CONTINUATION OF LEARNING

IN

SCHOOL EDUCATION OF KARNATAKA

GUIDELINES DURING COVID-19 PANDEMIC FOR TECHNOLOGY ENABLED EDUCATION AND BEYOND

JULY 2020

1. ACKNOWLEDGE OF GRATITUDE

Let me express my sincere thanks to each of the members of the Committee on Technology enabled Education.

Prof M K Sridhar as Chairman, guided all of us to understand various perspectives of the issue, led the discussions in a meaningful and cordial manner and ensured that the report is comprehensive and structured. Dr Gururaj Karajagi with his deep understanding of the ecosystem and vast experience in teaching brought subtle but important points to the forefront in our discussions and thereby into the report. Dr Niranajan Aradhya's persistent arguments in his soft voice made sure we retained the focus on the children's well-being at all times. Without Dr John's expert observations the report would have remained shallow and unsupported. Dr Srinivasan M positioned the deliberations on 'one size does not fit all' and helped to broaden the bouquet of solutions. Mr Sasikumar's points helped the Committee to understand the school managements' pressing demands. Specific and relevant information shared by Ms Preethi Vickram clarified the needs of pre-primary sections. Mr S Sathyamurthi cautioned the danger of sweeping accusations against all private schools. Dr Mohan Manghnani argued for retaining the freedom to decide the optimum duration and content with parents and schools. Dr K G Jagdheesha ensured the solutions are pragmatic and applicable for Public Schools too. Mr M R Maruthi elaborated the wonderful possibilities of TV as a medium to reach homes. Mr H N Gopalakrishna explained the guidelines followed by various international and national agencies. Mr Rishikesh B S collected a number of latest studies and reports relevant to our deliberations and painstakingly put everything together in an organised and an attractive manner. On behalf of the Department of Primary and Secondary Education and personally, I would like to thank every member of the Committee making this comprehensive report with well-defined parameters, benchmarks and reasoning.

I would like to thank Hon Minister Mr S Sureshkumar for keeping faith on the Committee members and providing enough time for the Committee to complete the deliberations. I am also thankful to Principal Secretary, Department of Primary and Secondary Education, Mr S R Umashanker IAS for supporting the Committee with necessary suggestions and office support.

There are a number of organisations that represented before the Committee either through any of the online meeting platforms or using written memorandums or appearing in person before the Committee. The wide spectrum of these small and large organisations explained different aspects of the on-going tussles in the name of 'online education'. Special thanks to many individuals who sent mails and letters, sharing their experience with remote teaching & learning, rather than keeping silent in these difficult times. I should specifically mention the name of Sri Visweshara Hegde Kageri, Honorable Speaker of Legislative Assembly of Karnataka and former Minister for School Education for his valuable observations and suggestions in addressing the issues with technology enabled Education.

I should also thank Samagra Shikshana Karnataka research team – Ms Rohini, Mr Vijeth, Mr Guruswami Hiremath – and programme officer Mr Venkataramana Reddy for collating the communications, collecting various research papers and news items, preparing notes and organising meetings.

It was a great learning experience for each of the Committee members to hear from each other about the various nuanced issues associated with different levels of schooling. I trust the effort taken by the Committee will help to ensure the well-being and continued learning of each and every child in the time of Covid-19 pandemic in every school in Karnataka.
I once again thank all those who supported the Committee on technology enabled Education.

Regards
Reju M T
State Project Director, Samagra Shikshana Karnataka
Member Secretary, Committee on Technology enabled Education.

2. LETTER OF TRANSMISSION

To

S Sureshkumar
Honourable Minister for Primary and Secondary Education
Government of Karnataka

06/07/2020

Dear Shri Sureshkumar,

Let me present the Report on behalf of the Committee on Technology Enabled Education, titled as 'CONTINUATION OF LEARNING IN SCHOOL EDUCATION OF KARNATAKA - GUIDELINES DURING COVID-19 PANDEMIC FOR TECHNOLOGY ENABLED EDUCATION AND BEYOND'.

The Committee has studied the unprecedented situation of extended school closure in the State due to Covid19 pandemic, examined various approaches proposed by various international and national agencies to face the situation and come up with a set of recommendations for the schools in Karnataka. Our endeavour was to propose a bouquet of solutions so that schools in different types can choose the most suitable solution from them. We tried to detail various parameters and define the optimum range within each so that all concerned stakeholders will be aware of them. The new paradigm calls for collective and concerted action from Government, schools, teachers, parents and community at large so as to ensure the continuity of learning and well-being of Children of our State. We hope, the report will be useful, not only for defining the framework of education during lockdowns, but also for integrating technology meaningfully with the teaching-learning process and bridging existing gaps including digital divides.
Let me thank you for the support and guidance extended to the Committee.

Prof. M K Sridhar
Chairman, Committee on Technology Enabled Education

Committee for Technology Enabled Education

1. **Prof. M K Sridhar** **- Chairman**
   Former Member Secretary, Karnataka Knowledge Commission
   Member, Committee - Draft National Education Policy 2019 .
   Formerly Professor and Dean of Management Studies, Bangalore University

2. **Dr. Gururaj Karajagi** **- Member**
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7. **Dr. Srinivasan M** - **Member**
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8. **S. Sathyamurthy** - **Member**
   Karnataka Unaided Schools Management Association

9. **Dr Mohan Manghnani** - **Member**
   Karnataka ICSE School Association

10. **Preethi Vickram** - **Member**
    Founder Director, LIFE (Leadership Initiative for Educators)
    Early Childhood Association, Karnataka Committee Member

11. **Dr K G Jagadeesha IAS** - **Member**
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12. **H N Gopalakrishana** - **Member**
    Director, Samagra Shikshana Karnataka,
    Department of Primary and Secondary Education

13. **M R Maruti** - **Member**
    Director, DSERT, Department of Primary and Secondary Education

14. **Dr Reju M T IAS** - **Member Secretary**
    State Project Director, Samagra Shikshana Karnataka
    Department of Primary and Secondary Education.

3. THE CONTEXT

The Covid-19 has created an unprecedented crisis across the globe by bringing all facets of human life into a stand still. Reports of new cases from different countries led World Health Organization to declare novel coronavirus a 'pandemic'. The pandemic has affected all sectors of human life such as health, economy, education, transportation, livelihood, social and cultural and day to day life. As per the statistics, this has impacted more than 1.57 billion children across one hundred ninety-one countries covering approximately 91 per cent of the World children's population.[1]

UNICEF's 'Lives Upended' report[2] describes the consequences of the pandemic on nearly 600 million children in South Asia, including India. As the pandemic threat grew, schools across the country were closed in March 2020. While school closures were announced as an interim measure, extended closure is causing significant disruption in the ecosystem, impacting an estimated 253 million children in India.

Karnataka is not an exception to this. All educational institutions including Schools have been shut from the mid- March 2020 much before the national lockdown to contain the spread of the virus. More than a crore children had a disruption to their education.

As per the data available in the Department of Primary and Secondary Education, Karnataka **(referred as 'the Department' hereafter)** for the year 2018-19, there are over 79,000 schools covering 1.15 crore children. The segregated details of the children studying at different level are captured in the table given below.

Table 1

GRADE / CLASS	GOVT.	GOVT. AIDED	PRIVATE UNAIDED	OTHERS
L.K.G. to 5th Grade	24,26,773	4,19,044	32,12,568	42,846
6th to 10th Grade	19,62,304	10,18,460	22,39,657	2,09,071
TOTAL	43,89,077	14,37,504	54,52,225	2,51,917

Data source: Department of Primary and Secondary Education, Karnataka

[1] https://plus.google.com/+UNESCO, "Education: From Disruption to Recovery," UNESCO, March 4, 2020, https://en.unesco.org/covid19/educationresponse.

[2] "LIVES UPENDED How COVID-19 Threatens the Futures of 600 Million South Asian Children" (Unicef, June 2020), https://www.unicef.org/rosa/sites/unicef.org.rosa/files/2020-06/UNICEF%20Upended%20Lives%20Report%20-%20June%202020.pdf.

4. IMPACT OF THE PANDEMIC ON CHILDREN AND THEIR EDUCATION

The UNICEF report[3] also refers to a study by Johns Hopkins Bloomberg School of Public Health which warns that the World could lose nearly 9 lakh children due to Covid-19 related issues in the next 12 months and many of them would be Indian. Added to these is the worrisome Reuters report on child mortality which suspects hundreds of virus related child deaths in countries like Indonesia clearly pointing at the Covid-19 danger for children particularly among those already in poor health. Therefore, there is no doubt that children are safest at their homes. This is the reason why schools around the World shut down in March – in order to safeguard our children's health. However, with the extended closure the impact on their education has started to tell.

Given this long shutdown, there is no doubt that the impact of the pandemic on children's education too has been severe around the World. However, we should recognize that children are continuing to learn based on what they are getting exposed to at their respective homes and communities around them through informal and non-formal channels; learning has not come to a standstill, but education towards well defined curricular goals imparted through school based structured learning has been disturbed. Providing this kind of education to our children is critical. Hence, when this form of learning is not available to our children it becomes a serious concern for any country.

Recent researches from scholars at Brown, Virginia and Harvard[4] indicates that children in the U.S. have fallen behind their expected learning levels due to these disruptions. Importantly, these studies also show that learning levels are declining in spite of education shifting to the 'online' mode. The paper[5]by Brown and Virginia University scholars suggest that the drop in learning could be as high as a third of expected scores in reading and almost half of the expected in Math. Further, and more crucially, a McKinsey study[6]states that the hurt due to the learning loss could last a lifetime, and it is evident as well as proven that the negative impact is most significant for the disadvantaged and marginalized communities, such as Black and Hispanic children in the U.S. There is no reason for us to believe that the negative impact on the disadvantaged children in India is going to be any different. 'Lives Upended' indicates that more than 155 million Indian children are already experiencing multi-dimensional poverty and for these disadvantaged children, the negative impact on their education due to the pandemic will be severe.

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[3] ibid

[4] "The Economic Tracker," accessed July 2, 2020, https://tracktherecovery.org/.

[5] Megan Kuhfeld et al., "Projecting the Potential Impacts of COVID-19 School Closures on Academic Achievement," *EdWorkingPapers.Com* (Annenberg Institute at Brown University, 2020), https://www.edworkingpapers.com/ai20-226.

[6] "Achievement Gap and Coronavirus | McKinsey," accessed July 2, 2020, https://www.mckinsey.com/industries/public-sector/our-insights/covid-19-and-student-learning-in-the-united-states-the-hurt-could-last-a-lifetime.

In Karnataka, a large number of children from the disadvantaged sections of our society study in the public schools. However, the numbers are significant even in the private schools, particularly the OBCs and Minorities.

Table 2

DISTRIBUTION OF CHILDREN AND SOCIAL COMPOSITION ACROSS DIFFERENT TYPES OF SCHOOLS				
CATEGORY	**GOVT.**	**GOVT. AIDED**	**PRIVATE UNAIDED**	**OTHERS**
GENERAL	1,34,663	91,037	9,97,628	35,884
OBC	26,42,783	8,63,207	27,44,489	1,13,032
SC	11,06,513	2,87,669	4,94,580	77,804
ST	4,95,295	94,643	1,64,612	33,541
MINORITIES	5,82,084	22,85,80	7,78,969	26,746

Data source: Department of Primary and Secondary Education, Karnataka

It is important to take note of the distribution of children from marginalized and other backward class communities while discussing the issue at hand. Hence, it is critical that we think deeply and innovatively to work towards arresting the slides in children's learning as seen in the studies from U.S. The tricky challenge therefore is to continue to provide children an education that is as close to the physical school based one and at the same time make sure that all measures are in place to avoid the risk of infection. It is in this context that technology enabled education has been proposed.

The next section aims to present the context in Karnataka for enabling education through technology.

5. UNDERSTANDING THE KARNATAKA CONTEXT TO ENABLE DIGITAL TECHNOLOGY

The crux of the issue when distance learning is discussed as an educational approach, is the mode in which distance learning is usually run, which is by using technology. And the foremost question with regard to technology is the one about access to it.

A recent dip-stick survey (June 2020) by the Department showed that the access of mobile phones is high across the State, however when the kind of phone and whether the phone has an internet connection is observed, the figures are low. It also varies from one district to another. However, even in the district with highest number of children with access to 'smart phones with internet', there are nearly a fifth of children in high school who do not have that access.

Table 3

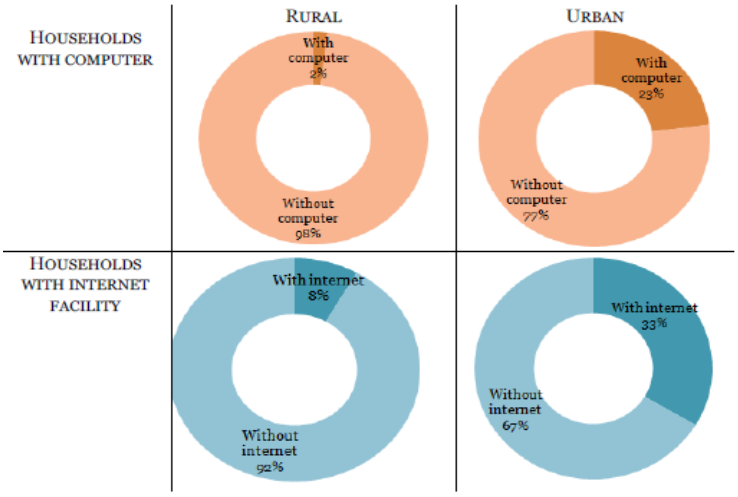
Smart phone & internet access in households with school going children			
Age group	**Karnataka**	**LOWEST**	**HIGHEST**
Grade 1-5	58.4%	Yadgir (43%)	Bangalore North (77.7%)
Grade 6-8	57.5%	Chamrajnagar (42.2%)	Bangalore South (77.6%)
Grade 9-10	63.8%	Chamrajnagar (46.2%	Bangalore South (81.5%)

Data source: Department of Primary and Secondary Education, Karnataka

Therefore, though reports on using technology enabled platforms suggest the use of mobile due to its almost universal availability, the fact is that its availability in the manner required is not universal. Additionally, the small screens are not suitable to conduct a class. The EPW article titled 'What is so wrong with online teaching?', states that "access does not merely imply the availability of internet or mobile phone", but the quality of that access is important. "To concentrate on a lecture on the phone, to stare at a small screen for over an hour or two with a reasonable degree of concentration" is not the best way of doing technology enabled distance education; in fact it is harmful to one's health in a number of ways particularly with long hours of usage.

Therefore, computers and laptops are required for any distance education in an interactive mode. However, the NSSO 75th data indicates that the availability of these resources in Karnataka is very poor. Overall, there are less than 20% households in Karnataka with an internet connection and only around 10% of the households in the State which have reported to possess a computer. Though data from NSSO and the Department survey varies, particularly on the availability of internet, it is clearly evident that the optimum resources required to provide distance education using digital resources does not exist in the State. Moreover, for those who believe the gap can be bridged through fresh allocation of resources, we should be realistic to state that it is impossible even in the medium term.

Percentage of households with computer and internet facility for the state of Karnataka[7]



Data Source: NSSO 75th round **I** Image source: Bharat Gyan Vigyan Samiti (BGVS), Karnataka

[7] "Key Indicators of Household Social Consumption on Education in India" (Ministry of Statistics and Programme Implementation, National Statistical Office,GOI, 2019).

We should also acknowledge that having a smartphone or a computer with internet facility does not ensure that children will do well in technology enabled learning. They require a peaceful and silent environment to concentrate on their studies. In India many families are living in a single house room and at this point of time as the parents are also working from home there will be lot of disturbances for children to learn.

A study[8] on this issue of access to technology enabled learning modes reports that children from high-SES (socio- economic status) families also use a wider range of devices and go 'online' more often, while one in five children from low-SES homes never or hardly ever use the internet. Three in ten children whose family is not well off at all said that they had fallen behind at school because their family could not afford computer or internet facilities at home. When education is for all children, it is clear that relying only on technology enabled distance education is not going to serve all our children.

There are a host of other safety issues that has to be kept in mind while using this mode. 'Online' sexual exploitation has become a menace in the modern society. The most recent Global Threat Assessment by We PROTECT Global Alliance and groundbreaking investigative reporting by New York Times set out the scale and impact of 'online' sexual exploitation. Cyberbullying is another major concern among teenagers and has wide ranging, negative impacts. Other potentially harmful 'online' behaviour makes it mandatory for safety protocols whenever digital technology platforms are used for distance learning.

Lastly, we should also be cognizant that researches world over have shown that technology enabled learning of any kind should be the last option. Children's learning suffers when technology is used as the primary mode. A recent McKinsey report[9] reveals education technology's impact, or rather the lack of it, based on learning based on the assessment results from PISA 2018[10]. A host of factors such as the type of device, the geography, who is using technology –teacher or the children and the school system's current performance as well play a significant role in determining the impact. Interestingly, the report goes on to present that technology in the hands of the teacher is what provides better performance (across reading, Math and Science) than when children use it and their finding that 'students who spend no time on devices in their reading classrooms do best in every region except North America' is a telling point. The report concludes that though there are education systems that perform best with more than 60 minutes of use per week, most of the education systems perform best with no device use.

[8] "Inequalities in the Home Influence Children's Digital Opportunities," *Parenting for a Digital Future* (blog), January 9, 2019, https://blogs.lse.ac.uk/parenting4digitalfuture/2019/01/09/inequalities-in-the-home-influence-childrens-digital-opportunities/.

[9] Byrant.J., Child.F., Dorn.E., & Hall.S., (2020), 'New global data reveal education technology's impact on learning'*, Social Sector Practice, McKinsey*, retrieved from https://www.mckinsey.com/industries/social-sector/our-insights/new-global-data-reveal-education-technologys-impact-on-learning

[10] The 2018 Programme for International Student Assessment (PISA), published in December 2019 by the Organisation for Economic Co-operation and Development (OECD).

Given the above background, it is essential to acknowledge the serious limitations of a purely technology enabled education. However, given these unprecedented times when some use of technology may be required as the last option, it is critical to understand the foundational educational objectives. These objectives will help us in evolving approaches that are best suited for providing education to our children in these times.

6. EDUCATIONAL OBJECTIVES

Human beings are social animals. Aristotle the legendary Greek philosopher said, "Man is by nature a social animal; an individual who is unsocial naturally and not accidentally is either beneath our notice or more than human. Society is something that precedes the individual". Hence, any solution without appropriate socialization of the kind we are normally used to will always remain sub-optimal and does not provide a complete learning environment.

India has had a long and illustrious history of holistic education. The aim of education in ancient India was not just the acquisition of knowledge, as preparation for life in this world or for life beyond schooling, but for complete realization and liberation of the self. According to Swami Vivekananda, "Education is not the amount of information that we put into your brain and runs riot there, undigested, all your life. We must have life-building, man-making, character-making assimilation of ideas. If you have assimilated five ideas and made them your life and character, you have more education than any man who has got by heart a whole library. If education is identical with information, the libraries are the greatest sages of the world and encyclopedia are the greatest Rishis".

The reality therefore is, whatever education possible in these times will come with serious limitations. It will not be possible to provide an all-round learning opportunity to the children because learning experience will be enhanced only when all relevant pedagogies are practiced. Given the unprecedented crisis, the kind of education that one can think of for our children will have to be revised. It cannot be the standard curriculum.

So, the challenge is to think out of the box and provide as well-rounded and effective educational practice as possible till the time the pandemic exists and schools are shut. The focus should be on what is needed for the capacity-building of young minds. Though the long term objective will continue to be about developing skills that will guard their health, protect their well-being and drive their employability and productivity in the decades to come, and ensure the overall progress of humankind; in the immediate however, a far greater emphasis will have to be on addressing their psycho-social and emotional needs during this pandemic and developing skills such as "learning to learn" which will make them learners who are capable of becoming active agents of learning. Building such a capacity in our children is most crucial

to help them continue learning in these times.

The current situation has compelled the stakeholders to reimagine the education delivery. The schools must operate in a different way so that we are able to continue providing education to children despite the pandemic situation as it is their right to receive education.

The purpose of education through the Constitutional lens

The social institutions like school that provides care, protection and equitable quality education have been always conceptualized on the premises of a fundamental human right of children within the human rights and Constitutional frameworks. This understanding was initially conceptualized and advanced by various international organizations, particularly by the United Nation agencies such as UNESCO and UNICEF. Many universal declarations, covenants, conventions, treaties, guiding principles and protocol were framed and adopted by UN agencies time to time to uphold and realize these fundamental child rights as a part of broader human rights.

In response to international understanding, the new Constitutions born particularly after the world war second started recognizing this basic understanding and made ample of provisions in their respective constitutions to uphold the rights of children. India is not exception to this. Many core provisions were made in the Indian Constitution to protect the wellbeing of the child.

It is clearly evident from the core provisions of the Indian Constitution that the right to education as a vital entitlement within the Constitution has bearing on the ideals laid down in the preamble to the Constitution on the one hand and the rights guaranteed and principles invoked in the Fundamental Rights and Directive Principles on the other hand.

Therefore, it is crucial to locate the discussions on technology enabled education in the context of the aspirations and ideals of the Constitution. This grave situation calls for a humanistic and holistic approach to the development of child and of childhood covering all aspects of survival, care, protection and equitable quality education that goes beyond narrow "utilitarianism and economism".

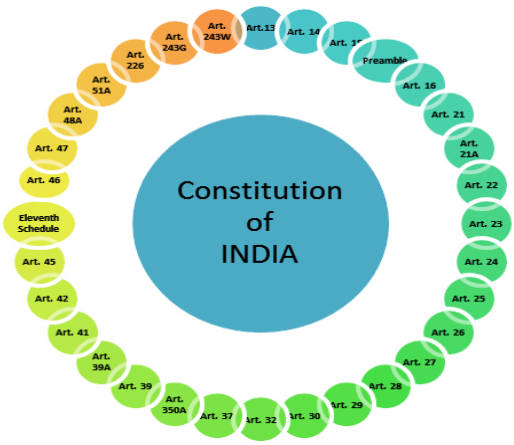


Image source: Centre for Child and the Law, NLSIU, Bangalore

Therefore, it is the need of the hour to make a policy decision on technology enabled education on the basis of equal opportunity to nurture childhood in accordance with the defined normative framework of the international and national human rights instruments.

Draft National Education Policy 2019 (Draft-NEP 2019) on school education and technology in education

In its preamble, the Draft-NEP 2019 specifies the kind of education that is desirable for the various stages of a child's development and views early childhood care and education (ECCE) as a part of the Foundational stage of school education (three years of pre-primary education and Grades 1 and 2), a single curricular and pedagogical phase of play- and discovery-based learning for very young children, between the ages of 3-8 years. With the objective of a free, safe, high quality, developmentally appropriate care for 3 to 8 years of age, at this stage education and care includes continued healthcare and nutrition, and also self-help skills, motor skills, cleanliness, the handling of separation anxiety, being comfortable around one's peers, moral development, physical development through movement and exercise, expressing and communicating thoughts and feelings to parents and others, sitting for longer periods of time in order to work on and complete a task, and generally forming all-round good habits. Supervised play-based education, in groups and individually, is considered particularly important during this age range to naturally build up the child's innate abilities and all-important lifelong skills of cooperation, teamwork, social interaction, compassion, equity, inclusiveness, communication, cultural appreciation, playfulness, curiosity, creativity, as well as the ability to successfully and respectfully interact with teachers, fellow students, staff, and others.

At the higher grades too, the kind of educational objectives Draft-NEP 2019 focusses on comprises of aspects far deeper than mere acquisition of knowledge based on rote learning. It instead encourages holistic development and 21st century skills such as critical thinking, creativity, scientific temper, communication, collaboration, multilingualism, problem solving, ethics, social responsibility, and digital literacy. The key overall thrust of Draft-NEP 2019 across all stages is to move the education system towards real understanding and learning how to learn - and create holistic and complete individuals equipped with key 21st century skills.

The Draft-NEP 2019 also makes pertinent points with regard to use of technology in education. Given the current context wherein technology based education is one of the ways in which distance learning will be done, it is important to appreciate what is said. It says that 'technology based tools must be created in response to challenges in the teaching learning space in a continuous process' and that the tools must be 'carefully evaluated to ensure that they address the challenges, without creating additional new ones'. It suggests a cautious approach to the implementation of any technology based approach and highlights the need to be scientific and keeping the foundational education principles as the basis and always to make sure that educational access to disadvantaged groups is not affected.

7. STATE'S INTERIM DECISION TO BAN 'ONLINE' EDUCATION

In order to continue education for children enrolled in their respective schools, classes commenced 'online' using technology in the new academic year. Soon after the sessions commenced, parents complained to the Department that they were discriminated. Complaints said that some schools sought additional fee for 'online' classes while some others sought parental investment in technological resources. Complaints were also received that some schools had merely transferred their regular time-table to an 'online' mode leading to stress among participating children and also impacting their health due to such unscientific measures.

The litany of grievances increased and the Government had to step in. It consulted experts at National Institute of Mental Health and Neurosciences (NIMHANS) and based on the advice received decided to prohibit 'online' classes from pre-primary to grade 5. Other grades were allowed to continue with the suggestion that the sessions will be based on age appropriate and scientific principles.

Government decision to constitute a committee to come up with guidelines

The Government constituted a committee to evolve guidelines on how education can be best done during the pandemic when schools are physically shut for children. These guidelines were to be applicable for all schools in the State and thereby universal in its outlook. The notification regarding the committee and the nominated members was issued on 15th July 2020. Under the Chairmanship of eminent educationist and member of the committee set up to draft the National Education Policy 2019, Dr. M. K. Sridhar, a committee with 14 members from diverse backgrounds was constituted. It included academics and practitioners from various disciplines such as education, child psychiatry, early year education and child rights and law. Officers from the Department of Primary and Secondary Education, including the Commissioner of Public Instruction Dr. K.G. Jagadeesha, the State Project Director Dr. M.T. Reju, and representatives of various stakeholder associations were also part of the committee. Dr. Reju was appointed as the Member-Secretary and a 10-day time frame was accorded to evolve the guidelines. However, given the complexity of the task at hand, committee requested for additional time to submit the final report.

There were three deliberations between the committee members and a handful of consultations with various stakeholders from School leaders to educationists and parents. The committee also received various written submissions from parents and members of various associations. Each of these submissions were perused by the Chair and the Member-Secretary of the committee and the key points were placed in front of the committee as part of draft notes for discussions.

In the initial meeting of the committee, it was unanimously decided that the child's best interest will be the primary concern and sound educational principles will be the foundation for the guidelines. It was also

decided that international best practices will be examined and used by suitably modifying it to our context.

8. THE APPROACH:

The committee's approach towards evolving guidelines towards technology enabled education is based on certain foundational principles related to children in general and their education in particular. These principles are applicable at all times. The guidelines for technology enabled education is also based on these principles.

I. **All children are capable of learning**
II. **Children learn at their own pace**
III. **Children's right of access to education is a fundamental and justiciable right**
IV. **Children's learning requires a structured approach and cannot be free flowing**
V. **Learning should be appropriate to the developmental level and the health of the child, both mental and physical**
VI. **Different learning strategies are suitable at different age groups**
VII. **One size does not fit every situation; hence flexibility in the approach is required**
VIII. **Socialization process by attending school and interacting with others is an essential component of holistic education**
IX. **The learning provided at schools is education primarily towards curricular goals which is crucial for developing a child's capabilities and enabling her participation in the human society**
X. **Distance education is not the ideal form of education because good education depends on many more parameters and factors and cannot replace classroom learning**
XI. **Research is unambiguous on the efficacy of human centered approaches to learning (with a human instructor / teacher / guide) over technology based ones**
XII. **Children's health, wellbeing and their developmental trajectory cannot be compromised**

Based on the fundamental principles mentioned above, certain guiding principles were evolved for coming up with the recommended guidelines for technology enabled education.

I. Distance teaching and learning using technology cannot replace the physical classes and the present exercise is temporary until a larger view is taken for policy
II. The purpose of use of technology is primarily to keep the engagement with children in these difficult times and secondarily to ensure the continuity of learning in its broader sense. It is to be treated as a tool to help children develop skills to attain the age appropriate competencies and NOT one to complete the full syllabus or cover the entire prescribed text books.

III. The technology platform / tools /method identified should be one that ensures participation of maximum number of children.

IV. A blended approach which has a judicious mix of interactive and non-interactive methods, active and passive methods, synchronous and asynchronous methods need to be ensured while using technology in teaching and learning. Digital sessions cannot be stand alone. The teachers should be in contact with each child through various means.

V. Health, well-being of the child, continuity of learning, lessening the stratification of children and social connect – is to be given priority in that order.

Important Do's, Dont's and actionables:

I. Learning needs of children who do not have access or means to basic gadgets and methods to engage with technology based learning must be addressed first; whilst on one hand, Government must prioritize equal access and equity in all learning opportunities, it is also important to reach the child and family now, and meet them where they are. So a "cafeteria approach", that is a mix of other technological and offline / face to face methods is prudent.

II. Children should be allowed to engage with digital content only during day time; the onus for this is more on the parents. Any type of screen at least two hours prior to their sleep is seriously detrimental to their health. The technology based sessions should not interfere with a child's eating time and their engagement in physical activity. This is to ensure a healthy life style where adequate care is taken regarding their nutrition and physical activity.

III. Important to recognize that technology based solutions are NOT the only options available:

- **a.** Face-to-Face personal interventions should be explored wherever possible.
- **b.** Physical opening of schools could be allowed contextually where the risk of infection is low.

9. RECOMMENDATIONS

The recommendations made herein have been evolved based on the universal basic principles of quality education for children, and located within the framework of the guiding principles for technology enabled education. It is developed keeping in mind the current context of the Covid-19 pandemic and the risk of opening schools in a full-fledged manner. The key goal of these recommended guidelines is to ensure that children in Karnataka continue to get an education that is worthy, true to the educational aims and suitable in the given context.

The report classifies the recommendations under the following heads:

- **Distance learning** – Distance learning is grouped under non-technology and technology enabled

learning; in the latter there is the electronic technology based approach, digital technology based approach and the blended approach.

- **Physical face to face** – We also present various options wherein education can be provided through personal physical interaction with children by keeping the health safety protocol intact. A number of options are discussed and it is crucial that these are enabled – in order to ensure no child is without an opportunity to learn and also to allow for better approaches than distance learning as and when the pandemic risk reduces.
- **Teaching learning process** – Given that any education delivery outside the school environment is very different, we recommend certain steps for the teaching learning processes during these times.
- **Specific guidelines** – this section of the recommendation provides the guidelines for technology enabled education; it covers aspects such as maximum screen time per day, number of sessions, frequency and the mode based on international best practices for technology based distance learning, the rationale behind the guidelines, the mandatory clauses, guidelines for schools on their autonomy and accountability and guidelines for safety measures.

9.1 Distance learning

In a broad sense, distance learning is a term often used synonymously with online learning, e-learning, distance education, correspondence education, external studies, flexible learning, and massive open online courses (MOOCs). Hence, there are both, non-technology based and technology based distance learning options. Though the latter has become synonymous with distance learning in recent times, the former is also a useful mode and should be explored in the current times to further the access of education. In recent times another approach called blended learning has emerged as a viable option as it caters to the various needs and overcomes limitations by blending the different options.

9.1.1 Non-technology based distance learning

One form of distance learning that has lost favour is the conventional correspondence form. In the days prior to availability of digital technology, correspondence based distance education would work based on postal services delivering reading packs of the concerned courses and at the end of the course assessments carried out in distance exam centres. We recommend a modified version of such a correspondence based distance learning as one of the options.

I. A non-technology based distance learning is recommended as an effective way of continuing education particularly in areas where technology is intermittently available and connectivity of any kind is poor. This is also an advantageous strategy as it is not necessary that all children / parents can have the required access to technology at all times.

II. The recommended guideline is to ensure an abundance of, age and grade appropriate, material that is available for children at their respective schools. With necessary health precautions, parents (or any authorized adults) of the enrolled children could pick up these materials and reach them across to children.

III. These materials will be 'learning packs' that can contain a letter from the teacher to the children (individualized where possible – based on strength in the respective grade /class) and will include books, worksheets, hand-outs and tasks that children can do at home. It should also be accompanied by a letter for the parents as to what the children have been asked to do.

IV. The 'learning packs' could be for an entire week and when the next week's pack is picked up, the previous week's tasks could be dropped back for teachers to go through and provide feedback.

The World Bank in its, 'Guidance Note: Remote Learning and Covid-19[11] states that these non-technology based distance learning modes are very beneficial in settings with limited access to technology.

9.1.2 Technology based distance learning

Technology based distance learning can be done either through electronic technology or digital technology. Both have their advantages and limitations. We recommend that the appropriate approach is opted based on the suitability to the context.

With regard to the readiness for technology enabled distance learning, reports, including the one mentioned earlier puts forth certain useful pointers which we recommend to be done in this regard:

I. Developing new content takes significant time and expertise. Therefore, the focus should be on curating existing (especially free, 'open') content and aligning it to the curriculum. For instance, older radio and TV programs may be repurposed. Translating existing open education resources ~~from other languages in~~to Kannada / English or any other required language and partnering with publishing firms that have existing content into the required languages should be taken up.

II. The available content must be organized to align with existing curricula, and it must be ensured that learning opportunities correspond to educational objectives. Merely having large repository of materials is not enough as it may get overwhelming. Hence, it is crucial that existing content is well curated. It should be organized in such a manner that children, their parents, and teachers understand what is available and the sequence in which it should be taught.

III. A key recommendation for technology enabled education is to create virtual helpdesk to support children, parents and teachers. Helpdesks complement the distance learning model, enabling children and parents to ask questions. They are also a conduit to receive feedback, particularly from children. These helpdesks should also be utilized to communicate with stakeholders; for

[11] World Bank, "Guidance Note: Remote Learning & COVID-19," n.d., http://documents1.worldbank.org/curated/en/531681585957264427/pdf/Guidance-Note-on-Remote-Learning-and-COVID-19.pdf.

instance there can be SMS sent to all registered parents regarding the schedule of the radio or TV programs for the respective grades. These virtual helpdesks can be established quickly through various cloud-based tools and the Department should establish one as it is a useful resource at all times.

9.1.2.1 Electronic Technology

Television (TV), Radio, pre-recorded learning materials, games and activities can also be used by children either directly in their homes, or through small group arrangements (with adequate safety protocols) in nearby anganwadi centres, schools and community halls. Many States and Civil Society Organizations (CSO) have adopted this method, and we recommend that Karnataka should draw from these.

I. TV programs have been extensively used for higher grades in Karnataka which should now be done for all levels of schooling. The Department should put in concerted effort in coming out with a detailed timetable and the required number of channels in order to provide enough content for the duration allowed. The content should not be the textbooks converted into broadcasting material, but material that are linked to curricular goals and which help children to develop particular skills. These teaching-learning materials should be amenable for discussions with teachers and others around and not passive elements.

II. The radio programs too have had a long and invaluable run in Karnataka. Children and teacher have used it to be on very useful learning journeys. Though primarily used in public schools, this is another medium that has huge potential to reach out to children in our remotest areas. Well curated radio programs are not only enriching but joyous too. Radio is one of the most accessible devices and hence should be a preferred choice along with any other device that is chosen for distance learning. The overall expenditure even if a radio program is launched from scratch is only a fraction of the cost of any other mode. Given that most phones have the radio option and it can be operated without the internet, both electricity and bandwidth issues are solved in one go by the usage of radio as the medium.

III. The World Bank[12] report too suggests that TV is the fastest way to deploy lecture- based classes, as high-quality teachers/sessions can be recorded without much additional training. TV can be used in multiple forms, including on-demand (prerecorded lessons) and edutainment. Children can then watch recordings or re-runs of these lectures, providing an opportunity for them to review or catch up if they missed anything. It also states that Radio can be used to deliver the curriculum in an engaging and interactive way, by asking learners to react to questions and exercises through verbal response. This medium reaches a wide audience and no prior skills are needed by

IV. TV, Radio, pre- recorded learning materials, games and activities can also be used by children either directly in their homes, or through small group arrangements (with adequate safety protocols) in nearby anganwadi centres/schools/community halls etc.

[12] World Bank.

9.1.2.2 Digital Technology

Even though, digital technology is the platform that comes with most benefits for operating any distance learning program, it can cause harm if not used with adequate precautions. Digital technology is at its optimum best with the internet. It allows for a host of activities.

Digital learning tools and platforms run on a variety of operating systems and software applications. The choice has to be carefully made keeping the context in mind. It is important to be guided by the basic principles. There are useful suggestions from various reports on this topic and we recommend that they be followed while using digital technology:

I. Given the near ubiquity of mobile phones in many households, and the low availability of other technologies (especially desktop and laptop computers), ensuring that online learning opportunities can be accessed using mobile devices will be critical to ensure access by the widest possible user base.

II. Use of low bandwidth solutions are recommended. Resources should be optimized for low bandwidth and poor latency conditions.

III. Videos can offer valuable learning resources, provided the availability of sufficient bandwidth and engaging content. Simply recording a teacher giving a long lecture and make it available for children is not useful as often it has been found that only the most highly motivated and engaged among them can absorb the content, that too with limited impact. Best practice holds that shorter content is more easily accessed by children.

IV. Any digital content used for teaching children should be made available as recorded content also, so that the sessions can be viewed by children as and when the platform/device is available for viewing. The recorded sessions can be subject to issues of copy right and other legal matters; for instance these recorded sessions can be password protected and access provided only to registered e-mail addresses of parents with clauses prohibiting misuse of the material.

V. It is essential that education on internet based digital platform is kept limited and is used to engage in interaction for short durations of time.

VI. Important to communicate to children, parents and teachers that carrying out education through purely technological methods should not become a source of stress for parents or for the child.

VII. Technology based distance learning should be blended with other forms of learning that would include self-learning or individual learning, small group learning over any other medium including the telephone and collaborative learning that could happen over other mediums too.

VIII. It is a blended approach that provides the most effective results of using digital technology and hence it is recommended that blended learning be the basis for all approaches using digital technology.

9.1.2.3 Blended learning

Dr. Jennifer Chang Wathall[13] is an educationist and an instructor at the University of Hong Kong who has worked on the blended learning format for the current times and proposes an integrated pathway to learn which does not restrict children to just the synchronous or asynchronous modes alone. In fact, blended learning could be facilitated in a physical environment or the online environment; the main purpose of blended learning is to maintain the connection between learners while promoting collaboration, critical and conceptual thinking.

I. The purpose behind blended learning makes it a viable mode in these times when innovative ways have to be used to help children continue their learning journey hence it should be a preferred options in the current times.

II. Blended learning models therefore could include many variations and as it is an inclusive and holistic approach we recommend that this mode is opted for by all schools.

Details for blended learning approaches can be found in Dr. Wathall's blog and as her creations are licensed under creative commons licensing framework it is freely available.

In the light of the educational objectives laid out in the foregoing section of this report, it is therefore wrong to visualise digital technology based distance learning space as a place for regular education; it cannot be a surrogate for mainstream classroom learning in the presence of a teacher as mentor, guide and facilitator of learning process. It also has a particularly heinous effect for the girl child given the grossly unequal burden of domestic work that women share at home; often the girl child would have to take up additional domestic responsibilities as seen during 'lockdown'.

Hence, along with digital education, various options for non-technology based distance learning has to be explored and put in place by schools that are adopting distance education.

It is in this context that we present the next section. We believe that the distance mode, particularly on the digital platform is not going to serve the needs of the entire State. Hence it is also essential to look at various options of face to face physical mode of delivering education wherever feasible.

9.2 Physical Face-to-face

As the country is currently in an 'un-lockdown' mode, offline initiatives for children, with adequate safety protocols, orientation and training of adult members about their roles and child protection responsibilities, must be deployed at the local levels. Given that a proper education can only happen in this mode and the

[13] "How Have We Redefined Blended Learning?," accessed July 2, 2020, https://www.jenniferchangwathall.com/post/how-blended-learning-has-evolved.

distance mode is only temporary measure till the pandemic situation exists, it is crucial that face to face modes are explored wherever it is possible. To begin with, there can be hybrid models put in place which will include some physical face to face and the others through different technological modes.

The implementation of the face to face physical presence based education models recommended below depends on what level the Covid-19 spread is.

These offline initiatives for children, with adequate safety protocols, orientation and training of adult members about their roles and child protection responsibilities, and age appropriate learning materials must be deployed at the local levels. The ideas suggested – common space in a verandah, community halls, open space examples from other States, and local mapping of safe, sanitized spaces can be used. Numbers of children must be limited in each group. Staggered timings can be used during the day, to encourage more children attend group activities in smaller groups. Community volunteers, youth leaders, members of Gram Panchayat, SDMC/SMC, members, parents' groups, SHG members can support in this initiative, as anganwadis and schools remain close. The orientation and training to use the recorded materials, guidance on building upon local games, cultural activities is important. Covid-19 related prevention measures must also be a part of their training and guidelines to ensure the safety steps must be given to them.

9.2.1 Contextual opening of schools should be done where feasible

We should remember that education happens best when children learn together in a structured learning environment with the teacher as a facilitator. Given the current 'un-lockdown' situation it is possible to contextually open schools to enable children in specific contexts to benefit from it.

I. The ground reality is that children play with each other within their communities, be it the gated communities, apartment complexes, streets and mohallas of our cities and towns, and indeed in our villages. In such a context by having the children together with appropriate protocol does not increase the risk of infection. When the risk does not increase by bringing the children together in a common place, school or otherwise, it is important that some effort goes towards designing this aspect of learning.

II. It will require planning and making sure that there is an adult for smaller groups of children and the adult is well versed with the safety protocol. Retired teachers living in the same area can be enlisted for the purpose. A quick analysis of Karnataka schools show that there are a large number of small schools and if appropriate number of serving/retired teachers can be nominated they can begin these hybrid learning journeys wherein they interact with small groups of children in the school environment – not necessarily in the class, but could be the playground, the verandah, under the tree or wherever the teacher can have meaningful discussions.

III. We recommend that contextual opening of schools take place *only* wherever the risk of infection is low.

9.2.2 Student batch based schooling is an option that should be explored in 'low risk' areas. In this model, it is recommended that children be divided into different smaller batches as per their age and allowed to go to school once or twice a week wherein teachers engage with them in a constructive manner and provide them the learning material till their next visit and engage them in non-contact sports activities. These visits will be at regular intervals and continue till normalcy returns.

I. This model is possible in all schools located in areas that do not have infections and where children come from the same community / neighborhood / village.

II. In this context it will also be possible to get children to engage in sports activities that are safe. There are a list of sports that can be played at different levels of infection risk. This will go a long way in not only keeping our children fit but also in easing their mental anxieties.

III. A variety of sports can be played by the children in the school grounds under the supervision of the coaches with adequate safety measures such as maintaining 'social distance'; for example, athletics is a sporting activity that can be done under these circumstances.

IV. We recommend this *only* in places where risk of infection is low.

9.2.3 Community based education should also be explored for smaller communities. This is another model that works well wherein children come from the same habitation / community. School like platforms can be created within these communities by mapping the children, the available space, a willing adult who can help them use the learning material. In such community based set ups there are lots of opportunities for sharing of resources including TV sets, radios, public address system and at times digital equipment as well.

I. A plan should be created for each community by a teacher or a teacher designate.

II. The Department can enlist retired teachers who are part of the same community; private schools could identify clusters wherein teachers could physically engage with children.

III. Library activities can be launched in this model which will encourage children to keep their reading habits. Schools can network with public libraries and get books issued based on each child's student ID cards. The facilitating adults should be given a list of safety principles to be followed for exchanging books. Schools with libraries can have teachers go with a fresh set of books sanitized appropriately for every visit. These are the value add activities that the schools can bring to the parents and children.

9.2.3 Teacher led mentoring model should be implemented where possible

This is a teacher dependent model and is planned and led by her with the sole objective of continuing education for the children assigned to her. In this model, a teacher as a mentor would be in constant touch with a set an identified children. For this a school level planning has to take place, teachers have to be assigned to groups of children and certain specific support actions need to come from the Department.

This model is based on a micro planning involving five closely integrated steps. Each of these steps require certain kind of actions by the teacher. This plan is very useful in the context of public schools, but similar model can be implemented in independent small private schools which operates within a community. This is recommended as and when the risk of infection is low and there is no community spread.

I. The first step to ensure children connect is to map the children with an individual teacher. Between 15 to 20 children should be mapped to a particular teacher.

II. In the second step, the teacher assigned to a particular set of children is supposed to collect the detailed information of her students.

III. The visit to children's houses after following all the protocols, by the assigned teacher is the third step and is an extension from the second.

IV. The fourth step is to design the structured interaction with children and the modes to be adopted. At least every fortnight, the teacher should meet each of her/his students in person (physical face to face) and spend some quality time with them.

V. The fifth step involves interactions with parents.

9.3 Teaching Learning Process

The educational needs of these times are very different and hence along with specific kinds of TLMs, the approach to teaching learning should also be well matched to the needs. It is essential for all adult stakeholders, to recognize limitations the situation has imposed on what can be done to help children continue education, and at the same time learn to appreciate what is possible for the children in these times; in fact it is critical that the child's best interest is always at the forefront of any decisions taken in this regard. Given that regular classroom-based teaching learning is not feasible, the emphasis will have to be on skills that will aid self-learning such as „learning to learn", rather than focus on content. Hence, the objectives of education in these times will have to be focused on the core aims of education and teachers have to evolve a variety of pedagogic approaches to suit these objectives.

9.3.1 Reduction in curricular load

A policy point in Draft-NEP 2019 too mentions the need to reduce curriculum load in each subject to its essential core content, in order to make space for more holistic, experiential, discussion-based, and analysis-based learning. It is apt for more than one reason to implement this policy point currently.

I. The mandated contents in the curriculum will be reduced, in each subject area, to its core, focussing on key concepts and essential ideas.

II. The lessening of the curricular load will yield more space for discussion and nuanced understanding, analysis, and application of key concepts.

III. The overall teaching and learning will strive to be conducted in a more interactive manner;

questions should be encouraged. The synchronous sessions in digital technology based distance learning should be used for this.

IV. Sessions should contain more fun, creative, collaborative, and exploratory activities for children for deeper and more experiential learning. It is crucial that the interest of the child towards learning is maintained as it is not the easiest to do so for all children over an online medium.

9.3.2 Learn to Learn

I. The entire effort of the programme of initial months should be to '*teach and learn to learn*'; it will include self-learning and supported learning.

II. Teachers will have a huge role in helping children to understand the new paradigm, its limitations and possible new ways of learning.

III. Teachers should help the individual child to create a portfolio of her/his covering the sessions attended, activities done, project work attempted, notes on book read, many more things they learned from newspapers and around, teachers and parents comments and review, assignments and crafts. This will form the significant part of continuous and comprehensive evaluation

IV. Care must be taken that the pre-recorded materials align broader goals of education and not completing text-book and the focus is on children's overall development in five domains language, cognitive, socio-emotional, physical-motor, imagination and creativity- through play way pedagogy, as opposed to insisting on the 3Rs. The contents must encourage children to learn through games and daily routine activities that foster positive interaction with their parents, siblings and family members, as they spend the most time, indoors, staying safe against Covid-19 infection. Subject experts can guide in developing age appropriate content for such materials.

V. DSERT should come out with a broader matrix of assessment to measure all that the child learnt even while the child was away from physical school. This measurement will be the basis for marking grades for all administrative purposes which will be captured in SATS (the student database of the Department) for most public and private schools in the State.

VI. This year, the final assessment could be an open book assessment. This can happen even from children's own homes. The same can be declared now itself. The grades from continuous and comprehensive evaluation and open book assessment can be clubbed for deciding the final grading.

9.3.3 Pedagogy:

The Draft-NEP 2019 captures the importance of pedagogy by identifying its criticality for meeting the learning outcomes. It says that 'effective learning requires a comprehensive approach, beginning with a curriculum that is engaging, relevant, and clearly articulates a vision for the desired outcomes and how to attain them', and adds that 'even the finest curricula in the world require effective pedagogy to successfully impart the curricular material to children; pedagogical practices determine the learning experiences that are provided to children – thus directly influencing learning outcomes'. Hence, as we move to a primarily

distance mode or a hybrid approach even in the face to face mode this aspect becomes even more vital.

I. The focus will be on developing the skills of 'learning to learn'.

II. Teachers should create project-based learning approaches to transact the topics.

- Small projects for children that can be tried at home with or without the support of parents.
- These may vary from science projects, crafts, origami, puzzles, and experiments.
- They need to be age appropriate and grade appropriate.

III. Till the time schools remain completely closed, sessions using TV / Radio and other technology-based approaches would be the as the primary mode of reaching out to the children. The pedagogic approach using technology will have to be thought through carefully as it will involve a steep learning curve for all the adults.

- All televised materials and sessions should be made available in recorded format so that any child can access as and when she/he get an opportunity to access that session/content. The teacher will have to link her sessions to these materials.
- The TV sessions will be as per the prescribed duration and the overall content to be covered in the year will be adjusted to amount that can be covered through various sessions of distance teaching.
- The Department has to come up with the list of content from the existing curriculum as it is available in the textbooks and issue a notification regarding the quantum of content that will be covered.
- The State will have to open up all its resources to all private schools – aided and unaided.
- Teachers, particularly the public school ones have a huge collection of experiences from teacher forums, Makkalvani Naliyona Kaliyona programme, Makkala Habba programme, digital library collection, etc. Teachers can make use of these for sessions with children.
- Sessions on Life Skills, Nutrition, Adolescent Health, Yoga, etc. should be part of Upper primary and High school students' topics and activities.

IV. A blended model should be used to continue the teaching learning process if TV / Radio is the primary mode.

- This blended model has two stages –

  - first stage of making a standardized and curated content available through multiple platforms (TV/Radio/internet) and different modes - asynchronous and synchronous;

  - the second stage of personalized study and group work at the local level

- In the first stage, the textbooks will be used and for the second stage, textbooks and all other tools like activity books, library books, and projects will be used at the local level.

V. Schools and teachers should be given enough flexibility for designing the method of reaching out

to children – either one by one or in groups – and design the best method to ensure they are taken through the sessions and attain the revised objectives for education during these times.

VI. Teachers should have the autonomy to design her own methods to reach out to each child out of 15 children in her grade / group.

VII. The Department will take up the responsibility of supporting the teachers by creating repository of activities/projects for all grades and mediums and they will be mapped to different chapters of all textbooks.

VIII. Cluster and block level functionaries will support the teachers inside and outside the schools to ensure the continued teaching learning of each and every child with these revised educational objectives.

IX. Adequate emphasis on parent support programmes, especially for parents, since they are the primary care providers is recommended. Support for parents mental health, stress management, violence free home environment, and training in carrying out educational activities is critical. Without adequate parental support, any form of distance education programme (online, TV, etc.) is inadequate. Similarly, teachers need training to prepare, transact, and monitor educational activities through technology assisted means. Teachers also need support to deal with their own emotional stress and mental health issues and this has to be given high priority as they are in the 'front-line'.

9.3.4 Special care for the needs of children with special needs:

For children with special needs – those with Specific Learning Disorders, Autism, Intellectual Disability and Attention Deficit Hyperactivity Disorder – it is crucial that special care is taken regarding their educational needs. These steps are recommended while planning for their education:

I. Extra sessions as required will have to be planned

II. Parental support is very important – Teachers have to actively liaison with parents

III. Extra time to be given for any activities to be done during sessions

IV. Schools have to continue the support that is recommended as per the guidelines of the Central and State Governments for the respective boards (CBSE, IB, ICSE and State,)

Enrollment of children with special needs in Karnataka

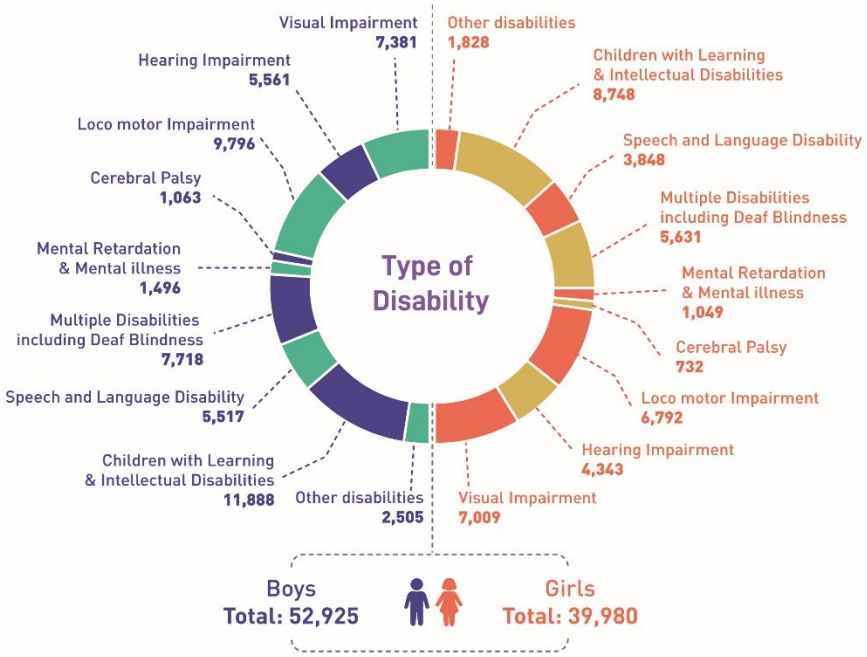


Image source: Department of Primary & Secondary Education, Karnataka

9.4 Specific Guidelines

This section covers the **guidelines on technology enabled distance learning** for different levels of schooling, provides rationale for the guidelines on technology enabled distance learning, mandatory clauses, guidelines related to autonomy and accountability of schools and the roles and responsibilities of the important stakeholders.

The first part of this section is related to the technology based distance learning approach that schools may want to implement. These specific guidelines are based on international best practices as well as the **National Guidelines for Digital Education, PRAGYATA issued by NCERT on 25.06.2020**. The international guidelines are based on **World Health Organization** guidelines for early years, **UNICEF's - 5 ways to help keep children learning during the Covid-19 pandemic,** the **World Bank's - Guidance Note: Remote Learning & Covid-19** and other best practices from various **International Boards and schooling systems.**

These guidelines from NCERT as well as international agencies have been studied, and as detailed out in the approach section of this document, the requirement and the context of all children in Karnataka has been considered before evolving these specific guidelines on technology enabled distance learning

presented in the table below.

Technology use matrix

Dimension	3-6 years (Pre-primary)	1-2 grades	3-5 grades	6-8 grades	9-10 grades
Screen time per session (in minutes / (Maximum)	30	30	30	30 to 45	30 to 45
Maximum sessions per day	1	2	2	3	4
Frequency/week	3 days	3 days	5 days	5 days	5 days
Presence of parents / adult supervisor with the consent of the parents	Mandatory	Mandatory	Preferable	Optional	-
Asynchronous or Synchronous (live or recorded)	A judicious mix of Synchronous and Asynchronous mode as per requirement				
Interactive (Active) or Passive	Interactive	Interactive	Preferably interactive	Preferably interactive	Preferably interactive
Content	Play, story and rhymes and other innovative activities ONLY	Play, story and rhymes and other innovative activities ONLY	25: (Curricular) 75: (General/co-curricular)	50: (Curricular) 50: (General/co-curricular)	75: (curricular) 25: (General/co-curricular)

9.4.1 Rationale

I. Screen time per session

The international standard followed is 'not more than 8 to 12 minutes' per session for the pre-primary (early years)[14]. We have increased it to 30 minutes. For the early graders (Grades 1 & 2), the internationally accepted concentration time and therefore the duration of sessions is around 15 minutes. We have increased it to 30 minutes as the number of children could be more in our context and with the focus of these sessions on interaction with children, this amount of time will be needed; an additional factor is that respective parents will also be there along with the children. Internationally accepted

[14] Council on Communications And Media, "Media and Young Minds," *Pediatrics* 138, no. 5 (November 1, 2016), https://doi.org/10.1542/peds.2016-2591; "New 'Screen Time' Rules from the American Academy of Pediatrics," *Parenting for a Digital Future* (blog), October 21, 2016, https://blogs.lse.ac.uk/parenting4digitalfuture/2016/10/21/new-screen-time-rules-from-the-american-academy-of-pediatrics/.

concentration time identified for higher primary and high schools is around 20 to 30 minutes[15]. We have retained the 30 minutes as in other age bands and allowed for 15 additional minutes as most sessions at this age last up to 45 minutes in our country.

II. Number of sessions:

For the pre-primary (early years), to interact with children and their parents and guide them, not more than 30 minutes is required. Hence, we have one such session per day on alternative days of the week which matches with the total number of hours in a week that is accepted internationally. For early grades (grade 1 & 2), one session each broadly earmarked for Literacy and Numeracy related activities makes it an hour per day on alternative days of the week.

We have provided an hour per day even for grades 3, 4 and 5 whereas the international standard [16]varies from 1.5 hours to 2.5 hours. The reason we have pitched it lesser than international benchmark is because our children are getting used to this mode and it is important to begin by keeping the screen time to the minimum rather than the maximum.

For higher primary grades we have provided 45 minutes of 3 sessions per day which amounts to two and a quarter hours per day; internationally[17] the duration is up to 3 hours per day. Hence, we are on similar territory and we have also enhanced the frequency to five days of the week. At 45 minutes and 4 sessions per day the high school grades get a maximum of 3 hours; in the international context it can go up to 4.5 hours[18]. We are 1.5 hours short; given the high possibility that the pedagogic approach across majority of schools will continue to have more passive sessions the amount of time is reduced compared to the international benchmark. Once the sessions become active, educationally it makes sense to enhance the time if need be. Nevertheless, for a primarily chalk and talk mode this is more than sufficient. In fact, teachers should recognize that if they conduct a regular lecture based session on this platform it is not only waste of resource, but also very ineffective. We should acknowledge that technology enabled distance learning is not a classroom on computers/mobiles.

III. Number of days in a week / Frequency

Digital engagement for pre-primary is seldom encouraged; it is primarily to engage them with their

[15] Deborah Stipek and Rachel A. Valentino, "Early Childhood Memory and Attention as Predictors of Academic Growth Trajectories.," *Journal of Educational Psychology* 107, no. 3 (2015): 771–88, https://doi.org/10.1037/edu0000004; E.M. Mahone and H.E. Schneider, "Assessment of Attention in Preschoolers," *Neuropsychology Review* 22, no. 4 (December 2012): 361–83, https://doi.org/10.1007/s11065-012-9217-y; Neil A. Bradbury, "Attention Span during Lectures: 8 Seconds, 10 Minutes, or More?," *Advances in Physiology Education* 40, no. 4 (November 8, 2016): 509–13, https://doi.org/10.1152/advan.00109.2016.

[16] "How Long Should a Remote School Day Be? There's No Consensus - EdSurge News," EdSurge, May 4, 2020, https://www.edsurge.com/news/2020-05-04-how-long-should-a-remote-school-day-be-there-s-no-consensus.

[17] Neza Stiglic and Russell M. Viner, "Effects of Screentime on the Health and Well-Being of Children and Adolescents: A Systematic Review of Reviews," *BMJ Open* 9, no. 1 (January 1, 2019): e023191, https://doi.org/10.1136/bmjopen-2018-023191.

[18] "DRAFT Tool #5 Distance Learning: Sample Instructional Day (K-12 Overview)," *Distance Learning*, n.d., 9.

teachers and talk about their tasks along with parents[19]. Alternative days of school connect is recommended for this age group. The same is the case for early grades (1 & 2) as well. Having alternative days provides the right opportunity for the other tasks – independent study or any collaborative work.

One hour of contact time will take place every day of the week for grades 3 to 5. This will provide adequate engagement on a variety of initial concepts. This is very similar to what international students are provided.

For the higher primary, a little over 2 hours per day will take place five days of the week. This will provide adequate engagement on a variety of concepts. This is very similar to what international students are provided. For the higher grades it increases to nearly 3 hours of classes, five days of the week – providing enough quality engagement with the subjects. The international standard is a maximum of 4.5 hours.

IV. Type of engagement

Both synchronous and asynchronous modes of engagement could be done based on the requirement[20]. Other than synchronous sessions, the teachers can share the work week with the parents and guide them towards the kind of activities that they should encourage the children to do. There are a set of tasks that the children are going to be told and clarifications will be sought. Though the first session in the week may have some aspects of passive participation while listening to the task (other than asking for clarifications); but the alternative sessions (for early years) is to be a completely active one as it is to provide further inputs and the last one in fact is to provide feedback and hear from the children what they did during the week and how they found the task.

For the early years, and the lower primary too, The focus is on children's overall development in five domains – language, cognitive, socio-emotional, physical-motor, imagination and creativity- through play way pedagogy, as opposed to insisting on the 3Rs. The contents must encourage children to learn through games and daily routine activities that foster positive interaction with their parents, siblings and family members, as they spend the most time, indoors, staying safe against Covid-19 infection.

Though all sessions for all grades should be interactive for excellent educational process to be in place, for some of the sessions at the higher primary grades there could be passive instruction based approach adopted by the teacher. These children will be able to listen to longer instructions and carry out the tasks, hence there could be more sessions at this level which are more instructional and thereby passive in nature. However, the teachers have to remember that passive sessions are ineffective and hence the onus is on them to keep it active and interactive.

[19] "Guiding Principles for Use of Technology with Early Learners," Office of Educational Technology, accessed July 2, 2020, https://tech.ed.gov/earlylearning/principles/.
[20] World Bank, *Remote Learning and COVID-19* (World Bank, 2020), https://doi.org/10.1596/33479.

Care must be taken that all the sessions, including the pre-recorded materials, align with the broader goals of education and does not focus on completing the text-book. Subject experts can guide in developing age appropriate content for such materials.

V. Parental presence

Parental presence is necessary for this age (early years and early grades; i.e. pre-primary and grades 1 & 2) for a host of reasons[21]; this is also why contact classes are kept to alternative days of the week and is made asynchronous so that parents time is not locked in for more frequent sessions. Children in these two age brackets are effectively similar in developmental journeys – fast paced development of the brain requiring much impetus. Hence, it is essential that parents are available for these sessions as the learning facilitation will have to be done by the adult at home and hence, they should know what is happening.

It is useful to have parents or a family adult, approved by parents, around when the children are using digital mode. However, as 8 to 10 year olds they are also big enough to be careful and follow cyber safety protocols, hence the parental involvement is kept optional. However, it is appropriate that parents deploy child lock and take other safety precautions[22].

The higher primary and high schools children are old enough to take care of themselves online and hence parental presence is not required. They are also old enough to be provided a phone to handle and thereby parental presence is made optional. However, a few sessions on Cybersafety by subject experts is recommended.

VI. Asynchronous availability

Not all children may have personal access to devices hence all synchronous sessions will have to be available asynchronously and schools will also have to take extra care not to make any child feel disadvantaged due to the processes adopted. This is non-negotiable equity related measure.

Best practices involving technology based distance learning provides recorded material with appropriate safety and copyright measures. The same could be done by schools for their recorded material. These materials could have password protection and strict clauses governing its use. However, not providing the same for a child unable to access live proceedings violates a foundational principle of education.

Additionally, for children without any digital access schools will have to make arrangements of a comparable material to be picked up from school.

9.4.2 Mandatory clauses

It should be noted that the guidelines have been evolved based on the fundamental principles of a sound

[21] Janet Goodall, "REVIEW OF BEST PRACTICE IN PARENTAL ENGAGEMENT," n.d., 223.
[22] World Bank, *Remote Learning and COVID-19*.

education. Therefore there should be no violation of any of the basic principles as that would violate the central principle of protection of the well-being of the child. The committee recommend some 'must do' and must NOT do's. These are the mandatory clauses and are as follows:

9.4.2.1 General clauses

I. Use of technology should not be the *only* option for distance learning in a school – All feasible options should be used and continuously revised keeping the core objectives as the basis.

II. When technology is used, *no child* must be deprived of access to education – if a child, for whatever reason, is unable to access through technology, the school should provide for ways in which the key learning objectives of that session / module is accessible to the child.

III. Age appropriate approach – *the duration and frequency of sessions* suggested is based on what is suitable for different age groups and hence it has to be maintained at all times when any technology based approach, electronic or digital, is used.

IV. Curricular objectives have to be revised keeping the context in mind. The *standard syllabus* should not be transacted as is. Alternative academic syllabus, calendar and timetable has to be created by every school.

V. The focus has to be on developing active learning agents with skill sets such as 'learning to learn'.

VI. A blended approach should be followed with a mix of different modes. A singular type of approach, particularly a passive one-way mode in which children only listen to the teacher should be completely avoided for younger grades. The pedagogic approach has to be interactive – even asynchronous modules will have to provide for interactive activities that the children are encouraged to do; some passive sessions can be done for higher grades only.

VII. Hybrid options should be adopted – collection of worksheets, activity sheets, hand-outs from the school to the parents should be planned so that children are provided with ample opportunities for hands on activities. This mode should not be adopted where the infection risk level is high.

VIII. No child should be de-enrolled from schools for being unable to use any technology based approach.

IX. Special care should be taken to plan the access for children with special needs.

X. There should be no compromise in reaching out to the last child. Every child has to have an access to education.

9.4.2.2 Grade specific clauses

V. Age 3-6 years (K1 & K2)

Committee recommends to preschools and day-cares to give the home-school connection in three parts as per the guidelines by the Early Childhood Association

- Teacher- child connection- through 'face-time' video chats.
- Parent-child interaction- give activities that parents can do with their children again ensure no

stress on academics. They can be fun videos to watch together on phonics or numbers or games and activities.

- Child independent activities- give yoga/play, home chores and activities that children can do with minimal help

At this age, no *formal* teaching should take place on any distance learning platforms. This is not the time to stress on academics, academic achievement or assessing children academically. Focus should be on talking to children about topics that help nurture their thinking skills, emotional skills and social skills. But the connection with children should continue, even if remotely. Even activities such as Yoga/play for the young children have very good resources on YouTube kids or in neighbourhood; a good example is the channel Cosmic Yoga (https://www.youtube.com/user/CosmicKidsYoga) which encourages activities in spite of using the asynchronous mode and also integrates other concepts into activities and is within the prescribed time limit. It is essential that teachers watch the entire video before suggesting it to be watched by the children.

VI. 7-8 years (Grades 1-2)

The Draft-NEP 2019 places children in this age group along with the early years. Their pace of growth and the kind of educational initiatives and the approaches are not very different from what is appropriate for the early years. The focus is clearly to attract them towards formal learning environment and at the same time help age appropriate skill sets to develop. Gross motor and fine motor skills are still developing and they must be encouraged and at the same time early literacy and math skills are to be introduced in an activity based manner. As for the 3-6 years there should be very little formal teaching online.

VII. 9-11 years (Grades 3 to 5)

This age group is where subject related concepts get introduced. These are the years when children begin to read and write independently and the skill of learning to learn is embedded well. A lot of self-learning skills will have to be developed as they grow to become independent learners in this phase. This phase onwards the digital technology based sessions can be held every day. However, the focus has to be on the skill sets to become independent learners.

VIII. 12-14 years (Grades 6 to 8)

At the higher primary grade in the normal times, all the subjects get introduced. This is the age group wherein children are expected to display high levels of responsibility and the number of technology based sessions can be held on a daily basis. Though in regular times concepts related to subjects could be introduced on a regular basis, given the limitations that a digital mode imposes it is best to introduce one new concept every fortnight. It is a time consuming affair to transact in this mode and hence there is a lot more time that is required to transact through the online mode. The focus should be on a lot of practice during the rest of the day when online sessions are not there. Teachers will have to plan the activities for

every day.

IX. 15-16 years (Grades 9 & 10)

This age group is the one for which there is the least dilemma in terms of introducing digital technology. However, it is here that the equity argument is at its strongest. These children are teenagers and are highly sensitive individuals. Hence, utmost care must be taken to make sure that the digital access related inequities does not create insecurity among the disadvantaged children. This can be addressed by the schools taking care to provide the disadvantaged children additional attention and provide them with the resources that would help them learn the same things as their peers.

9.4.3 Autonomy and accountability to schools

The schools should be provided the autonomy to plan their curricular objectives (based on their respective boards), and to plan their syllabus accordingly. However, it is essential that they abide by the foundational principles laid down in these guidelines and follow the mandatory clauses.

- It is critical that all private schools (and the Department for the public schools) make the time table/mode of delivery public. It should be posted on their websites and also communicated with the parents.
- These are the times when we should not 're-invent wheels' and instead share the best practices so that everyone benefits. Hence, it is recommended that innovations / best practices should be shared by the schools on a common platform which the Department should enable.
- The private schools should be accountable and have appropriate self-monitoring measures to follow the guidelines.
- There has to be a grievance redressal mechanism in place for parents.
- The monitoring and regulation should be left to the schools and parents.

9.4.4 Roles and responsibilities of stakeholders

In the time of this pandemic all stakeholders have to come together with the single goal of continuing children's education in a scientific manner without bringing any harm either to children's health or their learning. There are a set of recommendations the committee would like to make for each of the stakeholders in education.

9.4.4.1 The Department of Primary and Secondary Education

The Department has the most important task during these times. It has to establish many platforms in order to aid the continuation of education.

I. Central to all efforts is the need to create an enabling environment for functionaries to respond to ever changing situations at the block or even panchayat level, through a coherent policy,

communication and decentralization.

II. DSERT/ respective Boards must lead the development and transaction of a truncated curriculum, through prioritizing learning outcomes, syllabus and assessment across all grades.

III. DSERT must also develop and offer online training platform and courses for teachers.

IV. The Department must develop standard operating procedures for schools to operate as per Zones (Red-High risk of infection, Orange-Medium risk of infection and Green-Low risk of infection), Rural/Urban, Crowded / Non Crowded (Thin) schools. These SOPs must contain detailed guidelines, such number of school days, funds required to follow all safety and hygiene procedures, and delivery of learning material to children at their homes.

V. The District level functionaries must have flexibility to apply SOP at their discretion, based on the prevalent scenarios with its associated risk factors. They must monitor and enable schools closely for ensuring safety of children and teachers.

VI. DIETS must facilitate online programmes for teachers, and create additional learning material for children as per context.

VII. The Cluster Resource Coordinator /Block Resource Co-ordinataors must closely monitor all schools, and recommend opening, closing and operations of schools as per prevailing conditions; ensure safety and hygiene norms are followed in all schools; organize formal and informal capacity building activities for teachers; and ensure daily mid-day meal/dry ration for all children.

VIII. Teachers and school principals will be leading this battle from the front – they must ensure all safety norms and functioning of schools as per instructions provided by the Department are followed while ensuring children are learning.

IX. The Department should make sure that no special fees should be insisted for online sessions and no child/parent should be insisted to buy any particular digital device only for receiving digital content or online sessions

X. The Department should act upon any complaints by the parents regarding the violation of the guidelines by the schools.

9.4.4.2 Schools (Management)

School is a place where you make friends, learn to agree and disagree with others. Friendship is the most important element in school of the child. It is place where you learn to think. It provides emotional, social and spiritual support and that is how the child develops with support from your peers, older children and teachers. Hence, the approach in this present crisis, where distancing is encouraged and coming together is discouraged, is to examine how we can create these spaces for children in schools, while taking into account the safety and hygiene of children and teachers. The attempt is to present viable options to support the learning of children in this current crisis, with a focus on bringing them back to schools. Till such time, schools will have to place the foundational principles of education as the basis of all their

decisions with regard to their operations.

I. Schools should come forward to collaborate with other schools and parents to come up with the best possible solution to the crisis.

II. Schools are aware of educational principles and hence should set the context on those principles for any discussions regarding how education is to be done. There could be different perspectives that parents come with which may not be educationally sound, hence it is the schools which need to communicate what is appropriate and what is not to the parental community.

III. Schools should be transparent in what they do. By making their plans and methods adopted public, they can invite educationists to critique their approach so that they could continue to improve upon.

IV. Schools will have to help teachers develop professionally to equip themselves with relevant skill sets during these times and therefore provide for capacity development opportunities. For instance, the digital media will be the key driver of this endeavour and this is also an area where teachers need most support. Capacity of teachers to use technology must be developed to enable comprehensive and meaningful participation.

V. Systematic lesson plans with extensive guidelines must be made available to teachers.

VI. Schools should recognize the fact that teacher will be putting in extra effort and spending as much time if not more in the educational endeavour even though the daily teaching time may have come down.

VII. The content of teacher professional development programmes must respond to the times. In the current situation, it will be good to also go beyond the academics and address issues of social and emotional well-being of learners.

VIII. A curriculum with well-defined outcomes (to enable assessment and certification) to be achieved through a well laid out design must be developed, with adequate opportunities for face to face interaction.

IX. While perspectives on education and schooling, and content and pedagogy must be part of the curriculum, in response to times, new areas must be added, such as understanding of truncated curriculum, understanding and responding to socio-emotional needs of children, understanding Covid-19 pandemics biological and socio-cultural aspects, health, hygiene and new cultural norms, and knowledge and understanding of Government directives and how to operationalise them.

X. Continuous communication to parents on what is the options available with the school and their plan for the children should be in place. This not only provides the confidence for the parents but also helps strengthen the eco system in which the schools operate by being transparent about what they would like to do.

XI. School holds an important place in building awareness in society as such. There should be all attempts to build awareness among children as well as their parents on precautions related to Covid-19.

XII. Many of the schools will have children from the families who have been deeply affected by the crises caused by Covid-19 pandemic situation – those who have been sick and those who have lost their livelihood. Schools must be fully informed about the different entitlements that are due to parents/community and be able to guide them to avail them and also support any children affected by being sensitive to the needs.

9.4.4.3 Teachers

Like our doctors and nurses who are the front line warriors on Covid-19, teachers too form the front line battalion. All of them cannot perform their roles operating out of the comforts of their homes. Teachers have been going to schools to prepare for lessons and also visit communities to work with small groups of children in many instances. This takes a lot of courage and needs to be supported in every manner possible. Some of the responsibilities they carry are as follows:

I. As this will be a truncated year, the syllabus has to be suitably revised too ensure that children don't lose a year of learning. Teaching-learning processes, teaching learning materials should be customized as per the revised syllabus; learning kits should be provided to enable self-learning, particularly for older children. Given this background, the preparation that teachers would have to make would be enormous. Teachers will require the extra motivation in order to do perform their role well.

II. To support learning, repository of materials and activity kits should be developed.

III. Active learning methodology must be enabled during school hours to maximize children's learning, e.g. where children are 'doing' things which they can follow-up/practice further at home; bridge activities to address the gap between the earlier and the new grade, etc.

IV. Project works should be assigned to older children to enable self-learning; this can be from the syllabus areas that are not addressed in the school hours. All this would require a lot of innovative out of the box thinking on the part of the teachers. Teachers have to make the time and space for this in their daily / weekly schedule.

9.4.4.4 Parents

Parents have to play an important role during the pandemic to enable the continuity of education for their children. The time and effort they would be spending will be more than the normal times. It is essential for parents to also recognize that the schools are part of the larger eco system that provides education to our children and hence have to be supported in these difficult times.

I. Parents should familiarize themselves with educational objectives and collaborate with schools in order to make their children meet those objectives, particularly the foundational ones that the schools would be focusing on.

II. The educational experts are in the school and hence parents should allow the schools to provide education in the manner they deem fit as long as there is no violation of the guidelines of the

Government.

III. Parents will be spending extra time and resources in terms of electricity or collecting teaching-learning material from school and sharing of their devices with their children which would impinge on their normal life style which has to be accommodated and should not blame schools without valid reasons. As long as everyone is trying their best, we should collaborate and move forward.

IV. Parents will also have the oversight over the school as they will be in direct touch. Therefore, violations of Government guidelines must be brought to the notice of the Department. Parents should be aware that guidelines by the Government are issued after careful thought and wide deliberations and in consultation with experts and therefore based on scientific principles.

9.4.4.5 Civil Society Organizations

Many CSOs working in the developmental sector have been in the front line fighting against the pandemic. They also have a significant role to play in helping children continue their education. They could do this in many ways.

I. CSOs can have their community level volunteers participate in the education delivery services by acting as co-ordinators between the schools and teachers on one hand and the parents and children on the other.

II. Schools, particularly the ones working with limited resources, could network with CSO volunteers to provide teaching learning material to their children.

III. CSOs should help in mapping the areas they work in, along with other stakeholders such as the teachers and the schools, so that education related activities can be streamlined.

IV. CSOs can provide radio/TV sets to their volunteers so that, once the radio broadcast programs commence, they can take them to the communities where children do not have access to such radio/TV sets.

V. CSOs can also promote book collection drives and establish mini circulating libraries in the localities that they work in as it provides children very good opportunities to develop their reading skills

9.4.4.6 Media

In today's society the media, both print and electronic, play a very significant role. The committee requests that the media needs to come forward and play a critical role in aiding the continuity of education of our children. This can be done in many ways and we present a few illustrative examples.

I. As part of their 'social outreach program', the media, particularly the local print media which reaches to different corners of the State could carry the various broadcast timings for TV and Radio sessions that the Department is expected to launch.

II. The media could continuously publish articles by academics and practitioners on the various best practices to continue education during these times.

III. The media can allocate some space for children and engage with children's authors, story tellers, theatre artists and others to engage with children in a constructive manner.

IV. It is important that the media is doubly sure in presenting the ideas for education and that they too develop their stance based on foundational educational principles.

V. It can also give wide publicity to best and innovative practices followed by any institution, teacher, parent or any other public or private body in ensuring continuity of learning for 1.4 crore or a fraction in our state.

9.4.5 Safety measures

One of the key reasons for the continuous spread of the pandemic is the lack of respect for safety measures. It is evident that societies which follow safety measures strictly have decreased their risk of infection considerably. It is important that stakeholders in the education domain are the front runners and role models to the society. It is not only desirable but also essential as it involves the health of our children.

The Department should continuously come out with specific guidelines on safety measures. The manner in which the Department conducted the SSLC Board exams is commendable and the communication at each of the centres was without any ambiguity. Such as the clarity in the communication that even when Covid-19 positive cases were found, there was no panic and the examination event went as planned. This was due to the detailed planning that was in place. Similarly the Department should provide guidelines to schools and teachers on how to live life during the pandemic by conquering fear and at the same time taking extreme precaution against the disease, and continue providing education to our children in the best possible manner.

The Department, through its teachers, should communicate to the community at large as to what needs to be done rather than fall to rumours. Schools too should use their influence over parents and children to continuously provide scientific information and the safety measures that are essential for all of us.

10. CONCLUSION AND WAY FORWARD

Unprecedented situations demand unprecedented responses. One of the major responsibilities of the State is to care for the social and emotional wellbeing of its children. Continuing education for children plays its important role in it. This committee was constituted for the purpose of evolving appropriate guidelines so that school education can continue, but based on the right ideals.

Though the committee has been able to come up with detailed guidelines encompassing a host of issues related to continuing education, we should appreciate the fact that we are in dynamic phase so a lot of direction along with flexibility to take decision needs to be part of the mechanisms. In this regard, it is

crucial to build into these guidelines a review mechanism so that adequate refinement can continuously take place depending upon the Covid-19 pandemic situation till the time we are free of it. At the same time, 'one size does not fit all'. This is an opportunity for new models of education to flourish. We do hope that comes true and there are many models that evolve to aid in educating our children in the manner our educational aims desire.

Going forward, the Department can develop a survey matrix which will include a measurement of access, learning and continuity. This data can be used to fill gaps if any and make changes wherever required.
Finally, we suggest that an expert committee or the Department itself could go into the experience and make further recommendations about two months from now (July 2020).
Last but not least, this pandemic would emerge as a historic opportunity to continue the learning of our children by joining of hands and HEARTS.

ANNEXURE follows.