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Inquiring Massive Open Online Courses (MOOCS) through the Lens of Students

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Abstract: *The present study aims to depict the picture of students' perceptions on Massive Open Online Courses (MOOCs) regarding several variables. To attain this goal, 416 freshman students, who take four different distance education oriented courses in a state university participated to our study. The study adopts survey method of the descriptive research designs, in which relationships of the variables as part of overall descriptions are examined. The convenience sampling technique is used to reach the accessible population of the study since it is hard to reach to the entire group. The participants were asked to score on a perception questionnaire, which consisted of 8 factors and 34 five-point Likert type items. The collected data were analysed through Kruskal Wallis and Mann Whitney U Test and item-based analysis were performed to get a clear-cut picture of the data. The analysis results were presented and discussed based on the relevant literature, and future recommendations were put forth for further research studies and researchers.*

Keywords: MOOC, distance education, online courses, effectiveness, students' perception

Öğrencilerin Gözüyle Kitlesel Çevrimiçi Açık Derslerin (KAÇD) İncelenmesi

Öz: *Bu çalışma, öğrencilerin Kitlesel Açık Çevrimiçi Derslere (KAÇD) yönelik tutumlarını çeşitli değişkenler açısından betimlemeyi amaçlamaktadır. Bu amaçla, bir devlet üniversitesinde dört farklı uzaktan eğitim odaklı ders alan 416 üniversite birinci sınıf öğrencisi çalışmamıza katılmıştır. Araştırmada, değişkenler arası ilişkilerin genel betimlemenin bir parçası olarak ele alındığı betimsel araştırma desenlerinden tarama yöntemi kullanılmıştır. Tüm gruba ulaşmanın oldukça güç olması nedeniyle erişilebilir örnekleme ulaşmak için uygun örneklem tekniği kullanılmıştır. Katılımcılardan 8 faktör ve 34 beşli Likert tipi maddeden oluşan bir tutum ölçeğini puanlamaları istenmiştir. Toplanan veriler Kruskal Wallis ve Mann Whitney U Testleriyle analiz edilmiş, verilere ait kapsamlı bir betimleme elde etmek için madde temelli analiz uygulanmıştır. İlgili alan yazınla analiz sonuçları sunulmuş, tartışılmış; ileriki araştırmalar ve araştırmacılar için öneriler ortaya konulmuştur.*

Anahtar Kelimeler: *KAÇD, uzaktan eğitim, çevrimiçi dersler, etkililik, öğrenci tutumu*

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I. Introduction

Due to the outcome of globalization and technological innovations, many educational institutions went through changes in the structures of their instruction delivery means. In the wake of an increasing interest in learning English, new implementations and policies have also been integrated into the language teaching policies since English commonly considered as a way of communication throughout the world. Considering the recent paradigm shift which centers the use of technology in teaching, the educators initiated to implement various forms of educational technology into their teaching environments. Thereby, with the rapid spread of the internet technologies and mobile learning instruments, the tendency of distance education has become more prominent.

Though there were several small-scale initiatives in different levels of education, the distance education practices in higher education in Turkey started during the 1980s with the committed contributions of a state university and within a decade it became a system that incorporated a large number of students. As Bozkurt (2017) claims, along with the developments in Information and Communication Technologies (ICT), educational practices offered through distance education have increased and distance education, which serves for millions of students, has become a part of the mainstream in education by 2000s. There are various reasons behind such a rapid transformation in education, however, the learners' characteristics is the one which outstand among others and played a crucial role in spreading distance education practices. In the globalizing world, the "digital native" (Prensky, 2001) students who are wrapped up with the recent technologies and habitually use them in every part of their lives demand such a transformation in their education. The increasing demands of learners for any time and any place learning as well as their digitalized nature and availability of technology enhanced environments imposed a great paradigm shift in education. Equally, stakeholders in the field of education could not abstain from such innovative practices in education, especially, concerning the fact that the number of the students in higher education is getting higher ever more. Thus, this tendency has been used for educational purposes and distance education has become popular across the country. Over the years, the once-proud correspondence based distance education has been advanced in numerous ways including, computer based, internet or web-based, self-paced, a/synchronous, pure online, hybrid, blended, fixed-time online and open-schedule-online courses. Thus, various educational institutions started to implement and provide distance courses for the ones who, somewhat, could not attend to face to face and campus-based courses in higher education. One of the recent and popular ways of delivering instruction within the framework of distance education is Massive Open Online Courses (MOOC). The MOOC is a free web-based distance learning program designed for the participation of the large number of students geographically dispersed (Rouse, 2013). Research evidenced that these courses arouse students' interest because they provide freedom of place and time, they are offered in online and the Internet is the only prerequisite to benefit from these courses.

The existing literature in the field of education has identified the links between expectations of the students and the accomplishment of a proposed program and highlighted the importance of hearing the student voice in implementing a new instruction delivery models or education policies. The studies on learner expectations and perceptions, confidently, lead to recommendations for quality assurance and enhancement in institutional and educational practices. It is alleged that studies, which inquire perceptions of the students, ascertain what matters to students as well as raise the profile of the student voice in decision-making. Additionally, exploring students' perceptions about a newly proposed instruction delivery service may provide well-regarded information for decision-makers to nurture the quality of educational services and meet the students' needs. Accordingly, taking students' perceptions into account as well as scrutinizing their expectations about a learning environment or instruction delivery system unquestionably expand educators' understanding of the shortcomings of the proposed educational setting, which might have an effect on students' learning and consequently their achievements within higher education.

Researchers have a prominent role to improve the systems in distance education and make use of these systems in order to create better learning environments. Therefore, to be able to create these environments, the perceptions of learners are also of great importance. As Şahin (2007) acknowledges, learning about the students' opinions and perceptions is an essential step for distance education system to be carried out successfully. Furthermore, as Murray (2014) claims, there is currently limited information available on participants' perceptions of MOOCs. Hence, the drive behind the present study is to explore the satisfaction levels of students enrolling in the MOOCs and analyze their perceptions concerning some variables such as the personal suitability, effectiveness, learning satisfaction, evaluation of the program, technology, material, evaluation and support service.

Bearing above mentioned purpose in mind, the present study sought to find answers to the following research questions.

1. What are students' perceptions towards Massive Open Online Courses (MOOCs)?
2. What factors are effective in leading students' perceptions on the MOOCs?
3. Do the MOOCs fulfill students' expectations on learning process?

II. Review of Literature

When the related literature is reviewed, it is probable to come across with various studies on distance education and Massive Open Online Courses (Barış, 2015; Birişçi, 2013). This is because, the launch of the first MOOC in 2008 in Canada (Baturay, 2015) inspired numerous researchers from all over the world to conduct studies regarding its benefits and implications in the field of education. Additionally, some meta-analysis studies (Bozkurt, Akgün-Özbek & Zawacki-Richter, 2017; Gašević, Kovanović, Joksimović, Siemens, 2014; Liyanagunawardena, Adams & Williams, 2013; Safana &

Nat, 2017; Olazabalaga, Garrido, & Ruiz, 2016; Yousef, Chatti, Schroeder, Wosnitza, & Jakobs, 2015; and Veletsianos & Shepherdson, 2016) focused on the various aspects of MOOCs studies. The meta-analysis studies, in general, revealed that although MOOCs studies yielded high impact scientific output, it is still in its infant stages (Olazabalaga, Garrido, & Ruiz, 2016) with its a decade-long background and every study conducted on MOOCs will contribute to enrich the understanding of the issue in detail. In a similar vein, by reviewing the published articles on MOOCs, Ossiannilsson, Altinay and Altinay (2015) claimed that MOOCs were significant platforms in terms of personalization, learner-based training, and peer-to-peer learning for a lifelong development in a collaboration-oriented learning environment.

Before focusing on the findings of the recent studies that were conducted in Turkish and other contexts, the theoretical background of MOOCs as well as its historical development in the course of time are worth mentioning here briefly. Although some sources credited OpenCourseWare created by the Massachusetts Institute of Technology in 2001 as the descendants of MOOCs, it is commonly agreed that the legend of MOOCs started in 2008 with an online course that is offered at the University of Manitoba as a part of the program leading to the certificate in adult and continuing education in Canada (Downes, 2008). In an attempt to describe this super-sized open education course, Open Education Partnership (2008) coined the term Massive Open Online Course (MOOC). Although it is credited as the first MOOC, it was neither the first large sized course offered on the Internet nor the first open course offered for credit online, nevertheless, its uniqueness was based on the combination of its large size, its openness, and its for-credit status. As Downes (2008, p.2) claims the theoretical backgrounds of the first MOOC "is based on the principles of "connectivism" which is "a pedagogy based on the idea that knowledge is distributed across a network of connections and that learning consists of the ability to construct and traverse those networks".

There are various definitions of MOOCs in the literature. For instance McAuley, Srewart, Siemens, and Cormeir (2010) defined it as; "an online course with the option of free and open registration, a publicly-shared curriculum, and open-ended outcomes" (p.10). MOOCs integrate social networking, accessible online resources, and are facilitated by leading practitioners in the field of study. Most significantly, MOOCs build on the engagement of learners who self-organize their participation according to learning goals, prior knowledge and skills, and common interests". Holstein and Cohen (2016), likewise, defined MOOC as an online course conducted over the web and designed with an open concept for an unlimited number of students. Actually, the joint point of various definitions in the literature is encapsulated in its name. That is, there is no limit on attendance (Massive), it is free of charge and accessible to anyone with internet connection (Open), it is delivered via the internet (online), and it is structured around a set of goals in a specific area of study (courses) (Fini 2009; McAuley McAuley, Srewart, Siemens, & Cormeir, 2010).

Through the lens of the definitions in the literature, the MOOC can be described as a free online course platform that deliver the learning content by means of both the traditional and modern course materials to a large amount of students without any limitation on attendance and physical barriers. In line with its definition, two types of MOOCs have been identified in the literature: cMOOCs which are based on the connectivist theory and participatory teaching (Jacoby, 2014; Siemens, 2012), and xMOOCs which are based on a cognitivist-behaviorist approach (Hew & Cheung, 2014; Siemens, 2012) and mainly focused on the transmission of information in a more traditional classroom structure that extended online. As Bozkurt, Akgün-Özbek and Zawacki-Richter (2017) stated the initial letters such as "c" (connectivist) and "x" (extended/extension) describe the main distinctions among MOOC types. Regardless of its types, Sanchez-Gordon and Luján-Mora (2016) claimed that a MOOC should;

- have the consistency and objectives required to establish a program of learning a specific subject or content;
- have learning objectives to be achieved by students after certain activities in a given period of time (it should have a beginning and an end),
- have assessments to measure and demonstrate the knowledge acquired by students, and
- have some kind of interaction between students and teachers in all possible ways (student-student and student-teacher), even though it is mediated by technology.

Although the MOOCs are regarded as in its infant stages, there are various studies conducted in plentiful contexts. While some of the recent studies directly focused on MOOCs and examined them in various aspects, including perceptions or satisfaction of students, some others especially the early ones, acknowledged the theoretical backgrounds of MOOCs including their types.

The review of related literature exposed that there are several studies which confirm that the MOOC experience and the learning materials were highly appreciated and rated positively by the participants (Aboshady et al., 2017; Aharony & Bar-Ilan, 2017; Erdem-Aydin, 2015; Murray & Betterridge, 2014; Razouki, Khzami, El Khatabi, Agrorram & Selmaoui, 2017). Similarly, some studies on MOOCs confirmed that the overall feeling of the experience is rather positive both for students and for the teaching team (Barcena, Read, Martin-Monje, & Castrillo, 2014). In terms of language skills, Freihat and Al Zamil (2014) found that the MOOCs could be used as a means of developing specific listening skills. There were some studies which examined the MOOC platform in terms of organization and instructional design. For instance, Margaryan, Bianco and Littlejohn's (2014) study revealed that although most MOOCs were well-packaged, they lacked the quality of instructional design. In another study, Barış (2015) focused on students' perceptions in a Turkish university and found that the participants did not hold positive attitudes towards a distant course although a great majority of them had personal

computers, smartphones/tablets and internet connection that could be used for educational purposes. Similarly, some studies shed light into the factors that affected students' retention rates. For instance, the study conducted by Zheng, Rosson, C. Shih and M. Carroll (2015) revealed that students' learning motivations, learning patterns and a variety of factors influenced students' retention in the MOOCs.

There were some studies which examined the MOOCs from the perspectives of the teachers as well. For instance, claiming institution-based, technological or pedagogical factors were commonly assumed as the handicaps of blended MOOCs, of Albo, Hernandez Leo, and Oliver's (2015) study revealed that blended MOOCs showed a high level of acceptance by the teachers. In terms of the efficiency of MOOCs, the results of Gomez-Zermeno and Garza's (2016) study indicated that the participants were not satisfied with the structure of course, limitation on use of technological devices and some other issues. Similar results were also confirmed by Cabı and Kurt-Erhan (2016) who examined graduate students' perceptions about a MOOC natured statistics course. The participants avowed somehow negative attitudes towards the course due to the difficulty of understanding the issues without face to face guidance of an instructor. Upon assessing the effect of crediting on students' achievements, Kursun (2016) found out that crediting considerably affected the students' scores and recommended to use the MOOCs as a credited course in higher education institutions. On the other hand, Troncarelli and Villarini (2017) examined the needs of language learners and the premises of integrating MOOC for the international students on the move worldwide. Their study showed that MOOCs are practical for international students, who are learning a second/foreign language in a hosting country because MOOCs remove the limitation on time and space, provide a wide range of resources, and make learning more affordable for low-income students.

In one of the studies, Aydın (2017) depicted the current status of the MOOC movement in the higher education institutions around the world. The results of the study illustrated that, in general, more than half of the institutions do not have any plan concerning MOOCs and over a quarter of them have no action although they intend to carry on such courses. Additionally, Aydın (2017) found that although the most of the institutions regarded themselves as MOOC providers, the website analysis of these institutions unearths that while only small percent of them are really offering MOOCs, a majority of them just offer online courses. One of the remarkable findings of the study is that the majority of higher education institutions are not really aware of MOOCs and their potentials in higher education.

The review of available literature on MOOCs revealed that from various aspects evidences for the use of MOOCs are rapidly growing among universities but the picture is still blurred. In order to clarify the image, the perceptions of the students especially their satisfaction with the offered program should be examined. It is believed that the perceptions of students can be a valuable component for planning the program, especially to ascertain the strengths and identify areas for improvement. Thus, aiming to

explore the perceptions of the students the present study expects to contribute to the growing literature on the use of MOOCs.

III. Methodology

A. Design

The overall purpose of the present study was to collect and report the perceptions of learners about the use of MOOCs. Concerning this aim, which intends to provide an accurate description of the perceptions of the learners towards the use of MOOCs in their undergraduate education, survey method of the descriptive research designs was adopted. In descriptive designs, the research looks at relationships between variables as part of the overall descriptions without examining the degrees of relationships. Thus, the present study, which is a purely descriptive, will examine the variables within a particular situation with a single sample of subjects. The survey is a systematic method of collecting data from a population of interest which tends to be quantitative in nature and aims to collect information from a sample of the population such that the results are representative of the population within a certain degree of error. Thus, the aim of using survey for this descriptive study is to get a precise measurement of the certain phenomenon, namely, the perceptions of undergraduate learners towards the use of MOOCs in the present case.

B. Participants

Since it is difficult to reach to the entire group, who enroll in MOOC, the accessible sample of the target population to which the survey team has access formed the participants. Thus, the sampling technique used in the study is the convenience sampling (also known as availability sampling), which is a specific type of non-probability sampling method that relies on data collection from population members who are conveniently available to participate in the study.

The target population of the present study was 11200 students who enrolled in distance-based courses at a Turkish University. However, a total of 416 freshman students who are supposed to take four different distance education based courses within the standard curriculum for every university in Turkey form the sample of the present study. It is assumed that such amount of participants will provide intact data to represent the entire population. As Creswell (2008) indicates data collected from more than 360 participants in a study which gathers its data through questionnaires can represent the overall universe.

The demographics of the participants revealed that while 290 (69.7%) out of 416 participants are female, 126 (30.3%) of them are male. Additionally, the analysis of demographic questions revealed that while 331 (79.6%) of the participants have a personal computer at their home, 84 (20.2%) of them do not. The data related to the participants' connection hosts, which were gathered through a demographic question, were examined in terms of their frequencies. The frequency analysis depicted that while 304 (%73.1) of the participants preferred home to connect the MOOCs, 89 (21.4%) of

them connected the classes at school and only 5 (1.2%) of them accessed the classes while they are at work. To gain more demographic information about the students, another question was posed to inquire the computer literacy level of the participants. It was found that while 295 (70.9%) of participants believed that they had average computer skills, 63 (15.1%) of the students put themselves into the advanced category and 58 (13.9%) of them considered themselves as basic level users. That is, the most of the participants were content with their computer literacy levels.

C. Process

The distance-based courses are not compulsory for the participants, however, the students who enroll in these courses have to take the midterm and final exams face to face and get satisfactory results to fulfil their credits. All the MOOCs are scheduled in the student's programs and a web-link provided to the students through which they are able to access the virtual classes. The virtual classes provided for students through a free online learning management system, namely Adobe-Connect integrated Moodle that is technically supported by the University. Students who enrolled in these courses are provided passcodes and allowed to join any course at any time through online services either in or out of campus. The online courses run by the assigned lecturers, who also have passcodes to access to the system, at the scheduled times synchronously either pre-prepared PowerPoint presentations or other available teaching tools. Besides synchronous courses which are on air at the scheduled times through online broadcasting, the lessons are also recorded through Adobe-Connect and are run asynchronously for the students who cannot join the lectures on the scheduled time.

D. Data Gathering Instruments

Although the survey research process includes survey development, if the topic has been widely surveyed in similar settings, researchers may use an existing survey instrument or use an existing survey but add items of particular interest to their context and skip the survey development stage (Pazzaglia, Stafford, & Rodriguez; 2016). Bearing this fact in mind, the questionnaire developed by Eygü and Karaman (2013) for similar purposes was used as the main data gathering instrument. The questionnaire consists of 6 demographic questions and 34 statements which inquire the satisfaction and perceptions of participants towards MOOCs in their undergraduate education. The participants were asked to rate their perceptions on a five-point Likert scale from “completely agree” to “completely disagree” for each item that grouped under eight factors including “personal suitability, effectiveness, learning satisfaction, “evaluation of the program, “technology, material, evaluation and support service”. It should be noted that in the original instrument one of the factors labelled as “evaluation” which might be associated with grading and assessment. However, the items in this factor do not have association with its name. Actually, this factor consists of three items which mainly assess participants’ perceptions about the features such as connecting to the courses, course content, and internet problems.

After getting permission from its developers, some slight adaptations were made on the scale so as to cover the variables of the present study. In order to re-estimate the reliability of the adapted version of the scale a Cronbach's alpha was run on a sample size and computed as 0.93 which confirmed that the questionnaire is highly reliable for the present study.

E. Data analysis

As the first step in data analysis, a test of normality, namely Kolmogorov-Smirnov test, was run in order to determine whether the statistical test procedures will be parametric or non-parametric. It was found that while the overall p value (.200) was higher, the p values for the sub-factors were found lower than the ideal alpha level as follows; personal suitability; .003 < .05; effectiveness; .001< .05; learning satisfaction; .000 < .05; evaluation of the program; .000 < .05; technology; .000 < .05; material; .000 < .05; evaluation; .000 < .05; and support service; .000 < .05. Thus, concerning the results of Kolmogorov-Smirnov test, non-parametric statistictical computations such as, Kruskal Wallis and Mann Whitney U Test were run in line with the research questions of the present study. Finally, to get a detailed portrait of the collected data, an item-based analysis was performed. Accordingly, the findings were presented as frequency, percentages and mean ranks in the following section.

IV. Findings

The first research question of the present study sought to figure out if there was any difference in the perceptions of the participants concerning their genders. Thus, the analysis uncovered that there was not any significant difference among the factors except their perception on technology in terms of their gender. The further analysis of the relationship between gender and perceptions concerning the technology dimension was examined through Mann Whitney U Test and the findings revealed a significant difference between the groups (U=14908. 500, p<0.05). The further expansion of the finding based on the gender of the participants revealed that male participants' perceptions on technology variable were higher than females (Table 1).

Table 1: *Mann-Whitney U Test results based on gender*

	Gender	N	Mean Rank	Sum of Ranks	U	p
Technology	Female	290	196.91	57103.50	14908.500	.003
	Male	126	235.18	29632.50		
	Total	416				

Another concern of the present study was the relationship between participants' perceptions and their personal computer ownership. The results of Mann Whitney U Test

for computer ownership showed that there was not any significant relationship between the participants' perceptions and their personal computer ownership in general (overall; .412, p>.05). The same relationship was also computed for other sub-factors, and their results were as follows; personal suitability; .502, p>.05; effectiveness; .409, p>.05; learning satisfaction; .727, p>.05; evaluation of the program; .263, p>.05; technology; .199, p>.05; material; .098, p>.05; evaluation; .582, p>.05; and support service; .605, p>.05.

In addition, the present study sought to figure out the relationship between the connection host to the MOOC and perceptions of the participants. Upon collecting the descriptive statistics, a Kruskal Wallis Test was performed to examine the relationship between connection host and participants' perceptions towards MOOCs. The results of analysis revealed that, except for evaluation variable (.011, p<.05), there was not a significant relationship between the participants' perception in general (overall=.051, p>.05). In terms of other variables the findings were as follows; personal suitability; .068, p>.05; effectiveness; .083, p>.05; learning satisfaction; .069, p>.05; evaluation of the program; .191, p>.05; technology; .260, p>.05; material; .327, p>.05; and support service; .207, p>.05.

To analyze the indicators mutually, Mann Whitney U Test was run and the results showed that the place of connecting to the MOOCs and evaluation factor significantly differed from each other (U=10783.000, p<.05).

Table 2: *Mann-Whitney U Test results based on the place of connecting the MOOCs*

	Place	**N**	**Mean Rank**	**Sum of Ranks**	**U**	**p**
Evaluation	Home	304	206,03	62633,00	10783.000	.003
	School	89	166,16	14788,00		
	Total	393				

As seen in Table 2, it was found that mean rank values of the home access are considerably higher than school access. However, the analysis of the results revealed that there was not any significant relationship between students' perceptions and workplace as the host of the MOOC connection.

Another concern of the present study was to explore the relationship between computer literacy level of participants and their perceptions towards MOOCs. Thus, after getting the frequency values of the variables, a Kruskal Wallis test was computed to figure out whether the variables differed from one another significantly. The analysis of the findings showed that although there was not any significant difference concerning the total value (.385, p>.05), it was found that there were significant differences between computer literacy skills and two sub-factors, namely; effectiveness (.022, p<.05) and technology (.028, p<.05). On the other hand, it was also found that there was not any significant relationship between other sub-factors namely, personal suitability (.808,

p>.05); learning satisfaction (.432, p>.05); evaluation of the program (.731, p>.05); material (.715, p>.05); evaluation (.167, p>05); support services (.065, p>.05).

Table 3: *Mann-Whitney U Test Statistics for basic and medium level users*

	Level	N	Mean Rank	Sum of Ranks	U	p
Effectiveness	Basic	58	204.69	11872.00	6949.000	.023
	Medium	295	171.56	50609.00		
	Total	353				

Additionally, the further analysis of the findings which was obtained through Mann-Whitney U Test for basic and medium level users revealed that there was a significant difference in terms of effectiveness variable (U=6949.000, p< .05). That is, basic level computer users had higher scores than that of medium level computer users (Table 3).

Table 4: *Mann-Whitney U Test Statistics for basic and advanced level users*

	Level	N	Mean Rank	Sum of Ranks	U	p
Technology	Basic	58	54.28	3148.00	1437.000	.042
	Advanced	63	67.19	4233.00		
	Total	121				

Similarly, the Mann-Whitney U Test for basic and advanced level users for the technology variable revealed that there was a slightly difference between the groups (U=1437.000, p<.05). That is, the advanced level computer users had slightly higher scores than that of basic level computer users (see Table 4). However, when mean ranks of two groups were taken into consideration, it was observed that there was not a significant difference between groups regarding the technology sub-factor.

Table 5: *Mann-Whitney U Test Statistics for medium and advanced level user.*

	Level	N	Mean Rank	Sum of Ranks	U	p
Technology	Medium	295	172.89	51004.00	7344.000	.009
	Advanced	63	210.43	13257.00		
	Total	358				

On the other hand, Mann-Whitney U Test for medium and advanced level users revealed that they significantly differed from each other (U=7344.000, p<.05). When mean ranks of these groups were compared, it was observed that advanced users had higher scores than medium users (Table 5).

Together with Mann Whitney U Test, an item analysis was computed to get a detailed picture of the participants' perception on the MOOCs and group statistics for each item in the factors were separately examined.

Table 6: *Item-based Analysis Results*

ITEM	FACTOR	$\bar{x}$	σ	M	Mo
1. It provides flexibility of place and saving of time.	1st Factor	3.723	1.152	4.000	4.00
2. It ensures the retention of learning.	1st Factor	2.528	1.123	2.000	2.00
3. It enables learners to learn at their own pace.	1st Factor	3.163	1.201	3.000	4.00
4. It activates the student more in terms of education and training applications.	1st Factor	2.521	1.151	2.000	2.00
5. I find the contents of courses in distance education sufficient for learning.	1st Factor	2.798	1.185	3.000	3.00
6. I learned and grasped the courses in the distance education.	1st Factor	2.778	1.231	3.000	4.00
7. It was capable of preparing the post-graduate training.	1st Factor	2.413	1.080	2.000	3.00
8. E-course packages were supportive of individual learning.	1st Factor	2.716	1.130	3.000	2.00
9. It offers a decent learning opportunity for individuals.	1st Factor	2.838	1.163	3.000	3.00
10. I received technical support when I had problems accessing to the system.	2nd Factor	2.759	1.119	3.000	3.00
11. I was able to get the required support when I had problems with the courses.	2nd Factor	2.790	1.172	3.000	3.00
12. I could send requests and suggestions for courses.	2nd Factor	2.613	1.130	3.000	2.00
13. I received sufficient support in matters related to student affairs (registration, student documentation).	2nd Factor	2.906	1.181	3.000	4.00
14. I was able to interact with the instructors of the courses when needed.	2nd Factor	2.685	1.216	3.000	2.00
15. It is more effective than traditional one.	3rd Factor	2.269	1.208	2.000	1.00
16. It provides comfort to get training from home.	3rd Factor	3.586	1.265	4.000	4.00
17. I think distance education suits me.	3rd Factor	2.983	1.325	3.000	2.00
18. It is an appropriate alternative for the trainings I need.	3rd Factor	3.069	1.181	3.000	4.00
19. It is suitable for me because of my workload.	3rd Factor	3.180	1.270	3.000	4.00
20. I think this program is worthy in terms of the professional aspect.	4th Factor	2.776	1.172	3.000	3.00
21. Courses were suitable for the purpose of the program.	4th Factor	3.254	1.158	3.000	4.00
22. Course contents were suitable for the purpose of the program.	4th Factor	3.334	1.119	4.000	4.00

23. The program was well designed.	4th Factor	3.064	1.201	3.000	3.00
24. I am in a social and friendly interaction with my distance education instructor.	5th Factor	2.543	1.209	2.000	2.00
25. I am in a social and friendly interaction with other students.	5th Factor	2.480	1.192	2.000	2.00
26. In distance education, I can feel relaxed by communicating with my instructor and show how I am as a student in real life.	5th Factor	2.615	1.182	3.000	3.00
27. The sources of the course stated the aims to include the knowledge, skills and behaviours to be given to the students.	6th Factor	3.067	1.140	3.000	3.00
28. The course resources covered up-to-date information.	6th Factor	3.298	1.129	4.000	4.00
29. The topics in the course sources were consistent with each other.	6th Factor	3.423	1.129	4.000	4.00
30. I did not have problems accessing to the platform.	7th Factor	3.000	1.261	3.000	4.00
31. I did not have any problems to reduce my learning needs.	7th Factor	2.954	1.251	3.000	4.00
32. I was able to access the course contents easily through the platform.	7th Factor	3.298	1.179	4.000	4.00
33. The questions in the exam were consistent with the course content.	8th Factor	3.408	1.196	4.000	4.00
34. Final measured up assessing my knowledge level.	8th Factor	3.156	1.265	3.000	4.00

Table 6 presents the descriptive values (mean, standard deviation, median, and mode) for the items in the scale. Considering the mode values in the 1st factor, the items 1, 3, and 6 showed that the participants were generally agree with the statements in these items. In contrast, the items 2, 4, 8 had the lowest scores in this factor. When we focused on the items in the second factor, while the participants proposed neither positive nor negative judgment, they disagreed with the statements in the items 24 and 25. It can be understood from the items in the 3th factor, the participants showed a negative attitude towards the items 15 and 17. On the other hand, they were content with the items 16, 18 and 19. The mode values of the items 21 and 22 in the 4th factor revealed that the participants agreed with the statements in these items. The findings related to the items 24 and 25 showed that the participants were on the opposite of the statements presented in these items. It is clearly illustrated in Table 6 that except for the item 27, the participants had a positive attitude towards all the items in 6th, 7th, and 8th factors.

V. Conclusion, Discussion and Suggestion

Considering the increasing popularity and developing infrastructure of the MOOCs, the present study aimed to examine the perceptions of students taking part in these platforms as well as figure out the relationship between participants' perceptions and some variables.

The findings in general showed that participants mostly perceived the MOOCS as useful and beneficial learning environment that entirely satisfied them from various aspects, including time-saving and flexibility of place, individualized-learning opportunity, comfortability, practicality, well-conceived and user-friendly platform facilities, goal-oriented and up-to-date courses and course contents. Regarding those findings, contrary to Margaryan et al. (2014), this study uncovered that the participants of the present study did not consider MOOCs as a platform which lacked the quality of instructional design. However, it should be noted that the reason why it differed might be rooted in the differences of platforms' systematical design and infrastructure.

On the other hand, it was found out that the participants' perceptions on learning procedure were mainly on the negative side. While the platform had numerous advantages, the present study revealed that the participants' expectations were not completely fulfilled and it did not satisfy the participants in terms of retention of learning. This finding may result from the participants' learning styles and their existing routines. Since the MOOCs are considerably novel and the participants are accustomed to learning through face-to-face instruction accompanied by paper-based resources, it might have affected their retention of learning as well as their perceptions.

Another prevailing issue appeared in the results is the interaction facet of the platform. The results of this study attested that while the MOOCs are well-designed, sophisticated and user-friendly, they do not foster peer interaction and socialization among the participants; in contrast, they segregate the participants and inhibits collaboration and cooperation. This finding did not show similarity with a study mentioned earlier in the literature, in which the MOOCs were described as significant platforms that enhanced peer-to-peer learning, collaboration, learner-oriented training, and individualization (Ossiannilsson, Altinay & Altinay, 2015). This might be at the root of a fact that either the current platform does not have any chat box to create an interaction among the participants or the poor use of the existing feature by the participants in the platform.

When the findings further examined in terms of the factors in the scale, it was found that the perceptions of the participants showed somehow differences concerning some of the variables in question. For instance, the present study revealed that the students' perception towards the technology factor showed significant differences concerning the genders of the participants. That is, while male participants generally preferred to use the MOOCs to interact with other students, it did not go for female participants. It can be claimed that female participants in the present study preferred face-to-face interaction than a technology based interaction when compared to that of males.

Additionally, the findings of the present study indicated that whether participants own a personal computer or not does not have an impact on their perceptions towards their MOOCs use. This finding points out that even if the students do not own a personal computer, it will not hinder their enthusiasm to join the MOOCs based courses. On the other hand, another finding of the present study showed that student's computer literacy

has a decisive effect on their perceptions related to their MOOCs use. That is, the related findings reported that the higher proficiency they have in computer use, the more they will be content with the platform. Bearing this finding in mind, it can be suggested that the students might be advised to advance their computer skills to gain pleasure from the MOOCs.

Concerning the connection host variable, the findings attested that the participants mostly preferred to access to MOOCs at home rather than work or school environments. Regarding this finding, it can be inferred that participants prefer comfortable environments which eliminate time and place barriers of face-to-face teaching environments. From another perspective it can also be deduced that workplace or school environments were less-preferred due to their distracting factors.

In the light of the findings, it is suggested that the program developers should seek a solution to integrate a feature that will enable mutual participants' interaction and socialization or if it is already available, the ways to activate the use of these features should be investigated. For further research, the researcher may examine participants' learning experience and learning output by incorporating an interaction (chat) box. Lastly, the students are advised to advance their computer skills to gain pleasure from the MOOCs. Regarding the available literature in this field, it is hoped that the findings of the present study will shed light on the further research and contribute to fill the gap with reference to the learners' perceptions towards MOOCs in the field.

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