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Abstract

This paper presents the findings from a study conducted to explore the impact of the COVID-19 pandemic and subsequent school closures on the wellbeing of gifted students and their attitudes towards online (distance) learning. The impact of the COVID-19 pandemic circumstances on the parents of gifted children was also explored in this study. Data collection was via semi-structured interviews with gifted students ($n = 25$) and parents of gifted students ($n = 10$). This study found that school closures and home isolation resulted in gifted students and their parents experienced a heightened sense of burdened and an increase in the tension within the family. Additionally, changes in the psychological wellbeing of the gifted students were observed. COVID-19 has had a significant disruptive effect on the routines of gifted students, restricting their capacity to move freely and causing them to experience adverse outcomes including sleeping difficulties, loneliness, lack of motivation, and a sense of helplessness. Gifted students also reported generally negative attitude towards online learning, describing it as inadequate, inefficient, and limited in its opportunities to promote student interaction and discussion. This paper also includes suggestions on how support for gifted students can be improved to help them to achieve to their potential both during and after the pandemic.

Introduction

Ongoing developments in technologies for learning continue to facilitate the transition of teaching and learning from traditional classroom settings to the online format (Olszewski-Kubilius & Corwith, 2010). Online learning also supports student-centered approaches to teaching and learning (Potts, 2019). Online learning is also considered to provide greater potential for students to implement more flexible approaches to learning in terms of when and where to learn. The positive affordances of online learning have been shown to make this format appealing to some students whose diverse learning needs are not being met in traditional classrooms (Gilbert, 2015). This includes gifted students who often experience a differentiated curriculum to accommodate their academic and learning needs (VanTassel-Baska & Stambaugh, 2005). Nevertheless, when contemplating whether online learning is appropriate for gifted students, it is important to consider the subjects being studied and their learning styles and preferences (Amend et al., 2020).

Studies have long reported evidence of the multifaceted nature of the challenges that gifted children face in the process teaching (e.g., Galbraith, 1985; Kunkel et al., 1992). More recently, Neihart and Yeo (2018) reported that the main psychological challenges often identified by gifted children are: (1) a stronger sense of anxiety and uncertainty in regard to planning for the future; (2) internal conflict about whether a partner is more important than a career; (3) difficulties finding like-minded people with similar interests and abilities; (4) the inability of the school environment to meet their needs or interests; and (5) feeling the need to be perfect. This is because their learning styles and preferences are often reported to be different to those of non-gifted students (Kahyaoglu, 2013). For instance, gifted students are reported to demonstrate improved academic performance in subjects requiring active participation. This implies an enjoyment of learning and a willingness to actively share their knowledge with their peers and to meet their teachers' expectations (Kahyaoglu, 2013).

Previous research has also reported that a high level of academic performance of gifted students and their more pronounced interest in learning is often stems from intrinsic motivation and the desire for autonomy in learning (Lee & Olszewski-Kubilius, 2006). When considered in relation to online learning, this may be considered to advantage gifted students given motivation and the ability to self-regulate are viewed as central to successful online learning (Kahyaoglu, 2013; Matuga, 2009). Regarding gifted students' attitudes towards online learning, Potts (2019) identified three key factors: (1) the opportunities afforded them to interact with the other online participants, (2) the teaching and learning materials, and (3) how they experience the technology being used. According to Potts (2019), gifted students are often worried about the limited opportunities for social interactions with classmates and the teacher in a virtual classroom.

Parental Support

Support from parents is regarded as particularly important during the child's adolescent years, with several studies reporting that a parent's most important role during adolescence is to be a key figure and role model in their child's life (Amend et al., 2020). Parents are advised to permit their child to express feelings openly, and to consider things from their perspective (Parenting for Lifelong Health, 2020). However, parents often feel they do not have the necessary resources to deal with their child's developmental issues which may include perfectionism, heightened sensitivity, and difficulties building relationships with peers (Haberlin, 2015). The strategies used by parents of gifted children to overcome these challenges considered to have a positive impact on their child include providing emotional support to the child, being sensitive and attentive to their special needs, providing various experiences, and serving as a teacher or mentor for their child (Jolly & Matthews, 2012). In response to the COVID-19 pandemic, many domestic and international mental health institutions (e.g., (Parenting for Lifelong Health, 2020) provide open resources to parents and advise parents to participate in joint activities with their child, discuss topics of interest to their child, and get them involved in preparing the daily routine.

Educating Gifted Students: Care Centers in Saudi Arabia

Care Centers for gifted children and youth in Saudi Arabia provide this cohort with educational, social, and psychological support. The Centers are administered by the General Administration for Gifted Students, with the

administration body including a Centre Director, teachers, behavioral specialists, and learning specialist and general support teachers. Saudi Arabia has 31 Care Centers for boys and 20 Care Centers for girls (Ministry of Education [MOE], 2015). The responsibilities of teachers include the implementation of learning programs for gifted children prepared by the General Administration for Gifted Students to improve their leadership skills, social skills, and scientific research skills, along with parents' knowledge of the importance of differentiated learning for gifted students.

COVID-19 and Education in the Saudi Context

The 'sudden transition from regular classroom teaching to online classes in Saudi Arabia due to the COVID-19 pandemic has led to students and teachers experiencing significant challenges (AlSalih, 2020). In turn, during the COVID-19 pandemic, the Mawhiba Foundation has supported gifted students through the provision of enrichment programs, advanced teaching and learning materials, and psychological support (Mawhiba, 2020). However, several issues have been brought to light including complications with online teaching platforms, inadequate prior experience in how to use the platforms, and limited Internet connectivity (AlSalih, 2020). As a result, the systems recently underwent upgrades in response to the COVID-19 pandemic and the Saudi MOE launched various learning strategies to support the distance learning process for students (Alshehri, Mordhah, Alsibiani, Alsobhi, & Alnazzawi, 2020).

In 2020, the Saudi MOE also launched the 'My School' (Madrasati) platform which serves over 6 million students and their parents, along with more than 500,000 people in education positions. The platform includes visual communication pathways, options to upload assignments, enrichment materials, previously recorded lessons, and past tests and examinations (Alshehri et al., 2020). Additionally, 23 TV channels have been made available to complement other initiatives to benefit students including 'Future Gate', the 'Saudi Virtual School', and the 'Virtual Kindergarten'.

It is estimated that 6 million students and 500,000 teachers across Saudi Arabia are registered users of the virtual classes made available via the Madrasati platform. 'Initiatives and collaborations have also been established between the ministry and other organizations (e.g., Takaful) to support students who cannot cover the costs required to utilize the platform (Alshehri et al., 2020). Furthermore, the MOE provides six successful educational platforms, benefitting an estimated 3 million students (Barakat, 2020). The shift to online learning space has also invited students to engage with and utilize new technologies for learning and is considered to contribute to the development of students' thinking skills (Barakat, 2020).

Nonetheless, remote (online) learning has its critics in Saudi Arabia who point to the issues around the supervision of students during assessment tasks and examinations and the potential for plagiarism (Alshehri et al., 2020). There is also the potential for students to demonstrate poor self-discipline and to lose focus because they are not in their usual classroom environment and can therefore not apply themselves fully to the learning task what they want (Basalamah & Elyas, 2014).

Relevance of the Study

COVID-19 has proven to pose challenges to education systems worldwide. Understandably, this has raised concerns about equal opportunities for all children to access quality education (Duraku & Nagavci, 2020). Regarding gifted students, the capacity to adapt teaching methods to meet their individual learning needs and preferences, to undertake curriculum differentiation, and to provide ongoing support to stakeholders are deemed essential to support them to achieve to their full potential (Türksoy & Karabulut, 2020). Therefore, research studies of their experiences of online learning during the COVID-19 pandemic and their attitudes towards online learning more generally must be conducted to ensure sustainable, individualized and accessible education programs to gifted children (Duraku & Nagavci, 2020).

Additionally, parents of gifted children make decisions regarding the suitability of an academic program to meet their child's special learning needs (Haberlin, 2015). Therefore, the current study also aims to investigate the impact of the COVID-19 pandemic and subsequent school closures on the welfare of gifted children from the parents' perspectives along with their attitudes towards distance (online) learning. The findings from the analysis of the data collected on the impacts of the pandemic and shift to online learning can then inform education intervention programs in the future.

Method

This study adopted a descriptive phenomenological research design to investigate the factors that influence the wellbeing and impact on the day-to-day learning activities of gifted children and the parents of gifted children during the COVID-19 pandemic. Criterion sampling was utilized for participant recruitment. The sole criterion for selection of the gifted participants was that she or he has been identified as gifted as indicated by an IQ score greater than 140. The sole criterion for the selection of the parent participants was that he or she is the parent of a child who has been formally identified as gifted. Access to potential participants was facilitated with the cooperation of the Gifted Centers in the Education Departments in Saudi Arabia.

Semi-structured interviews of all participants were utilized for data collection. All participant interviews were performed by this researcher who has knowledge of appropriate interview practices and the ethical principles underpinning human research. Each interview ran for 45-60 minutes. Demographic data were also collected at the start of the interview. Classical analysis was performed on the participant interviews to identify the main themes and subthemes which are ranked based on the frequency with which they were mentioned. Data were coded and categorized using by this researcher and a research assistant using Atlas.it software. The reliability of the coding process was established with a score of 88.0% for overall compatibility across all segments.

Results

A narrative description of the results is provided for each cohort along with the use of tabled data. Table 1 presents the demographic characteristics of the gifted student participants. The sample included 25 gifted children (male =

15; female = 10) with all but one attending a public education institution. Most participants (n = 14) were aged 15-years old almost half (n = 9) were located in the South of Saudi Arabia. Table 2 presents the demographic characteristics of the parent participants. It shows 9 of the 10 parents were female (i.e., mothers), with 6 of 10 parent to a gifted female child. The parents were all residing in urban regions in Saudi Arabia and, collectively, had children enrolled in grade 1 to grade 8.

Table 1. Demographic Characteristics of the Gifted Students

		n	%
Gender	Female	10	40
	Male	15	60
Age	14 years	11	44
	15 years	14	56
Region of residence	Urban	20	80
	Rural	5	20
Educational institution	Public	20	80
	Private	5	20
Grade	9th	10	40
	10th	15	60

Table 2. Demographic Characteristics of the Parents of Gifted Children

		n	%
Gender (parent)	Female	9	90
	Male	1	10
Gender (gifted child)	Female	4	40
	Male	6	60
Type of residence	Urban	10	100
Educational institution	Public	5	50
	Private	5	50
Grade range	1-10	1	10

Perspectives of Parents of Gifted Children

Impact of COVID-19 on the Gifted Child's Daily Routines, Engagement, and Changing Routines

Parents reported that their gifted child often felt burdened as a result of the changed lesson delivery format and homework demands during the COVID-19 pandemic. They indicated that the pandemic had caused disruptions to their gifted child's daily routines including having to remain isolated and attend lessons via a different format (i.e., online rather than face-to-face learning), as well as significant interruptions to their capacity to physically socialize with peers. Conversely, several parents reported that the COVID-19 pandemic had led to positive impacts on their child including a stronger focus on their areas of special interest, enhanced commitment to

conducting research and inquiry, and engaging in new ways to complete school assignments (see Table 3).

Table 3. Parents' Views of the Impact of COVID-19 on the Daily Routine and Activities of their Gifted Child

Themes	Subthemes
Number of activities	Overwhelmed, several obligations
Daily activities the gifted child engaged in	<p><u>Required:</u> Attend lesson, complete online schoolwork</p> <p><u>Entertainment and recreation:</u> Use technology (e.g., video games, social media platforms) Watching TV and listening to music</p> <p>Family activities</p>
Changes to the pre-pandemic routine of their gifted child	<p>Not permitted to go outside of the home as often</p> <p>Distance learning</p> <p>Minimal physical contact and socializing with friends / classroom peers</p> <p>Additional time to engage in extracurricular activities</p>
Impact of the changed routines on the gifted child	<p><u>Negative:</u> Restricted opportunities to participate in other courses and activities apart from regular school responsibilities Diminished interest in online classes despite liking to use technology</p> <p><u>Positive:</u> Sharpened the focus on areas of personal interest Finding new way to meet school responsibilities (e.g., assignments)</p> <p><u>Neutral:</u> Maintain commitment to achieving set goals</p>

Changes in Gifted Children noted throughout Isolation

Most parents (n = 8) mentioned that their gifted child experienced negative personal outcomes during the COVID-19 isolation period. Conversely, some parents (n = 2) indicated that their child was happier than usual during the isolation period (see Table 4).

The main reasons cited by parents for the negative changes were: missing peers and relatives, too much free time, loss of routine, family members constantly present, feeling disengaged from regular activities, and excessive coverage of the pandemic by news outlets. The main reasons cited by the parents for their child's happier mental state included having more free time and more opportunities to pursue personal interest activities.

The parents further indicated that the methods used by their gifted child to cope with the disruption to their lives included spending more time using technology, engaging in activities with other family members, participating

in sports, taking the time to learn more about topics of personal interest, reading, and developing new skills (see Table 4).

Table 4. Changes in the Gifted Child during Isolation as Observed by Parents, the Factors Contributing to the Changes, and Coping Mechanisms

Themes	Subthemes
Noted changes in the gifted children during isolation	<p><u>Negative:</u></p> <p>Altered sleep patterns including disturbed sleep sleeping for longer periods</p> <p>Stress</p> <p>Fear Boredom</p> <p>Concern</p> <p>Impatience</p> <p>Loneliness</p> <p><u>Positive:</u></p> <p>Child is happier</p>
Contributing factors	<p><u>Negative:</u></p> <p>Missing physical contact with friends, peers, and family members</p> <p>Too much free time</p> <p>Being unable to participate in usual activities</p> <p>Family members always present</p> <p>Excessive coverage of pandemic in the news</p> <p><u>Positive:</u></p> <p>Extra time available to pursue personal interests and hobbies</p>
Methods used by gifted children to cope with isolation	<p>Increased use of technology</p> <p>Do more family-based activities</p> <p>Playing more recreational sports</p> <p>Engaging in more personal interest pursuits (e.g., reading, painting)</p> <p>Developing new skills (e.g., cooking)</p>
Support from parents to help their child cope with isolation	<p>Doing activities together (e.g., playing games, watching a movie)</p> <p>Not as strict with house rules</p> <p>Talking to their child</p> <p>Providing emotional support</p> <p>Encouraging reading</p>

Impact of Isolation on Families due to COVID-19 Lockdowns

Parents reported that the lockdown circumstances in Saudi Arabia generated a feeling of tension within the family

and that they experienced additional burdens as a result of having to respond to increased levels of boredom in their children. Conversely, some parents reported several advantages in relation to the lockdown situation including that the family members spent more time together and that they could learn more about their gifted child’s interests (see Table 5).

Table 5. Impact of Isolation on the Family and how Parents Supported their Gifted Child

Theme	Subthemes
Impact of isolation on the family	<p><u>Negative:</u></p> <p>Child experience fear and a sense of anxiety when hearing news reports in relation to COVID-19</p> <p>Increased tension within the family unit</p> <p>Parental burdens</p> <p>Child boredom</p> <p><u>Positive:</u></p> <p>Family spends more time together</p> <p>Develop closer bonds with children</p> <p>Opportunity to learn about their child’s interests</p>

Parents’ Evaluations of Online Learning and the Factors Most Impacting their Gifted Child’s Motivation to Participate in Online Learning

Most parents of a gifted child indicated they had formed a negative evaluation of how online learning was executed during the COVID-19 pandemic in Saudi Arabia. Several parents expressed concern that the learning materials and lesson contents did not meet their child’s needs, and were critical of the televised teaching units. Conversely, two parents commented that they believed the lesson contents reflected the contents of the curriculum (see Table 7).

Several factors were mentioned by parent that increased the motivation of their gifted child to participate in online learning including opportunity to use technology, the home being a comfortable environment for learning, and not having deal directly with peers. The factors cited by parent that decreased the motivation of their gifted child to participate in online learning included increased workload, disruption from the shift to online learning, lack of interest in the subject (see Table 6).

Table 6. Parents’ Evaluations of Online Learning and the Factors Impacting the Motivation of their Gifted Child to Participate in Online Classes

Themes	Subthemes
Evaluation of online learning	<p><u>Negative:</u></p> <p>Teachers inadequately prepared for teaching online</p> <p>Teacher lacking creativity</p> <p>Technical difficulties implementing lessons</p> <p>Teaching and learning approaches do not meet students’</p>

Themes	Subthemes
	learning needs Too much homework <u>Positive:</u> Opportunity to use technology Opportunity to learn about themselves
Evaluation of learning content implemented in online classes	Does not always reflect students' needs Lesson often repetitive Learning materials lack substance Lesson activities not challenging the students No real difference to the in-class curriculum Televised lessons aired were inadequate Subject objectives not achieved
Evaluation of homework during online learning	Too many (often unnecessary) assignments Not aligned to the students' needs Often only partially adequate or fully inadequate
Interacting with peers and teachers during online learning	Increased communication and interaction by students Students forming strong relationship with peers Increase in the level of communication with teachers More formal approach adopted when communicating with teachers
Factors to positively influence gifted child's motivation to participate in online classes	Opportunity to use technologies Home is a comfortable learning environment Need to be creative when completing class assignments Teachers provide more encouragement to students More flexible school hours Shorter lesson times Extras free time
Factors to negatively influence gifted child's motivation to participate in online classes	Too much homework Disruption from shifting to online learning Lack of interest in subjects being taught Restricted opportunities to socialize with peers Teachers who are unable to engage students and maintain their attention

Parents' Recommendations on How to Improve Online Learning and their Attitudes towards Continuing Online Lessons after the Pandemic

The participating parents indicated that online learning quality could be improved in several ways including of more quiz tasks, learning competitions, the facilitation of online debates, and more experiment-based learning

tasks (see Table 7).

Table 7. Parents' Recommendations on How to Improve Online Learning Quality and their Attitudes toward Ongoing Online Learning Following the Pandemic

Themes	Subthemes
How to improve the quality of online learning	<p>More quizzes, learning competitions, and online debates</p> <p>Include more experiments in the learning tasks</p> <p>Increase the level of teacher-student interaction</p> <p>Add Science content</p> <p>More instruction from teachers at the student's school than relying on televised lessons</p> <p>Improving teachers' knowledge and skills in technology use</p>
Attitudes towards the ongoing use of online classes (post-pandemic)	<p>A good idea if the current approach is improved</p> <p>A good idea if parents are supported to better assist their child</p> <p>A good idea if the learning contents are more aligned to individual student needs. A good idea if a standardized approach to implementing lessons is adopted by teachers</p> <p>It is not a good idea because it prevents students from achieving to their potential</p> <p>It is not a good idea because the school setting included opportunities for positive socialization</p>

Regarding the parents' attitudes towards continuing to conduct online lessons after the end of the pandemic, the majority of parents (n = 8) thought that it should remain a teaching and learning option if certain conditions were met including it is better organized more adequately, there are better opportunities for parents to support their child, and if the subject's learning content and all teachers adopted a standardized approach to implementing such classes. Conversely, two parents indicated a negative attitude towards continuing online classes because they do not provide adequate conditions for the students to develop to their full potential because the school environment has its own advantages in relation to developing children's interpersonal and social interaction skills (see Table 7).

Views of Gifted Students

Impact of COVID-19 on Gifted Students' Daily Activities

The gifted students in this study indicated several impacts of home isolation and physical distancing due to COVID-19 including changes to their daily routines / activities during the pandemic related to not leaving the home as often, spending more time engaged in the use of technology, and have more opportunities to spend time with family (see Table 8).

Table 8. Gifted Students' Views of the Impact of COVID-19 on their Daily Routines and Activities

Themes	Subthemes
Disruption to daily activities	Having to undertake online lessons / learning Increased use of digital technologies (e.g., video games) and platforms (e.g., social networking) More family-based activities
Impacts on usual routines	Do not leave the home as often More time spent using technology More time spent with family

Gifted Students' Views of Home Isolation, Physical Distancing, and the Broader Pandemic Situation

Most gifted students in this study reported that they found physical distancing to be difficult and frustrating. However, some students indicated that home isolation provided them with an opportunity for reflection on what is valuable to them in their lives and provided them with other benefits including the importance of maintaining good health and hand hygiene (see Table 9).

Table 9. Gifted Students' Views of Home Isolation, Physical Distancing, and the Broader Pandemic Situation

Themes	Subthemes
Views of physical distancing	Can be difficult and frustrating Miss seeing family members Easy A strange experience
Views of home isolation	An opportunity for reflection More focused on maintaining good health Curious to understand the effects of COVID-19 Better appreciation of family and friends and school Reflect on what is valuable in life Do more socializing and be more outgoing after the pandemic
What has been learned as a result of the COVID-19 pandemic	Important to maintain good health and hand hygiene The need to focus on the science The potentially negative role of social media platforms To be more appreciative of friends, freedoms and family

Factors contributing to Personal Changes, Coping Strategies, and Support from Family and Friends

The gifted students reported that they experienced negative personal changes during the pandemic including difficulties sleeping and a general lack of motivation due to being unable to spend time with their extended family, disruptions to their routines and schedules, and feeling concerned about their achievement at school. Conversely, several (n = 8) students positive personal changes including feeling happier and a broader sense of calm compared

to before the pandemic period due to having more time available to engage in diverse activities. Lastly, a small number of gifted students (n = 3) indicated, however, that they had not changed during the pandemic, were not experiencing difficulties, and did not miss participating in some activities (see Table 10).

Table 10. Factors Contributing to Personal Changes, Coping Strategies, and Support from Family and Friends

Themes	Subthemes
Negative changes to self	Difficulty sleeping Boredom Loneliness Sadness Irritability Helplessness Laziness Fatigue Emotional fatigue Scared Lack of motivation Worry <u>Contributing factors:</u> Limited physical contact with family and peers Disrupted routines / schedules Concerns about learning outcomes and achievements (examination results, assessment task results, grades) Lack of motivation to study Uncertainty about how the pandemic will end Others not complying with the rules Global deaths from the pandemic
Positive changes to self	Happier Relief Heightened enthusiasm Calmness Less anxious or irritable <u>Contributing factors:</u> More time to do classwork and study More time to pursue personal interests More time to reflect Not required to meet with teachers
No changes to self	No change in mood <u>Contributing factors:</u> Able to manage changes easily Not missing pre-pandemic activities

Themes	Subthemes
Coping mechanisms	Use technological devices (e.g., video games, social media platforms) Focus on schoolwork and online learning activities Going to the movies, reading books, listening to music, painting / drawing Participating in whole-of-family activities Engaging in new learning Having real-time and virtual discussions with family and friends, respectively
Support from family	Parents organizing things for family to do together Help to complete homework Providing emotional support (e.g., sharing feelings, talking about problems, etc.)
Support from friends	Ongoing online conversations Participating in online activities together Providing emotional support to each other
Support from the school	Online learning support Activities to maintain engagement in the learning activities

The gifted students reported that they coped with isolation using various strategies including by playing more video games, being more active online with friends, focusing on homework, and taking more leisure. In terms of the gifted students' views of the support they received from family to help them to cope with isolation and physical distancing, may mentioned such things as parents organizing family-based activities, the benefits of the emotional support they received from friends and the types of support from teachers (see Table 10).

Gifted Students' Evaluations of Online Learning and the Factors to Most Influence their Active Participation in Online Lessons

Most gifted students evaluated online learning as inadequate and reported a general sense of dissatisfaction with the learning format, teaching as inefficient, and as a process that make understanding the learning materials more difficult. Among the gifted students who provided a positive evaluation of online learning, many pointed to the opportunity it provides for individual student assessments and not having to worry about attendance, shorter lessons, and not having to actively participate during the whole lesson (see Table 11).

Table 11. Gifted Students' Evaluation of the Support Received during the Pandemic, How the Pandemic Impacts Relationships with Family and Friends, and the Factors that Support Coping with Isolation

Themes	Subthemes
Evaluation of online learning	<u>Negative:</u> Not suitable to optimal learning Unsatisfying Prefer to learn independently An inefficient learning pathway Difficult to get information is more difficult

Themes	Subthemes
	<p>Disliked classes in the online format compared to those in the classroom</p> <p><u>Positive:</u></p> <p>Not ideal, but a suitable alternative</p> <p>Appropriate fix for the situation</p> <p>The learning process is easier, more effective, and students can be more productive</p> <p>A good way to assess students individually</p> <p><u>Neutral:</u></p> <p>It depends on the knowledge and skills (e.g. technology use) of the teacher</p>
Factors contributing to the positive / negative evaluations of online classes	<p><u>Positive:</u></p> <p>Do not have to worry about missing classes</p> <p>Shorter lessons</p> <p>Do not always have to pay attention</p> <p>Easier learning format to achieve higher marks</p> <p>More family time</p> <p><u>Negative:</u></p> <p>Cannot interact with peers during classes</p> <p>No competition in the classroom to provide motivation for learning</p>
Teacher-student interaction during online classes	<p>Participating in class discussions is more difficult</p> <p>Difficulties trying to communicate with the teacher directly</p> <p>Lessons are too teacher-centered</p>
Factors influencing motivation to participate in online classes	<p>To learn about assessment tasks and grades</p> <p>To prepare for tests and final exams</p> <p>Teachers generally adopt a calmer approach to teaching</p> <p>To get information</p> <p>To meet with peers</p> <p>It is a preferred subject</p> <p>To meet their obligations as a student</p> <p>To distract them from the pandemic</p>

Regarding the factors to influence their participation in online lessons during the pandemic, those mentioned by the gifted students included the need to remain engaged in order to learn about assignments and to prepare for the final exams, a personal interest in the subjects, and an awareness of their obligations a student's (see Table 11).

Gifted Students’ Attitudes towards Continuing Online Classes after the Pandemic

Most gifted student participants indicated that both classroom and online lesson have a valid place in schools in Saudi Arabia and that maintaining online classes at the school after the pandemic would have little negative impact. Conversely, some gifted students viewed online learning an inferior learning pathway compared to classroom learning and that it did not meet the socialization and interactional needs of students (see Table 12):

Table 12. Gifted Students' Attitudes towards the Use of Online Classes after the End of the Pandemic

Theme	Subtheme
Attitudes toward the continued use of online classes post pandemic	<u>Neutral:</u>
	Both classroom and online learning formats are valid
	<u>Negative:</u>
	Online classes are not necessary post pandemic
	Online learning is inferior to traditional classroom-based learning
Online learning does not meet the socialization and interactional needs of students	
<u>Positive:</u>	
Online learning has time saving advantages (no travel required)	
Online learning is effective if teachers have the right skills	

Discussion and Conclusion

The findings reported in this study show gifted students and their families have experienced an increased level of personal burden and tension as a result school closures and home isolation due to the COVID-19 pandemic. Findings of an impact of COVID-19 on the psychological wellbeing of citizens have also been reported in other studies conducted during the period (e.g., Brooks et al., 2020; Cauchemez, et al., 2009; Duraku & Hoxha, 2020). Furthermore, the current study found that having to maintain social distancing from friends and family and the disruptions to their routines led some gifted student participants to experience difficulties sleeping, feelings of boredom, loneliness, and helplessness, and a lack of motivation to learn and to pursue personal interests. These outcomes also align with the impacts of the COVID-19 pandemic on citizens more broadly as reported in other studies (Brooks et al., 2020). The reasons for the negative thoughts and feelings during the COVID-19 pandemic reported by gifted children and their parents in this study included concerns about the global death toll from the pandemic, uncertainty about the future, and the irresponsible actions of others (which could lead to the spread of the virus). In turn, this study highlighted the importance of family support for their gifted child during the COVID-19 pandemic. Furthermore, the findings in the present study affirm the potentially important role that mental health professionals (e.g., school psychologists) can play in helping gifted students to cope with the disruptions and pressures from the pandemic (Parenting for Lifelong Health, 2020).

This study found that gifted students generally held a negative evaluation of the online learning format as experienced during the COVID-19 pandemic. They indicated that it was often inadequate, difficult, and not their preferred learning style. The finding in this study of gifted students' negative impressions of online learning due to its inefficiencies and lack of opportunities for interaction and discussion aligns with findings reported in previous studies which suggest gifted students prefer classroom learning environments where there are opportunities to interact with peers and to participate in discussions (Manasawala & Desai, 2019).

The gifted students also pointed to the lack of a competitive learning environment and unchallenging learning activities as factors contributing to a lack of motivation to learn and poor participation during online classes. These

findings point to the importance of teachers planning and implementing learning activities for online classes that motivate students to achieve. Moreover, they align with findings reported in other studies of the importance of learning motivation to the academic performance gifted students (Topçu & Leana-Taşçılar, 2018). Beyond learning motivation and the online learning format, the findings in the current study arguably highlight how important it is for learning institutions to consider to the extent to which the teaching and learning materials, both for online and face-to-face classes, can meet the needs of gifted students. The findings reported in previous research (e.g., Neihart & Yeo, 2018) have also identified this challenge. As reported in this study, gifted students have responded to their perceived limitations of online learning and home isolation to independently pursue personal interests and passions.

The findings reported in this study therefore reinforce the importance of improving the quality of education service delivery by schools to adapt the curricula to meet the individual learning needs of students including gifted students particularly (Duraku & Hoxha, 2020). For gifted students to maximize their learning and to feel motivated to participate in the learning activities, it is crucial that policy makers and teachers alike aim to develop and implement curricula that utilizes student-centered pedagogical approaches that accord with their learning needs and preferences (Topçu & Leana-Taşçılar, 2018). Furthermore, teachers of gifted students require professional development opportunities to improve their use of technologies for learning to deliver student-centered lessons that incorporate individualized teaching methods and flexible learning (Haberlin, 2015). The findings also suggest that schools in Saudi Arabia can improve online and technology-based teaching through the provision of lessons that better enable student-student and teacher-student interactions (Suarman, 2015). This study therefore recommends that teachers apply differentiated teaching methods for gifted students because they provide more appropriate and meaningful learning opportunities.

Gifted students indicated they pursued their passions interests (outside of the school curriculum) more actively and emphasized the importance of ILPs), generally considered to offer the best learning support to gifted students (Tourón & Freeman, 2017). In turn, teachers of gifted students should aim to increase their provision of learning support and ensure that they engage in deep conversations with students about the individual learning needs. Teachers should also discuss with students the social and emotional challenges they are experiencing in order to formulate positive changes (Peterson & Lorimer, 2011). Therefore, schools should be proactive in their efforts to provide engaging learning activities to gifted students combined with activities for improving the mental health of students. School-based psychologists were identified to have a key role in this regard, promoting the cognitive, emotional, and social development of gifted students (MESTI, 2014). Regarding further research, studies should aim to explore the relationship between the motivation levels and self-regulation skills of gifted students and the achievement of online learning outcomes.

References

- AlSalih, K. (2020, October 23). Saudi study for assessment of remote learning process. *Alwatan Newspaper*.
<https://www.alwatan.com.sa/article/1048932>
- Alshehri, Y. A., Mordhah, N., Alsibiani, S., Alsobhi, S., & Alnazzawi, N. (2020). How the regular teaching

- converted to fully online teaching in Saudi Arabia during the coronavirus covid-19. *Creative Education*, 11(7), 985–996. DOI: 10.4236/ce.2020.117071
- Amend, E. R., Koehler, J., Peters, M.P., Joerg, M., & Nilles, K. (2020). *Supporting your gifted child during COVID-19*. National Association for Gifted Children, Washington. Retrieved April 16, 2020, from https://www.nagc.org/sites/default/files/Publication%20PHP/NAGC_TIPSheet_COVID-19_With%20Strategies%20by%20Development%20Level_April%202020.pdf.
- Barakat, R. (2020). *Extension of distance learning in Saudi Arabia*. Mhtwyat. Retrieved April 2, 2020, from <https://bit.ly/35gxtPG>
- Basalamah, O., & Elyas, T. (2014). Conceptualizing the virtual learning space (s) in Saudi Arabia: A Foucauldian panoptic approach. *International Journal of English Language Teaching*, 2(4), 1–15.
- Brooks, S. K., Smith, L. E., Webster, R. K., Weston, D., Woodland, L., Hall, I., & Rubin, G. J. (2020). The impact of unplanned school closure on children’s social contact: Rapid evidence review. *Eurosurveillance*, 25(13), 1–10. <https://doi.org/10.2807/1560-7917.ES.2020.25.13.2000188>
- Cauchemez S., Ferguson N., Wachtel, C., Tegnell, A., Saour, G., & Duncan, B. (2009). Closure of schools during an influenza pandemic. *The Lancet Infectious Diseases*, 9(8), 473–481. [https://doi.org/10.1016/S1473-3099\(09\)70176-8](https://doi.org/10.1016/S1473-3099(09)70176-8)
- Duraku, Z. H., & Hoxha, N. (2020). The impact of COVID-19, school closure, and social isolation on gifted students’ wellbeing and attitudes toward remote (online) learning, *10*, 130-167.
- Duraku, Z. H., & Hoxha, L. (2020). *The impact of COVID-19 on education and on the well-being of teachers, parents, and students: Challenges related to remote (online) learning and opportunities for advancing the quality of education*. (Manuscript submitted for publication. Faculty of Philosophy, University of Prishtina).
- European Talent Support Network. (2020). *Talent center in action: CTY Greece*. Retrieved May 16, 2020, from <https://etsn.eu/talent-center-in-action-cty-greece/>
- Galbraith, J. (1985). The eight great gripes of gifted kids: Responding to special needs. *Roeper Review*, 8(1), 15–18. <https://doi.org/10.1080/02783198509552920>
- Gilbert, B. (2015). ‘Online learning revealing the benefits and challenges.’ Education Masters. Retrieved from https://fisherpub.sjfc.edu/education_ETD_masters/303. Accessed: 23 May 2020
- Haberlin, S. (2015). Don’t stress: What do we really know about teaching gifted children to cope with stress and anxiety? *Gifted and Talented International*, 30(1-2), 146–151. <https://doi.org/10.1080/15332276.2015.1137465>
- Jasmi, K., Ahmad Zawawi, N., & Md Saleh, S. (2015). Students and school learning environment motivate success of excellent Islamic education teachers. *Journal of Islamic and Arabic Education*, 2(1), 13–20.
- Jolly, J., & Matthews M. (2012). A critique of the literature on parenting gifted learners. *Journal for the Education of the Gifted*, 35(5), 259–290. <https://doi.org/10.1177/0162353212451703>
- Kahyaoglu, M. (2013). A comparison between gifted students and non-gifted students’ learning styles and their motivation styles towards science learning. *Educational Research and Reviews*, 8(12), 890–896. DOI: 10.5897/ERR2013.1415
- Kunkel, M., Chapa, B., Patterson, G., & Walling, D. (1992). Experience of giftedness: Eight great gripes six years later. *Roeper Review*, 15(1), 10–14. <https://doi.org/10.1080/02783199209553449>

- Lee, S. Y., & Olszewski-Kubilius, P. (2006). The emotional intelligence, moral judgment, and leadership of academically gifted adolescents. *Journal for the Education of the Gifted*, 30(1), 29–67. <https://doi.org/10.1177/016235320603000103>
- Manasawala, S. A., & Desai, D. (2019). Meeting the educational needs of a gifted child: A parent's narrative. *Gifted Education International*, 35(3), 189–200. <https://doi.org/10.1177/0261429419863440>
- Matuga, J. M. (2009). Self-regulation, goal orientation, and academic achievement of secondary students in online university courses. *Educational Technology & Society*, 12(3), 4–11. <https://www.jstor.org/stable/jeductechsoci.12.3.4>
- Ministry of Education. (2015). *Gifted centres*. Saudi Arabia. Retrieved May 16, 2020, from <http://he.moe.gov.sa/en/default.aspx>
- Ministry of Education, Science and Technology. (2014, November). MES administrative instruction in the functioning of pedagogical-psychological services in schools. Retrieved from <https://gzk.rks-gov.net/ActDetail.aspx?ActID=10421>.
- Murphy, M. P. (2020). COVID-19 and emergency eLearning: Consequences of the securitization of higher education for post-pandemic pedagogy. *Contemporary Security Policy*, 41(3), 492–505 <https://doi.org/10.1080/13523260.2020.1761749>.
- Neihart, M. (2006). Achievement/affiliation conflicts in gifted adolescents. *Roeper Review*, 28(4), 196–202.
- Neihart, M., Yeo, L. (2018). 'Psychological issues unique to the gifted student.' In S. I.
- Nguyen, T. (2015). The effectiveness of online learning: Beyond no significant difference and future horizons. *MERLOT Journal of Online Learning and Teaching*, 11(2), 309–319.
- O' Reilly, C. (2020, May). *Talent centers in action*. European Gifted Education Training. Retrieved from <https://etsn.eu/talent-centers-in-action-egift-european-gifted-education-training/>.
- Olszewski-Kubilius, P., & Corwith, S. (2010). Distance education: Where it started and where it stands for gifted children and their educators. *Gifted Child Today*, 34(3), 16–65. <https://doi.org/10.1177/107621751103400306>
- Papadopoulos, D. (2020). Psychological framework for gifted children's cognitive and socio-emotional development: A review of the research literature and implications. *Journal for the Education of Gifted Young Scientists*, 8(1), 305–323. <https://doi.org/10.17478/jegys.666308>
- Parenting for Lifelong Health. (2020). *24/7 parenting resources in 90 languages*. Retrieved May 12, 2020, from <https://www.covid19parenting.com/>
- Peterson, J. (2008). *The essential guide to talking with gifted teens*. Free Spirit Publishing.
- Peterson, J. S., & Lorimer, M. R. (2011). Student response to a small-group affective curriculum in a school for gifted children. *Gifted Child Quarterly*, 55(3), 167–180. <https://doi.org/10.1177/0016986211412770>
- Pfeiffer, S. I. (2015). *Essentials of gifted assessment*. *Essentials of psychological assessment series*. John Wiley & Sons Inc.
- Potts, J. A. (2019). Profoundly gifted students' perceptions of virtual classrooms. *Gifted Child Quarterly*, 63(1), 58–80. <https://doi.org/10.1177/0016986218801075>
- Preckel, F., Baudson, T. G., Schwerdt, S. K., & Glock, S. (2015). Gifted and maladjusted? Implicit attitudes and automatic associations related to gifted children. *American Educational Research Journal*, 52(6), 1160–1185. <https://doi.org/10.3102/0002831215596413>

- Racher, F. E., & Robinson, S. (2003). Are phenomenology and postpositivism strange bedfellows? *Western Journal of Nursing research*, 25(5), 464–481. <https://doi.org/10.1177/0193945903253909>
- Schachter, E. P., & Ventura, J. J. (2008). Identity agents: Parents as active and reflective participants in their children's identity formation. *Journal of Research on Adolescence*, 18(3), 449–476. <https://doi.org/10.1111/j.1532-7795.2008.00567.x>
- Silverman, L. K. (2009). The two-edged sword of compensation: How the gifted cope with learning disabilities. *Gifted Education International*, 25(2), 115–130. <https://doi.org/10.1177/026142940902500203>
- Suarman, S. (2015). Teaching quality and students' satisfaction: The intermediary role of relationship between lecturers and students of the higher learning institutes. *Mediterranean Journal of Social Sciences*, 6(2), 626–632. DOI:5901/mjss.2015.v6n2p626
- Topçu, S., & Leana-Taşçılar, M. Z. (2018). The role of motivation and self-esteem in the academic achievement of Turkish gifted students. *Gifted Education International*, 34(1), 3–18. <https://doi.org/10.1177/0261429416646192>
- Tourón, J., & Freeman, J. (2018). Gifted education in Europe: Implications for policymakers and educators. In S. I. Pfeiffer, E. Shaunessy-Dedrick & M. Foley-Nicpon (Eds.), *APA handbook of giftedness and talent. APA handbooks in psychology* (pp. 55–70). American Psychological Association.
- Türksoy, E., & Karabulut, R. (2020). Gifted students' perceptions of distance education in the COVID-19 epidemic. *Turkish Journal of Giftedness & Education*, 10(2), 176–189. DOI: <https://doi.org/10.46893/talent.773442>
- VanTassel-Baska, J. (2018). American policy in gifted education. *Gifted Child Today*, 41(2), 98–103. DOI: 10.1177/1076217517753020
- Wallace, P. (2005). Distance education for gifted students: Leveraging technology to expand academic options. *High Ability Studies*, 16(1), 77–86. DOI: 10.1080/13598130500115288
- Weeden, K. A., & Cornwell, B. (2020). The small-world network of college classes: Implications for epidemic spread on a university campus. *Sociological Science*, 7, 222–241 DOI: 10.15195/v7.a9.
- World Health Organization. (2020). *Coronavirus disease (COVID-19) pandemic*. Retrieved June 6, 2020, from <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>.

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