis is not able to find a new concept, this means it demonstrates the saturation of the theory [46].

### FINDINGS

This section shows the findings of the interviews which highlight the main issues arising from the interviewees' responses based on the following six questions reported in Table (1.2).

#### Classroom Challenges

##### Fulfilling Current Needs

Traditional learning content is often difficult and fast-paced by lecturers. This might make it difficult for the student to keep it up. Blended MOOCs can cover the areas of similar themes to provide high-level overview that helps the students to understand the content of their college material more quickly. For instance, R1 has taken the Java subject. He has stated that he finds it difficult to completely understand the program concepts during the period of the traditional education. Thus, he is encouraged to engage in MOOC,

to help him succeed in the Java programming. He has stated that,

*"The traditional education in the college cannot cover all the knowledge in particular and the students have their own perspectives about the subject content. Thus, we need an approach parallel to the traditional study to help us understand the class material more accurately"* [R1].

In addition, some students have noticed that the content of the subject in class does not meet their needs well enough and they want to know more about it. A case in point is R2 who is an undergraduate student who has taken HCI subject in the classroom. She has stated that, *"I do not understand some of the concepts in the subject HCI, so I need to repeat the lecture again until I can understand the other concepts and this is not always available in the classroom."* [R2].

#### Connecting with Others

Most of the participants have illustrated that they prefer to ask questions, search for answers, help others, or cooperate with the members of the group through the tools or the internet sites without depending on Facebook, Viber, and WhatsApp. This is due to the issue that these tools are not suitable for learners. For example, R14 is an undergraduate student who has stated that, *"When I encounter a problem in my studies, I search in Google first. If there is no answer, then I use Facebook or Viber to communicate with my friends. This is mainly due to the absence of some means (such as MOOC or bMOOC) whereby one can communicate with others in spite of the availability of the internet and all the means of information technology such as laboratories, computers and others in the university"* [R14]. Also, R9 is an

undergraduate student who has used YouTube and observed lectures on Monday morning. She solved the exercises during the lecture in the classroom, but faced some problems such as the different concepts in networks between YouTube and lecture in class.

### **Current MOOC Challenges**

#### **Course Content**

The common motivation for students to enroll in MOOC is the current conventional completion that are taken by that. For instance, R9 has clarified that, "*I was so excited to resolve exercises during the lecture. I do not know some of the concepts in the social network analysis, but recently I have enrolled to the one of MOOC courses. Based on this course, I am able to solve some of the duties and discussions at the same time. Yet, not everything available in MOOC is linked to my classroom. In addition, I look again to participate in one of MOOCs such as coursera and EDX courses, but I'm afraid of the problems I might face with regard to different lecturers and language*" [R9].

Through the survey of this study, the researcher has found also that some participants have already joined the MOOC; yet, they have left some courses after few days. This is because they are too hard to follow due to certain reasons such as the language, the high level of the courses, time constraints, and they are not linked to the traditional academic classroom in Iraq.

R15 has joined one of the MOOC courses (communication) and he states that, "*I joined the communication course in one of MOOC courses, but after a week I decided to discontinue with this course. This was attributed to some reasons such as travelling, preparing for the final exams during the final weeks of the semester, and there was no link between the traditional classroom in my college and the MOOC course. In addition, I was suffering from the language differences and the high level of the course*" [R15].

#### **Lack of Pressure**

The other reason for leaving MOOC is the lack of pressure to complete the free course. That is, there is no link between MOOC course and classroom. For instance, the learners who joined a one-time MOOC can usually access to study materials at any time and even after the formal course. They do not need to finish the course in the limited time if their goal is to learn a certain issue. R16 has illustrated that, "*I joined the database course in the MOOC, and you know that the video does not disappear if you miss the deadline of the course. You still have access to it. There is no pressure by the lecturers in the semester to fulfill this course, so I feel free to join or not join this course.*" [R16].

Furthermore, most of the participants have decided to leave the MOOCs because they have no

effect on their academic marks at the college, or they do not provide an assessment on their jobs at the college also. Besides, they find that there is no need to complete the course and there is no connection between these courses and the classes at the college, which will be a strong factor to leave the course content. Besides, R17 has illustrated that, "*I joined the MOOC as nobody asks you to complete the course. In addition, the results of the session do not affect the outcome of the GPA at the college and the reward in these courses is just a certificate at the end of the day*" [R17].

#### **Communicating with Community**

The sense of community helps the students to be involved in a particular session and to strengthen the ability of learning [35]. In this respect, we have also found that the lack of community interaction may lead to a lack of learning. For example, R18 has demonstrated that, "*When you answer the question correctly, the instructor will praise you (encourage you) in the classroom. Also when you do an excellent work to achieve a particular task, all the friends in the class will provide comments to encourage you. Besides, when you have a good idea, you will feel proud of it. Yet, you feel nothing in the current MOOCs because you are alone*" [R18]. However, the majority of respondents stated that they do not feel that there is a sense of community when they join the MOOC. Therefore, most of the participants would like to find a bMOOC to connect between the classroom and online learning.

#### **Blended MOOCs as an Opportunity**

Many exciting learning patterns of interest from our interviews showed that different participants may have different motivations to take any particular MOOC. Some participants prefer that bMOOCs be a regular classroom and in the same college timetable. Others participants prefer to have an appropriate mix of learning (bMOOCs) based on their current needs.

#### **Manage Learning Time**

There is other motivation to the interview which is more typical for the PhD and MA students and others to gain knowledge that allow them to achieve the best for the current study. For example, a new project or an innovative idea may require a new kind of skill or need the use of a new tool to create specialized and detailed data analysis environments. Participants felt that the material available on the internet were more effective and efficient to acquire knowledge.

Two rationale issues underlie this motivation: (a) although the students join regular classes to acquire the necessary knowledge, but the traditional classroom requires a lot of time and effort. For example, R3 is an employee who is a PhD student and works in the university at the same time. She needs to learn the statistical analysis to analyze the data of her study. She joined the class of statistics, but she abandoned it in the second week because the class required her to attend three times a week. That is, she needed to spend 30

minutes to go to each class. After the end of the school day, she needed to return to work in the campus quickly to manage the work and meetings for her work. The time was running out very fast, so she abandoned the group and bought a book of statistics to learn and rely on herself. In addition, she used the internet to get information quickly. She has clarified that,

*"Currently, I study in a college to learn something on my research, but the classroom lecture does not answer all my questions and the time passes quickly. So I use the internet materials (Google Search) on the basis of research needs to learn whatever I want. Many of my friends (they are also PhD students) use the internet for research purposes, but there is no link between the internet and the lecture at the college. So I encourage to use the blended learning by MOOC "* [R3].

Moreover R4 is also a PhD student who has stated that, *"I always use the internet (Google) to find concepts about my research in international economy. Yet, not all the concepts are available in the internet; therefore, I ask my friends or go to the library to find the information I need. This takes time for collecting the information. I'm looking forward to shorten my time through designing a model on Internet for connecting all the students in the college to share their ideas and opinions, and this will help us to get the information we need"* [R4].

(b) With regard to blended learning, learners and lecturers tend to blended learning but on condition that the blended learning lecturer is the same lecturer of the traditional classroom. This encourages the learners to learn and it provides them with confidence for developing their skills and accomplishing better results in their universities.

Prof, Ass. Prof, and Ass. Lec. are lecturers at Tikrit & Bahgdad University. They have clarified that, *"We are unable to explain and cover all the details of the material in class because the time is limited. So, we recommend that the blended learning (bMOOC) supports the traditional learning in the classroom"* [R5, R6 and R7]. Many exciting learning patterns from the interviews have showed that different participants may have different motivations to take any particular MOOC. Some participants prefer that bMOOCs be a regular classroom and in the same college timetable. Other participants prefer to have an appropriate blended of learning (bMOOCs) based on their current needs.

### **BMOOCs as in Classroom**

Students strongly support the existence of blended learning within their university or other universities. This is what has been identified in most of the interviews conducted in this survey. This is due to the issue that language and culture factors have an important role in the learning process. Students wish to

have lectures in the same language (Arabic), which in turn will increase the interaction in the classroom and gain knowledge more quickly.

Furthermore, blended learning via MOOC supports the traditional learning in the classroom particularly when it links with language and cultures. Hence, blended can be used to build a successful hybrid between traditional learning and learning by bMOOC. This type of learning (i.e. blended learning) helps the lecturer to take advantage of the lecture time to discuss practicably, identify and clarify misconceptions, or guide the students' concepts based on their language. In contrast, it solves the problems related to the limited interaction and increases the participation in the traditional classroom. On the other hand, it sheds light on the use of social media to support the education because the social media allows the creation and exchange of information among the educators. This facilitates the interaction on the basis of the learning interests.

In some cases, the participants prefer to learn something in terms of their specific needs such as understanding the basic concepts, learning a specific algorithm, getting a general idea about a particular subject, or simply learning new material. For example, R10 only needs to know the basic concept of JavaScript. He has stated that, *"I just want to learn the basic rules of JavaScript in Arabic without participating in competitions, duties, and discussions. This is because I need to learn in the classroom. So I just want to watch the lectures and understand the Java basic. That's all"* [R10]. At the same time, R11 is an undergraduate student and she has also illustrated that, *"I need to learn the linear regression but in Arabic language from another resource to support the traditional learning in order to analyze the data only"*.

### **Interaction with Peers**

Some participants feel lonely when studying in the classroom, so they prefer to organize their own local study groups. For instance, there is a group of postgraduates from different departments such as Computer Engineering, Chemistry and Science information and technology. All these students have a same subject in their study (Research Methodology). A case in point is that R12 joined a study group consisting of 12 friends (MA Students). He has stated that, *"I organized a study group and sent an e-mail to all members to meet at the university library for studying the research methodology. We always meet to discuss the research methods, but every time someone from the group does not attend the meeting. Thus, I hope that if there is a way via internet we can meet by without bothering ourselves to attend the meeting "* [R12].

Moreover, R13 is another example who studies the subject of architectural designs systems. He has stated that, *"I organized a study group of friends in the*

*classroom. Architectural designs systems require to solve the assessment every day, so I invite all members of the group to my home to discuss the exercises. We hope that this meeting can be conducted through the Internet, rather than bothering friends to meet at home or anywhere else to learn something" [R13].*

One of the important topics is that the learners are encouraged to engage in bMOOCs sometimes to find peers with common interests. This is attributed to the point that meeting someone with someone else has the same mutual interests can make the learners feel happy.

R8 is a student who studies in the College of Management and Economics to get a Bachelor degree. After she had finished her study, she felt that she had a lot of spare time at her home and she felt that she was isolated from her friends. She had a friend in the same classroom and college, but in a different university and city. She was looking forward to share her knowledge with her friend by any way. She has demonstrated that *"My education by the traditional way was not enough to answer certain questions in my mind. At the same time I know some friends in other universities, and we have some interesting discussions by e-mail, Viber, Facebook, and WhatsApp. Yet, all of these tools are not sufficient in our scientific discussion and they are tiring at the same time. So I would be very happy to share my thoughts with another person through the educational means via the internet such as discussion forum" [R8].*

## **DISCUSSION**

The researchers of this study identified a number of different learning motives that are related to the traditional methods when learners learn in the classroom. The multiple factors are also described as threats or opportunities that affect the learners during the traditional learning or online learning. Previous literature does not focus exclusively on the motives of education [20, 29, 35, 21], but it deals with the concepts in general without an in-depth study of logic, which makes it difficult to determine the design features. The researchers of this study have attempted to analyze the general idea of the motive into many different justifications maintained by different types of learners. On the other hand, over the past decade, there has been a significant increase in the focus on the study of behaviors among the different cultures of the countries in the online learning systems. Previous researchers have shown that learners from different cultures behave differently when they use the electronic educational systems, especially in terms of their experiences in online learning via MOOC [21, 8], interaction [8], and cooperation [48, 35]. The designers should consider the different cultures of the learners to better understand their education. In addition, the researchers unveil that the country of origin affects the performance of learners in the MOOCs [49].

With regard to fulfilling the current needs, there are no serious steps so far to link the traditional education with MOOC via bMOOC based on the learners' culture and language although Iraqi universities have a good potential in IT filed. Hence, connecting the educational offerings (bMOOC) with classroom will have a great potential to help the learners to improve their lives. As it is suggested earlier, bMOOCs help the universities learners to understand their interests and realize their dreams. They can also be edutainment products to make the learners' life nourishing. From the researchers' view, bMOOCs are not merely educational resources. They should be viewed as a flexible integration of the educational content, the technology support, and the instructors' and learners' creations and activities. The primary mission is to better understand the learners' needs and to use that understanding to fit the elements together in ways that meet many types of needs. Therefore, a deeper understanding can be recognized of how the learners' learning helps us to design and deploy bMOOCs in more effective ways in Iraq. At the same time, the current MOOCs may be developed into a learning channel to help the individuals enrich a professional knowledge. Yet, they do not focus on the main features of education, different cultures, communities, the language, and the nature of society. Also, they are not connected with the traditional classroom and different lecturers.

Moreover, the learners' motives are examined with their views about the traditional classroom as well as their motivation to participate in the current MOOCs. This study also illustrates the point to the respondents that there are a lot of obstacles they might face them in the traditional education. Other participants might use third-party tools (such as Google Docs, Search, Facebook) to support the traditional learning or learning via MOOC. This result uncovers the flaws of MOOC platforms (e.g., the ineffectiveness of the discussion forums) and the defects of the traditional education as well. In other words, this study uncovers, through the survey, that the learners have resorted to the external tools (such as google, facebook, viber, WhatsApp,... etc) to help them in their learning, whether they are learning from the traditional classroom or from the current MOOC.

As mentioned earlier, the previous studies have confirmed the very low retention rates of MOOCs [20, 29, 50, 30, 35, 31]. This study recommends investigating deeply to better understand the motives of the participants in MOOC. In addition, the issue of retention should be addressed by the designers. Also, this study highlights the basic concepts such as user experiences, user culture, user motivation, user language, and the society the user belongs to. All of these concepts if not taken into account would result in finalizing the traditional education and MOOC.

The results of this study are consistent with the previous researches results that focused on the difficulty of learning [51], workload [52], and the lack of time [52]. These results are concerned with the traditional educational environments, MOOC courses and other factors such as the social influence, little or no communication among other learners, lack of pressure, and lack of communicating with community [20, 53]. Therefore, this study recommends to solve all the obstacles that Iraqi learners face in their education through designing a bMOOC based on their opinions and needs, which will be the link between learning inside the classroom and online learning. Finally, the results of this study show that they are positive as they highlight the need of Iraqi Higher Education Institutions for blended MOOC to support the traditional learning. The findings also disclose that the learners prefer learning through blended MOOC based on their environment (language and culture) rather than the current MOOCs courses. Consequently, this study provides evidences that show that there is a big need to use the blended MOOC in Iraq.

#### **CONCLUSION AND FUTURE WORK**

This study has used qualitative methods to examine whether Iraqi Higher Education Institutions need blended MOOC to support the traditional learning. Therefore, the findings of this study are important for determining the current situation of the traditional education by highlighting the motivation, opportunities, and the challenges the learners face, the learners' behaviors and concepts in the classroom, and the challenges and obstacles in the current MOOC courses. Thus, this study suggests that the researchers should consider designing the issues of bMOOCs in the Iraqi universities with regard to two perspectives:

(a) An attention should be given to the development of the current educational models (the traditional education) in the Iraqi universities through designing the bMOOC and connecting it with the classroom based on the needs and motives of the Iraqi learners. The researchers of this study confirm that the traditional education needs the bMOOC as a new type of education to help the Iraqi learners to overcome the challenges they face while they are learning by the traditional way.

(b) Providing a deep understanding of the design dimensions and components based on the society culture and experience, which is crucial for the development of bMOOCs in the future in Iraq. Besides, the results of this study showed that the majority of the interviewees (Iraqi students) need the blended learning to reduce the obstacles and challenges in the traditional learning. The researchers' future work will focus on the learner-centered MOOC via developing blended MOOC courses where learners can take an active part in the management of their learning environments into higher education context via increasing the interaction with video lectures and peers. Thus, it displays that a

further study should be carried out in understanding the learning components and design dimensions (Criteria) for blended learning. In conclusion, it is hoped that this study does not only demonstrate the potential and impact of blended MOOC in technology-enhanced and student-centered learning, but also provides a capstone for MOOC research in the field of blended learning into Iraqi education environment.

#### **ACKNOWLEDGMENT**

The researchers of this study are grateful to the Iraqi Ministry of Higher Education and Scientific Research, Baghdad and Tikrit universities, to support this study. In addition, thanks are also go to all participants in this research for their valuable comments.

#### **REFERENCES**

1. Zwain, A. A. A. (2012). *The Impact of Total Quality Management of Knowledge Management and Organizational Performance in Higher Education Institutions in Iraq* (Doctoral dissertation, Universiti Utara Malaysia).
2. Anter, S. A., Abualkishik, A. M., & Al Mashhadany, Y. I. (2014). Proposed E-learning system for Iraqi Universities. *Int. J. Sci. Res. Publ*, 4, 1-7.
3. Al-alak, B. A., & Alnawas, I. A. (2011). Measuring the acceptance and adoption of e-learning by academic staff. *Knowledge Management & E-Learning*, 3(2), 201.
4. Zheng, S., Rosson, M. B., Shih, P. C., & Carroll, J. M. (2015). *Understanding student motivation, behaviors and perceptions in MOOCs*. Paper presented at the Proceedings of the 18th ACM conference on computer supported cooperative work & social computing.
5. Zaharias, P., & Mehlenbacher, B. (2012). *Exploring User Experience (UX) in virtual learning environments*: Academic Press.
6. Müller, D., Law, E. L. C., & Strohmeier, S. (2010). *Analysis of the Persuasiveness of User Experience Feedback on a Virtual Learning Environment*. Paper presented at the I-UxSED.
7. Van Schaik, P. (2011). Unified theory of acceptance and use for Web sites used by students in higher education *Technology acceptance in education* (pp. 159-181): Springer.
8. Martin, L., Martínez, D. R., Revilla, O., Aguilar, M. J., Santos, O. C., & Boticario, J. G. (2008). *Usability in e-Learning Platforms: heuristics comparison between Moodle, Sakai and dotLRN*. Paper presented at the Sixth International Conference on Community based environments. Guatemala.
9. Hollands, F. M., & Tirthali, D. (2014). MOOCs: Expectations and reality. Full report. Center for Benefit-Cost Studies of Education, Teachers College Columbia University.

10. Schulmeister, R. (2014). The position of xMOOCs in educational systems. *eled*, 10(1).
11. Yousef, A. M. F., Chatti, M. A., Wosnitza, M., & Schroeder, U. (2015). A cluster analysis of MOOC stakeholder perspectives. *International Journal of Educational Technology in Higher Education*, 12(1), 74-90.
12. Bruff, D. O., Fisher, D. H., McEwen, K. E., & Smith, B. E. (2013). Wrapping a MOOC: Student perceptions of an experiment in blended learning. *MERLOT Journal of Online Learning and Teaching*, 9(2), 187-199.
13. Griffiths, R., Chingos, M., Mulhern, C., & Spies, R. (2014). Interactive online learning on campus: Testing MOOCs and other platforms in hybrid formats in the university system of Maryland. *Ithaka S+ R*.
14. Ghadiri, K., Qayoumi, M. H., Junn, E., Hsu, P., & Sujitparapitaya, S. (2013). The transformative potential of blended learning using MIT edX's 6.002 x online MOOC content combined with student team-based learning in class. *environment*, 8(14), 14-29.
15. Grünewald, F., Meinel, C., Totschnig, M., & Willems, C. (2013). Designing MOOCs for the Support of Multiple Learning Styles. In *Scaling up Learning for Sustained Impact* (pp. 371-382). Springer Berlin Heidelberg.
16. Yousef, A. M. F., Chatti, M. A., Schroeder, U., Wosnitza, M., & Jakobs, H. (2014). A Review of the State-of-the-Art. *Proceedings of CSEDU*, 9-20.
17. El-Hmoudova, D. (2014). MOOCs motivation and communication in the cyber learning environment. *Procedia-Social and Behavioral Sciences*, 131, 29-34.
18. Hill, P. (2013). Some validation of MOOC student patterns graphic (2013). Available: <http://mfeldstein.com/validationYmoocYstudentYpatternsYgraphic>.
19. Yousef, A. M. F., Chatti, M. A., Schroeder, U., & Wosnitza, M. (2014). What Drives a Successful MOOC? An Empirical Examination of Criteria to Assure Design Quality of MOOCs. In *Advanced Learning Technologies (ICALT), 2014 IEEE 14th International Conference on* (pp. 44-48). IEEE.
20. Adamopoulos, P. (2013). What makes a great MOOC? An interdisciplinary analysis of student retention in online courses. *Proc. of 34th Intern'l Conf. on Info. Systems*, (Vol. 2013).
21. Milligan, C., Margaryan, A., & Littlejohn, A. (2013). Patterns of engagement in massive open online courses. *Journal of Online Learning with Technology*, 9(2), 149-159.
22. Bonk, C. J., & Graham, C. R. (2012). *The handbook of blended learning: Global perspectives, local designs*: John Wiley & Sons.
23. Razak, W., & Abedalla. (2014). The Issue of Technology Implementation in the Classrooms in Iraqi Universities. *International Journal of Information and Communication Technology Research*, 4,7.
24. Issa, J. H., & Jamil, H. (2010). Overview of the education system in contemporary Iraq. *European Journal of Social Sciences* 14(3), 360-368.
25. Abedalla, R. W., Escobar, L. S., & Al-Quraishi, D. A. (2014). Accessing Information Technology-Social Media in Iraq. *International Journal of Scientific and Research Publications*, 4(9).
26. Raouf, J. B., Naser, I. S., & Jassim, B. K. (2012). Determinants of e-Learning implementation success in the Iraqi MoHE. *Eng. &Tech. Journal*, 30(4), 659-671.
27. Bedford, W., Gregg, J., & Clinton, S. (2009). Implementing technology to prevent online cheating: A case study at a small southern regional university (SSRU). *Journal of Online Learning and Teaching*, 5(2), 230.
28. Haywood, J. (2012). No such thing as a free MOOC. *JISC Blog*, 20, 2012.
29. Clow, D. (2013). *MOOCs and the funnel of participation*. Paper presented at the Proceedings of the Third International Conference on Learning Analytics and Knowledge.
30. Downes, S. (2006). Learning networks and connective knowledge.
31. Lewin, T. (2013). Universities abroad join partnerships on the web. *The New York Times*, 20(2013), 21.02.
32. Satchell, C., & Dourish, P. (2009). *Beyond the user: use and non-use in HCI*. Paper presented at the Proceedings of the 21st annual conference of the Australian computer-human interaction special interest group: Design: Open 24/7.
33. Huang, J., Dasgupta, A., Ghosh, A., Manning, J., & Sanders, M. (2014). *Superposter behavior in MOOC forums*. Paper presented at the Proceedings of the first ACM conference on Learning@ scale conference.
34. Mak, S. F. J., Williams, R. and Mackness, J. (2010). Blogs and forums as communication and learning tools in a MOOC. In *L. Dirckinck-Holmfeld, V. Hodgson, C. Jones, M. de Laat, D. McConnell, & T. Ryberg (Eds.), Proceedings of the Seventh International Conference on Networked Learning 2010*, pp. 275-284.
35. Kizilcec, R. F., Piech, C., & Schneider, E. (2013). Deconstructing disengagement: analyzing learner subpopulations in massive open online courses. In *Proceedings of the third international conference on learning analytics and knowledge* (pp. 170-179). ACM.
36. Yuan, Li, Powell, Stephen, & CETIS, JISC. (2013). MOOCs and open education: Implications for higher education. Cetus White Paper.
37. Cormier, D., & Siemens, G. (2010). Through the open door: Open courses as research, learning, and engagement. *Educause*, 45 (4), 30-39: Retrieved 2014/1/23 from: <http://www.educause.edu/EDUCAUSE+>

- Review/educauserReviewMagazineVolume45/ThroughtheOpenDoorCourses/209320.
38. McAuley, A., Stewart, B., Siemens, G., & Cormier, D. (2010). The MOOC model for digital practice.
39. Knox, J., Bayne, S., MacLeod, H., Ross, J., & Sinclair, C. (2012). MOOC Pedagogy: the challenges of developing for Coursera. *Recuperado el, 1*.
40. Yuan, L., Powell, S., & Olivier, B. (2014). Beyond MOOCs: Sustainable online learning in institutions. *Cetis. White paper. Recuperado de <http://publications.cetis.ac.uk/2014/898>*.
41. Liu, L., Maddux, C., & Johnson, L. (2004). Computer attitude and achievement: Is time an intermediate variable?. *Journal of Technology and Teacher Education, 12*(4), 593.
42. Xu, D., & Jaggars, S. S. (2013). Adaptability to Online Learning: Differences across Types of Students and Academic Subject Areas. CCRC Working Paper No. 54. *Community College Research Center, Columbia University*.
43. Wang, M. (2007). Designing online courses that effectively engage learners from diverse cultural backgrounds. *British Journal of Educational Technology, 28*(2), 294-311.
44. Chew, S. Y. (2011). *Perceptions of online learning in an Australian university: Malaysian students' perspectives*. Queensland University of Technology.
45. Nkuyubwatsi, B. (2013). *Evaluation of massive open online courses (MOOCs) from the learner's perspective*. Paper presented at the European Conference on e-Learning.
46. Hoffart, N. (2000). Basics of qualitative research: Techniques and procedures for developing grounded theory. *Nephrology Nursing Journal, 27*(2), 248-248.
47. Adamopoulos, P. (2013). What makes a great MOOC? An interdisciplinary analysis of student retention in online courses. Proc. of 34th Intern'l Conf. on Info. Systems, (Vol. 2013).
48. Masters, K. (2011). A brief guide to understanding MOOCs. *The Internet Journal of Medical Education, 1*(2), 2.
49. Nesterko, S. O., Dotsenko, S., Han, Q., Seaton, D., Reich, J., Chuang, I., & Ho, A. (2013). *Evaluating the geographic data in MOOCs*. Paper presented at the Neural information processing systems.
50. Daniel, J. (2012). Making sense of MOOCs: Musings in a maze of myth, paradox and possibility. *Journal of Interactive Media in Education, 3*. Retrieved from <http://www-jime.open.ac.uk/jime/article/viewArticle/2012-18/html>
51. Xenos, M., Pierrakeas, C., & Pintelas, P. (2002). A survey on student dropout rates and dropout causes concerning the students in the Course of Informatics of the Hellenic Open University. *Computers & Education, 39*(4), 361-377.
52. Tresman, S. (2002). Towards a strategy for improved student retention in programmes of open, distance education: A case study from the Open University UK. *The International Review of Research in Open and Distributed Learning, 3*(1).
53. Vihavainen, A., Luukkainen, M. and Kurhila, J. (2012). Multi-faceted support for MOOC in programming. *SIGITE'12, Proceedings of the ACM Special Interest Group for Information Technology Education Conference*, Calgary, Alberta, Canada, pp. 171-176.
54. Drysdale, J. S., Graham, C. R., Spring, K. A., & Halverson, L. (2013). An analysis of research trends in dissertations and theses studying blended learning. *The Internet and Higher Education, 17*, 90- 100. doi:10.1016/j.iheduc.2012.11.003
55. Graham, C. R., Henrie, C. R., & Gibbons, A. S. (2014). Developing models and theory for blended learning research. In A. G. Picciano, C. D. Dziuban, & C. R. Graham (Eds.), *Blended learning: Research perspectives, volume 2* (pp. 13-33). New York, NY: Routledge.
56. Tsai, C. W., Shen, P. D., & Tsai, M. C. (2011). Developing an appropriate design of blended learning with web-enabled self-regulated learning to enhance students' learning and thoughts regarding online learning. *Behaviour & Information Technology, 30*(2), 261-271.
57. Stacey, E., & Gerbic, P. (2009). Effective blended learning practices. *Evidence-Based Perspectives in ICT-Facilitated Education*.
58. Keengwe, J., & Kang, J. J. (2013). A review of empirical research on blended learning in teacher education programs. *Education and Information Technologies, 18*(3), 479-493.
59. Tamim, R. M., Bernard, R. M., Borokhovski, E., Abrami, P. C., & Schmid, R. F. (2011). What forty years of research says about the impact of technology on learning: A second-order meta-analysis and validation study. *Review of Educational research, 81*(1), 4-28.
60. Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. *The internet and higher education, 7*(2), 95-105.
61. Agarwal, A. (2014). Why massive open online courses (still) matter. Retrieved from [http://www.ted.com/talks/anant\\_agarwal\\_why\\_massively\\_open\\_online\\_courses\\_still\\_matter](http://www.ted.com/talks/anant_agarwal_why_massively_open_online_courses_still_matter) on, 27.
62. Jona, K., & Naidu, S. (2014). MOOCs: emerging research. *Distance Education, 35*(2), 141-144.