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7th International Skills Forum

Anticipating and Preparing for Emerging Skills and Jobs

12-14 December 2017
Asian Development Bank
Manila, Philippines

Project EEO BULT :
For enhancing education based on ICT.



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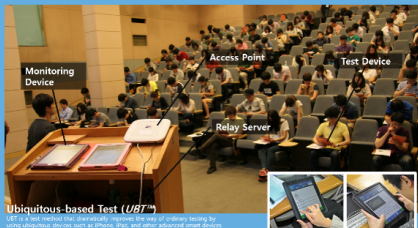
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Resources : Technology and Human resource.

UBT/SBT

Next Generation Assessment,
Ubiquitous-based Test



✓ Advanced point than IBT/CBT.

- Less cost : Infrastructure, management.
- Transforming traditional education.
- Less CO2 emission.
- Easy to establish.
- User friendly.
- Enough security.

UBL

u-Learning management System



✓ U-Learning technology gives these advantages below :

- Functions without internet connectivity (Ubiquitous environment).
- Available with Smart devices (Tablet, Phone).
- Less CO2 emission.
- Easy to make a training content.
- Share the knowledge to others.
- Easy to manage.





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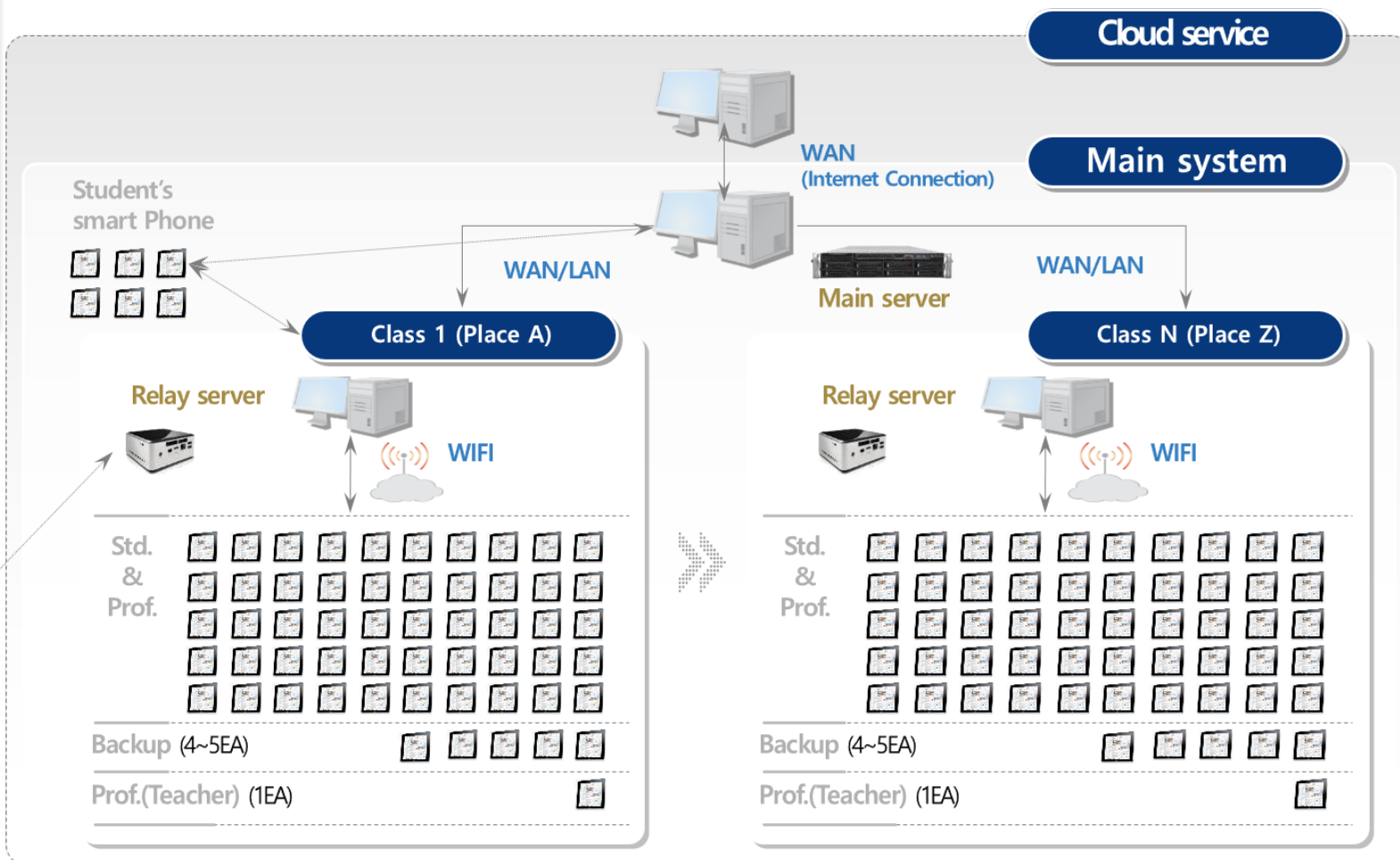
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Topology

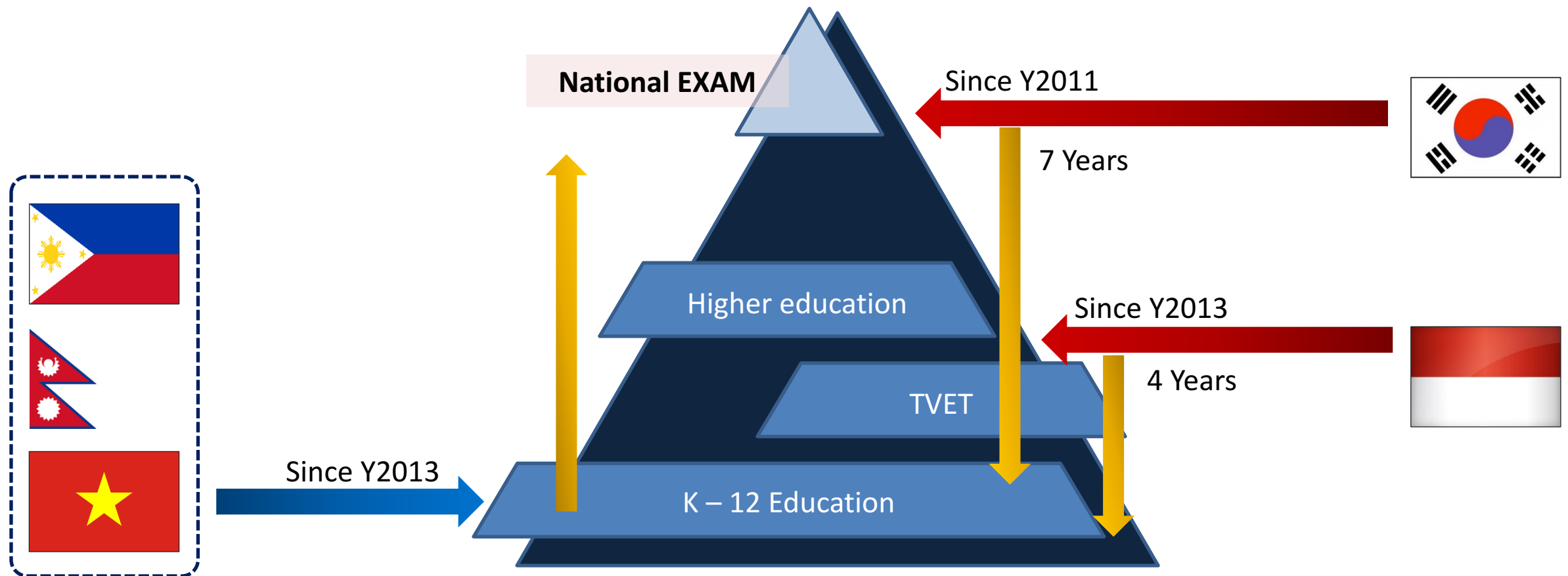


U-Learning box for educators
(Function without internet and electricity)





Different approaches depend on real environment.





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Monitoring
Device

Access Point

Test Device

Relay Server

Ubiquitous-based Test (UBT™)

UBT is a test method that dramatically improves the way of ordinary testing by using ubiquitous devices such as iPhone, iPad, and other advanced smart devices.





Case : S.Korea

Y2011

- Starting the project

Y2012

- UBT vs CBT/IBT

Y2013

- Developing UBT for national exam

Y2014

- UBT replaced SBT

Y2015

- Giving effect to medical education sector

Y2016

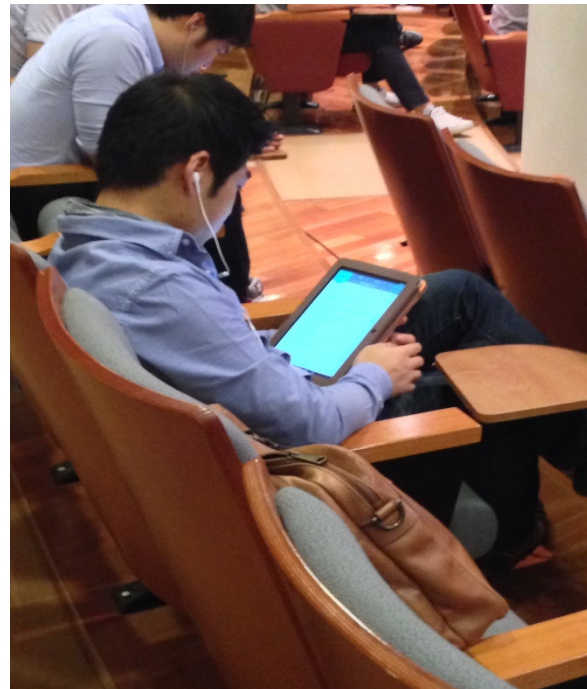
- Expanded to medical education era

Y2017

- Implementing national license exam (EMT)

Y2018~

- 23 kinds of national medical license exam
will be modified





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South Korea

대한민국 : SKTelecom, Korea Health Personnel License exam board, Ministry of Education, Samsung electronic Logitech academy and so on.



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CAT at Don Mariano Marcos Memorial State University



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Case : Philippines

Y2013

- Starting the project (DePED Marikina, DMMMSU)

Y2014

- CAT based on UBT (DMMMSU), UBL (MARIKINA)

Y2015

- Expanded to DePED Quezon city (UBL)

Y2016

- Blended learning at DMMMSU, DePED Marikina (UBL)
- ALS (KARITON Class, Quezon city jail) in Quezon

Y2017

- Local finals examination in DePED Marikina (UBT)
- DMMMSU expanded to local elementary school in San Fernando
- UBL BOX adopted to KARITON Class

Y2018~

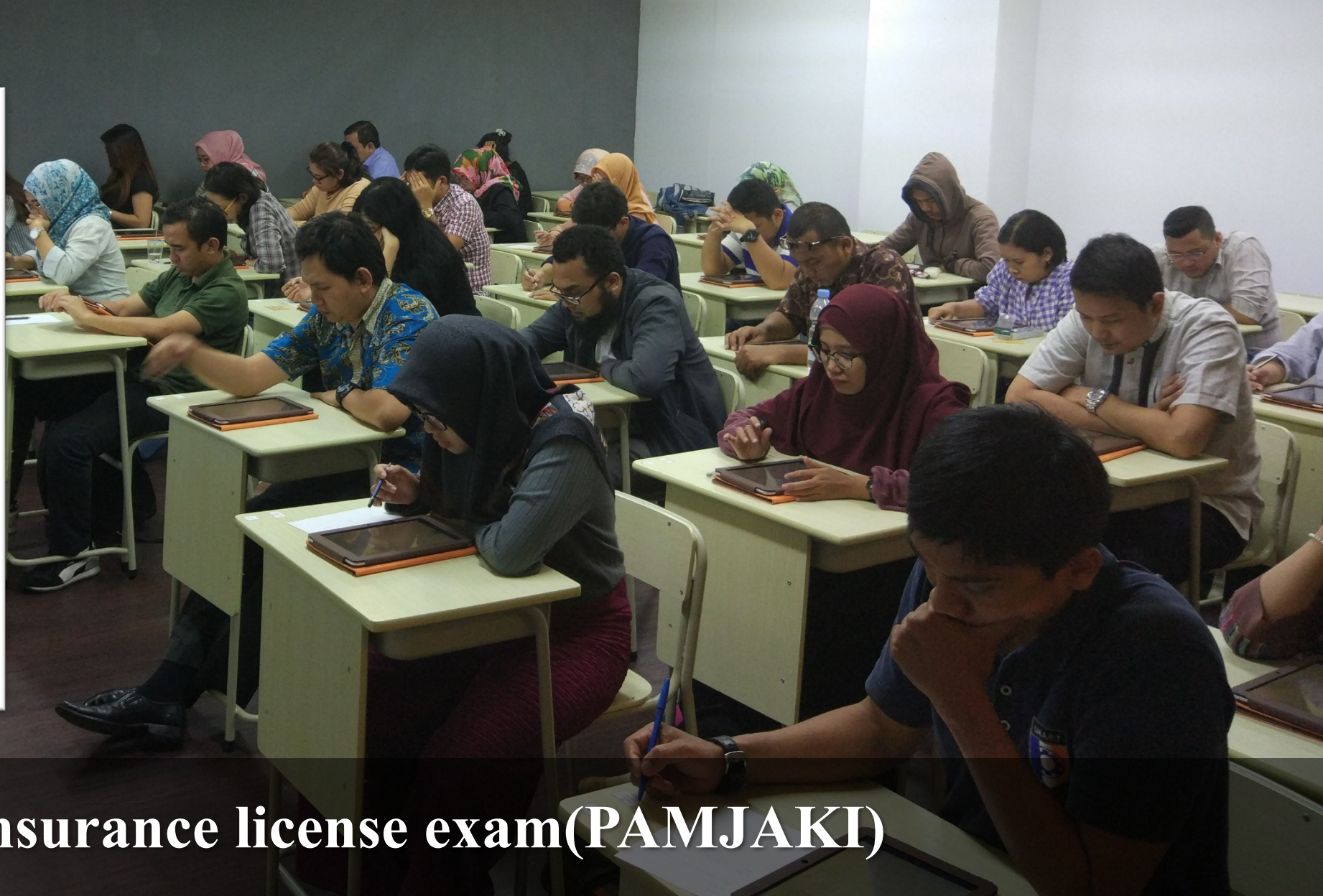
- Expanded leading 2 high schools in DePED Marikina (UBT, UBL)
- DMMMSU/QUEZON CITY & MARIKINA DePED will collaborate with K-12 organizations in Nepal, Vietnam.





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CAT(UNPAS) & Insurance license exam(PAMJAKI)





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Local+Int'l collaboration = Innovative K-12 education



Real Environment Analysis and Management



No	Schools	Ave. Score		Num. of Students	Sector/ Location
1	Arunima Higher Secondary	G3	27.57	15	Private / Kathmandu (Capital city)
		G5	36.79	20	
2	Adarsha Saula Yubak Higher Secondary	G3	27.2	20	Government / Lalitpur (Capital city area)
		G5	35.8	20	
3	Green Field Secondary	G3	26.24	25	Private / Mugling (Hilly area)
		G5	32.65	20	
4	Kamalamai Secondary	G3	22.93	25	Government / Sindhuli (Hilly area)
		G5	23.48	15	
5	Netrayoti National Primary	G3	21	14	Government / Dhading (Mountain area)
		G5	23.5	8	
6	Shree Chilaune Secondary	G3	21.4	25	Government / Sindupalchok (Mountain area)
		G5	22.92	20	
7	Shree Gyanjoty Secondary	G3	N/A	16	Government / Sindhuli (Hilly area)
		G5	N/A	16	
8	Baiteshwor Madhyamik Vidyalaya	G3	N/A	30	Government / Dolkha (Mountain area)
		G5	N/A	24	
9	Shree Janta Shankar Secondary	G3	N/A	44	Government / Saptari (Flat area)
		G5	N/A	45	

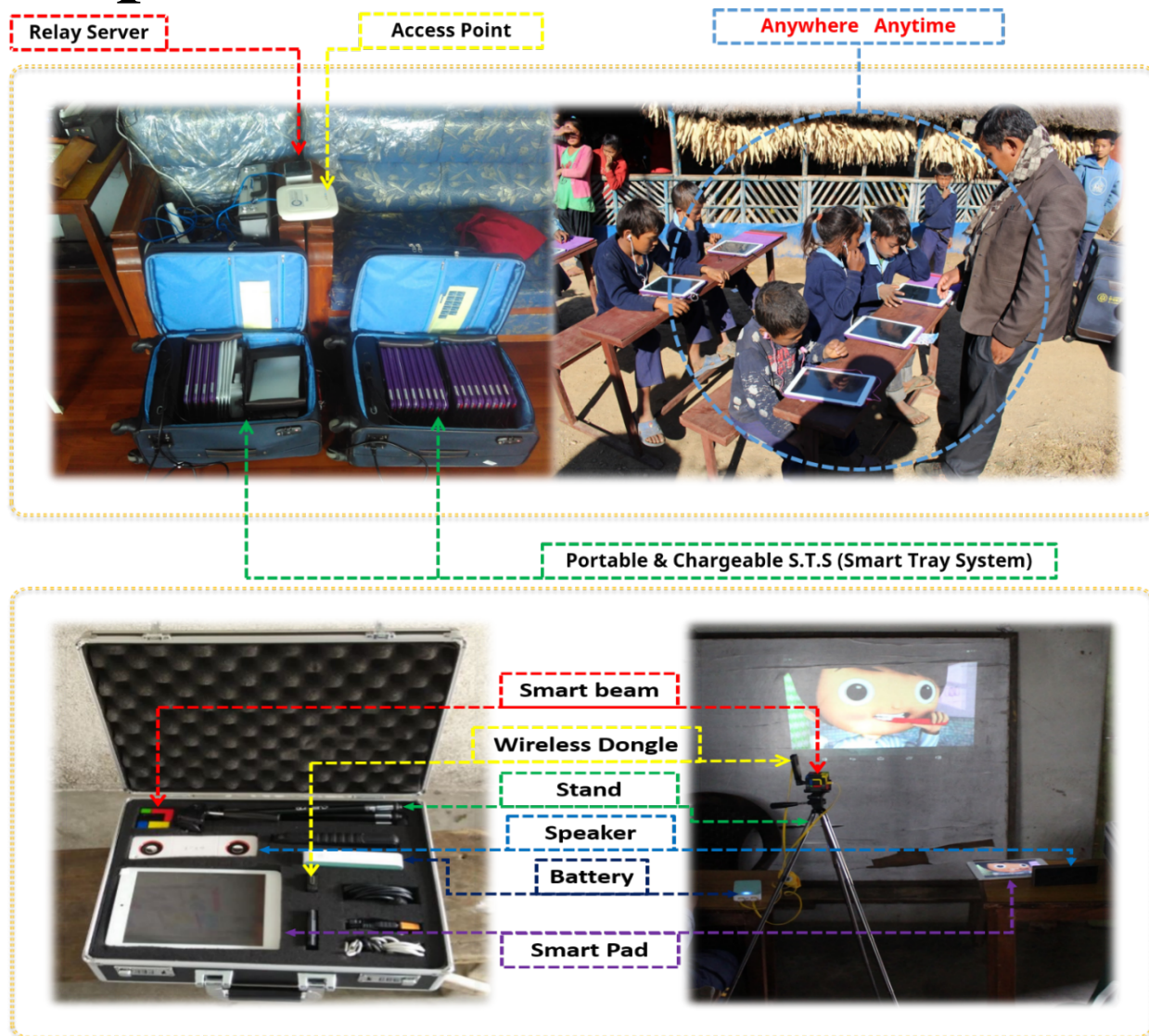
Full marks = 40

Challenges
: Facilities, Experts, Electricity, Materials

Result of practical research
: Gap of education effect



Implementation based on analysis



Reforming traditional classroom



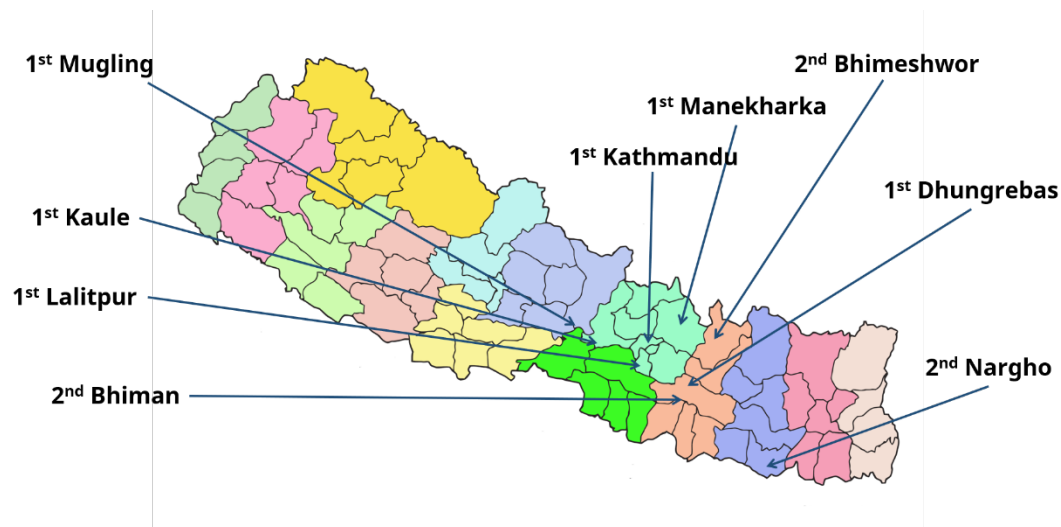
Anytime, Anywhere

UBL, UBT & U-Learning Box for educators

[illegible]



UBL&UBT, Capacity building, R&D



No.	Type	Name of school	Location	Students on the project	Teachers on the project
1	Government	Adarsha Secondary School	Bungamati, lalitpur, Kathmandu	Grade 3 (82); Grade 5(120)	3
2	Private	Arunima Secondary School	Boudha, Kathmandu	Grade 3 (20/112); Grade 5 (20/113)	2
3	Private	Greenfield Secondary English School	Darechowk-4, Mugling, Chitwan	Grade 3 (23); Grade 5 (16)	2
4	Government	Netrajyoti Rastraya Primary School	Jabang, Kaule, Dhading	Grade 3 (19); Grade 5 (32)	2
5	Government	Shree Kamala Higher Secondary School	Kamalamai Municipality-9, Dhungrebas, Sindhuli	Grade 3 (25); Grade 5 (15)	2
6	Government	Shree Chilaune Secondary School	Thangpalkot-6, Manekharka, Sindhupalchowk	Grade 3 (19); Grade 5 (32)	2
7	Government	Shree Janta Shankar Secondary School	Nargho - 7, Nargho, Saptari District	Grade 3 (44); Grade 5 (45)	2
8	Government	Shree Gyan Jyoti Secondary School	Ranibas Kauchhe - 7, Bhiman Municipality, Sindhuli District	Grade 3 (30); Grade 5 (25)	2
9	Government	Baiteshwor Madhyamik Vidyalaya	Namdu Bazar, Bhimeshwar Municipality, Dolkha District	Grade 3 (19); Grade 5 (32)	2
Government : 7 Private : 2				Grade 3 : 373 Grade 5 : 430	19



- Learning how to utilize U-learning equipment in the class
- Instructional strategy : UBL
- Developing educational contents based on UBL platform
- R&D activities : Model schools

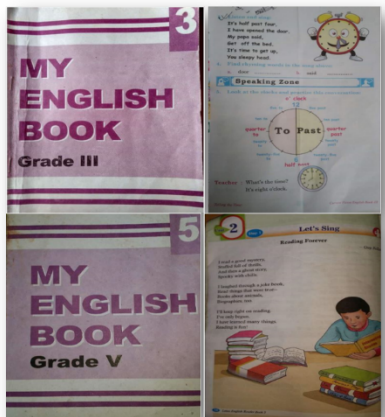


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Outcomes

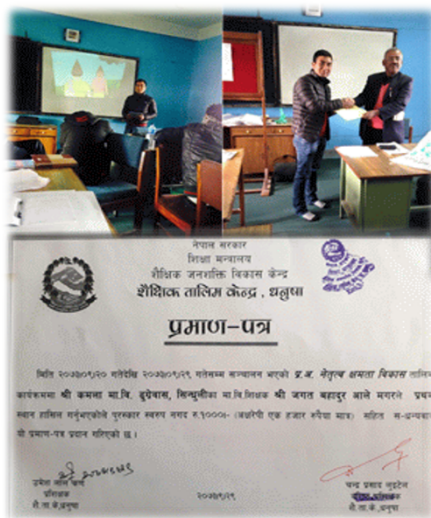
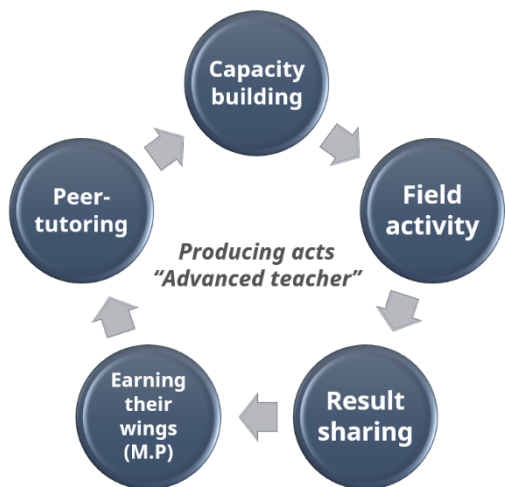


Common English Grade 3 and 5

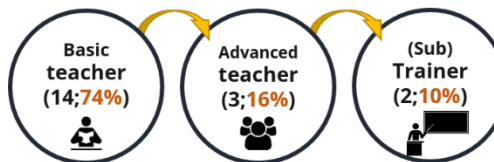


U-Learning classes are running in 9 schools
(English, Science and so on)

- Responses from parents, teachers and students
 - ✓ Appropriated technology specially for remote area in Nepal
 - ✓ It's useful to provide multimedia educational contents with students
 - ✓ It's easy to attract student's attention.



- 19 Trained teachers from 9 Schools through 4 time ULTP.
- Competent local & international experts of ICT and Education.
- Abundant volunteers from the several sectors.





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Outcomes

Kirtipur & Sanothimi Campus in
Tribhuvan University

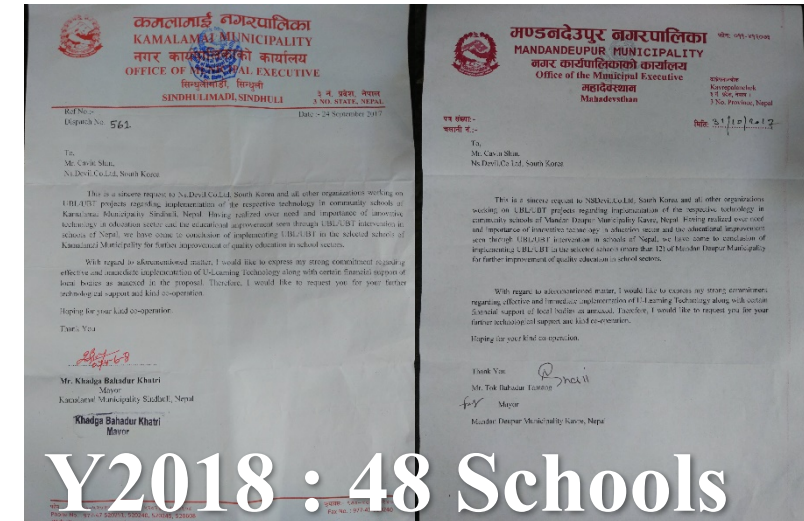


HUB

Institute of Engineering
Tribhuvan University



Kathmandu University



Sindhuli, Mandandeupur, Namabhudda municipalities made a decision to expand the project by their own resources.



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Nepal

네팔 : Tribhuvan university, Kathmandu university, Public schools in Ministry of education.



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Thank you.

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Special thanks to Changwon National University / Don Mariano Marcos Memorial State University / Pasundan University / Korea National Open University / Tribhuvan University / Kathmandu University / HUE University / Cheju Halla University / Inje University school of medicine / Yeonsei University school of dentistry / Georgia University / Umfologi college / Mongolian University of Science and Technology / German-Mongolian Institute of Technology / Ministry of Education and Training in Vietnam / Hai Duong CEC / Dept. City school division of Quezon / Dept. City school division of Marikina / University of Indonesia / University of Islam negri Jakarta / Daegu Catholic University / Daedong University / DFI Foundation / 23th Foreign Language School / Korea National Health Personnel License Examination Board, Ministry of Healthcare and welfare / National Research Foundation of Korea, Ministry of Education / SK Telecom / Samsung Eletronic Logistics Academy / PT.PEP / CosmicLion / Kyungbuk National University / Kyungheui University school of medicine / Dongkuk University school of medicine / TunTun English / ReadingTown USA / Tosel committee / HB Brain Institute / And all of organizations in EEO BULT network.
(Collaborative activities such as research and development, contents and knowledge sharing)