Middle and High School Students' Attitudes toward Distance Education: The Case of Qatar

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ABSTRACT

Countries worldwide have been facing an unprecedented virus that viciously swept throughout society, drastically changing everyday life. Governments enforced new safety measures to protect their citizens; many countries went into a complete shutdown, closing borders, sealing facilities, and changing the daily routine of their citizens. In education, children were forced to remain home and receive their education via screens. Hence, this study investigated middle and high school students' attitudes toward distance education at public and private schools in Qatar. The study followed a mixed-method approach, using online surveys (1971) and semi-structured interviews (20) to collect data. A divided stance marked participants' attitude toward distance education during the pandemic. Teachers' support, continuous feedback, sufficient learning resources, and appropriate technological skills, emerged as influential factors that could affect students' attitudes toward distance learning. Further discussion and implications are included.

Keywords: *COVID-19, distance education, attitude, teaching, learning.*

Highlights
1. Middle and high school students' attitudes toward distance education.
2. Face-to-face learning vs. distance education.
3. Advantages and disadvantages of distance education
4. Use of technology during the pandemic.

1. Introduction

Worldwide, the COVID-19 pandemic generated the most extensive interruption of education at all levels, endangering nearly 1.6 billion learners, (90%) of total enrolled learners in 194 countries (Pokhrel & Chhetri, 2021; UNESCO, 2020). The social distancing commensurate with the pandemic countermeasures forced teachers and students to rapidly shift to different learning modalities; following the restrictions adopted by each country (UNESCO-IESALC, 2020). Thus, distance learning has been used by teachers and students on an unprecedented scale (Azevedo et al. 2020), raising numerous concerns and questions, one of which is students' attitudes.

The shift to remote learning during the pandemic is not without cost; therefore, the new pandemic-context attracted the researchers' interest by investigating and looking into factors that could influence students' learning. Extent literature refers to possible factors, such as motivation, self-discipline, loneliness (Kaufmann & Vallade, 2020), quality of learner-instructor interaction (Alqurashi, 2019), learning materials, assessment, communication, technological tools, technical support (Hyseni & Hoxha, 2020), opportunities for discussion (Duraku & Hoxha, 2020), competence beliefs (Korlat et al., 2021), interest in the subject matter, learning activities, (Fajri, Baharun, Muali, Farida, & Wahyuningtiyas, 2021) self-organization and study skills (Albelbisi & Yusop, 2019).

The costs and benefits of distance learning during the pandemic continue to be inadequately understood (Engzell et al., 2021). One critical aspect that deserves attention is students' attitudes toward distance education for the significant consequences it might bear on learning outcomes (Liaw, Chen, & Huang, 2008; Smidt, Bunk, McGrory, Li, & Gatenby, 2014). Students are at the heart of education, and it is paramount to listen to them; the invaluable input they can provide regarding the quality of education during the pandemic could help in minimizing the challenges and in improving their learning; better-shaping their attitudes (Mailizar, Abdulsalam, & Suci, 2020; Means & Neisler, 2021).

In Qatar, the Ministry of Education and Higher Education (MOEHE) swiftly moved to distance learning to curb the spread of COVID-19 (MOEHE, 2020). For example, the MOEHE launched the digital learning platform "Qlearning" to facilitate and support students' distance learning; the MOEHE teachers and curricula specialists designed "Mzeed," an educational platform that provides digital and interactive resources to supplement students' education. The MOEHE also provided access to e-learning computers, tablets, laptops, and hundreds of broadband devices along with Internet access to students who needed them during the pandemic.

Hence, this study is a mixed-method approach that used an online survey and a semi-structured interview as the main tools to explore students' attitudes toward distance learning during the COVID-19 pandemic. More specifically, the study investigated the influence of gender, grade level, school area, and type of school on students' attitudes.

This study adopted the term 'distance education' as conceptualized by Holmberg (1983, 1989) when relating effective teaching to factors like attitude toward cooperation, belongingness, and readiness, founded on the concepts of independence, learning, and teaching. This study conceives distance education as delivery of teaching via technology in a context that separates the instructor and the learner in time and space with the possibility of face-to-face interaction (Kanwar & Daniel, 2020).

2. Literature Review

In the area of distance learning, research demonstrates increased positive attitudes lead to an increase in motivation (Lin & Lehman, 1999; Ryan & Deci, 2000). Likewise, students' attitudes toward distance learning could significantly impact learning outcomes (Liaw et al., 2008; Smidt, McDyre, Bunk, Li, & Gatenby, 2014). During COVID-19, several studies linked students' attitude toward distant learning to higher academic performance (Aguilera-Hermida, 2020; Engzell, Frey, & Verhagen, 2020; Hebebci, Bertiz, & Alan, 2020; Tan, 2020), while others related attitudes to the changes within the local context caused by COVID-19 (Lee, Lim, Allen, & Choi, 2021). This study reviewed the extant literature focusing on the advantages and disadvantages of distance learning, learning loss, gender, school type, and location.

2.1. Students and distance learning

Recent research examining distance education during COVID-19 found most students prefer face-to-face learning (Bray, Chorcora, Donohue, Banks, & Devitt, 2020; Naah, 2020). Priyadarshini and Bhaumik (2020) stated that only 35.2% of senior secondary school learners believe online classes are as effective as face-to-face classes. Similarly, middle school students who were unenthusiastic about online learning and preferred in-person classes received low grades during the COVID-19 pandemic (Lee et al., 2021). When exploring the effect of cognitive and behavioral engagement of 325 Saudi students during the COVID-19 pandemic, students found remote learning convenient but loaded with difficulties in focus, motivation, and behavioral disengagement (Thompson, 2020). According to Adnan and Anwar (2020), students found

conventional classrooms more motivating than distance classes.

Fabunmi, Brai-Abu, and Adeniji (2007) contend that features of the classroom environment influence students' attitudes toward learning. Research indicates students across all grade-levels, during the school closures, encountered several difficulties, such as internet disconnections and technological failures, that could have affected their attitudes toward distance learning (Al-Harthi & Saudagar, 2020; Almossa, 2021; Hussein, Daoud, Alrabaiah, & Badawi, 2020; Means & Neisler, 2021). Hussein et al. (2020) confirmed a drop in students' attentiveness due to the various interruptions in the environment. In Yates, Starkey, Egerton, and Flueggen (2021), participants reported looking after siblings or helping in household chores was challenging, causing them to lose motivation for learning. Other studies proposed factors that could have contributed to students' negative attitude toward distance education. The amount of workload (Almossa, 2021; Yates et al., 2021; Zhang, Wang, Yang, & Wang, 2020), the lack of interaction with students and instructors (Adnan & Anwar, 2020; Mok, Xiong, Bin Aedy, & Hamzah, 2021), and insufficient support from instructors (Lee et al., 2021) are possible contributors. On the other hand, Hussein et al. (2020) mentioned safety, convenience, and improved student participation among frequently cited positive outcomes for the COVID-19 online learning experience. Yates et al. (2021) found high school students in New Zealand prefer visuals such as watching movies, YouTube clips, and teacher-developed recordings; the immediate access to these resources is appealing to them.

2.2. Distance learning: loss of learning

Research carried out during the pandemic linked students' attitudes toward distant learning to academic performance (Aguilera-Hermida, 2020; Engzell et al., 2020; Hebebci et al., 2020; Tan, 2020). Hussein et al. (2020) contend that students' learning loss during the pandemic lockdown has not been accurately assessed. However, research, in general, indicates that the pandemic has slowed students' academic progress, leading to a learning loss (Azevedo, Hasan, Goldemberg, Iqbal, & Geven, 2020; Engzell et al., 2021; Kuhfeld et al., 2020; McKinsey-Company, 2021). Engzell et al. (2021) assert that students' academic performance demonstrated through standardized test scores has decreased during the COVID-19 pandemic. More explicitly, research has reported high school students learn more when attending school in person (Reimers, Schleicher, Saavedra, & Tuominen, 2020; Yates et al., 2021). Hence, most students would hold online learning responsible for the decline in the quality of education delivered during the pandemic (Thompson, 2020).

2.2. Gender and distance learning

Research contains different statements about the relationship between distance education and gender. Nikou and Maslov (2021) found that the gender of the student influences decisions about e-learning participation; according to the authors, the perceived challenges of COVID-19 could create a more adverse result on female students than on males. On the other hand, Korlat et al. (2021) reported female adolescents as displaying higher competence in digital learning, showing higher intrinsic values for online education and learning engagement than male students. Alghamdi, Karpinski, Lepp, and Barkley (2020) contend females demonstrated stronger self-regulation than males, and this led to significantly more positive online learning outcomes.

Korlat et al. (2021) were not the only researchers who refuted any significant effect for gender on students' attitudes toward distance education; to the contrary, Mondal and Das (2021) also disaffirmed any significant effect for gender on the attitudes that male or female secondary students could develop toward online education.

2.3. Distance learning: school location and type

Although research is limited regarding any influence for school type and location on students' attitudes toward distant

learning, several studies examined those factors. For example, Mirahmadizadeh et al. (2020) found no connection between students' attitudes toward school location and online education in terms of school type. Sarfo, Amartei, Adentwi, and Brefo (2011) compared students' attitudes toward distance education in urban and rural Ghana; however, they could not connect school location to the kind of attitude that urban male and female students could develop toward the use of Information Communication Technology (ICT) for teaching and learning.

Conversely, Bernardo, Ganotice, and King (2015) found that students in private schools in the Philippines showed positive attitude and higher motivation toward online learning more than students in public schools. Sarfo et al. (2011) also reported that male students demonstrated more positive attitudes toward the use of ICT for learning than female students in rural areas. Mondal and Das (2021) confirmed a significant difference between rural and urban students in West Bengal during COVID-19, with urban students reporting a greater positive attitude than rural students. Overall, urban learners had more positive attitudes towards ICT than those who live in the rural parts.

3. Theoretical Framework

This study grounds itself in the interaction and communication theory (Holmberg, 1983 & 1995) and, where Holmberg (1989) argues that the attitudes regarding cooperation, belonging, and readiness to participate in communicative classroom exchanges hugely affect distance education. In Holmberg (1989) words:

Distance education is a concept that covers learning and teaching activities in the cognitive and/or psychomotor and emotional domains of the individual learner and the supportive organization. It is characterized by uninterrupted communication and can be done anywhere and at any time, which makes it attractive to adults with professional and social obligations. (Holmberg, 1989, p. 168)

The motivation theory (Maslow, 1943, 1953, 1970a, 1970b) also lends support to this study; people achieve their goals driven by their needs starting from the basics up until they achieve the most they can be. According to motivation theory, people reach their optimal potentials as long as their needs are satisfied one-at- a time where the survivals take priority (physiological, safety, esteem, love and belongingness).

Once an individual's physiological needs are satisfied, the needs for security and safety become salient. People want to experience order, predictability and control in their lives. These needs can be fulfilled by the family and society (e.g. police, schools, business and medical care. (Maslow, 1870b).

4. Purpose of the study

In this study, the researchers explored students' attitudes toward distance education in the State of Qatar during the COVID-19 pandemic. The researchers explored the impact of gender, grade-level, school area, and type of school on students' attitudes. Three questions drove this study:

1. What are the students' attitudes toward distance learning during the COVID-19 pandemic?

2. Are there any statistically significant differences (p≤ 0.05) between the mean responses of school students regarding their attitudes toward distance learning in light of the COVID-19 pandemic attributed to gender, grade, school area, and type of school?

3. What other factors could affect students' attitudes toward distance learning during the COVID-19 pandemic?

This study is distinctive because it targeted middle and high school students in public and private schools at a national level, which allowed the researchers to investigate

responses from expectedly two different environments.

The population of the study included students in Preparatory and Secondary stages in both public and private schools in Qatar for the academic year 2020\2021. (See Table 1).

5. Methodology
4.1. Sample

Table 1

Distribution of the population according to different disciplines.

Type	Stage	Qatari		Non-Qatari		Total
		Male	Female	Male	Female	
Public	Preparatory	8151	8948	7445	7510	32054
	Secondary	10323	10102	7499	7368	35292
	Total	18474	19050	14944	14878	67346
Private	Preparatory	4391	2871	14891	13699	35852
	Secondary	3550	1815	10436	9785	25586
	Total	7941	4686	25327	23484	61438
Total		26415	23736	40271	38362	128784

Upon receiving 1971 responses, the researchers randomly selected 20 students from those who already expressed their readiness to participate in the online interview on their free well. Table (2) describes the sample of the study.

Table 2

Students Sample distribution according to the variables

Variables	Classification	Number	Percentage
Gender	Male	985	50.0%
	Female	986	50.0%
Primary person responsible for school support	Parents (mother – father – Both)	1595	80.9%
	Yourself	312	15.8%
	Private tutoring	33	1.7%
	Sibling child	31	1.6%
Nationality	Qatari	206	10.5%
	GCC	38	1.9%
	Non-Qatari (Arabs)	469	23.8%
	Non-Arabs expats	1258	63.8%
Type of school	Public	453	23.0%
	Private	1518	77.0%
Grade	7	158	8.0%
	8	127	6.4%
	9	392	19.9%
	10	628	31.9%

	11	482	24.5%
	12	184	9.3%
Internet access	Yes	1669	84.7%
	Yes, but it does not work very well	262	13.3%
	N0	40	2.0%
Access to a device use for distance learning	Yes	1312	66.6%
	Yes, but it does not work very well	114	5.8%
	Yes, but another household have to use it when my child needs it	319	16.2%
	N0	226	11.5%
Way's school deliver distance learning	online	1064	54.0%
	Print materials	35	1.7 %
	Both online and print materials	872	44.2%
Time do you spend participating in and completing distance learning schoolwork each day	0-2 hours	259	13.1%
	3-5 hours	982	49.8%
	6-7 hours	434	22.0%
	More than 7 hours	108	5.5%
	Not sure	188	9.5%
School hold extra curriculum activities	Yes	1290	65.4%
	No	681	34.6%

4.2. Instruments

This study followed the mixed method design through administering a survey and conducting a semi-structured interview specially developed to serve the purpose of this study.

4.2.1. Survey

In order to reach out to middle and high school students in the schools of Qatar, the researchers developed an electronic survey using Microsoft Forms. The tool consisted of two parts: the demographics and the attitudes. The demographics of the survey included the respondent's gender, nationality, school area, grade level, school types, ways school deliver distance education, time spent on school work, internet access and extra-curriculum activities. The second part of the survey focused on students' attitudes where the researchers referred to the available literature to develop the survey ending up with 31items.

To validate the accuracy, relevance, and the clarity of the survey items, the researchers sent the instrument to a group of specialists, whose feedback was valuable in bringing out the survey in its final 26 items. For the internal validity, the instrument was piloted on 25 students where the correlation

values came positive and statistically significant at (0.01), suggesting that all items are interrelated and valid. Regarding the reliability of the survey, the reported Cronbach Alpha coefficient was (0.84).

4.2.2. Interview

In order to collect more in-depth data to describe the phenomena under investigation, the researchers used the semi-structured interview following Spradley's model (1979). Accordingly, the interview consisted of two types of questions: the grand tour and the mini tour questions. In the first type, the researchers use prepared questions built around the main questions driving the study, while the researchers develop the second type of questions spontaneously as a follow up on the student's responses, asking for more elaborations and clarifications.

4.3. Data Collection and Analysis

The first phase of data collection took place in April and May 2021, after securing the approval of the Institutional Review Board (IRB) at Qatar University (QU-IRB 1481-EA/21) (see appendix A). The electronic survey was distributed to the students via emails sent by the MOEHE. The original time window given to receive students' responses was 30 days, but the researchers had to extend that for another 30 days in order to give students more time to respond because it was almost the end of the school year. In the second phase, the researchers interviewed 20 voluntary participants via zoom platform, where the researchers started the online interviews after receiving the preliminary quantitative results of the surveys.

The volunteers signed the informed consent before carrying the interviews. All interviews were recorded for later transcription. For data analysis, the researchers processed the quantitative data using SPSS 27; the researchers carried the descriptive statistics and One-way ANOVA to respond to the first and second questions. In the case of the interviews, the researchers followed Spradley's 'domain-analysis' model (1971) where the model sorts out the data according to the emerging themes (figure 1). Subsequently, the researchers juxtaposed the immerging themes with the relevant quantitative results per each of the study main questions.

6. Results

Question 1: What are the students' attitudes toward distance learning during the COVID-19 pandemic?

To answer this question, the researchers referred to both the surveys and the interviews. As Table 3 shows, the means of students' responses range between medium (M= 1.66, SD=.800) to high level (M= 2.79, SD= .473), with an overall mean average of (M= 1.98, SD=.60), denoting a medium level of students' positive attitude toward distance education during the pandemic. To facilitate data interpretation, it is worth noting that the responses were categorized into three levels (high= 3.00 – 2.34, medium= 2.33 – 1.67, low= 1.66 – 1.00); the 3-point Likert scale was calculated (3 − 1= 2) then divided by the greatest value (2÷ 3= 0.67).

Table 3

The attitudes of students toward distance learning during COVID-19 pandemic

Items	Mean	S. D
There are differences between distance and conventional learning	2.79	0.473
My school provide me clear instructions for how to access the instructional materials for my classes	2.72	0.542
I feel qualified to use a computer/laptop	2.70	0.577
My teachers are available to me when I need help	2.65	0.592

Face-to-face contact with the instructor is necessary for learning	2.64	0.629
My teachers provide me with the right amount of schoolwork during distance learning	2.56	0.647
My teacher's feedback support me in my distance learning	2.56	0.632
My teachers provide me with several different ways to demonstrate my learning	2.53	0.650
I could work at my own pace	2.49	0.658
Offering extra curriculum activities has been negatively affected by COVID-19	2.46	0.698
Teaching special courses has been negatively affected by COVID-19	2.40	0.731
Live sessions provided me with interactive learning opportunities	2.40	0.710
I learned to better manage my own schedule	2.40	0.724
I am comfortable communicating electronically	2.39	0.739
Pre-recorded lessons gave me flexibility to do my schoolwork when it worked best for me	2.36	0.717
I finish my schoolwork in fewer hours, so I can spend time doing other activities that interest me	2.35	0.759
My wellbeing has been negatively affected by the impact of COVID-19 on extra curriculum activities	2.35	0.748
I keep up with my schoolwork as much as I was before the COVID-19 crisis	2.32	0.768
live sessions are sufficient to me during distance learning	2.30	0.703
My wellbeing has been negatively affected by the impact of COVID-19 on special courses	2.29	0.752
I am satisfied with the distant learning provided to me	2.25	0.773
School courses could be completed effectively through internet	2.17	0.760
It is easy to complete group projects/assignments digitally	2.13	0.793
I am well rested and less stressed	2.10	0.831
I am learning as much as I was before the COVID-19 crisis	2.10	0.809
Distance learning is more motivating than conventional learning	1.66	0.800
Overall	1.98	0.60

On the other hand, students' responses on the interviews generated several important themes. First, students differed on the type of learning that was the most effective; justified by several reasons, the majority of students preferred the face-to-face learning. In their opinion, face-to-face learning is more enjoyable and stimulating, and it helps students get more focused, organized, committed, serious, and it helps students develop stronger student-student-student and student-teacher relationships.

The second major theme relates to the tools and means that the schools have followed (live broadcast or pre-recorded videos) when implementing distance learning during the pandemic. The majority of the students believe that live broadcasting is more useful and effective. Still, small number of students felt divided between the two options: while the pre-recorded videos are more useful and effective for easy access, some students believe that live broadcasting is equally important.

The third theme revolves around students' achievement. While the majority of students overwhelmingly believe that their achievement has deteriorated during the pandemic, fewer students believe that they could achieve their learning goals but with more effort and responsibility. Similarly, this division among students appeared when asked about the tasks and assignments they were asked to do; while some of the students believed that the tasks and assignments were appropriate and sufficient, others thought it was inappropriate and unnecessary.

The last emerging theme depicted students' diverged attitude toward distance learning in terms of their level of satisfaction regarding the cooperation, support and motivation their teachers and schools provided to them to participate, interact and communicate with their teachers when needed. The majority of the students expressed their satisfaction with the kind of support they received when needed; students' responses confirmed receiving encouragement and support that motivated them to participate and interact in a variety of ways.

Question 2: Are there any statistically significant differences ((p≤ 0.05) between the mean responses of students' attitudes toward distance learning in light of the COVID-19 pandemic attributed to gender, grade, school area, and type of school?

According to Table 4, significant differences in students' attitudes are pertinent to gender, primary person, nationality, school activities, access to devices and grade level. The Post hoc-test assigned the source of differences in students' attitudes to significant variables. Male students and students who received parental support showed more positive attitudes toward distance learning during the pandemic compared to female students and students who depended on themselves. In addition, the results also showed that Qatari and non-Arab students expressed more positive attitudes towards distance learning than non-Qatari Arabs.

Table 4

Differences in students' attitudes due to different variables

Variables	Type III Sum of Squares	df	Mean Square	F	Sig.
Gender	1.984	1	1.984	6.048	.014
Primary person School Type	3.756	4	.939	2.862	.022
	.226	1	.226	.690	.406
Nationality	4.519	3	1.506	4.591	.003

School activity	14.741	1	14.741	44.932	<.001
Internet access	1.484	2	.742	2.261	.104
Access to device	12.955	3	4.318	13.163	<.001
Ways school deliver DL	1.557	2	.778	2.373	.094
Time spent on schoolwork	2.703	4	.676	2.060	.084
Grade	17.960	5	3.592	10.949	<.001

Further, the results unveiled positive attitudes toward distance education related to the extracurricular activities that schools offer during the pandemic and the easy access to the devices used for distance learning. The last significant result shows more positive attitudes for students in grades nine and ten than eleven and twelve graders.

Question 3: What other factors could affect students' attitudes toward distance learning during the COVID-19 pandemic?

In order to answer this question, the researchers depended on the 20 online interviews. Based on the qualitative analyses, the researchers drew several factors and grouped them into two domains: positive attitudes and negative attitudes. The first domain included five major factors: teachers' continuous support, skills in technology, effective and direct interaction, appropriate and adequate tasks and assignments, and students' self-satisfaction. On the other hand, the second domain included another five factors: extracurricular activities, poor motivation, deterioration in the quality of learning, decline in student well-being, and educational loss.

7. Discussion

Primarily, a close resemblance overshadows the overall result of the study that points at a moderate level in students' attitudes toward distance education, a stance that aligns with other research studies reporting similar students' attitudes toward distance education (Kemp & Grieve, 2014; Mulyanti, Purnama, & Pawinanto, 2020). Although students during the interviews supported the regular classroom attendance, similar to findings in Paechter and Maier (2021), it seems the official efforts to mitigate the disadvantages of distance education during the pandemic played a critical role in shaping students' attitudes.

Focus, organization, commitment, and seriousness were the driving force behind students' preference for face-to-face learning. Students prefer their teachers' real and physical presence in class, interacting, directing, and giving immediate feedback on the spot rather than behind screen. Face-to-face learning engages students within the learning context motivating them to correspondingly interact with their teachers' body language and tone of voice compatible with the delivery of instruction. For the same reason, students preferred live broadcasting to recorded videos. In addition, students consider face-to-face learning as more fun and stimulating where they get firsthand experience watching their teaching-learning happening for real, a condition they viewed crucial to compete and demonstrate skills and excellence. Further, students believe face-to-face learning helps developing stronger relationships among themselves and with their teachers as well. Students at this age are interested in building their relationships, establishing their groups and developing a sense of belonging; literature supports the importance of peer engagement and learning communities in enhancing students' learning experience (Everett, 2015; Gray & DiLoreto, 2016).

The technical and financial difficulties appeared as influential factors on shaping students' attitudes toward distance education. Face-to-face learning saves students the technical

hassles that could thwart their learning, not to mention the accrued financial burden of accessing the internet and the learning devices. When the class is in session, and the service is interrupted, network or server overload, teachers, students, and parents may not have the leverage to fix these emergencies on spot.

Students' well-being also appeared as another factor that helped shaping students attitude toward distance education. While students believe that face-to-face learning supports their wellbeing, distance education would ravage that. In their words, students believe distance learning could cause them health problems on the long run due to the long hours they spend in front of their laptops. Health issues like the visual, musculoskeletal spinal, obesogenic, along with the psychological and behavioral side effects are all computer-related health concerns. These concerns are legitimate and accurate; empirical studies reported students' suffering from different levels of mental disorders (Essadek & Rabeyron, 2020; Khan et al., 2020), anxiety and depression (Essadek & Rabeyron, 2020), and a decrease in motivation and adverse emotions (Tan, 2020).

Achievement also showed up as an influential factor on students' attitudes. According to the findings of this study, most of the students asserted that their achievement fell short of meeting the expectations. Recent research confirmed this finding where several studies connected students' learning loss to the pandemic (McKinsey-Company, 2021; Montoya, 2021; Rehman, 2020). Perhaps, students' seriousness, commitment toward schoolwork and eagerness for success on one hand, and students' negligence and absence on the other could help understand this dissatisfaction with their achievement. Students' complain about the volume of the tasks and the assignments during distance education, describing those as inappropriate, could have contributed to the way they viewed distance education. Some students responded to that by investing more effort, stronger determination, and more sense of responsibility in order to maintain an acceptable level of achievement. Research has reported that the large workload for students was

common during the COVID-19 and online learning (Rotas & Cahapay, 2020).

According to the results, students' attitude was not affected by factors of gender, grade, school area, school type, and internet access. Probably, the support and the efforts exerted by the MOEHE to stand up against the crisis on the one hand, and the appropriate logistics prior to the crisis, though on a different scale of use, minimized the impact of such factors. Away from the incurred cost that families had to burden, internet access was not an issue for students had access to the internet prior to the pandemic.

When considering students' grade level, the results distinguished between ninth and tenth graders on one hand and the eleventh and twelfth on the other. While students in grades 9 and 10 were more positive toward distance learning, students from grades 11 and 12 demonstrated less positive attitudes. Normally, students at higher-grade levels could be experiencing more study pressure due to the advanced content in the higher stage, which adds to students' stress and workload in the absence of face-to-face interaction with their teachers. This leads us to raise up the importance of providing extracurricular activities during time of crisis to lift up students' motivation. This study claims that students' attitudes at the schools that continued to provide extracurricular activities during the pandemic were more positive than those who were not exposed to such activities. Students at similar circumstances are in need for extracurricular activities to support their motivation for learning.

Access to distance-learning devices appeared as a variable that affected students' attitudes. This variable placed additional pressure on big-size families where there are often fewer devices but more siblings. Similarly, this study showed that Qatari and non-Arab students are in favor of distance education more than the non-Qatari Arabs. One could infer that the level of income for Arab families could be one possible reason since it could impede their ability to afford internet or devices to their family household, especially since the pandemic hit suddenly when such families were not financially ready. These

findings align with research that reported the socio-economic status could be a strong predictor of digital disparities, including Internet access and quality of hardware and software, which exacerbates academic disparities (Cruz-Jesus, Vicente, Bacao, & Oliveira, 2016; Goudeau, Sanrey, Stanczak, Manstead, & Darnon, 2021).

The last two results related to family support and gender. This study demonstrated that students who received parental support when doing their schoolwork developed more positive attitudes toward distance education than those who did not receive similar family support. Logically, students who receive help in schoolwork would psychologically be less vulnerable against study-related pressures than those left alone. Recent research (Duraku & Hoxha, 2020; Sosa Díaz, 2021) concluded similar results demonstrating the importance of parental support on students' attitude and pressure. Concerning gender, the results were in favor of males. It would help us understand this finding if considering the local social context where females are inherently more apt at this stage to socialize with their peers; on the other hand, males enjoy more freedom by going out and hanging out with their friends. This specific finding needs more studies to unveil more about the local social life and its contribution to students learning.

8. Conclusion

The world we knew before COVID-19 is not going to be the same; the abrupt closures and lockdowns left the world paralyzed. Admitting the magnitude of the crisis and its devastating results on every walk of our life should maximize our intake by beating the odds and finding our silver line even in the darkest moments. Going through such an unprecedented pan-continental crisis would change the way we used to run daily routine and would drive us to rethink our lifestyle, reconsider our limits and boost our chances.

Closing schools was among the first safety measures that governments enforced to curb the pandemic. The world stopped sending students to their classes; instead, our children were directed to stay home and receive their education via different technological tools. Screens became our children's new distention every morning; students have to spend hours in front of a computer, a smart phone or maybe an iPad. This context triggered this study through targeting middle and high school students' attitude toward distance education in Qatar, the World Cup 2022 host.

The mixed-method study design, benefiting from the survey and the interview, enabled the researchers to reach out to 1971participants, a sample size that enriched the pool of data and allowed generating themes leading to a comprehensive overview. To sum up, students were not enthusiastic about the distance education, although they could recognize the important role that technology might play in enhancing our classrooms. This study managed to identify a group of factors that could interfere in shaping students' attitudes toward distance education; teachers' support and continuous feedback, enough learning resources, and proper technological skills topped the list as influential factors.

Herein, the researchers conquer on the most important finding of this study: the congruency in the overall middle and high school students' moderate attitudes towards distance education. In the majority, students based their preference for face-to-face learning on several reasons. In students' words, face-to-face learning helps them get more focused, organized, committed, and serious; in their opinion, real interaction with their teachers is fundamental. In conclusion, maybe distance education has its merits, but teachers' real presence in classroom is irreplaceable.

Declarations

Conflict of Interest

"The authors declare that they have no competing interests".

Availability of data and materials

The datasets generated and/or analyzed during the current study are not publicly available due [to IRB individual privacy regulation] but are

available from the corresponding author on reasonable request.

Authors' contributions

Each author has made substantial contributions to the conception, design of the work, analysis, and interpretation of data. All authors have drafted the work, revised it, and approved the submitted version. All authors have agreed both to be personally accountable for the author's own contributions and to ensure that questions related to the accuracy or integrity of any part of the work, even ones in which the author was not personally involved, are appropriately investigated, resolved, and the resolution documented in the literature.

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