

OBSTACLES OF USING EDMODO PLATFORM IN THE OMANI RESOURCE ROOM PROGRAM

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ABSTRACT_ *The aim of this study was to identify the obstacles of using the Edmodo platform in the Omani Resource Room program as perceived by teachers of students with learning disabilities. The sample consisted of 125 teachers who responded to an e-questionnaire distributed on three dimensions: technical and administrative obstacles, obstacles related to teachers, and obstacles related to students and their parents. The results showed there were a number of technical and administrative obstacles and other obstacles related to the teacher, students, and parents that reduce the use the Edmodo platform in the Omani Resource Room program.*

KEYWORDS: *learning disabilities teacher, Edmodo, obstacles, Omani Resource Room.*

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I. INTRODUCTION

Human societies in the twenty-first century are witnessing a revolution in the use of information and communication technology (ICT) in various fields of human knowledge. The world has become increasingly interconnected by allowing communication and the sharing of information anytime and anywhere. ICT has contributed to the provision of educational services, the dissemination of culture, and the delivery of information to individuals and economic sectors. The rapid development of ICT has an impact on the storage, retrieval, and dissemination of information. This development has transformed modern technologies into a driving force of technological revolution and makes traditional databases in challenges. ICT has created social networks that have helped disseminate information and ideas; it has become an integral aspect of the lives and cultures of individual [1].

New social media has become an information tool that simulates the senses, thereby affecting a person's thoughts, feelings, and behaviors [2]. Social networks have moved human societies to live in a new cultural and social era. It has transformed these networks into a nervous system that negatively or positively affects the values and culture of a given society. It also plays an important role in achieving community responsibility. Facebook is a social medium that has achieved successes not previously seen by traditional media, widely influencing the user's behavior and breadth [3].

Individuals who use Facebook are more inclined to participate in certain aspects of life than those who tend to use traditional media. Males more commonly use Facebook, whereas females prefer Twitter [4]. The spread of social networks has contributed to thinking about how these networks can be used in the field of education. The use of technology in the field of education has become a response to the requirements and skills necessitated by the developments of the twenty-first century to improve teacher and learner performance, engender positive attitudes towards ICTs, and provide teachers with invaluable professional, cognitive, and performance skills [5]. E-learning is one of the most important contemporary trends in education technology and has become an important requirement in pre-service and in-service teacher education programs. E-learning platforms are part of the Web 2.0 technology that provides multiple learning styles and allows the learner to interact with peers and teachers through the Internet [6].

There are a number of educational platforms such as Acadox, which is a free social educational platform that contributes to the interaction between learners and teachers, increases the exchange of knowledge between them, and documents their educational activities [7]. Easyclass is another free social educational platform that allows teachers to create digital classes to upload educational activities and construct discussion forums [8]. Edmodo is a free social educational platform that provides teachers and learners with a secure learning environment for communicating and sharing educational content [9]. Edmodo combines the designs of Facebook and Blackboard.

The American Association of School Librarians has

classified Edmodo as one of the top 25 e-learning websites because it promotes active participation between learners and teachers [10]. In addition, it is the top of 100 e-learning websites [11]. Accordingly, Edmodo is a social educational network that enhances the interaction between learners and teachers and thereby facilitates the learning process [12]. It is truly a new technological revolution that can be used in the educational field to bolster communication between the school and students outside the confines of daily school hours.

Edmodo also aims to integrate education into the twenty-first century environment to facilitate learning opportunities, change learning patterns, and the interactions between teacher and learner [13]. On the other hand, more than 85% of schools in the United States of America as well as schools from around the world have an account on Edmodo [14]. As a result, this platform contributes to the transfer of traditional teaching methods within schools toward a contemporary teaching style that meets the needs of the twenty-first century, which has become dependent on smart and digital devices, electronic interaction, group learning, and self-orientation. The use of this platform and ICT achieves green learning by reducing the use of paper and optical discs in the education process [15]. Thus, Edmodo contributes to improving cooperation skills, increasing interactions among learners, and updating them on their studies. As such, it is important to use Edmodo in the educational environment to better equip teachers to deal effectively with the latest technology and to promote learning and education in the school environment. Edmodo can be considered a learning management system [16]. because it enables teachers to develop online learning activities and facilitates communication between teachers and students or between teachers and parents. Through this platform, teachers can create an account to provide feedback to students, schedule delivery of assignments, and distribute test scores [17]. This platform also has an application that can be downloaded on a mobile or tablet [18].

The technological revolution has contributed to a partnership between the family and the school that facilitates psychosocial adjustment and increases student achievement. The success of individual educational programs and special education services for students with learning disabilities (LD) depends on parents' participation in these programs and their contribution to school activities. Thus, Edmodo can be used to communicate between the school and the parents of students with LD. Recently, attention has been paid to the use of assistive technology in the field of special education because it contributes to improving the teaching methods for students with special needs. Therefore, pre-service preparation programs and in-service training programs must focus on providing teachers with professional skills related to assistive technologies and social networks [19].

II. THE PROBLEM

This study aims to achieve some of the recommendations of the 6th International Conference on ICT, which was held at Sultan Qaboos University in Oman. The conference stressed the use of ICT in the education and rehabilitation of individuals with disabilities, facilitating their access to the

information network, and implementing technology in the field of special education. Alfawair [20] indicated that 90% of service providers at early intervention programs in the Sultanate of Oman possess a low level of skills and knowledge regarding the twenty-first century, including ICT skills. The Individuals with Disabilities Education Act (IDEA) recommended using assistive technology in education programs for students with disabilities [21]. Likewise, the standards of Council for Exceptional Children (CEC) suggested the possession of special education teachers for assistive technology [22]. In other words, this study seeks to identify obstacles to the use of the Edmodo platform in the Omani Resource Room program as perceived by teachers of students with LDs. The following are sub-questions:

1. What are the obstacles of using Edmodo in the Omani Resource Room program?
2. Are there any differences in the use of Edmodo due to specialization, and qualification of LD teachers?

III. Methods

Research Design

A descriptive analysis methodology was used to explain the obstacles of using the Edmodo platform in the Omani Resource Room program. This approach enables us to obtain quantitative data that reveal the extent of these obstacles via an e-questionnaire developed for this study.

Participants

The study population consisted of 649 teachers of students with LDs working in the Resource Room program at primary education schools in the Sultanate of Oman for the academic year 2018-2019. The study sample comprised 125 teachers who responded to the study instrument. Thus, the sample accounted for 19% of the study population.

Instrument

To develop the study instrument, a number of previous studies and theoretical literature on learning in social platforms were reviewed. The first draft of the instrument consisted of 46 items. The instrument was categorized along three dimensions: technical and administrative obstacles, obstacles related to teachers of students with LDs, and obstacles related to students and their parents. The instrument was reviewed by five faculty members in the Department of Psychology in Sultan Qaboos University. Based on their comments, items that received a score of 85% were included in the instrument. The final draft of the instrument consisted of 38 items. Items 1-12 measure technical and administrative obstacles, items 13-24 measure obstacles related to teachers of students with LDs, and items 25-38 measure obstacles related to students and their parents. The instrument was designed by Google Drive.

To assess reliability, the study instrument was utilized in a pilot study consisting of 25 teachers of students with LDs. The internal consistency coefficient of the instrument, using Cronbach’s alpha, was 0.88 in the technical and administrative domain, 0.83 on the LD teachers’ domain, and 0.86 on the students and their parents’ domain. In addition, a three-point Likert scale (Agree, Neutral, Disagree) was used. For the analysis of results, the obstacles were classified into three levels (High, Moderate, Low). A score at or below 1.67 was considered low, between 1.68-2.34 was considered moderate, and 2.35 and above was considered a high score.

IV. RESULTS

To answer the first question (What are the obstacles of using Edmodo in the Omani Resource Room program?), descriptive statistics was used. Mean and standard deviation (SD) are presented in Table 1.

**Table 1
Descriptive Statistics**

Obstacle Dimensions	M	SD	Obstacle Level
LD Teachers	2.56	.217	High
Students and their Parents	2.45	.119	High
Technical and Administrative	2.01	.139	Moderate

Table 1 indicates a high level of obstacles in the domain of teachers of students with LDs (M = 2.56) and in the domain of students and their parents (M = 2.45). The domain of technical and administrative obstacles displays a moderate level (M = 2).

To answer the second question (Are there any differences in the use of Edmodo due to specialization, and qualification of LD teachers?), descriptive statistics was used. Mean and standard deviation of specialization are presented in Table 2.

**Table 2
T-Test Results According to Academic Specialization**

Obstacle Dimensions	Specialization	M	SD	T	P
LD Teachers	Arabic	2.59	.197	.101	.920
	Math	2.53	.238		
Students and their Parents	Arabic	2.44	.121	1.26	.210
	Math	2.46	.116		
Technical and Administrative	Arabic	2.01	.124	.393	.695
	Math	2.03	.157		

Table 2 indicates that there are no statistically significant differences on all three dimensions of the instrument due to

academic specialization. Therefore, Table 3 shows the results according to scientific qualification.

**Table 3
T-Test Results According Scientific Qualification**

Obstacles Dimensions	Qualification	M	SD	T	P
LD Teachers	Bachelor	2.55	.225	.409	.683
	Higher Diploma	2.57	.211		
Students and their Parents	Bachelor	2.45	.133	.585	.560
	Higher Diploma	2.46	.104		
Technical and Administrative	Bachelor	2.00	.151	.695	.488
	Higher Diploma	2.02	.128		

Table 3 indicates that there are no statistically significant differences on the all dimensions of instrument due to scientific qualification.

V. DISCUSSION

In general, the results of the present study showed both high and moderate levels of obstacles that reduce the use of Edmodo in the Resource Room program in the Sultanate of Oman. In the technical and administrative domain, the lack of Web 2.0 applications on school computers are the most frequent obstacle indicated that reduces the use of Edmodo in the Resource Room program. These applications are based on Internet services that have contributed to transforming the Internet into social learning platforms that allow users to interact with one another. These applications must be available on computers in schools so that teachers of students with LDs can use them and train on them. Almekhlafi and Abulibdeh [19] showed that the Web 2.0 application contributes to the interaction and collaboration among students in the classroom and promotes independent learning. The blogs, social networking, and Wikis provide opportunities for students to communicate with each other [23]. It is not enough to install these applications on the school computers, but LD teachers must be trained to use them. In this regard, Karkoulia [24] stressed that a lack of training programs and technological equipment are the main obstacles that reduce the use of Web 2.0 applications in learning and teaching process.

The results also revealed other technical obstacles which may reduce the use of the Edmodo in the Resource Room program, such as the high cost of designing electronic educational subjects, lack of technicians to assist LD teachers in designing e-educational materials, and lack of financial allocations for educational technology. Therefore, the Omani Ministry of Education should provide financial allocations for educational technology in the Resource Room program. This contributes to the recruitment of ICT specialists who help LD teachers design e-learning activities for students with LD. Özgüç and Cavkaytar [25] recommended employing computer and educational technology teachers to support special education teachers and train them on the use of assistive technology by way of workshops. Moreover, the lack of legislation allowing the use of Edmodo in the Resource Room program was identified as the most common administrative obstacle. The shift from traditional teaching to e-learning requires that the Omani Education Ministry issue legislation that gives LD teachers authority to use assistive technology in the Resource Room program. Al-Ani [26] stressed that despite Oman's efforts to achieve sustainable development in various sectors, the Ministry of Education is still grappling with traditional teaching methods that may not meet the diverse educational needs of students.

In the area of obstacles related to teachers of students with LDs, the results identified a number of obstacles, including the fear teachers may have toward using Edmodo in the Resource Room program, the lack of in-service training program-based Edmodo applications, teachers' low belief in the effectiveness of using Edmodo in teaching, and that English is the language used in the Edmodo platform. These obstacles can be resolved by organization of workshops based on assistive technology and educational platforms. These workshops will contribute to modify attitudes towards these platforms and reducing the fear of LD teachers. Hursen [27] emphasized the effectiveness of Edmodo-assisted project-based learning applications on the skills and

knowledge of teachers.

The results indicated that there were a number of obstacles related to students and their parents, including the students' use of Edmodo as a social networking platform rather than an educational platform, internet addiction among students, and parents' resistance to using Edmodo with their children. We believe that academic LDs may contribute to poor use of Edmodo by students with LDs. This platform requires writing and reading skills and the ability to complete electronic tests, leading to students' poor use of this platform. However, the Edmodo platform can have a positive impact on students' academic skills; in this regard, Ma'azi and Janfeshan [28] stressed the positive effect of Edmodo on writing skills and on the attitudes students display toward the use of this platform as a teaching tool.

As regards the use of Edmodo as a social network rather than an educational platform, LD teachers must monitor what is uploaded on the platform and provide instructions and rules for using this platform. Ahmed [21] showed that assistive technology contributes to improve the quality of life of students with special needs, whereas, Kurtzworth-Keen and Marable [29] emphasized the positive impact of assistive technologies on academic and non-academic skills among students with LDs. Furthermore, Nordström, Nilsson, Gustafson and Svensson [30] emphasized that assistive technology applications contribute of reading and writing skills and enhance the participation of students with dyslexia in educational activities. Al-Ibrahim[30] shows the effectiveness of flipped classroom strategy, which is based on assistive technology on the attitudes, motivations, and collaborative learning of students with hearing impairments.

In contrast, the use of assistive technology and educational platforms may have negative effects on academic and social skills, as well as Internet addiction disorder, among students with LDs. By reviewing previous research, Maor, Currie and Drewry [32] concluded that some findings confirmed the ineffectiveness of assistive technology in improving spelling, reading, and writing skills for students with special needs. Thongmak [33] indicated that there were challenges facing the use of Edmodo in an educational context, such as students wasting time browsing Edmodo and focusing on using Edmodo for social networking rather than for educational purposes. Oyaid and Al-Shaya [34] recommended using Edmodo in the field of education in the Arab world.

VI. CONCLUSION

This research aimed to identify the obstacles toward using Edmodo in the Omani Resource Room program. The results indicated that there are some administrative and technical obstacles, obstacles related to the teacher, and obstacles related to students and their parents. Consequently, decision-makers in the Omani Ministry of Education must find solutions to administrative and technical obstacles that may reduce the use of assistive technology in the Resource Room program. A teacher of students with LDs in should strive to acquire the technological skills that are increasingly becoming requirements of the twenty-first century and seek to integrate ICT in educational environments. Future research should address the effectiveness of Edmodo on the academic and social skills of students with LDs and investigate the extent of ICT skills among LD teachers. Finally, there are limitations that reduce the generalization of research results to the study population in the Sultanate of Oman. First, the sample of the study comprised only female teachers because male teachers did not respond to the e-questionnaire. Second,

the research sample represented only 7 of 11 governorates in Oman. Third, the question of transparency of teachers' answers to the questionnaire items. Fourth, lack of research and theoretical literature that used the Edmodo in the Resource Room when the researcher reviewed the scientific databases at Sultan Qaboos University.

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