IMFORMATION & COMMUNICATION TECHNOLOGY (ICT)

POLICY GUIDELINES FOR MANAGEMENT & USAGE OF ICT IN TIBETAN SCHOOLS

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CONTENT

POLICY GUIDELINES FOR MANAGMENT AND USAGE OF INFORMATION AND COMMMUNICATION TECHNOLOGY (ICT) IN TIBETAN SCHOOLS

"Information and Communication Technology can contribute to universal access to education, equity in education, the delivery of quality learning and teaching, teachers' professional development and more efficient education management, governance and administration."

"ICT in Education" UNESCO. Retrieved 10 March 2016

1. INTRODUCTION

Information and Communication Technology (ICT) have developed and improved significantly over the last couple of decades. The use of ICTs, and computers in particular, can no longer be regarded as optional for teaching and learning – it is a requirement that both students and teachers as learners become ICT capable.ICT as tools is now being used as a meaningful support to the educational process by effective integration of ICT into classroom learning as well as various educational programmes in schools. Integration of ICT in school education can empower the students and teachers with the positive use of ICT and internet as tools ,improves the students' participation in classroom learning by connecting with the real world and with each other, and contributes towards teacher's professional development. A strong foundation of ICT curriculum in schools can provide opportunities to use ITC as hands-on learning tools for the students thus shifting the focus of learning from teacher-centered to student-centered and promotes innovation in education.

2. AIMS AND OBJECTIVES OF ICT USAGE IN SCHOOL

The policy guidelines for management and usage of ICT apply to all the Tibetan schools with the following aims and objectives:

1. To establish an enabling environment to promote the usage of ICT in the schools.
2. To enrich the school curriculum and pedagogy by integrating ICT tools for teaching and learning process.
3. To support the management and administration of schools to work efficiently and communicate effectively.
4. To promote critical and analytical thinking skills among students and teachers through the use of ICT tools.
5. To practice safe, legal and ethical means of using ICT.

Through above aims and objectives, schools can raise students endowed with four qualities as stated in the aim of giving education as per Basic Education Policy (BEP) for Tibetans in exile.

3. POLICY GUIDELINES

Thepolicy guidelines for management and usage of ICT in Tibetan schools will focus on the following areas:

3.1. Management of ICT in schools

3.2. Using ICTs to support school administration

3.3. Integrating ICT in Teaching and Learning Process

3.4. ICT curriculum and syllabus

3.5. Roles and responsibilities

3.1. MANAGEMENT OF ICT IN SCHOOLS

The assessment of ICT in Tibetan schools have found limited use of higher order thinking ICT tools, Open Educational Resources (OER) and ICT as hands-on learning tools in classroom. Based on recommendations of ICT expert, the Department of Education, CTA with the financial support from USAID, will implement the ***ICT Pilot Project*** in four Tibetan schools in the year 2018, which includes STS Paonta Sahib, CST Bylakuppe, TCV Chauntra and THS Rajpur. The project target group includes the students of classes VI to X and the subject teachers teaching these classes.

Through this ICT pilot project, the primary responsibility of the Department of Education, CTA is to provide computer hardware, internet connection, infrastructure and other equipments to the schools. For the management of these resources, following activities need to be considered.

3.1.1. ICT core committee to develop ICT policy guidelines

3.1.2. Subject expert committees to develop subject-specific OERs

3.1.3. ICT infrastructure improvement

3.1.4. Purchase of ICT hardware and other equipments

3.1.5. Capacity building for teachers

3.1.1. ICT core committee

The ICT core committee comprises of two representatives each from the four pilot schools and two members from the DoE. The ICT core committee members for the year 2018 as a part of ICT pilot project are:

Organisation/School	Members	Designation
Department of Education	Mr. Tenzin Dorjee	Academic Head
	Mr. Dorjee Wangchuk	Asst. Project Officer
STS Paonta Sahib	Ms. Sonam Palkyi	Principal
	Mr. Tenzin Langdor	Computer Teacher
CST Bylakuppe		Principal
		Computer Teacher
TCV Chauntra	Mr. Passang Tsering	Principal
	Mr. Ngawang Tsering	Computer Teacher
THS Rajpur	Mr. Migmar Tsering	Principal
	Mr. Dorjee Phuntsok	Computer Teacher

TheICT core committee meeting was held in Dharamsala on 30th January, 2018 to draft and finalize ICT policy guidelines for the pilot schools. The committee members discussedimprovement of ICT hardware / equipment, use of ICT as hands-on tools in strengthening classroom learning and teacher's professional development.

3.1.2. SUBJECT EXPERT COMMITTEES

As per suggestions and discussions held with the ICT core committee members, subject expert committee comprising of subject teachers each in mathematics, science, social sciences and languages were formed.

S.No.	Expert Members	Subjects	Locations
1		Mathematics	Chauntra
2			

3		Science	
4			
5		Social	
6			
7		Languages	
8			
9		Mathematics	Paonta Sahib
10			
11		Science	
12			
13		Social	
14			
15		Languages	
16			

The members of subject expert committees will subsequently hold meeting at two different locations, Chauntra and Paonta Sahib in the Second week of March to analyse and assess the source and content validity and relevance of OER(*) resources under the supervision of respective school principals using **annexure I** as guidelines. The representatives from two locations will again meet at Dharamsala at the end of March 2018 to finalise the subject-specific OER resources and the same will be shared with all Tibetan schools in India and Nepal for reference.

For effective implementation of ICT project at the school level, the schools should form **school ICT committee.** The successful implementation and outcome of ICT pilot project, however, depends on the following two factors:

- How receptive is the school environment to the introduction and use of ICTs in the school? – **READINESS**.
- To what extent ICT is being effectively used in the school by administration, teachers and students? – **MATURITY**.

The school ICT committee can be made up of school head, computer teacher and the subject expert committee members. The roles and responsibilities of school ICT committee are explained in detail in 3.4.1.

(*)*Open Educational Resources (OERs) are freely accessible, openly licensed text, media, and other digital assets that are useful for teaching, learning, and assessing as well as for research purposes.*

At the end of year 2018 or in the beginning of year 2019, the OER resources used by the teachers during the academic year 2018 would be reviewed and revised by the subject expert committees.

3.1.3. ICT INFRASTRUCTURE IMPROVEMENT

To effectively implement ICT pilot project, the schools need to equipped with latest ICT infrastructure and provide them with required resources. The ICT infrastructure requirement and other resources for each of the pilot schools to encourage and strengthen the hands-on and collaborative learning in the classrooms are as following:

(i) Installation of ***ICT Corner*** in each target classroom which consist of at least 05 laptops with adequate furniture, proper ventilations and accessories including headphones, speakers, printer with scanner, LCD projector. All the laptops should have internet connections.

(ii) One classroom with LCD projector to accommodate the strength of large gathering such as resource talks, TPD activities, important meetings, etc.

(iii) Provision of tablets, DSLR camera and digital voice recorder for projects and activities.

(iv) Installation of CCTV cameras and fire extinguishers for the safety of students and infrastructure as per safety guidelines issued by CBSE.

(v) License and AMC renewal of smart class software in schools.

(vi) The school office, library, computer lab, resource room, staff room, etc. should have internet connection with adequate bandwidth.

NOTE: *The resources and infrastructure may increase or decrease depending upon the strength and the need of the students in the school.*

3.1.4. PURCHASE OF ICT HARDWARE AND OTHER EQUIPMENTS

The process of purchasing ICT hardware and other equipments should follow the following procedures:

(i) The schools should form purchasing committee comprising of school head, computer teacher and two subject teachers of which at least one should be a female teacher.

(ii) The purchasing committee will be responsible for finalizing the specifications for ICT hardware and other equipments for school usage and do the market survey to collect at least three quotations based on the finalized specifications.

(iii) The purchasing committee should then compare and evaluate the price and quality mentioned in each of the quotations and finalise the ICT hardware and other equipments.

(iv) The purchasing committee through school office will write to the Secretary, Department of Education for the release of funds for the purchase of ICT hardware and other equipments.

(v) All ICT hardware and other equipments purchased under ICT pilot project should be recorded in the fixed asset register of the school for future reference and auditing purpose.

(vi) Kindly adhere to the strict regulation regarding bills/invoices as per following:

- Bills/invoices for service expenses are not to be submitted.
- **GST Bills/invoices for any hardware or equipments purchase costing` 32,000.00 or more excluding GST should be submitted to DoE, CTA by the end of every Month.**All such bills/invoices has to be procured in the name of USAID as following:
  - USAID – India, AID-386-G-16-00001, 0717UNO00166UNP
  - Department/Office complete name and address
- GST Bills/invoices submitted after the deadline will not be entertained. The school office will bear the GST amount mentioned in the bills/invoices.
- Bills/invoices for service expenses and goods costing less than ` 32,000.00 must be obtained in the name of TCEWF (DoE) / School name and address.

(vii) **To acknowledge the sponsor and fund contributors supporting the ICT pilot project, proper marking of graphic identities or**

logos should be applied to all the purchases made under ICT pilot project. The same should be reflected in the reports and pictures.

3.1.5. CAPACITY BUILDING FOR TEACHERS

As a part of continuous professional development of teachers and to equip teachers with ICT-based teaching strategies and tools, the DOE in collaboration with Tata Institute of Social Sciences (TISS), Mumbai will organize a four-month long school-based certificate course in ICT and Education. 40 TGTs from pilot schools will take part in the online course, which will begin with a 6-day face-to-face workshop to be conducted at STS Paonta Sahib by ICT experts from TISS.

This certificate course draws on contemporary concepts, models and standards in the area of teaching and learning with ICT. Applications facilitating student-centered use of ICT-and improving understanding and analysis of concepts in subjects, and promote higher order thinking skills. The course also demonstrates use of online and blended platforms for continued professional development forming Community of Practice (CoP) groups of teachers.

The trainees will share their newly acquired knowledge with other teachers in their schools and neighbouring schools as a part of school-based teacher professional development activities.

3.2. USING ICTS TO SUPPORT SCHOOL ADMINISTRATION

ICTs can be used as supportive tools in effective and efficient management and administration of a school. All the administrative staff and teachers of the schools are supposed to have knowledge of and be able to use the basic MS Office programmes such as Word, Excel and PowerPoint. Besides having basic computer knowledge, the school staff members, including teaching and non-teaching, should have an email ID for formal and informal communication.

Whenever possible the school ICT committee should organize and arrange classes for the school administrative staff and teachers to update themselves with working on MS Office programmes. Gradually, schools should move towards zero paper work by keeping all the records (academic and financial), reports, meeting minutes, information, etc. electronically saved.

All the official communications with teachers, parents and other settlement representatives should be done through emails, SMS or other genuine social media, wherever and whenever possible.

Schools should have its own official websites and Facebook account which provides reliable information about school activities, schedules, news, programmes and other important information about the school. The responsibility of updating and maintaining the school website could be assigned to the school computer teacher or teacher who is particularly technologically savvy.

3.3. INTEGRATING ICT IN TEACHING AND LEARNING PROCESS

Provision of ICT hardware and other equipments to the school not only aims to make all teachers and students computer literate but also aims to encourage the use of ICT as tools in teaching and learning process. Thus, for teachers today, having basic computer knowledge is not enough. It is important for teachers to learn and understand how to integrate the use of ICT and internet as tools for teaching and learning in the classroom. It will also help them to work more efficiently and develop them to become self-learner.

The school ICT committee should identify the need of each teacher and ensure that necessary support is provided through school-based ICT workshops and TPD activities.-To develop confidence in integrating necessary ICT skills and tools in teaching and learning process, the ICT committee can make computers and time available for teachers to practice. The school computer teacher can conduct 1-hour after school classes for the needy teachers to develop and improve their ICT skills.

With the support of school computer teacher and exploring through net, subject teachers can prepare lesson plans to integrate ICT tools and resources to teach particular topics of subjects.

Since both the students and teachers are engaged in the ICT projects, to minimise clashes, a proper weekly timetable could be prepared to schedule the use of ICT hardware and other resources for the students and teachers separately. It is also recommended that ICT related resources are available for teachers and students all the time.

Presently, the teachers in the schools use ICT tools mostly for administrative purposes and lesson preparations. After having developed confidence in using ICT tools for teaching and learning, schools are advised to keep record of teacher usage of ICT tools for teaching and learning.

From time to time, the school ICT committee can also communicate in written to DoE to seek expert's help and guidance in the project implementation.

3.4. ICT CURRICULUM AND SYLLABUS

The ICT curriculum and syllabus has been prepared by the ICT core committee with reference to the ICT curriculum and syllabus being implemented in the Tibetan schools and the ICT curriculum prepared by leading autonomous organizations such as NCERT, CBSE, SCERT, KVS, etc. in India.

The detailed ICT curriculum and syllabus is attached with this policy guidelines as **annexure II**. The schools are required follow and incorporate the ICT curriculum and syllabus after through and proper understanding in the best possible ways to the benefit the students.

Besides following the prescribed curriculum and syllabus, the schools are advised to introduce Scratch, Photoshop, Google Drive and Cloud, Creating and Writing Blogs to the students and make them aware of the safe, secure and ethical use of internet and social media.

3.5. ROLES AND RESPONSIBILITIESFOR MAINTENANCE AND ACCOUNTABILITY

Besides having ***readiness*** and ***maturity*** in the schools, the effective and efficient maintenance and management of ICT infrastructure demands responsibility of all the stakeholders, including DoE, ICT core committee, subject expert committee, purchasing committee, teachers and students.

At the school level, the roles and responsibilities have been divided into the following categories:

3.5.1. School ICT Committee

The school ICT committee has the following important roles and responsibilities:

(i) To meet at least once a month under the chairmanship of school head to discuss the progress of the implementation of ICT project as a whole with detail activities.

(ii) To promote ICT integration in teaching and learning by assisting teachers with lesson plans, informing teachers of tools and materials that are available and recommending appropriate ICT tools for particular teaching and learning purposes.

(iii) To formulate rules and regulations at school level so that teachers and students practice safe, legal and ethical means of using ICT tools and internet.

(iv) To set-up and develop a sound booking arrangement system for the issuance of ICT hardware (laptops, tablets, LCD projectors)

and other resources (digital voice recorder, DSLR camera and internet) to the students and teachers not only during the school hours but also before and after school hours.

(v) To send a bi-monthly report to DoE with details including the maintenance of ICT infrastructure and other equipments, progressive use of ICT tools, OERs, internet facilities in the classroom learning, integration of ICT in teaching different subjects by the teachers, students and teachers usage of internet and ICT facilities, teacher's professional development, etc.

3.5.2. School ICT Coordinator

The senior computer teacher of a particular school will be the ICT coordinator of that school and will have the following roles and responsibilities:

(i) To supervise the installation of ICT hardware and other equipments in the school under the direction of school head.

(ii) To take care of all the ICT hardware (tablets, printer with scanner, LCD projector) and other equipments (DSLR camera, digital voice recorder, CCTV cameras and fire extinguishers)

(iii) To take care of day to day troubleshooting, repairs and maintenance of hardware and, updation and upgradation of software.

(iv) To report the hardware and software problems to school head for necessary information and further action.

(v) To encourage and assist the use of ICTs for teaching and learning.

(vi) To maintain the record of usage of ICT hardware and other equipments by students and teachers separately.

(vii) To maintain the stock register for all the ICT hardware and other equipments.

3.5.3. Teachers

The class teachers and subject teachers of the target group classes of the pilot schools have the following roles and responsibilities:

(i) To participate in the school-based ICT workshop organized by DoE and school-based TPD workshops.

(ii) To prepare weekly lesson plan that devote at least one period a week using ICT tools and resources in classroom learning.

(iii) To prepare group projects for students using ICT tools and other resources and present them on weekly or monthly basis to develop problem solving skills and encourage collaborative learning among students.

(iv) To integrate ICT tools in following teaching and learning activities:

- Preparing lesson plans, delivering lessons, hands-on learning for students, using subject specific OERs, evaluating teaching and learning, using internet for exploration and professional development, etc.

(v) To integrate ICT tools in following administrative activities:

- Preparing question papers, worksheets, result sheets, keeping soft copies of syllabus, lesson plans, assessment data, reports, using email for communication, creating blogs, etc.

(vi) *The class teachers of each target group class have the responsibility towards the usage and maintenance record of hardware and equipments in the ICT corner of the class.*

4. PROJECT COMPLETION REPORT AND MONITORING VISIT

The school should maintain comprehensive record as per **annexure III** and periodically (bimonthly)submit progress reports to DoE. The monitoring & evaluation team of DoE, SARD and The Tibet Fund would visit the schools to monitor and supervise the implementation of overall project. DoE may also seek guidance from ICT consultant to visit and counsel the schools in implementing and engage in monitoring and evaluation of ICT pilot project.

5. PROJECT MANAGEMENT

5.1. Centre Level

The overall responsibility of the ICT pilot project at the centre level shall rest with the Secretary, Department of Education, CTA who is the executive head of the department. The Head of Modern & Tradition Academic Section will manage the implementation of ICT pilot project. The Project Section of DoE will support the Academic Section for the project implementation.

5.2. School Head Office Level

The Director / Education Director / Education Officer of the school head offices will oversee the effective and timely implementation of ICT pilot projects in their respective schools. They would monitor the project implementation and provide guidance to the schools for the timely completion of the project.

5.3. School Level

The school ICT committee under the chairmanship of school head would be responsible for the project implementation at school level. All the members of school ICT committee should be fully involved in the project implementation. The school office will maintain all the financial and physical records to be sent to the Department of Education, CTA through proper channel. The school ICT committee should make sure that the ICT hardware and other resources be made available outside the school hours for the benefit of both students and teachers.

6. REFERENCES

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