

Impact Of The COVID-19 Pandemic On Teaching And Learning In Early Childhood Education: A Survey With Teachers And Parents

Carol Boon Peng Loy-Ee, Patricia Mui Hoon Ng
(Kinderland International Education, Singapore)
(Register Of Educational Therapists (Asia), Singapore)

Abstract:

Background: The COVID-19 pandemic presented an overwhelming shocking wave of disruption in people's lives that saw societies grapple with deaths and contagion, whilst evolving protective measures derailed people's social practices. With this as the background, the present study was conducted to explore teachers' and parents'/guardians' opinions on the impact of the pandemic on the teaching and learning in early childhood education. The aim is to find out how the teachers and parents were affected and their opinions of how the children were affected by the evolving levels of restrictions and protocols during the pandemic. It is hoped that the survey would help both the teachers and parents reflect and examine how they themselves and the children struggled and adapted to different the teaching and learning environments and processes, and to identify areas for improvement and further support the teacher-parent alliance as well.

Materials and Methods: Teachers and parents of children aged 3–5 years from Kinderland International Education (KIE) childcare centres were each given a survey questionnaire to assess the impact of the changes in teaching and learning during lockdowns and after re-opening, with respect to the COVID-19 pandemic. A 4-point Likert-scale (1 - Strongly disagree; 2 - Disagree; 3 - Agree; 4 – Strongly agree) was used to gather their responses on issues during school closure and re-opening and the impact on the children's social-emotional and physical well-being. In addition to the Likert-scale responses, responders were free to elaborate on their chosen response to each question.

Results: For the Teacher questionnaire, there is majority agreement for all eighteen of the impact statements. Also, the agreement is clustered around 70% and above. As for the Parent/Guardian questionnaire, there is majority agreement for eight out of the ten impact statements, and the agreement is also clustered around 70% and above.

Key Word: COVID-19; teaching and learning; early childhood education; language and social-emotional development and physical activity level.

Date of Submission: 24-03-2025

Date of Acceptance: 04-04-2025

I. Introduction

The global Covid-19 pandemic in the present time has brought about shockwaves in people's lives as countries around the world experienced a health crisis of drastic rates of contagion and deaths. In Singapore, efforts to curb the infection were put in place but it was impossible to prevent the disease from entering the republic - an inevitably ominous situation faced by countries all around the world in this advanced age of globalization.

Evolving measures to contain the health crisis in Singapore culminated to a lockdown where everyone was to stay indoors in their own abode and those outside of one's immediate household were not to be allowed to enter one's residence. At the same time, freedom of movement was restricted to that of accessing essential services such as for procuring food and grocery supplies, as well as medical services. Although people working in essential services were allowed to go to work during the lockdown, arrangements had to be made for them to reduce human contact as much as possible to reduce contagion. Also, it became mandatory for people to wear masks, practice social distancing and perform entry/exit protocols in places other than their own residence for contact tracing.

The very young and the very old were regarded as most vulnerable to the disease and were dissuaded from venturing outside of their home, even after vaccines were made available. The lockdown in Singapore also saw the closure of public places, places of worship, educational institutions, and businesses except those in

essential services. Many international borders were also closed, and travel was restricted in many countries. Even a global event like the Olympics was postponed.

For business continuity, many had to work from home and conduct business online during the lockdown the help of technology. However, this transition took time for hardware and software to be acquired and learnt, hence it was extremely challenging. Moreover, technology could not solve all problems as many businesses were adversely affected by the loss of revenue owing to the drastic lockdown measures. This led to job and income losses for families. To alleviate the financial difficulties of the people, the Singapore government handed out support packages for businesses, those who lost their jobs and all households. When the lockdown was lifted, surviving businesses could run physically again under the continued evolvement of protective measures for communities to go about their lives.

What technology could not solve during the lockdown was also the fact that working parents (other than those working in essential services) could no longer depend on support such as child-care centers or grandparents who lived in separate households to help with childcare. Hence, they had to work and care for their young at the same time in their own home. The torrent of sudden changes is believed to have taken a toll on not just the physical, but the mental health of people as their former way of life was robbed from them in terms of personal freedom and the human comfort that was brought about by the pre-Covid structure of social support and practices for many to carry out economic activity. Countries like Singapore inextricably found such a predicament a grave threat to their economy and survival.

The preceding brief narrative forms the backdrop against which this study investigates the impact of the pandemic on the teaching and learning in early childhood education. The issues found in this literature review henceforth served as the basis for the development of questions in the survey of the present study. Using this survey, the general question of our present study is:

1. How did the COVID-19 pandemic impact the lives of teachers and parents/guardians, as well as children (in the teachers' and parents'/guardians' opinion) in the preschool population?

Through this investigation, it is hoped that the survey could also serve to help both the teachers and parents/guardians reflect and examine how they themselves and the children coped with their ongoing struggles to adapt to the changing teaching and learning environments and processes. As for the service providers, the findings might help them to identify areas for continuous improvement and advocate for support, and to strengthen the teacher-parent alliance as well. (10)

II. Material And Methods

Literature Review

In examining the impact of COVID-19 on early childhood education (ECE) through published literature for this research paper, it was found that most of the related literature point to the detrimental effects of the pandemic. Globally, a joint report by UNESCO, UNICEF and the World Bank highlighted that there are astonishing levels of learning loss for schoolchildren¹. Per the report, ECE vanished in most countries as children who should be starting school for the very first time never did get the chance to learn foundational skills of reading and writing. Also, at least a third of schoolchildren worldwide are totally cut off from receiving education due to a lack of access to learning remotely. The data collected show that a shocking number of children did not return to school when classrooms reopened. Furthermore, less than 50% of countries are carrying out recovery strategies to fill the gap in children's learning. The report thus emphasised the need to address these issues and develop psychosocial health and well-being for every child to be ready to learn.

In country specific terms, a study out of Ethiopia on 480 parent/caregiver subjects found that the detriment of school closures is likely to be substantial with existing inequalities widening further². Accounting for this is that in poorer households, the parent/caregiver is likely illiterate, the child-oriented learning resources are less available, and the home learning activities between parent/caregiver and child are limited. In another report by Springer Nature B.V. 2020³, it was highlighted that the pandemic brought about drastic sweeping changes to the lives of not just the children and their families, but that of the educators in the early childhood sector as well. In addition, reports from the US pointed out that the pandemic has pushed the ECE system almost to the point of collapse such that leading ECE organizations were driven to advocate for the protection of programs in the sector^{4,5}.

Looking eastwards in China, issues surrounding the closure of schools were explored with 3275 parents⁶. Conducted during the lockdown period of the pandemic, it was found that parents' beliefs about the values and benefits of online learning were generally negative, and they preferred traditional face-to-face learning in early childhood settings. Key reasons were the parents' lack of time and professional knowledge in supporting their children's online learning, inadequate self-regulation in young children, and the shortcomings of online learning. Implications for teacher education and policymakers were made at the conclusion of this study.

Meanwhile in India, a study out of Punjab⁷ has found that during the nationwide lockdown, children persistently urge to play outdoors with their friends - a reason that some of them miss playing and talking to their

friends. The parents' concern was that their children's social development may get compromised due to the lockdown. Such concerns were also found in studies in Australia⁸, Japan⁹, South Korea¹⁰, South Africa¹¹, Mexico¹² (Solovieva, 2021), the Caribbean¹³, Finland¹⁴ and Turkey¹⁵.

Further on the Punjab study⁷, about 69.5% of the parents interviewed mentioned that the quarrels among their children have increased, leading to stress among the children. Another concern was that there was augmentation of anxiety and depression among their children related to changes in the children's sleep, diet, weight and increased usage of electronic equipment. The study concluded that international authorities need to frame the guidelines of lockdown in the interest of their native children's mental health.

Other than the issues impacting the children, challenges faced by preschool teachers during the Covid-19 pandemic can be found in the paper from Turkey¹⁵. An example is that teachers encountered difficulties with Internet connection to reach all students and had to deal with reluctant parents. To counter these challenges, several ideas were put forth for the support of the teachers in educating pre-schoolers sustainably during outbreaks. This includes the preparation of preschool activity videos, free Internet access, a TV channel for preschool education, and in-service training for preschool teachers.

As learning in the early years is largely play- and/or inquiry- based, the closure of schools across North America to in-person learning in March 2020 precipitated a Canadian study¹⁶ pointing out the need for research to mitigate the impact of COVID-19 on the switch to remote teaching and learning. The study's aim is to utilize findings on the challenges to provide recommendations not just for teaching and learning remotely but for supporting in-person learning in both the COVID-19 era and post COVID-19 era as well. Besides this, a paper from Italy¹⁷ presented findings on how the educational alliance between preschool teachers and families of the children can be positively pursued.

Though much of the literature on impact of the pandemic on ECE seem to present doom and gloom, a surprising divergence came out of a study from Oxford. It revealed encouraging results pointing to the boosts in language and executive function growth for children who have access to quality early childhood education and care (ECEC), especially for those from disadvantaged backgrounds¹⁸. The data was collected from parent-report based on 189 UK families provided the correlation findings under the context of COVID-19 pandemic and its associated restrictions.

Outside the lockdown context, a study in Iceland¹⁹ on the influence of COVID-19 on preschool teachers' and principals' perceptions and their sense of agency found that there was a positive influence on play and the quality of the schooling as children's groups were smaller than usual. The concerns found in this literature review henceforth served as the basis for the development of questions in the survey of the present study relating to the teachers, parents/guardians and children. (10)

Design

Two survey questionnaires, one for the teacher and the other for the parents/guardians, were developed in-house to provide a mixed methods quantitative and qualitative design for the study. The data collected from the questionnaires were analyzed with SPSS 22.0 for the quantitative aspects. For the qualitative aspects, the elaborations on the responses where available were reported. The survey also included a preamble of questions to collect data on the profile of the sample by country, and the level at which the child concerned was attending (for the parent/guardian survey) or the level at which the teacher was teaching (for the teacher survey).

Instrument

The instrument used for the measurement of the impact of the pandemic on the teaching and learning in early childhood education is a survey questionnaire as mentioned above. With respect to questions on the impact of pandemic, a 4-point Likert scale is used to structure and standardize the responses in the following manner: 1 - Strongly Disagree; 2 - Disagree; 3 - Agree; 4 - Strongly Agree. For non-standardized qualitative data, there is an open-ended elaboration option accompanying each question relating to the impact.

The preamble for the teacher questionnaire consists of three multiple choice questions pertaining to the country the respondent is from, and the teaching level for 2020 and 2021 respectively. The parent/guardian questionnaire similarly has the question on the country the respondent is from, but in place of the teaching levels – the parent's/guardian's child's level for 2020 and 2021 respectively.

Following the three preamble questions are ten Likert scale questions for the parent/guardian participant and eighteen for the teacher on their opinions with regards to the pandemic. Out of the eighteen Likert scale questions for the teacher, eight are on his/her perception of the impact of the pandemic on the child. As for the parent/guardian, six out of the ten Likert scale questions are on his/her perception of the impact of the pandemic on the child.

Sampling

In the present study, the subjects were recruited by convenience sampling as the participants are all under KIE. At the start of the survey, a letter with a brief explanation of the project and an informed consent form were provided for all the target participants. Confidentiality of the responses was stated and there were no identifiers in the survey with regards to personal data (e.g., respondents' or child's name, gender and class), so as to provide for the anonymity of participants of the survey. The survey questionnaire was sent out online using Google Forms software.

After interest and consent to participate were obtained from the teachers and parents/guardians, data collection was carried out after the lockdown period of the COVID-19 pandemic in Singapore, Malaysia, Indonesia from 6 June 2022 – 30 September 2022. The final sample comprises 125 teachers and 219 parents. The subjects are from 7 kindergartens and 18 childcare centers under KIE in Singapore, Malaysia and Indonesia. (10)

III. Result

Sample Profile

A total of 125 teachers from three countries took part in the survey - Singapore (n = 62; 49.6%), Indonesia (n = 27; 21.6%), and Malaysia (n = 36; 28.8%). Data was collected for profiling. With regards to their teaching level in 2020, there are five categories - Pre-Nursery (2 - 3 years; 23.2%); Nursery (3 - 4 years; 11.2%); K1 (4 - 5 years; 15.2%); K2 (5 - 6 years; 16.0%); N.A. (Not applicable; 34.4%). There are also five categories for their teaching level in 2021 - Pre-Nursery (2 - 3 years; 26.4%); Nursery (3 - 4 years; 16.8%); K1 (4 - 5 years; 18.4%); K2 (5 - 6 years; 17.6%); N.A. (Not applicable; 20.8%).

Similarly, parents from the same three countries took part in the survey - Singapore (n = 95; 43.4%), Indonesia (n = 59; 26.9%), and Malaysia (n = 65; 29.7%). With regards to their child's level in 2020, the Pre-Nursery group made up 32.4%; Nursery - 27.4%; K1 - 7.8%; K2 - 4.1%; N.A. - 28.3%. As for the child's level in 2021, the Pre-Nursery group is 25.1%; Nursery - 24.7%; K1 - 27.9%; K2 - 8.2%; N.A. - 14.2%. (10)

Summary of Results

Table 1: Summary of Results (Teacher Questionnaire).

Item	Question	Disagree (SD + D)%	Agree (A + SA)%	Majority (>50%)
Q4	The use of digital technology to maintain continuity of education was challenging	8.8	91.2	Agree
Q5	There is a conflict of interests in protecting children against digital risks	14.4	85.6	Agree
Q6	Prior approaches and use of in-person interactive teaching practices were not feasible during closures	18.4	81.6	Agree
Q7	Curriculum goals needed to be revised in distance education	10.4	89.6	Agree
Q8	The use of digital technology to engage with parent/caregiver was challenging	8.8	91.2	Agree
Q9	The use of digital technologies for teaching remotely was not effective	40.8	59.2	Agree
Q10	The children were unable to stay engaged and/or regulate their behaviour themselves with distance education	13.6	86.4	Agree
Q11	The children were affected by the loss of being present with others in the school environment during the closure	2.4	97.6	Agree
Q12	The level of restriction and parent/caregiver availability affected the children's physical activity level	6.4	93.6	Agree
Q13	I was affected by the loss of being present with others in the school environment during the closure	22.4	77.6	Agree
Q14	My responsibilities and work requirements after school reopening increased significantly	9.6	90.4	Agree
Q15	Safety protocols made it difficult to guide and/or help the children regulate their behaviour when they needed it	24	76	Agree
Q16	Safety protocols made it difficult for the children to use and/or share learning resources	23.2	76.8	Agree
Q17	I feel that there is a greater amount of stress at work after school reopening	28.8	71.2	Agree
Q18	I worry about my physical health due to exposure at work	28	72	Agree
Q19	The children were stressed by the regulations and the evolving changes after school re-opening	42.4	57.6	Agree
Q20	Safety protocols (e.g. use of face masks, social distancing) affected the children's language development	26.4	73.6	Agree
Q21	Safety protocols (e.g. use of face masks, social distancing) affected the children's social-emotional development	26.4	73.7	Agree

Table 2: Summary of Results (Parent/Guardian Questionnaire).

Item	Question	Disagree (SD + D)%	Agree (A + SA)%	Majority (>50%)
Q4	Caregiver responsibilities increased significantly during the school closure	4.1	95.9	Agree
Q5	The use of digital technology to maintain continuity of education was challenging	11	89	Agree
Q6	There is a conflict of interests in protecting children against digital risks	19.2	80.8	Agree
Q7	The use of digital technologies for teaching remotely was not effective	25.6	74.4	Agree
Q8	The children were unable to stay engaged and/or regulate their behaviour themselves with distance education	11.9	88.1	Agree
Q9	The children were affected by the loss of being present with others in the school environment during the closure	10.5	89.5	Agree
Q10	The level of restriction and parent/caregiver availability affected the children's physical activity level	10	90	Agree
Q11	The children were stressed by the regulations and the evolving changes after school re-opening	55.3	44.7	Disagree
Q12	Safety protocols (e.g. use of face masks, social distancing) affected the children's language development	55.9	46.1	Disagree
Q13	Safety protocols (e.g. use of face masks, social distancing) affected the children's social-emotional development	46.6	53.4	Agree

Table 1 and 2 above shows the summary of the results for the impact questions for the Teacher and Parent/Guardian questionnaires, respectively. The stated majority (>50%) of each respective item is based on the sum of Disagree - (SD + D)% or Agree - (A + SA)%

For the Teacher questionnaire, there is majority agreement for all eighteen of the impact statements. The range is from 57.6% to 97.6%. Other than Q9 (59.2%) and Q19 (57.6%), the remaining sixteen out of the eighteen statements are 70% and above. Hence, it can be said that the “Agree” response for the Teacher questionnaire is clustered around 70% and above.

As for the Parent/Guardian questionnaire, there is majority agreement for eight out of the ten impact statements. The range is from 53.4% to 95.9% for the Majority Agree statements. Other than Q13 (53.4%), the remaining seven out of the eight Majority Agree statements are 70% and above. Hence, it can be said that the “Agree” response for the Parent/Guardian questionnaire is also clustered around 70% and above. (10)

IV. Discussion

Based on the above results, the teachers and parents have much in common. On the other hand, there is difference in that there is majority agreement by the teachers on two statements which found majority disagreement by the parents/guardians. The two statements are “The children were stressed by the regulations and the evolving changes after school re-opening”, and “Safety protocols (e.g., use of face masks, social distancing) affected the children's language development”. There is, respectively, 57.6% and 73.6% agreement from the teachers as compared to 44.7% and 46.1% agreement from the parents/guardians for the two statements. Some elaborations from the parents/guardians who disagree implicitly point to the fact that the children missed school so much that they had rather put up with the evolving changes after school re-opening than to go back to online classes. Furthermore, the parents/guardians have agreed in overwhelming majority that online classes were challenging for them, especially for those who had to work from home with no helpers. This would likely drive them to support the school re-opening and overlook the stress that the children might have to put up with. To view this objectively, the parents/guardians were not with their children in school to be able to tell if the children were stressed by the evolving changes after school re-opening. Besides, unlike the teachers, the parents/guardians are not trained to tell if the language ability of the children is less than age-appropriate or has become worse than before the pandemic. Hence, the teachers' majority agreement on this would reflect more accurately on the two statements.

A further note is that for Q11 (children were stressed) and Q12 (children's language affected) of the Parent/Guardian questionnaire where there is Majority Disagree, the aggregate is 55.3% (D+SD) and 55.9% (D+SD), respectively. This is much lower than that of the Majority Agree items which are clustered around 70% and above, as previously mentioned. Hence, it can be said that the disagreement items are not as strongly supported as the agreement. Moreover, some of those who provided elaborations on their disagreement made contradictory remarks (e.g., for stress - “takes time” and “learn, relearn, and unlearn the rules”; and for language - “confused” and “issues with some sounds”) which would render their disagreement invalid. The implication is that the numbers for the disagreement would be even lower than shown here. In addition, many others who provided elaborations for their disagreement did not give clear reasons why the children were not stressed, or their language not affected. Whereas, for those who elaborated on their agreement that the children's language

development was affected, mask-wearing was the main impediment (e.g. “can't hear their friends or teachers as well when they speak with a mask. Not to mention learning of expressions and social cues are affected with mask-wearing”).

One final note is that, from the elaborations by both the teachers and parents/guardians, there is some degree of pushback from the latter when they had to be the proxy for the teacher in online learning. This is as the parents/guardians expressed that “caregiver would require catch up on the knowledge that supposed to (be) implement (taught) to them (children)”, “this is not the issue of the medium but the ability of the teacher to make the class engaging through a screen”, “the time is too limited, and the teachers cannot monitor everyone from the screen”, “teacher also wouldn't be able to judge the children whether they are able to understand what teacher had delivered through the screen”, “it requires intense supervision from parents for them to stay on. It's like they're being forced to stay on”, “if at home, child will not focus on the video call, they will try to find toys to play”, and “while they can see the Teachers online, it was challenging to consistently get them to stay on screen as they will also be distracted at home.”

The teachers, on the other hand, might have found it hard that the parents/guardians, as proxy for caring for the children while the teachers are teaching online, might not carry out what the teachers would do when the children are distressed or disengaged. This can be seen in the elaborations such as “parents/caregivers sometimes did not really understand the online lesson and WFH (working from home) would sometimes step away from guiding their children and not stop what the children were doing”, “many parents/caregivers are very busy and have limited knowledge of digital technology, cannot discipline child to attend online sessions regularly”, “grandparents (as guardians) may not be able to support children throughout the lesson”, “children still like to be hugged. especially when they are upset and needed the comfort”, “children are not within reach to ensure safety. Teachers not able to observe the environment where the children is learning in”, “some of the children cry - that needs our physical touching”, “parents must have more knowledge”, and “parents are the first teachers of children and is needed to help their children develop holistically”. (10)

V. Conclusion & Recommendations

To conclude, there is a strong basis to believe that the teachers, as well as the parents/guardians are in agreement with the impact statements suggested in the survey. This is as there is 100% (eighteen out of eighteen statements) and 80% (eight out of ten statements) Majority Agree in the Teacher and Parent/Guardian questionnaires, respectively. On top of this, there is a clustering of 70% and above for Majority Agree statements, while the clustering is lower at 50% - 60% for Majority Disagree statements.

The implication is that for the teachers, it had become more challenging to teach due to the restrictions and protocols, as well as worries about how the pandemic would affect their health. Hence, they have all agreed that not only teaching has been negatively impacted but learning and development for the children as well. As for the parents/guardians, it has also become more challenging to care for their children due to the restrictions and protocols. On the other hand, it is surprising that the majority of them disagree on the statements “Safety protocols (e.g. use of face masks, social distancing) affected the children's language development and the children were stressed by the regulations and the evolving changes after school re-opening”. This is as the teachers, on the contrary, agree in majority on these statements.

Based on the findings, it can be recommended that more training and support be given to both the teachers and the parents/guardians. This is especially with respect to the challenges of using technology to carry out online lessons as teachers had to teach not just the lessons for the children but the parents/guardians as their proxy on how to help the children and use the technology (see comment for e.g., “need to educate them to use the features provided. Like blind man helps deaf man”, “We (teachers) definitely need to adapt with current situation and was not easy and at the same time we needed to educate students and parents too”). Likewise, teachers who are weak in the skills of using technology or curriculum modification need more training and troubleshooting support as well. Besides that, parents/guardians who do not provide wholesome structure or boundaries of behaviour at home to instill basic discipline in the children or protect them from digital risks might need training on parenting skills. This is as some children have been reported to be unsupervised and allowed to freely disengage or use the computer for other purposes during online lessons at home. Also, comments that the children were able to regulate their behaviour when they were at school previously but behave differently at home attest to the fact that they can learn how to regulate their behaviour.

Further on the recommendations, parents/guardians might need training on providing social-emotional support for their children's episodes of distress or disengagement as proxy for caring for the children while the teachers are teaching online, as mentioned above. This can help in minimizing the risk of child neglect or abuse as well. On top of that, some parents might need to be more aware of the children's needs in that the children are too young to be able to express how they felt about missing for instance, school, usual meetings with friends and family members from different households, as well as social and physical activities during the shutdown. At preschool level, the children most likely do not have the language to express how the evolving changes with the

re-opening protocols affected them. Furthermore, if they seemed happy that school re-opened and would rather put up with the stress of the changes in attending school physically as commented by some parents/guardians, the latter could be presuming that their children were not affected by the factors mentioned here. Hence, it is important to point out that such presumptions can have negative effects on the children's social-emotional and physical development.

Data from the teachers' responses shows contradiction to the parents' perspectives with respect to the above. While the re-opening of school brought about a welcomed relief of the burden of caring for the children at home, parents/guardians should not overlook the stress that the changing protocols brought about on the children. The stress was an issue that was validated by the majority of the teachers and a minority of the parents/guardians (see for e.g., "hard to force nursery level children to wear masks", "antigen was a bit traumatic for kids", "mask, social distancing and taking away of outdoor time have affected them and sometimes meltdown when they do not understand", and "showing resistance").

As for the impact on speech/language and social-emotional skills, it would be imperative to provide early intervention if the children are identified to have fallen behind in the development of such skills. Parents/guardians who are suspected of having done the homework for the children (in Teacher's comments) need to be aware of the undesirable consequences it can bring about. In addition, those who did not have the financial resources to support their children's education might need financial counselling. Last but not least, both the teachers and parents/guardians might need support in self-care for their physical and mental health. This is since their worries and responsibilities during the pandemic had increased significantly.

With respect to limitations, this survey only provides some degree of a perspective of the general preschool population as the subjects are recruited via convenience sampling. Also, the constraint of time to collect more responses and unknown reasons why there is not a greater participation from the targeted population limit the results of this survey based on the sample size. Having said that, various measures have been made to minimize limitations. For instance, to gather more participation, two versions of the questions, English and Chinese, were provided for clarity of the questions. While the language was made as concise as possible, specific contexts and examples were mentioned to further aid clarity. Also, the number of questions were kept to a minimum in consideration of the time it would take to complete the questionnaire. Besides, Likert-scale and multiple-choice responses were used to make decision-making easier for participants, on top of the convenience of using Google Forms in place of the traditional pen and paper method.

In addition to the above, efforts were made to increase the diversity of the sample profile by making the survey available to those in Indonesia and Malaysia, other than those in Singapore. It is therefore recommended that further studies be built upon the findings to improve on the sample size as well as the profile. More importantly, the findings on the negative impact of the COVID-19 pandemic should be examined and be leveraged upon for to identify areas for improvement in the industry and further support the teacher-parent alliance as well. Also, the mixed-method design of this study is recommended for the collection of both quantitative and qualitative data. Finally, more studies in this area would help as a recourse for both the teachers and parents/guardians to reflect and express how they themselves and the children struggled and adapted to different the teaching and learning environments and processes during the COVID-19 pandemic.

References

- [1]. Unicef. (2022). Less Than Half Of Countries Are Implementing Learning Recovery Strategies At Scale To Help Children Catch Up. Retrieved From <https://www.unicef.org/press-releases/less-half-countries-are-implementing-learning-recovery-strategies-scale-help>
- [2]. Kim, J. H., Araya, M., Hailu, B. H., Rose, P. M., & Woldehanna, T. (2021). The Implications Of Covid-19 For Early Childhood Education In Ethiopia: Perspectives From Parents And Caregivers. *Early Childhood Education Journal*, 49(5), 855-867. Doi:10.1007/S10643-021-01214-0
- [3]. Springer Nature B.V. (2020). Impact Of The Covid-19 Pandemic On Early Childhood Care And Education *Early Childhood Education Journal* (2020) 48:533–536. <https://doi.org/10.1007/S10643-020-01082-0>
- [4]. National Association For The Education Of Young Children. (2020). Naeyc Covid 19 Statement. Available: <https://www.naeyc.org/resources/blog/naeyc-covid-19-statement>
- [5]. Zero To Three. (2020). How Covid-19 Is Impacting Child-Care Providers. Available: <https://www.zerotothree.org/resources/3398-how-covid-19-is-impacting-child-care-providers>
- [6]. Dong, C., Cao, S., & Li, H. (2020). Young Children's Online Learning During Covid-19 Pandemic: Chinese Parents' Beliefs And Attitudes. *Children And Youth Services Review*, 118, 105440. Doi:<https://doi.org/10.1016/j.childyouth.2020.105440>
- [7]. Sama, B. K., Kaur, P., Thind, P. S., Verma, M. K., Kaur, M., & Singh, D. D. (2021). Implications Of Covid-19-Induced Nationwide Lockdown On Children's Behaviour In Punjab, India. *Child Care Health Dev*, 47(1), 128-135. Doi:10.1111/Cch.12816
- [8]. Vasileva, Alisic, & De Young (2021). Covid-19 Unmasked: Preschool Children's Negative Thoughts And Worries During The Covid-19 Pandemic In Australia. *European Journal Of Psychotraumatology*, 12, 1-11. <https://doi.org/10.1080/20008198.2021.1924442>
- [9]. Hyunshik, K., Jiameng, M., Sunkyoung, L., & Ying, G. (2021). Change In Japanese Children's 24-Hour Movement Guidelines And Mental Health During The Covid-19 Pandemic. *Scientific Reports*, 11(1), 1-9. Doi:10.1038/S41598-021-01803-4
- [10]. Yu, H. M., Cho, Y. J., Kim, H. J., Kim, J. H., & Bae, J. H. (2021). A Mixed-Methods Study Of Early Childhood Education And Care In South Korea: Policies And Practices During Covid-19. *Early Childhood Education Journal*, 49(6), 1141-1154. Doi:10.1007/S10643-021-01239-5

- [11]. Wills, G., & Kika-Mistry, J. (2022). Early Childhood Care And Education Access In South Africa During Covid-19: Evidence From Nids-Cram. *Development Southern Africa*, 1-19. Doi:10.1080/0376835x.2022.2028607
- [12]. Solovieva, Y., & Quintanar, L. (2021). Playing With Social Roles In Online Sessions For Preschoolers. *Социальная Ролевая Игра На Онлайн-Сессиях Для Дошкольников.*, 17(2), 123-132. Doi:10.17759/Chp.2021170212
- [13]. Abdul-Majied, S., Kinkead-Clark, Z., & Burns, S. C. (2022). Understanding Caribbean Early Childhood Teachers' Professional Experiences During The Covid-19 School Disruption. *Early Childhood Education Journal*, 1-11. Doi:10.1007/S10643-022-01320-7
- [14]. Linnavalli, T., & Kalland, M. (2021). Impact Of Covid-19 Restrictions On The Social-Emotional Wellbeing Of Preschool Children And Their Families. *Education Sciences*, 11(8), 435.
- [15]. Yıldırım, B. (2021). Preschool Education In Turkey During The Covid-19 Pandemic: A Phenomenological Study. *Early Childhood Education Journal*, 49(5), 947-963. Doi:10.1007/S10643-021-01153-W
- [16]. Timmons, K., Cooper, A., Bozek, E., & Braund, H. (2021). The Impacts Of Covid-19 On Early Childhood Education: Capturing The Unique Challenges Associated With Remote Teaching And Learning In K-2. *Early Childhood Education Journal*, 49(5), 887-901. Doi:10.1007/S10643-021-01207-Z
- [17]. Alessandra, G., & Marco, T. (2021). Despite The Virus. A Survey With Parents On Early Childhood Education Services And Families, In Covid-19. *Rivista Italiana Di Educazione Familiare*, 18(1). Doi:10.36253/Rief-10492
- [18]. Davies, C., Hendry, A., Gibson, S. P., Gliga, T., Mcgillion, M., & Gonzalez-Gomez, N. (2021). Early Childhood Education And Care (Ecec) During Covid-19 Boosts Growth In Language And Executive Function. *Infant & Child Development*, 30(4), 1-15. Doi:10.1002/Icd.2241
- [19]. Sigurdardottir, I., & Mork, S. B. (2022). Covid-19 Influencing Preschool Practice In Iceland: 'We Now Have The Opportunity To Stop And Observe What Is Happening'. *Teachers And Teaching*, 1-13. Doi:10.1080/13540602.2022.2062729 (8)