MAJOR COMPONENT-   Quality Interventions

 SUB-COMPONENT-   Funds for Quality (LEP, Innovation, Guidance

etc)

ACTIVITY MASTER-   Project - Innovative Activities (Secondary & Sr.

Secondary)

ACTIVITY-   Smart Class Rooms/Digital Boards

1. <u>Progress for Smart Class Rooms/Digital Boards in AWP&B 2019-20</u>

52. c Digital Board/Smart classroom- KYAN was given to 503 schools for enhancement of learning outcomes. Total expenditure incurred was Rs.647.63846 lakh.

53	Project Innovation (Elementary)		Phy.	Fin	Phy.	Fin
	53.ao	Gyan Lok	150	600.00	150	232.50000
	53.c	Digital Board/Smart Class Rooms	593	652.30	475	647.63846
	Total of Project Innovation (Elementary)			**1252.30**		**880.13846**

2. <u>Proposal for Smart Class Rooms/Digital Boards in AWP&B 2019-20</u>

c. Digital Classroom Technology for Improved Learning Outcomes And Education Quality (K-Yan)

Department of Education, Govt of NCT of Delhi in the PAB 2018-19 got the approval of Rs 652.3 Lakhs for the proposal for setting up of Digital Board/ Smart Classroom at a cost of Rs 1.1 Lakh per classroom in 593 schools.

In this connection, Department have completed the setting up of Digital Board/ Smart Classroom project with 01 Integrated Community Computer per school in 503 schools of Delhi for the year 2018-19

Department of Education, Govt of NCT of Delhi has taken the initiative to digitalize all the Government schools. On this mission till date, it has supplied 01 Integrated Community Computer device in 944 schools across the state. Further, we have received a very positive feedback for the solution from the respective Head of Schools and the demand to have more such smart classrooms to be set up in school as one smart classroom per school was not sufficient. Considering the feedbacks received from various stake holders, we would like to take this solution to other government schools so that the benefit would reach maximum number of students, thus improving the students learning abilities.

We also received several requests from the Principal/HoS of government schools for setting up Integrated Community Computer for more classrooms at their schools, so that maximum students get benefited out of it.

Therefore, requesting to provide 01 units of Integrated Community Computer (ICC) may be provided to the 1019 government schools of Delhi.

Establishment of Digital Board/ Smart Classrooms:

As education continues to develop through the integration of technology in and outside the classroom, the mentality among many teachers has started to shift as well. There used to be a fear that technology would eventually replace the teacher, but the more prevalent view now is that it is a tool which can be applied to enhance conventional teaching rather than replace it. Integrating technology in education helps students stay engaged. Technology uses all interactive modules like videos and presentations and these visually attractive methods of teaching become appealing to students who are already struggling with the traditional method of teaching in a classroom. This is because the audio-visual senses of students are targeted and it helps the students store the information fast and more effectively.

Benefits of Technology Integration in Education:

- The teaching strategies based on educational technology can be described as ethical practices that facilitate the students' learning and boost their capacity, productivity, and performance.
- Technology integration in education inspires positive changes in teaching methods on an international level.
- The teacher simply cannot discover a way of presenting tough concepts that makes the concept clear for each and every student in the class. Technology has that power. Through audio-visual presentations, students will understand exactly how the knowledge is applied in practice.

Expected Outcomes:

- The use of multimedia tools in classroom will motivate the students and enhance their knowledge.
- The students' physical as well as mental presence in class will be increased.
- Student will get the experience to travel throughout the world from the virtual space.
- The use of technology will help the students to get quality education with less expenditure.
- This will lead to child-center learning through technology.
- The use of exploratory learning helps students to learn with ease and enjoyment.
- It motivates the creativity, aesthetic aspect, analytical ability, problem solving ability and sensitivity of the teacher and students.
- It helps the teacher and students to be more enthusiastic in teaching learning process.
- The teacher can improve the attendance and get better results through integration of technology in education.
- By using audio/video modules in class, the involvement of students can be made easy. Technology can make them better understand about the concept.
- Activity-based digital learning helps the students to explain the things to present their views and to find the solution.

Proposal:

Going by the response of students as well as teachers regarding the benefits of Digital Board/ Smart Classrooms, it has been found that there is overwhelming excitement among the teacher and the taught. The students have shown a keen interest in learning through smart classes. The recommendations of teachers and school heads are also heart warming.

In view of the overwhelming response from the students and teachers, the Department of Education feels the need to convert all schools into Smart Classroom by supplementing with Four Integrated Devices at least. The proposed solution and requirement of funds for establishment of these Smart classrooms are given below:-

Integrated Community Computer (ICC) based learning solution:

The ICC solution is a holistic solution towards providing an interactive learning environment in the school. This is a teacher-centric-approach-based solution. All components of the platform, be it technology, or content, has been devised to

facilitate the teacher to make the entire learning experience magical in the classroom.

Benefits of Integrated Community Computer (ICC) Solution:

(a) <u>All in one educational device</u>: This ensures that one device performs several different functions removing both the hassle and cost of buying, using and maintaining separate devices.

(b) <u>Cost optimisation</u>: Eliminates the need for installing separate infrastructure in every classroom as it can be carried into every classroom with ease

(c) <u>Any room can convert into an interactive classroom</u>: This is a unique feature which eliminates the limitation of having special boards, thereby making it a perfect solution for those on constrained budget of limited number of classrooms

(d) <u>Concept based multi-media content</u>: The solution must come with NCERT framework-based state board syllabus for the schools to introduce concept-based learning approach. This will reduce the absenteeism in the school and create learning interest in the students. This content makes learning fun, engaging and helps students connect to it better

About Solution:

The Digital Integrated Community Computer (ICC) is based on the Holistic Classroom Learning Model for the Schools, which incorporates the following components:

1. Integrated Community Computer (ICC)
2. Training and Capacity Building of Teachers
3. Project Monitoring and Maintenance

I. Objective of the Proposed Solution:

The proposed solution aims to achieve the following objectives:

(a) Revolutionize the Teaching-Learning process in the schools by setting up of innovative IT enabled education solution

(b) Enable a technology driven learning environment in schools with an ingenious combination of technology and curriculum mapped content

(c) Empower the teachers of schools in acquiring IT skills and to feel confident in using IT as an effective teaching tool

(d) Facilitate overall development of the students by providing them access to the world of information and modern teaching methodologies

(e) Focus on the traditional methodologies of learning delivered through futuristic

technologies but with a clear focus on learning outcomes

II.   Components of Integrated Community Computer (ICC) Solution

The Technology Platform for the Integrated All-in One solution is based on an Integrated and Innovative Technology Platform.

Compared to conventional smart class technologies, the Integrated All-in One technology was developed keeping in mind the user i.e. teacher and student and not the technology itself, as given below:

Features	Integrated Community Computer (ICC)
Technology Integration	Multiple Components Integrated into a Single Compact Unit including Large Screen TV
Ease of Setup & Use	Being a Single Cable Plug-inDevice, it is very easy to Setup
Portability	A Compact Unit with single Plug-in Cable, it can easily be moved anywhere in the school
Experiential Learning	Wireless Keyboard and Mouse, can be carried anywhere in classroom for use by Students
Image Size	Screen Size can go up to 300" diagonally
Costs and Maintenance	An Integrated device which is affordable and requires low maintenance

III.   <u>Training and Capacity Building of Teachers</u>

The capacity-building of teachers is designed to create comprehensive teachers' capacity. The concepts covered are:

- Basic IT Know- how
- How to use the Solution
- Integration of Multimedia Learning Modules in Regular Teaching
- Classroom Management Skills

IV.   Project Monitoring and Maintenance:

The education provides complete project maintenance and monitoring for three years wherein a dedicated team of project monitoring resources works continuously to ensure the adequate service delivery to each place through a Centralized Control Centre.

V.   Technical Specifications of Integrated Community Computer (ICC)

solution:

Technical Specifications	Integrated Community Computer (ICC) Solution
Brightness	3000 ANSI Lumens (Short Throw)
Contrast Ratio	18000:1
Lamp Life	4000 Hours (Standard Mode) & 3000 Hours (Bright Mode)
Resolution	SVGA 800 x 600
Computer System	Intel Core i3 Processor, 6 USB ports,
HDD	1 TB
Input	Wireless Keyboard and Mouse, DVD RW
Output	VGA
RAM	4 GB RAM
LAN / Internet	1 x Gbps Ethernet Connectivity, Interne ready device, Bluetooth and Wi-Fi
Audio	30 W
Inbuilt Interactivity	Minimum 120" diagonal Finger Touch/Pen Interactive Screen
Operating System	Windows 10 SL or higher
Weight	6.5 Kg
Certification	UL

The prioritization of schools is as under:

Prioritization	No. of Schools	Unit Cost (in lakh)	No of Units per school	Requirement of funds (in lakh)
Delhi Government Schools	1019	1.1	1	112.09
Left out schools (2018-19)	75	1.1	1	82.50
Total	**1094**			**1203.40**

Financial Proposal:

Sr.	School Category	No of schools	Unit Cost (Rs. In lakh)	No of Units per school	Total funds (Rs. In lakh)
1	Delhi Government Schools	1019	1.1	1	112.09
2	Left out schools (2018-19)	75	1.1	1	82.50
	Total	**1094**			**1203.40**

Budget Provision:

Sr No	Activity Description	No of Units per school	Total Cost (in Lakh)
1	One Lakh Ten Thousand (1.1 Lakh) per Classroom for 1094 number of schools including all taxes	1	**1203.40**

3. <u>Recommendation of Technical Support Group (TSG) -2019-20</u>

Project - Innovative Activities (Secondary & Sr. Secondary)							
Activity	Proposal			Approval			Remarks
	No. of Schools	Unit Cost (in lakh)	Total Cost (in Lakh)	No. of Schools	Unit Cost (in lakh)	Total Cost (in Lakh)	
Smart Class Rooms/Digital Boards	1094	1.1	1203.4	1094	1.1	1203.4	Considered as proposed for 1094 schools

4. Approval of Plan Approval Board 2019-20

c) **Project Innovation (Secondary):** An amount of Rs.5711.365 lakh has been estimated under Project Innovation (Secondary) for various activities such as Celebration of Language festival, Open Gym, Sports Day, Coonnected classroom and smart classroom/ Digital Boards. In the connected classroom it is recommended one lab per school with 20 systems in each lab for 1019 schools with total estimated value of Rs. 5186.424 lac and smart board is recommended only for 75 schools, previously not covered with total estimated value of Rs. 82.50 lac. Details list of Schools approved for connected classroom is attached in **Annexure- IV.** List of Schools approved for Smart Classroom/Digital Boards is attached in **Annexure-V.**

(Rs. in lakh)

Activity Master	Physical	Unit Cost	Financial
Project Innovation(Secondary)			
Celebration of Language festival	2564	0.01	25.64
Open Gym	100	2	200
Sports Day	1019	0.2	203.8
Connected classroom (20 systems per school)	1019	5.08972	5186.425
Smart Classroom/Digital Boards	75	1.1	82.5
Ek Bharat Shresth Bharat	13	1	13.00
Total of Project Innovation(Secondary)			**5711.365**

List of 75 schools Approved for Smart classroom / Digital Board

S.NO	School Code	DoE School ID	School Name	School Management	School Category
1.	07040123701	1001151	Govt. Co-ed. Sec. School, Teliwara, Shahdara, Delhi	Government	Secondary
2.	07030126204	1104017	Govt. Co-ed. Middle School, Johripur, Delhi	Government	Middle
3.	07030125006	1105014	Govt. Boys Sec. School, New Seelam Pur, Delhi	Government	Secondary
4.	07030125005	1105015	Govt. Boys Sec. School, Welcome Colony , New Seelampur, Delhi	Government	Secondary
5.	07030125902	1105017	Govt. Boys Sr. Sec. School, Jafrabad Extn., Shadara Delhi	Government	Senior Secondary
6.	07030123702	1105028	Govt. Co-ed. Middle School, East Rohtash Nagar, Shahadra, Delhi	Government	Middle
7.	07030125904	1105247	Govt. Boys Sr. Sec. School, New Jafrabad, Delhi	Government	Senior Secondary
8.	07030124604	1106010	Govt. Boys Sec. School, Mandoli Road, Ashok Nagar, Delhi	Government	Secondary
9.	07030124602	1106112	Govt. Girls Sec. School, Ashok Nagar, Mandoli Road, Delhi	Government	Secondary
10.	07020100707	1207005	Govt. Sarvodaya Kanya Vidyalaya (Mahavir Singh), Gali No.9, Jagatpur, Delhi	Government	Secondary
11.	07020106902	1207027	Govt. Boys Sec. School, Block-E, Kamla Nagar, Delhi	Government	Secondary
12.	07020107705	1207043	Govt. Girls Sr. Sec. School, Nicholson Road, Delhi	Government	Senior Secondary
13.	07020100801	1207255	Govt. Boys Sec. School, Gali No.9, Jagatpur, Delhi	Government	Secondary
14.	07020108804	1208010	Govt. Boys Middle School, Model Basti, Rani Jhansi Road, Delhi	Government	Middle
15.	07020108003	1208011	Govt. Co-ed Sec. School, Kucha Kabil Attar, Near Town Hall, Chandni Chowk, Delhi	Government	Secondary
16.	07020107303	1208021	Govt. Girls Sr. Sec. School, Tulsi Nagar, Delhi	Government	Senior Secondary
17.	07020108001	1208023	Govt. Girls Sr. Sec. School, Gali Barf Wali, Kinari Bazar, Delhi	Government	Senior Secondary
18.	07020107603	1208025	Govt. Sarvodaya Kanya Vidyalaya, Pul Bangash, Azad Market, Delhi	Government	Senior Secondary
19.	07020108801	1208029	Govt. Girls Sec. School, Idgah Road, Delhi	Government	Secondary
20.	07020107601	1208030	Govt. Girls Sec. School, Deputy Gunj, Sadar Bazar, Delhi	Government	Secondary
21.	07020107602	1208091	Govt. Co-ed Sec. School, Sushila Mohan Marg, Naya Bazar, Delhi	Government	Secondary
22.	07020107505	1208232	Govt. Boys Sr. Sec. School, Pratap Nagar, Delhi	Government	Senior Secondary
23.	07010101204	1309009	Govt. Boys Sr. Sec. School, Dhakka, Delhi	Government	Senior Secondary

S.NO	School Code	DoE School ID	School Name	School Management	School Category
24	07010107102	1309012	Govt. Sarvodaya Bal Vidyalaya, Rana Pratap Bagh, Delhi	Government	Senior Secondary
25	07010107002	1309271	Govt. Sarvodaya Vidyalaya, Kalyan Vihar, Delhi	Government	Secondary
26	07010101902	1309274	Govt. Boys Sec. School No.2, J.J. Colony Bhalswa Dairy, Delhi	Government	Secondary
27	07010102814	1310007	Govt. Sarvodaya Bal Vidyalaya (Ved Pandit Khushi Ram), Nangal Thakran, Delhi	Government	Senior Secondary
28	07010102813	1310010	Govt. Boys Sr. Sec. School, Katewara, Delhi	Government	Senior Secondary
29	07010100308	1310015	Govt. Boys Sr. Sec. School, Khera Khurd, Delhi	Government	Senior Secondary
30	07010102810	1310026	Govt. Co-ed. Sr. Sec. School, Hareoli, Delhi	Government	Senior Secondary
31	07010102703	1310161	Govt. Co-ed. Sr. Sec. School, Barwala, Delhi	Government	Senior Secondary
32	07010102806	1310247	Govt. Sarvodaya Vidyalaya, Auchandi, Delhi	Government	Secondary
33	07010100104	1310400	Govt. Co-ed. Sr. Sec. School, Ghoga, Delhi	Government	Senior Secondary
34	07010106707	1411009	Govt. Boys Sr. Sec. School No.1, Keshawpuram, Delhi	Government	Senior Secondary
35	07010106804	1411019	Govt. Boys Sr. Sec. School, Bharat Nagar, Delhi	Government	Senior Secondary
36	07010102803	1413001	Govt. Sarvodaya Vidyalaya, Chandpur Majra, Delhi	Government	Senior Secondary
37	07010103004	1413009	Govt. Co-ed. Sr. Sec. School, Vill & P. O. Nizampur Delhi	Government	Senior Secondary
38	07010102905	1413022	Govt. Boys Sec. School, Ladpur Delhi	Government	Secondary
39	07010102801	1413075	Govt. Co-ed. Middle School, Punjab Khor, Delhi	Government	Middle
40	07010102901	1413181	Govt. Sarvodaya Vidyalaya, Jaunti, Delhi	Government	Senior Secondary
41	07010102110	1413316	Govt. Girls Middle School, Sect-24, Rohini, Delhi	Government	Middle
42	07010102108	1413318	Govt. Girls Middle School, Sect-16, Pkt-D, Rohini, Delhi	Government	Middle
43	07010102106	1413320	Govt. Co-ed. Sec. School, Sect-15, Pkt-F&G, Rohini, Delhi	Government	Secondary
44	07070112201	1617030	Govt. Co-ed. Sr. Sec. School, Baprola, New Delhi	Government	Senior Secondary
45	070801ND807	1719002	Govt. Sarvodaya Bal Vidyalaya No.1 (Ganesh Shankar Vidyarthi), Sarojini Nagar New Delhi	Government	Senior Secondary
46	07080116702	1719102	Govt. Sarvodaya Vidyalaya, G-Block, Netaji Nagar, New Delhi	Government	Senior Secondary
47	070801DC102	1720001	Govt. Sarvodaya Bal Vidyalaya, Tigri Road, Sadar Bazar, Delhi Cantt, New Delhi	Government	Senior Secondary
48	07080113314	1821034	Govt. Co-ed. Sr. Sec. School, Kangan Heri, P.O. Chhawla, New Delhi	Government	Senior Secondary

S.NO	School Code	DoE School ID	School Name	School Management	School Category
49.	07080113313	1821036	Govt. Boys Sr. Sec. School, V&PO-Chhawla, Delhi	Government	Senior Secondary
50.	07080113312	1821038	Govt. Co-ed. Sec. School, Nanakheri Chhawla New Delhi	Government	Secondary
51.	07080114301	1821041	Govt. Sarvodaya Bal Vidyalaya, Shahbad Mohammadpur, New Delhi	Government	Senior Secondary
52.	07080113609	1821281	Govt. Sarvodaya Vidyalaya, Sector-13, Dwarka, New Delhi	Government	Senior Secondary
53.	07080114013	1822004	Govt. Co-ed. Sr. Sec. School, Mundela Kalan New Delhi	Government	Senior Secondary
54.	07080113310	1822006	Govt. Sarvodaya Vidyalaya, VPO Daulat Pur New Delhi	Government	Senior Secondary
55.	07080114012	1822012	Govt. Boys Sr. Sec. School, Kair, Najafgarh New Delhi	Government	Senior Secondary
56.	07080114011	1822013	Govt. Boys Sr. Sec. School, Vill & P. O. Ujwa, New Delhi	Government	Senior Secondary
57.	07080114010	1822014	Govt. Boys Sr. Sec. School, Dhansa, New Delhi	Government	Senior Secondary
58.	07080113904	1822015	Govt. Boys Sr. Sec. School, Vill. Dichaon Kalan, New Delhi	Government	Senior Secondary
59.	07080113307	1822024	Govt. Co-ed. Sr. Sec. School, Vill & P. O. Rawta, New Delhi	Government	Senior Secondary
60.	07080113306	1822025	Govt. Co-ed. Sr. Sec. School, Jhatikara New Delhi	Government	Senior Secondary
61.	07080114009	1822033	Govt. Co-ed. Sr. Sec. School, Kazipur, P.O. Ujwa, New Delhi	Government	Senior Secondary
62.	07080113303	1822037	Govt. Co-ed. Sr. Sec. School, Hasanpur P.O. Ujwa, New Delh	Government	Senior Secondary
63.	07080114007	1822040	Govt. Sarvodaya Kanya Vidyalaya, V. & P. O. Kair, New Delhi	Government	Senior Secondary
64.	07080114006	1822048	Govt. Girls Sr. Sec. School, V. & P. O. Ujwa, New Delhi	Government	Senior Secondary
65.	07080113302	1822051	Govt. Girls Sr. Sec. School, Ghumanhera, New Delhi	Government	Senior Secondary
66.	07080113301	1822058	Govt. Girls Sr. Sec. School, Pandawla Khurd, New Delhi	Government	Senior Secondary
67.	07080114001	1822178	Govt. Co-ed. Sr. Sec. School, Mitraon, New Delhi	Government	Senior Secondary
68.	07090116901	1923074	Govt. Boys Sr. Sec. School, Block-J, Saket, New Delhi	Government	Senior Secondary
69.	07090117505	1923358	Govt. Boys Sr. Sec. School, Mandi Village, New Delhi	Government	Senior Secondary
70.	07090117507	1923360	Govt. Boys Sr. Sec. School, Dera, Village, New Delhi	Government	Senior Secondary
71.	07090118214	1923393	Govt. Sarvodaya Bal Vidyalaya No.2, Sect-IV, Dr. Ambedkar Nagar, New Delhi	Government	Secondary

S.NO	School Code	DoE School ID	School Name	School Management	School Category
72	07090115708	1924004	Govt. Boys Sr. Sec. School, Near Eros Cinema, Jungpura, New Delhi	Government	Senior Secondary
73	07060108105	2127004	Govt. Boys Sr. Sec. School, Zeenat Mahal, Kamla Market, New Delhi	Government	Senior Secondary
74	07060108104	2127005	Govt. Boys Sr. Sec. School, Mata Sundri Road, Opp Govt. Press, New Delhi	Government	Senior Secondary
75	07060108101	2127022	Govt. Sarvodaya Kanya Vidyalaya (Haweli Azam Khan), Asaf Ali Road, New Delhi	Government	Senior Secondary

5. **Costing of Project Approval Board (PAB)**

66		Project - Innovative Activities (Secondary & Sr. Secondary)						
	66.	Celebration of Language Festival	2564	0.04500	115.38	2564	0.01000	25.64
		Open Gym	100	3.00000	300	100	2.00000	200
		Sports Day	1019	0.20000	203.8	1019	0.20000	203.8
		Teacher IdCards	1644	0.00050	0.822	1644	0.00050	0.822
		Youth & Eco Club	1282	0.25000	320.5	1036	0.25000	259
	66. ak	Connected Classrooms with Digital	1019	5.18972	5288.32468	1019	5.08972	5186.425
	66. bg	Smart Class Rooms/Digital Boards	1094	1.10000	1203.4	75	1.10000	82.5