

“SUSTAINABLE ICT USE IN EDUCATION: DEVELOPING TEACHER TRAINING MATERIAL USING ICT”



*funded by the
Ministry of Education,
Culture, Sports, Science
and Technology, Japan*

Prof. Shinobu Yamaguchi
Prof. Jun-ichi Takada



Prof. Regsuren Bat-Erdene
Prof. Javzan Sukhbaatar

The project rationale

International Context

1. MDG:

- Achieve universal primary education (Goal 2),
- 'Developing a global partnership for development' (Goal 8)
 - Make available the benefits of new technologies, especially ICT (Target 18)

2. UNESCO Policy:

Enhance ICT use to increase access to and improve quality of learning and support teacher professional development

- Beijing Declaration of the E9-Ministerial Review Meeting (2001),
- UNESCO Bangkok report 'ICT for Literacy' (2008) and
- Regional Ministerial Forum on ICT in education (2010)

3. HDI by UNDP

- Mongolia's low ranking: 126th in 2009
- Caused by, in particular, delayed ICT policy

The project rationale

Domestic Context

1. Mongolia Education Laws and Master Plan (2006):

- Decentralization of school management
- Introduction of ICT as a tool to improve and
- Maintain quality sustainable way to promote education development and HRD

2. Tokyo Tech experience in Mongolia (2005-2009):

- Development of teacher training materials in 9 subject areas with use of ICT; ‘
- Baseline survey on ‘ICT use in Education’ : 80% of primary school teachers want VCD and guidelines
- Newly developed web-portal for teacher training : lack of content development & maintenance capacity

The project

Project Period

December 1, 2010 - March 15, 2011

Project Objectives

- To improve the skills of primary school teachers in Mongolia by developing, trial testing, and evaluating teacher training materials using ICT
 - Develop teacher training materials for primary education using ICT and disseminate to all primary schools
 - Test produced materials at training sessions for provincial methodologists and teachers and review their feedback in improving the initial versions of training materials
 - Assess policies related to use of ICT in education and web-based teacher training sources in Mongolia

The project

Information, Monitoring and
Evaluation Department of the
Ministry of Education, Culture and
Science of Mongolia (MECS)

Mongolian State
University of
Education (MSUE)

Institute of
Education

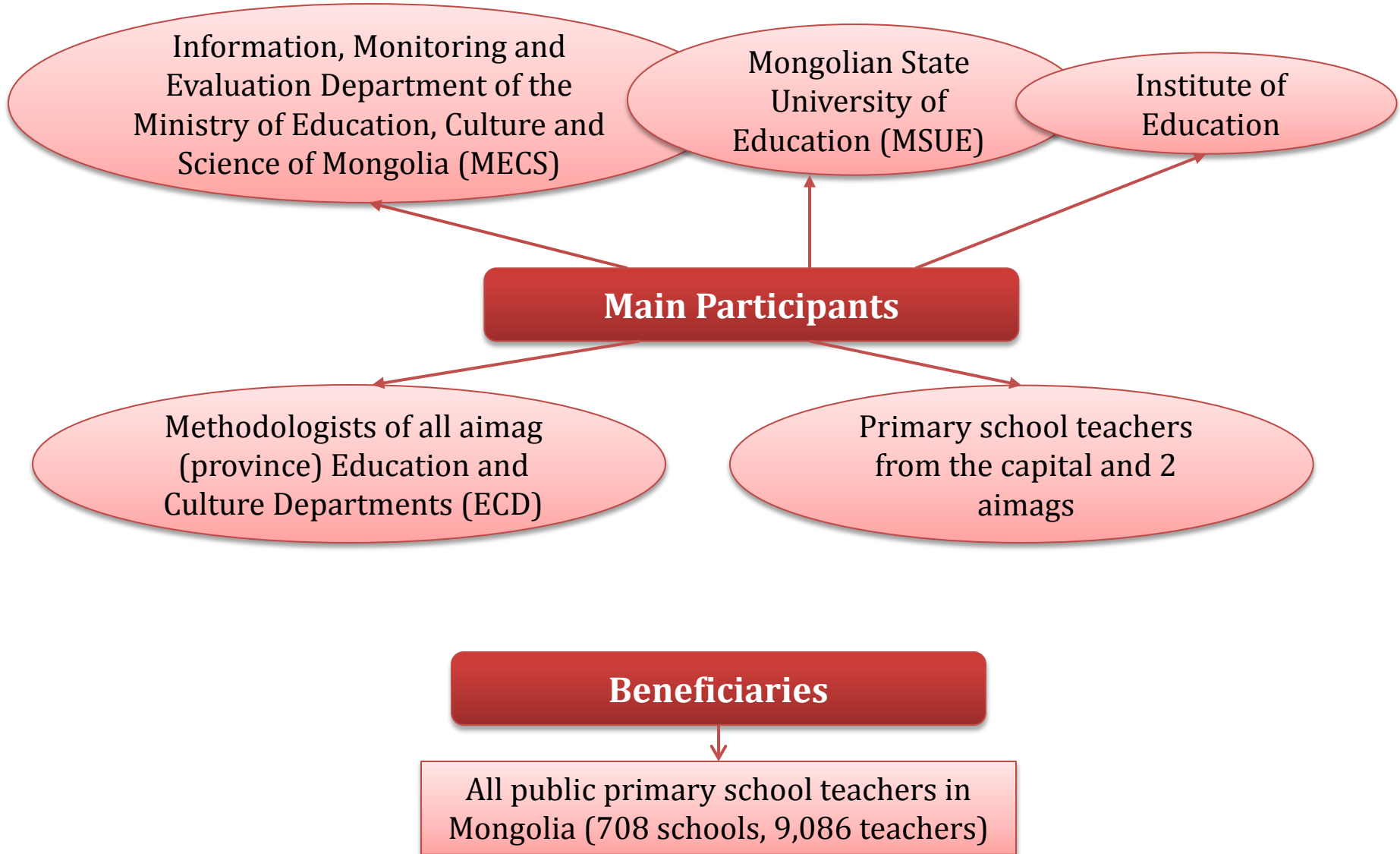
Main Participants

Methodologists of all aimag
(province) Education and
Culture Departments (ECD)

Primary school teachers
from the capital and 2
aimags

Beneficiaries

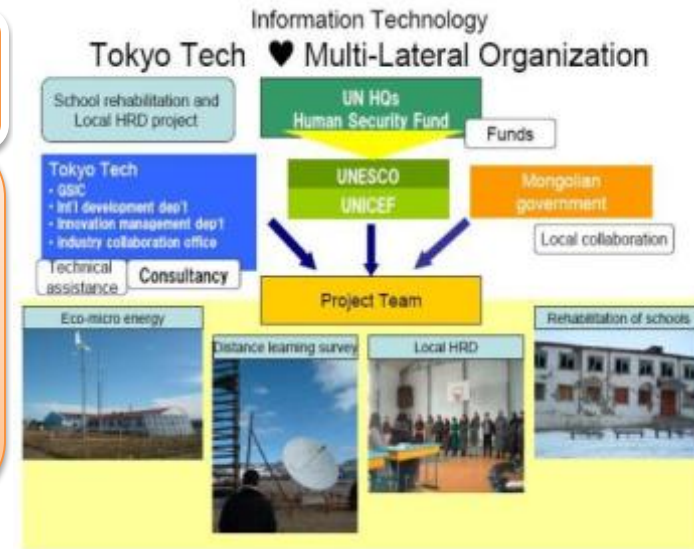
All public primary school teachers in
Mongolia (708 schools, 9,086 teachers)



The project related experience

1. Dzud Project: (2005-2008; funded by UNHSF and UNESCO Beijing)

- Investigation and evaluation of feasibility of introducing effective means of distance education suitable for Mongolia's rural conditions
- provision of technical and professional advice to principals and teachers in 3 aimags of Gobi region
- Introduction of VCDs to school teacher training



2. Analysis Report (2007 ACCU/UNESCO Fund for Youth Exchange)

- Tokyo Tech graduate students visit to the UNESCO Project sites in Mongolia
- development of analysis report on education sustainable development



The project related experience



3. Assessment Studies (Joint Research with Beijing UNESCO)

- Assessment of Sakura project impacts (2005)
- Survey of skill training needs of secondary school principals in Mongolia (2008)

4. FIT-ICT

- Fast Track Initiatives : Upgrading of ICT skills for primary school teachers in Mongolia
- Baseline survey on ICT use in primary schools in Mongolia (2009)
- Monitoring and evaluation of impacts of FIT-ICT project (2009-2010)



5. Joint Symposium in Mongolia

- Organization of joint symposium on ICT in education in Ulaanbaatar (Tokyo Tech, MECS, ADB and UNESCO Bangkok in November 2010)



5. Other activities

- The results of the project will be reported to annual CIES conference in Montreal, Canada.
- Impact evaluation mission with involvement of Tokyo Tech, UNESCO, and MEXT will visit project schools summer 2011.
- Enhancing digital content development capacity of MSUE.
- Pilot development of locally suitable teacher training and classroom teaching materials using ICT by Jargalant soum School, Bayankhongor province.

Effect and Benefit

Project is designed to have an effect on the quality of education and benefit teachers and students in the following ways:

- High quality training materials in VCD and other forms will be available for primary teachers,
- Teaching skills will be constantly improved with web-based training materials,
- Capacity of teacher training institutions will be increased for development of digital contents, and



Contact Information

Advisory Board:

Professor Yume Yamaguchi: 8011839015
yumeyume@tkb.att.ne.jp

Dr. R. Bat-Erdene: 99107812
barst22@yahoo.com)

Professor H. Jadambaa VCD team coordinator: 99747044(

Dr. J. Sukhbaatar, project coordinator: 99002574
jsukhbaatar8@hotmail.com



"SUSTAINABLE ICT USE IN EDUCATION:

Development of Teacher Training Materials using ICT

project funded by
Ministry of Education, Culture, Sport,
Science and Technology (MEXT), Japan



Ulaanbaatar 2011

Project Objective:

To develop quality training materials for primary school teachers to improve quality of education in Mongolia.

To facilitate blended utilization of ICT and traditional tools for teacher training including VCD, Web-based materials and other feasible means.

Project Duration:

3.5 months (December 2010 –March, 2011)

Project Components and Activities:

1. Evaluation of ICT use in education in Mongolia.

A team of experts from Tokyo Institute of Technology, UNESCO regional Bureau in Bangkok, Thailand, and Ministry of Education, Culture, and Science, Mongolia analyzes current condition of ICT use in education in Mongolia focusing on basic education. Sources of materials include ICT policy documents, presentations/papers of national and international symposiums, information on OLPC project and other relevant materials.

Outcome of this activity is a comprehensive report which includes policy recommendations and cases describing "model use" of ICT in education.

2. Development and production of training materials for primary school teachers.

Teams comprised of professors and researchers from Mongolian State University of Education (MSUE) and other education institutions of Mongolia develop, test, improve and produce VCDs and teacher development guide for primary school teachers.

Outcomes of this activity is VCDs for teacher development in the following six areas:

- Mongolian Language
- Mathematics
- Human and Environment
- Human and Society
- Art and Technology and
- Communication



In addition to VCDs, a comprehensive teacher development guide (approximately 200 pages) was developed and published. Both VCDs and teacher guide will be distributed to more than 700 primary schools of Mongolia.

3. Investigation and production of Web-based training materials for teachers

A team of IT and education experts from MSUE, School of Computer Science and Management and Tokyo Tech evaluate the strengths and weaknesses of existing "Bagshiin Hugjil" (www.bagshiinhugjil.mn) website.

Outcome of this activity is the manuals for end-users accessing the contents and for content developers uploading the contents. Interactive teacher self-evaluation tools as well as pilot contents related to training materials in project component 2 also will be developed and posted at the above mentioned website.

4. Teacher training

A number of training is planned and implemented under this project:

- Training of trainers included primary education specialists from all provinces and districts of Ulaanbaatar and continued five days in January 17-22, 2011.
- Training of primary education teachers, mostly chairs of methodological groups, from three districts of Ulaanbaatar and all counties (Soum) of Tuv province took place in February 14-18, 2011.
- Training of primary education teachers, mostly chairs of methodological groups, from all counties (Soum) of Bayankhongor province took place in February 23-28, 2011.

As the result of training activities, it is expected that over 100 teachers and specialists will be trained on the efficient use ICT in education, including how to

- develop and use teacher training material in VCD format,
- use of interactive training material,
- search internet sources using teacher development web portal, and
- develop and upload web contents for other teachers' use.

The project objectives

Goal:

To improve the skills of primary school teachers in Mongolia by developing, trial testing, and evaluating teacher training materials using ICT



Project Activities

1

Investigation of current ICT use in education in Mongolia

- Document analysis
- Interviews and discussions
- Findings summary and recommendations

2

Development of VCD teacher training materials and guidelines in 6 main subject areas

3

Analysis of teacher training web portal and development of prototype interactive materials

4

Teacher training

- Trial testing and evaluation of new material
- Teacher training using the cascade model

Project activity 1:

Investigation of current ICT use in education in Mongolia

Documents analysis

- Government legislative documents
- Ministry's directives,
- national strategies and programs
- reports of major projects related to
 - supply of equipment,
 - teacher training,
 - networking and connectivity,
 - teaching of IT
- Chronological presentation of policy development

Interviews and discussions

- Interviews of the training participants
- Assessment of current use of ICT in primary schools:
 - Survey of 160 teachers from schools in Ulaanbaatar
 - Evaluation of provision of equipment, level and character of ICT use, major challenges, IT knowledge and skill needs



Findings summary and recommendations for further improvement

Project activity 2: Development of VCD teacher training materials and guidelines in 6 main subject areas

1 Development of VCD teacher training materials on 6 subjects

Mongolian
Language

Mathematics

Human and
Environment

Human and
society

Art and
technology

Teacher-Students
relationship
(communication)

Content of VCDs

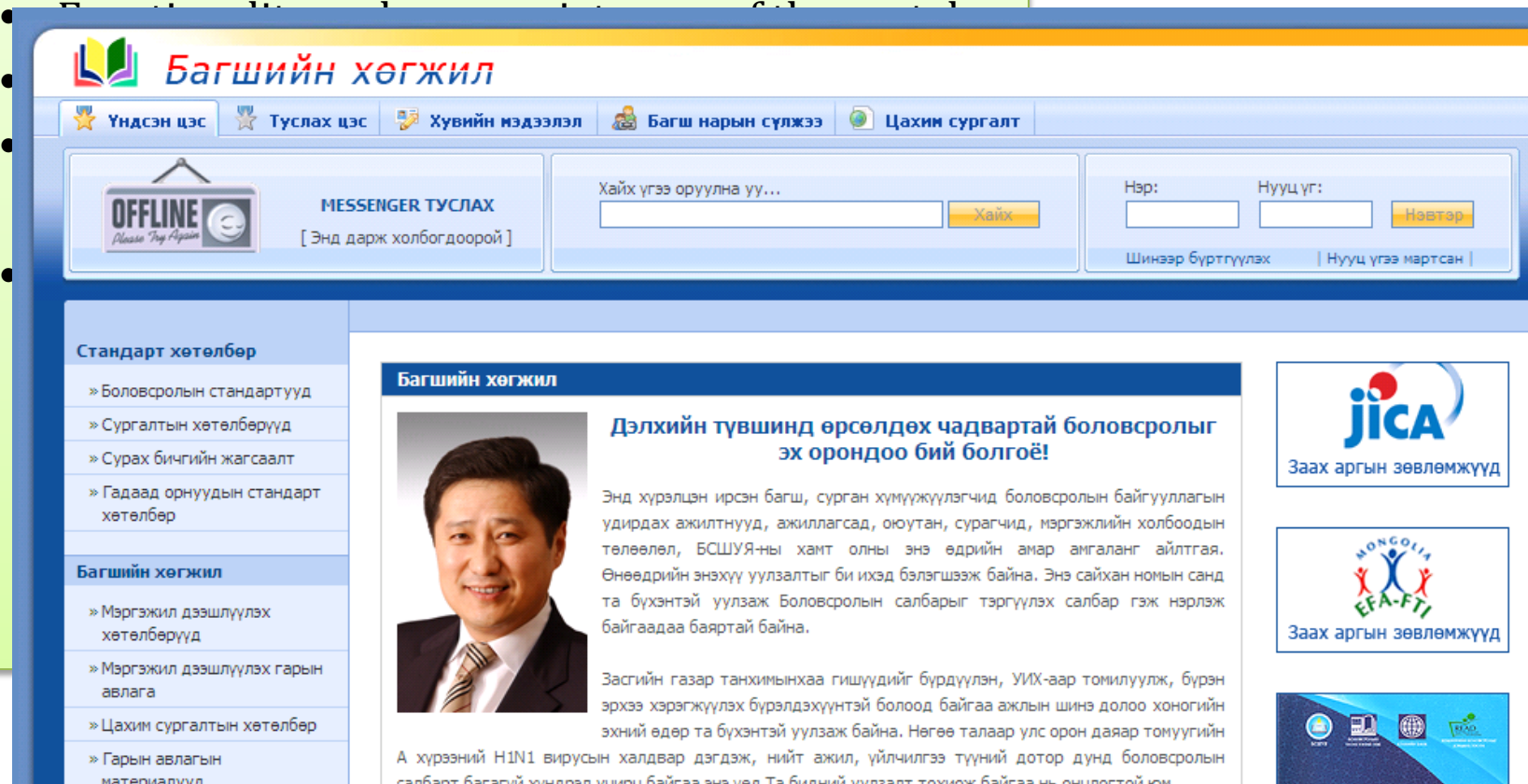
- discussion of new methods in subject teaching
- subject specific instructional techniques
- showcases of classroom teaching

2 Teachers' guideline in 6 subject areas:

- detailed interpretation of new concepts introduced in VCDs and
- novel techniques in primary education
- manuals for using web-based sources materials

Project activity 3: Analysis of teacher training web portal and development of prototype interactive materials

1 Analysis of teacher training web portal: Bagshiin Hugjil



<http://www.bagshiinkhugjil.mn/>

Project activity 3: Analysis of teacher training web portal and development of prototype interactive materials

2 Prototype teacher training material

- Trial of interactive tools: “Hot potatoes” – as development tool of web-based interactive tests
 - Prototype Training contents
 - Major findings of feedback results on prototype training materials

Mongolian Language: web-based interactive training materials

Interface example

Index

2. Утгын ай

Асуулт болгоныг нэг нэгээр харуулах

1. Дан заах утгатай үгийг багтаасан бүлгийг олоорой.

A. ? тэр, өдний, төдийд

B. ? ийм, ингэ, өдийд

C. ? удалгүй, энэ, дээр

Онолын тайлбар

2.

Нэрлэсэн үгсэд тохирох заах утгатай үгсэд харгалзуулсан :

1. хүнийг нэрлэсэн үг а. ийм

2. шинжийг нэрлэсэн үг б. өдийд

3. тоог нэрлэсэн үг в. төдий

4. цагийг нэрлэсэн үг г. тэд

A. ? 1г 2а 3в 4б

B. ? 1г 2в 3а 4б

C. ? 1г 2а 3б 4в

Онолын тайлбар

3. Төрөл үг үүссэн бүлгийг сонгоорой

A. ? буу, буудал, бууд

B. ? гар, гарны, гарц

Онолын тайлбар2

	Нэрлэх үг			Төлөөлөх үг		
	Үгийн аймаг	Утга	Жишээ үг	Бүлгийг төлөөлөх	Асуух үг	Заах үг
Хүлээх үг	Жинхэнэ нэр	-Ерийн нэр -Оноосон нэр	Чоно, хоньчин, эмч, багш, загас, мод, ном, Монгол, сэтгэл зүрх, Туул, үер	Би, чи, бид, та, та нар	Хэн? Юу?	энэ, тэр, эд, тэд
	Үйл үг	-Тусах үг эс тусах үг - идэвхтэй ба идэвхгүй	Бич, үз, унш, хураа, эхэл, тат, тавь, тогло, бич, дууд, самна, яв, давхи, янцаа, хайл		Яах, хэрхэх Яасан, ядаг Яамаар, Яав, яаж	-ингэх Тэгэх
Үл хувилах үг	Тэмдэг нэр	-Шинж чанар -Өнгө зүс -Хэмжээ -хэлбэр дүрс -орон зай -дүр төрх	чоо шинэ, хурдан, цэвэрхэн хатуу, шударга час улаан, хар дүүрэн, бөтөр халзан, цоохор гонзгой, бүдүүн		Аль? Ямар?	-ийм, тийм, иймэрхүү, иймээс
	Тооны нэр	-үндсэн тоо -дэс тоо -тойм тоо -хам тоо -түгээл тоо -бутархай тоо -дахих тоо	-нэг, гурав, хоёр дахь, тавны хоёр тавь, дөрвөн удаа, сая, гурав , тавуул, дөчөөд		Хэд, хэдий хэр, хэчнээн, хэд орч	Өчнөөн төчнөөн, өдий
	Дүрслэх ба дуурайх үг	-авиа дуурайх -дүрс дуурайх	Хар хур, дүндан, жин тан, гялс, хэмх хамх, зад, бут, няц		Яаж, хэрхэн,	Ингэж тэгээд
Дугаар хувилах үг	-орон байр -цаг хугацаа -зүг чиг	-наана, цаана, дээр доор, урд, хойд, хожим, өчигдөр, өнөөдөр		Хэзээ, хэдийд, хэрхэх	Тийш, үүгээр, тэнд, өдийд төдийд	

Төрөл утгат үг - гпонимия

Илэрхийлж байгаа ухагдахууны багтах ба багтаах шүтэлцээтэй, аймаг зүйл юмсын холбоог үзүүлэх үгүүдийг төрөл утгат үг гэнэ.

Төрөл утгат үгийн шалтгааны харьцааны доод, дээд гишүүдийг :

1.Төрөл үг

2.Төлөөлсөн нэр гэж ангилдаг.

Дараах жишээнүүд үгийн бүтцээр төрөл үг үүсгэж болохыг харуулна. Ийм үлгий хэл шинжлэлд төрөл үгийн үүр гэж нэрлэдэг. Төрөл үгийн үүр үүсгэсэн үг нь дагаврын тусламжтайгаар нэг язгуураас үүссэн өөр үгийн бүлэглэл байна. Жишээ нь: барь – барьц – барилга – баримал – бариа – барилгачин, барил – барилдлага – барилдаан

Төлөөлсөн нэр гэдэг нь үгийн ухагдахууны багтаамжаар явцуу, ерөнхийлөх чанар эрэмбээр доогуур, бусад үгэнд багтан эрхшээгдсэн үгс юм.

Жишээ нь: хуш, хус, нарс, улиас – мод

Төлөөлсөн нэр гэдэг нь үгийн ухагдахууны багтаамжаар өргөн, ерөнхийлөх чанар эрэмбээр дээгүүр, бусад үгийг багтаан эрхшээсэн үг юм.

Жишээ нь: мод-хус, хуш, нарс

Done

Computer | Protected Mode: Off

100%

Communication: web-based interactive training materials

Interface example

11. Би сурган хүмүүжүүлэх харилцаандаа сэтгэл хангалуун байдаг

- A. ☐ Санал бүрэн нийлж байна
- B. ☐ Санал ерөнхийдөө нийлж байна
- C. ☐ Эргэлзэж байна
- D. ☐ Санал ерөнхийдөө нийлэхгүй байна
- E. ☐ Санал огт нийлэхгүй байна

12. Хүүхэдтэй эв зүйгээ ололцох нь надад хялбар байдаг

- A. ☐ Санал бүрэн нийлж байна
- B. ☐ Санал ерөнхийдөө нийлж байна
- C. ☐ Эргэлзэж байна
- D. ☐ Санал ерөнхийдөө нийлэхгүй байна
- E. ☐ Санал огт нийлэхгүй байна

Зөв
Таны оноо: 85%.
You have completed the exercise.

OK

13. Сурагчийнхаа эцэг эхтэй харилцахад надад төдий л бэрхшээл учраад байдаггүй

- A. ☐ Санал бүрэн нийлж байна
- B. ☐ Санал ерөнхийдөө нийлж байнаСанал ерөнхийдөө нийлж байна
- C. ☐ Эргэлзэж байна
- D. ☐ Санал ерөнхийдөө нийлэхгүй байна
- E. ☐ Санал огт нийлэхгүй байна

[Асуулгын онооны тайлбар](#)

Project activity 4: Training Activities

I . The training for primary school methodologists

Date	2011.1.17~1.21
Location	Mongolian state university of education
Participants	<ul style="list-style-type: none">➤ Organizers: (about 30 people)<ul style="list-style-type: none">• Project coordinator, 6 subjects VCD develop team and WEB team, translator, training arrangement staffs• Team of Tokyo Tech➤ Advisor team➤ Trainees: Primary school methodologists from Ulaanbaatar city and entire 21 prefecture of Mongolia (25 methodologists)

II . The training for primary school teachers

Date	2011.2.14~2.17	2011.2.23~2.27
Location	Mongolian state university of education	Training center of Bayankhongor aimag
Participants	<ul style="list-style-type: none">➤ Organizers: (about 30 people)<ul style="list-style-type: none">• Project coordinator, VCD development team and WEB team, training assistant staff• Advisory team• Tokyo Tech Team➤ Trainees: Primary school teachers from Ulaanbaatar city, Tuv prefecture (40 teachers)	<ul style="list-style-type: none">➤ Organizers: (about 15 people)<ul style="list-style-type: none">• Project coordinator, VCD develop team and WEB team, training assistant staff• Advisory team• Tokyo Tech Team• Specialist of UNESCO Bangkok, Mongolian Ed specialist➤ Trainees: Primary school teachers of Bayankhongor (30 teachers)

Project activity 4: Training Activities

III. Specific Activities

- **VCDs and Guidelines**

- Lectures based on guideline
- Review of VCD materials
- Group discussion on guidelines and VCDs
- Feedback questionnaires on content & design of training materials
- Analysis of participants feedback
- Revision and improvement of training materials (3 times)

- **Web-based interactive material**

- Introduction the Web-based interactive prototype materials
- Test use of 'self-learning evaluation' materials on computer (Mongolian Language, Communication)
- Introduction of interactive classroom teaching materials (Math)
- Feedback questionnaires
 - Subject specific
 - General

Project activity 4: Teacher training

Trial testing and evaluation of new material

- to trial test and evaluate the contents of VCDs
- evaluate methodological guideline
- learn possibilities created by ICT and web sources
- participate in survey on the current state of ICT use in teacher training

Teacher training using cascade model

- Training of trainers
 - 28 primary education methodologists from all aimags and districts of the capital city
- Teacher training
 - 70 primary school teachers from the Capital and two aimags, Tuv and Bayankhongor
- Agreement to disseminate/cascade the learning at the school







Project Monitoring and Impact Evaluation

Monitoring visits to three provinces: Tuv, Dornogobi and Bayankhongor

Interview with ECD directors, specialists, school principals, training managers and group discussions with teachers and VCD teams

Survey of teachers and training managers on the use of VCDs, teacher guide, and training materials (over 1000 responses)

Compilation of two reports:
Summary of findings and survey data analysis

Project Impacts

The project had an effect on the quality of education and benefit teachers and students in the following ways:

• Quality training materials in VCD and other formats are available for primary teachers,

• Training skills are constantly improved with the use of materials of VCDs and guidelines,

• Capacity of teacher training institutions are enhanced for development of digital contents,

• Motivation and interest in teacher development increase with various types of quality training materials, and

• Results of the project is planned to be presented at the annual CIES conference in Porto Rico



Contact Information

Advisory Board:

Professor Yume Yamaguchi
e-mail: yamaguchi@gsic.titech.ac.jp

Dr. R. Bat-Erdene
tel: 99107812
e-mail: baterdene.re@gmail.com

Professor H. Jadambaa, VCD team coordinator
tel: 99747044

Dr. J. Sukhbaatar, Project coordinator
tel: 99002574
e-mail: jsukhbaatar8@hotmail.com



MINISTRY OF EDUCATION,
CULTURE AND SCIENCE



MEXT



MSUE



Tokyo

“Sustainable ICT Use in Education”

**Introducing Technology to Assist
Professional Development**

(Second Phase)



**Project Funded by
Ministry of Education,
Sports, Science and Technology
(MEXT), Japan**

Develop quality training materials for primary school teachers to improve quality of education in Mongolia.

Facilitate blended utilization of ICT and traditional tools for teacher training including VCD, computer-based materials and other feasible means.

Duration:

18 months (May 2011 – March, 2012)

Components and Activities:

Development and Production of Teacher Training Materials.

The project comprised of professors and researchers from Mongolian State University of Education (MSUE) and other education institutions in Mongolia developed, tested, revised and produced VCDs and teacher development guide for primary school teachers.



Teacher development materials were produced following 5 areas:

Mongolian Language-2
Environment-2

Physical Education and

As a complement to VCDs, Comprehensive Teacher Development Guide (approximately 200 pages) was developed, published and both VCDs and teacher guide were distributed to more than 700 primary schools of Mongolia.

2. Teacher Training

A number of training for primary school teachers and methodologists were conducted :

- Training for primary education methodologists from all provinces and districts of Ulaanbaatar (June 27-30, 2011);
- Training of primary education teachers and training managers from all counties (Soum) of
 - Dornogobi province took place in September 06-09, 2011;
 - Tuv province took place in September 27-30, 2011 and
 - Bayankhongor province took place in October 17-20, 2011.

As the result of training activities, over 100 teachers and specialists have been trained on the efficient use of ICT in education, including how to

- develop and use teacher training material in VCD format,
- use of interactive training material,
- search internet sources using teacher development web portal, and
- develop and upload web contents for other teachers' use



3. International Symposium

- International symposium on the use of ICT in education was held in Ulaanbaatar on September 14-15, 2011 with the goal of sharing best practices among Asian countries.
- Over 80 participants from UNESCO Bangkok, UNESCO, Beijing and UNESCO, Moscow countries such as Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Korea, Mongolia



4. Scratch Program Introduction

- Training of teachers on the use of Scratch
- Development of Scratch program manual
- Organization of competitions among teachers for the use of Scratch program in developing teaching and learning materials in three provinces
- Production and distribution of CD with Scratch program, manual, and examples

The project objectives II Phase

Goal:

To improve the skills of primary school teachers in Mongolia by developing, trial testing, and evaluating teacher training materials using ICT



Project Activities

1

Development and Production of Teacher Training Materials:

- VCDs in 5 subjects
- Teacher Guide -2

2

Training activities

- Training for primary education specialists
- Teacher training in 3 provinces
- Trial testing and evaluation of new material

3

International Symposium on the use of ICT in education September 14-15, 2012

4

Scratch Program Application

- Training of teachers
- Manual development
- Teachers Competition

II Phase Project activity 1: Development of VCD teacher training materials and guidelines in 5 main subject areas

1 Development of VCD teacher training materials on 5 subjects

Mongolian
Language-2

Music

Human and
Environment-2

Physical
Education

Teacher-Students
relationship -2

Content of VCDs

- discussion of new methods in subject teaching
- subject specific instructional techniques
- showcases of classroom teaching

2 Teachers' guideline in 5 subject areas and Scratch:

- detailed interpretation of new concepts introduced in VCDs and
- novel techniques in primary education
- manual for using Scratch, terms, examples, and competition results

II Phase Project activity 2: Training Activities

I . The training for primary school methodologists

Date	2011.6.27~7.3
Location	Mongolian state university of education
Participants	<ul style="list-style-type: none">➤ Organizers: (about 15 people)<ul style="list-style-type: none">• Project coordinator, 5 subjects VCD develop teams, training organizers and project staff➤ Advisor team➤ Trainees: Primary school methodologists from Ulaanbaatar city and entire 21 prefecture of Mongolia (29 methodologists)

II . The training for primary school teachers

2011.9.6~9.9	2011.9.27~9.30	2011.10.17~10.20
ECD training center Dorno-gobi aimag	ECD training center Tuv aimag	ECD Training center of Bayankhongor aimag
<ul style="list-style-type: none">➤ Organizers: (about 20 people)<ul style="list-style-type: none">• Project coordinator, VCD development team and training assistant staff• Advisory team• Tokyo Tech Team➤ Trainees: Primary school teachers from Dornogobi and Gobisumber provinces (30 teachers)	<ul style="list-style-type: none">➤ Organizers: (about 10 people)<ul style="list-style-type: none">• Project coordinator, VCD development team and training staff• Advisory team• Tokyo Tech representative➤ Trainees: Primary school teachers from Tuv province (30 teachers)	<ul style="list-style-type: none">➤ Organizers: (about 15 people)<ul style="list-style-type: none">• Project coordinator, VCD development team,• training assistant staff• Project staff➤ Trainees: Primary school teachers of Bayankhongor (30 teachers)

II Phase Project activity 3:

International Symposium on the use of ICT in education

Organizers & Sponsors

MEXT and JICA, Japan
Government of Mongolia,
Ministry of Education, Culture and
Science, and Mongolia National
Commission for UNESCO
UNESCO Bangkok Regional Bureau
and UNESCO Beijing Office
Tokyo Institute of Technology

Participants

- 80 participants:
 - Government officials, professors, researchers, and development partners
- Countries:
 - Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, DPR Korea, Japan, Mongolia
- Organizations:
 - UNESCO Bangkok, UNESCO Beijing, UNESCO IITE, MEXT, JICA, ADB, MECS, MSUE, Tokyo Tech

Identification of policy options and potential solutions of common issues and challenges

Achieving a common understanding about next steps and strategies for improvement

II Phase Project activity 4: Scratch Program Introduction

4

Scratch program application

- Training of teachers on the use of Scratch program (in Dornogobi, Tuv, Bayankhongor)
- Development of Scratch program manual
- Development of Scratch vocabulary
- Trial development of teaching materials using Scratch
- Organization of competitions in developing teaching and learning materials using scratch

Monitoring Methodology

Assessment of the use of teacher guide and six VCDs for teacher development in:

- Mongolian Language,
- Mathematics,
- Human and Environment,
- Human and Society,
- Art and Technology and
- Communication

Methodology:

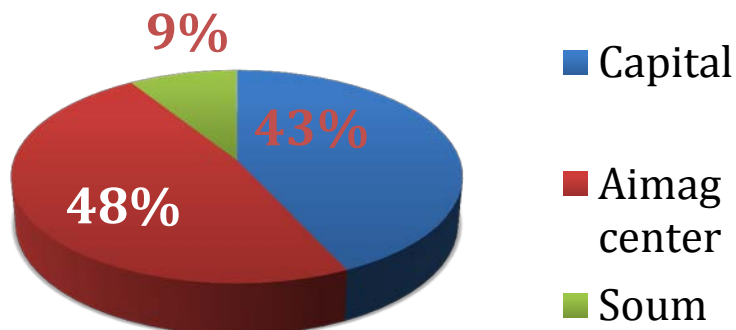
- Sample survey: especially designed questionnaires for teachers covering:
 - (i) demographics of respondents,
 - (ii) the use of VCDs including frequency and mode of use,
 - (iii) things teachers learned and used for teaching from VCDs,
 - (iv) training related to the use of VCDs, if any,
 - (v) the appropriateness of content and methodology,
 - (vi) the technical quality of VCDs (duration, audio/sound and visual), and
 - (vii) topics/themes should be covered in future VCDs.
- Focus group discussions with teachers, training managers, school principals and primary education methodologists of provincial Education and Culture Department.

Respondents: Teachers - 965

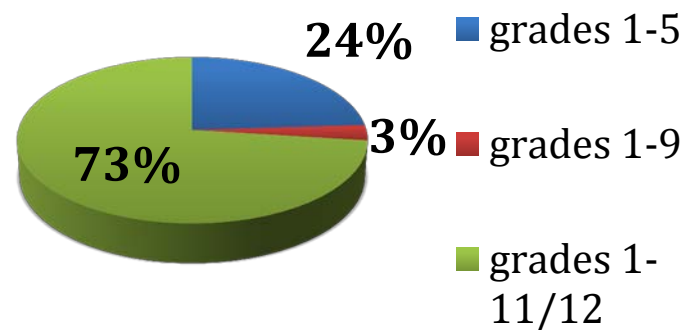
Age	min	21
	max	62
	mean	38
Years of service	min	1
	max	42
	mean	15



School location



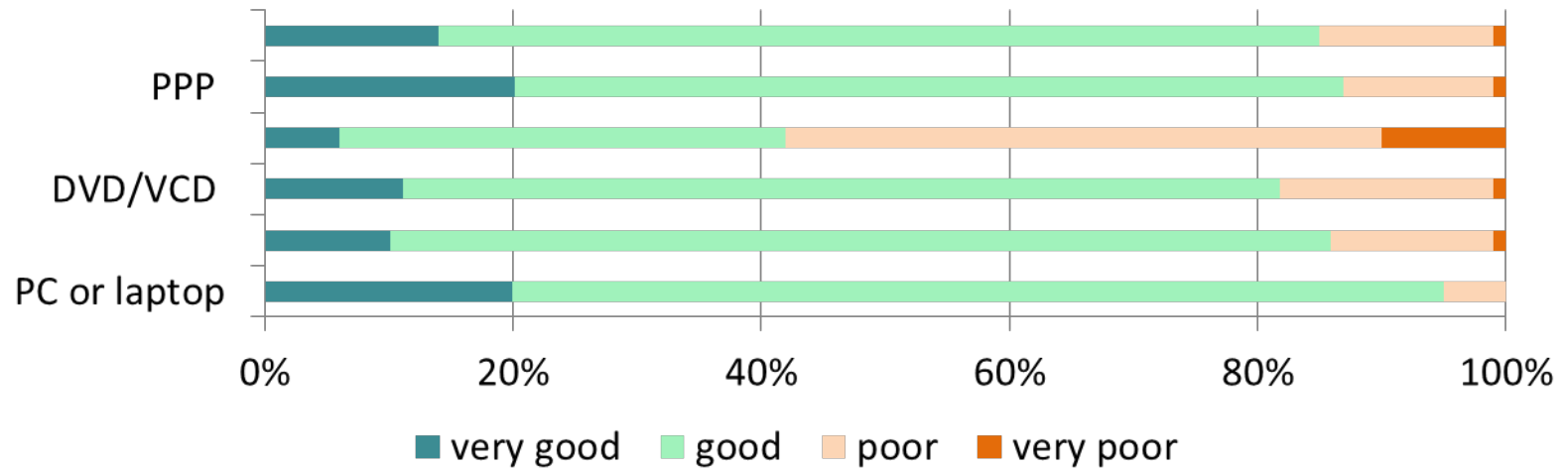
School type



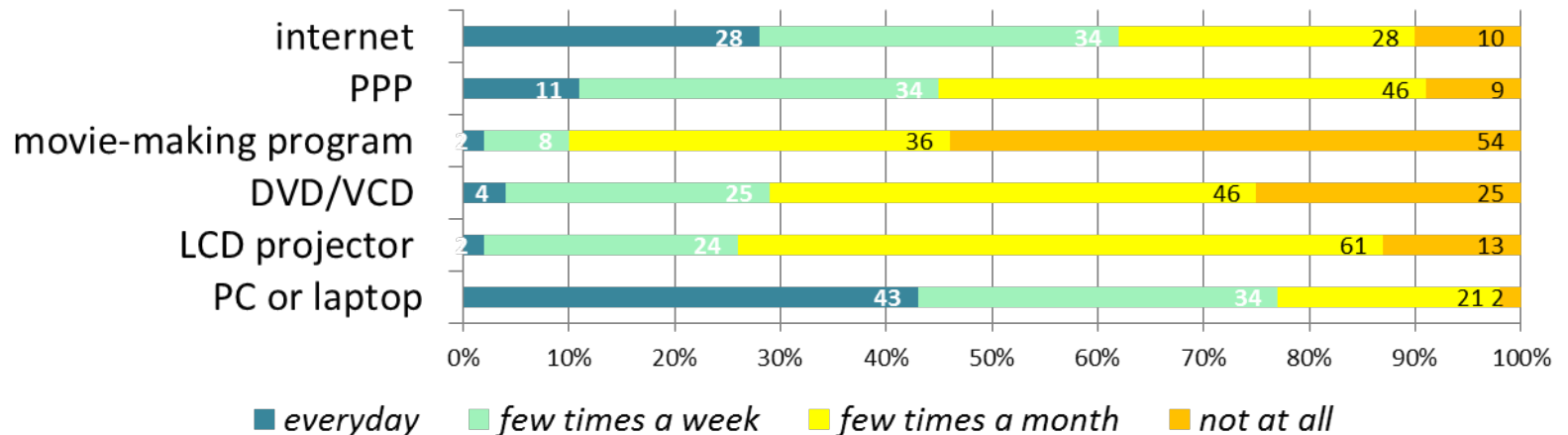
ICT proficiency and use

Total of respondents 965 (Questionnaire)

proficiency in using ICT

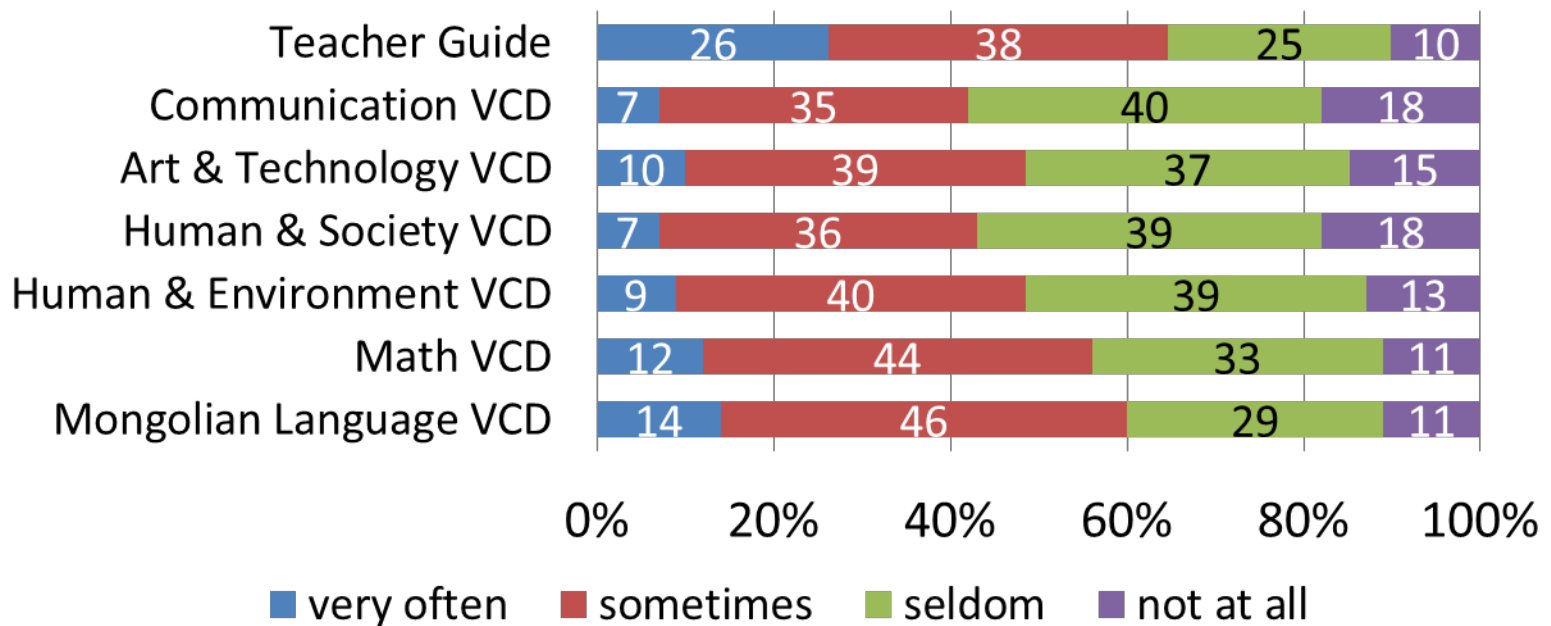


use of ICT in teaching



General usage of VCDs & Guideline

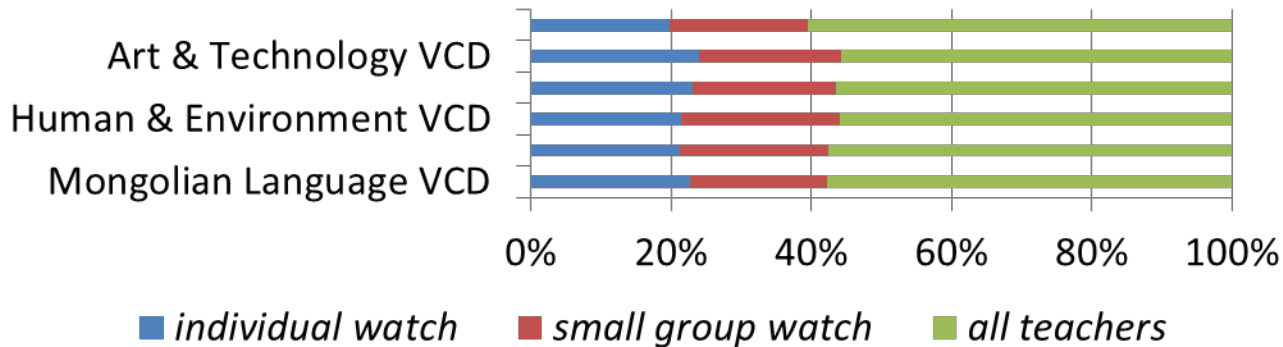
frequency of refer to the content VCDs & guideline



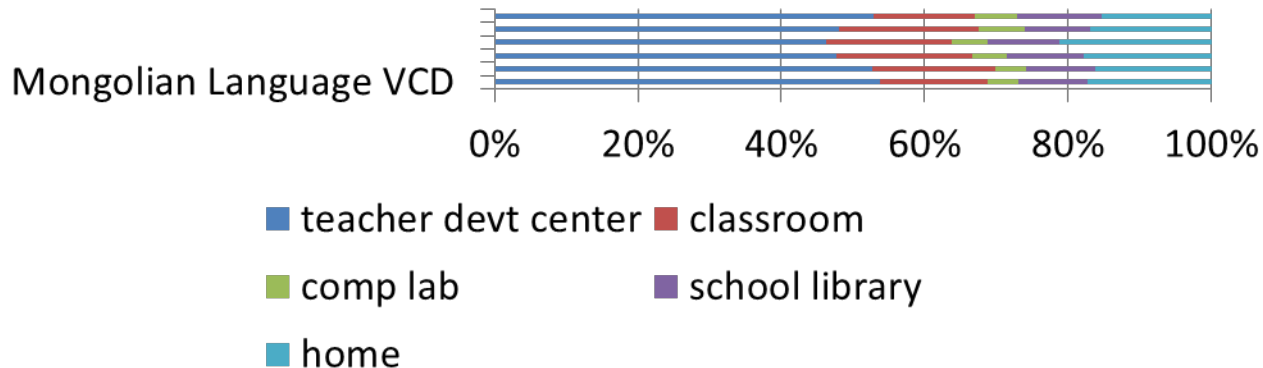
Majority of the teachers referenced the VCDs at numbers of times.

Use of VCDs: where and how

How do the teachers watch the VCDs?

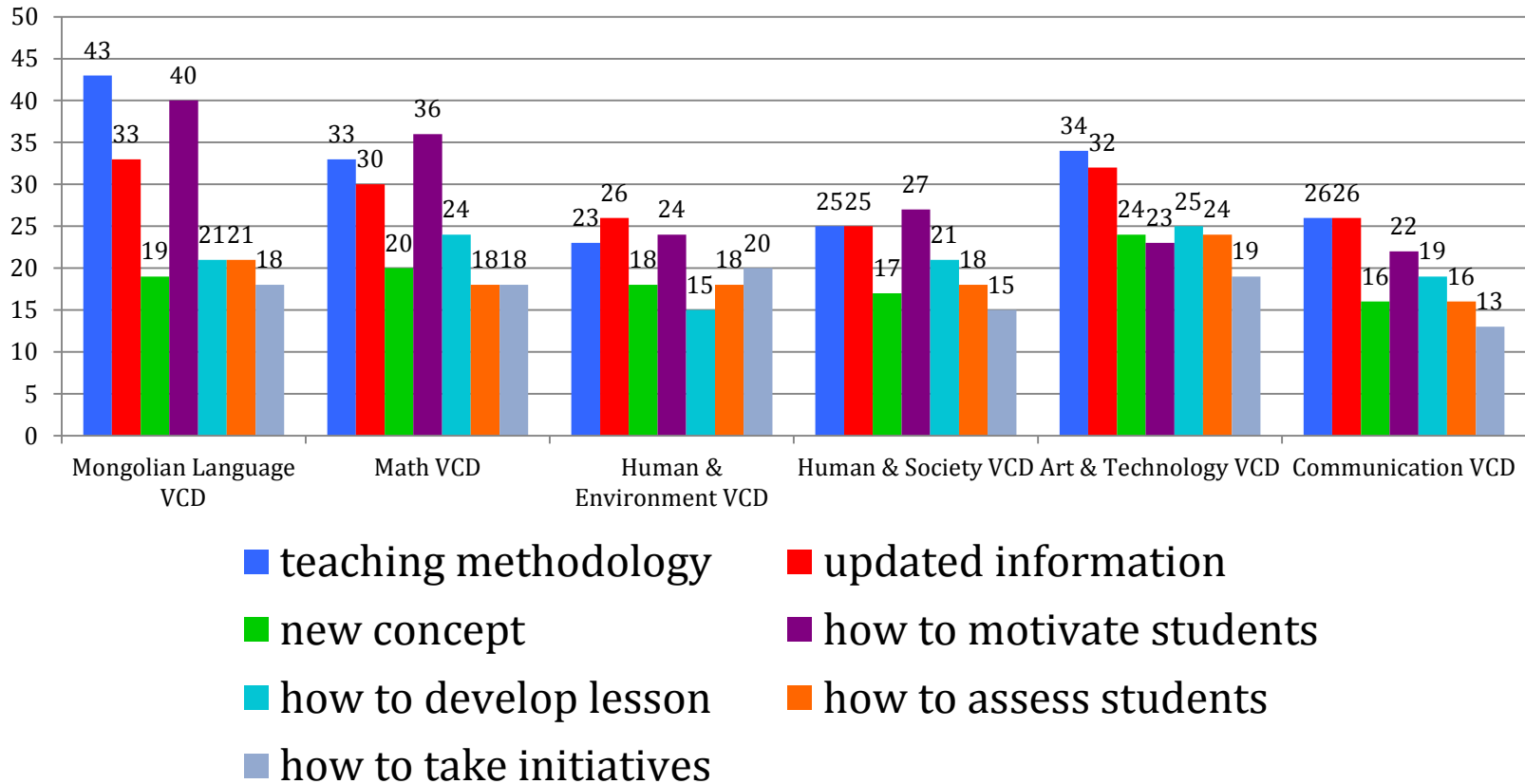


Where do teachers watch the VCDs?



Majority of the teachers watch the VCDs at school settings in company of their colleagues.

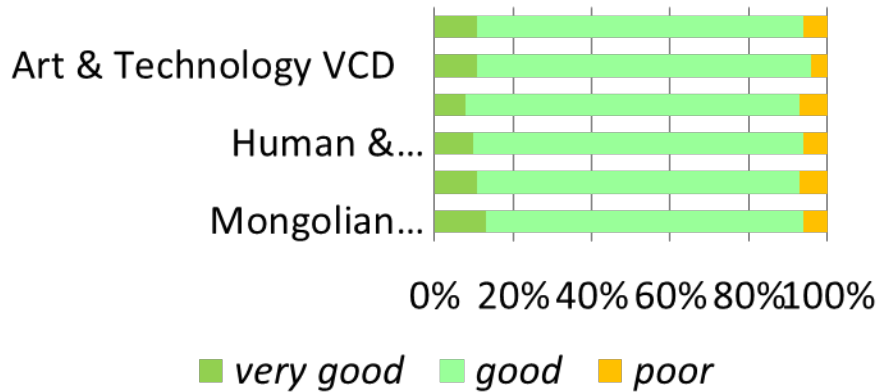
What is learned from VCDs?



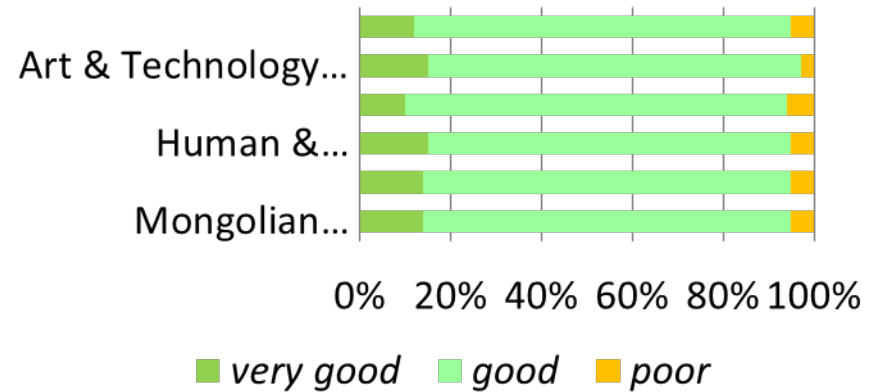
The VCDs were used as a reference for teacher training in lesson planning, content development and instructional and attitudinal change.

Ratings of the VCDs

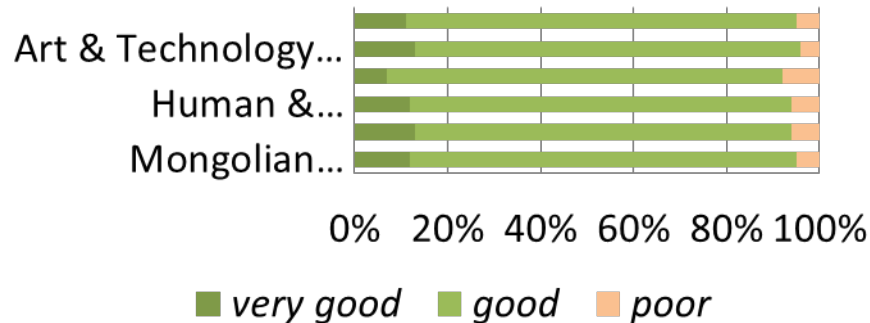
ease to apply



provides teaching examples



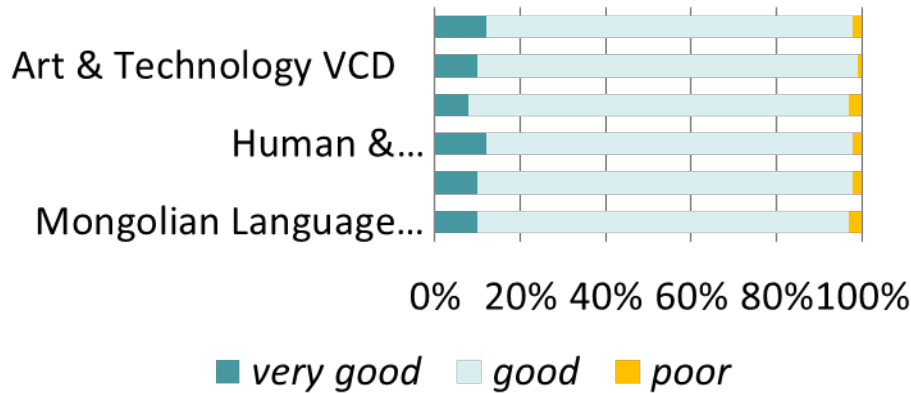
inclusion of applicable exercises



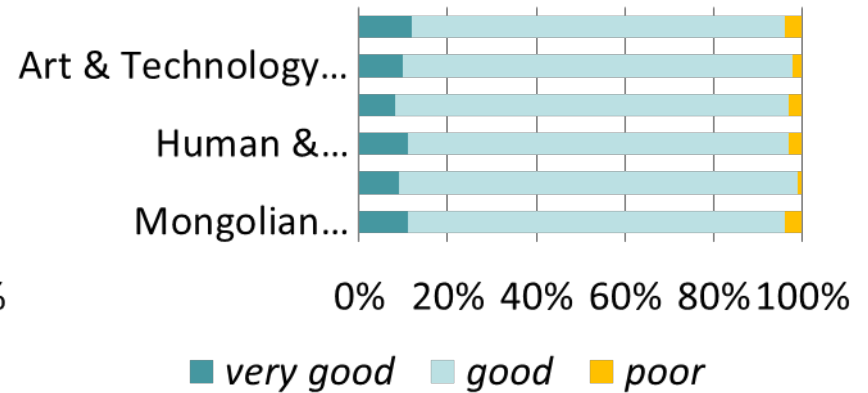
The VCDs were evaluated as a easy and applicable source for teacher development.

Ratings of the VCDs

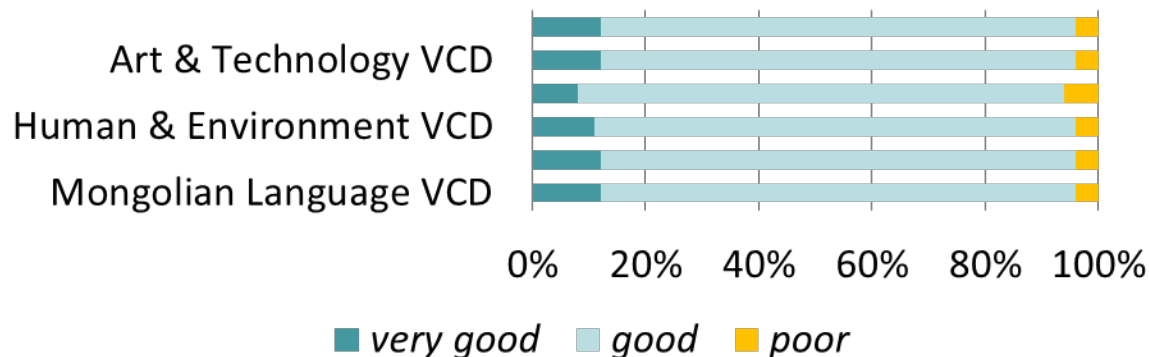
content choice



fit to education standards



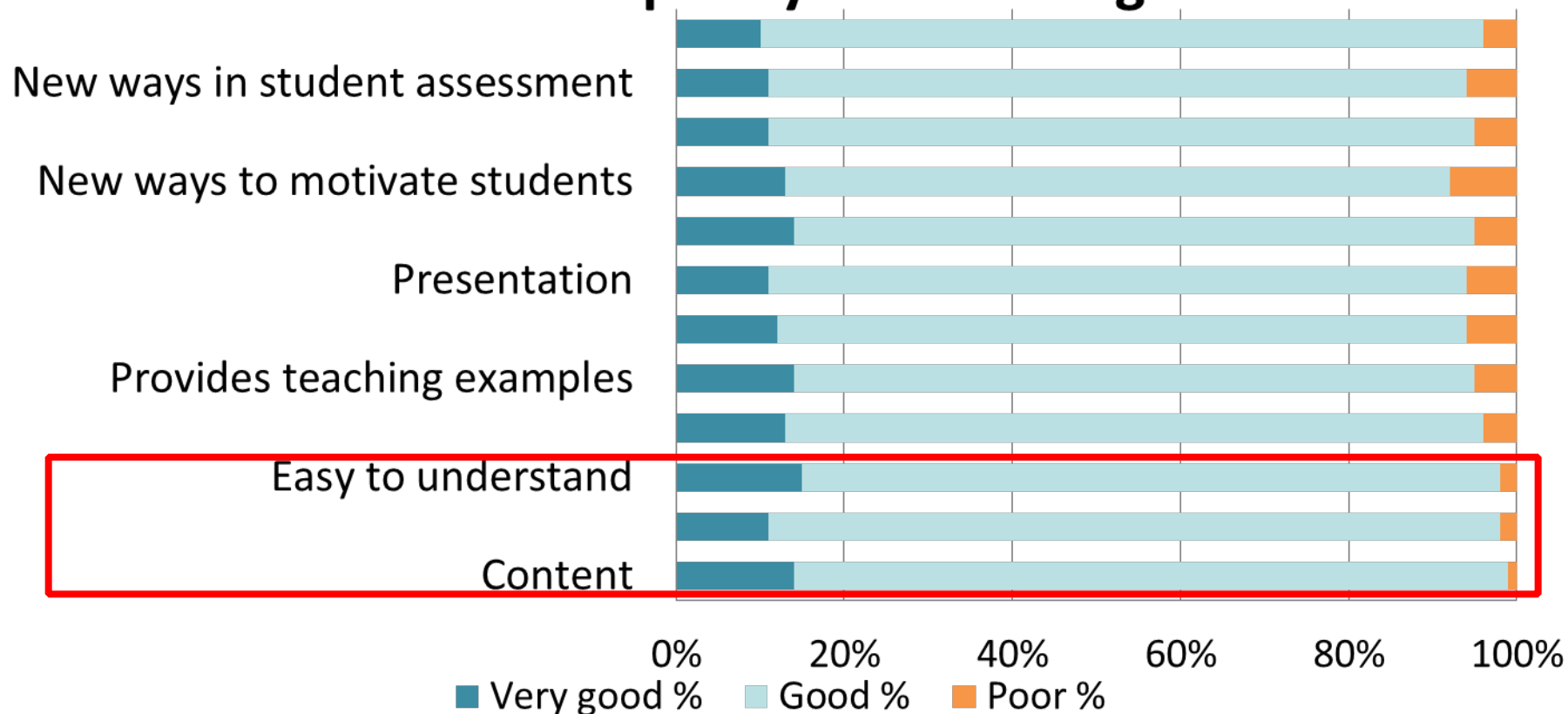
ease to understand



The contents of VCDs were evaluated as a relevant source for teacher development.

Evaluation of the Teacher Guide

content and quality of teacher guide



The Teacher Guide meets its purpose to serve primary teacher development needs. Content of the guideline is evaluated as complying with the standards and easy to understand.

Analysis of differences and relationships

Relationship between the use of VCDs and the frequency and proficiency of using computer or laptop

For all subjects, the use of the VCD contents was enhanced with frequency and proficiency of using computer or laptop.

Significant at 0.001 level positive correlations (r ranges from 0.11-0.18) were observed between the use of VCD contents and frequency of using PC or laptop.

Significant at 0.001 level positive correlations (r ranges from 0.11-0.18) were observed between the use of VCD contents and proficiency level of using PC or laptop.

Relationship between the frequency of using VCDs and location of schools

Aimag center teachers use the VCDs more frequently than Ulaanbaatar teachers.

t-test for independent samples means showed that there is a statistically significant (at 0.001 level) difference in frequency of using VCDs by teachers between Ulaanbaatar city and Aimag center.

However, there was no significant difference in using teacher guide.

Analysis of differences and relationships

Relationship between location of school and frequency of using computer

Teachers from aimag center (M=3.31) and soum (M=3.37) schools use computers more frequently than teachers of Ulaanbaatar city (M=3.03).

A one-way ANOVA test showed the frequency of using computer or laptop differs by location of school $F(2, 997) = 15.413$; $p < 0.001$.

Relationship between location of school and proficiency of using computers

Aimag center teachers feel more proficient with computers than Ulaanbaatar teachers.

statistically significant ($p < 0.001$) difference in the proficiency of teachers using of computer or laptop between Ulaanbaatar and aimag center $F(2, 999) = 15.813$.

Relationship between the use of VCDs by teachers and training manager's activity after receiving VCDs

- None of activities of the training managers at the school after receiving the VCDs and teacher guide significantly affected the use of VCDs.

Conclusions

The findings of the survey suggest that the contents of VCDs become as a relevant source for teacher development. All the VCDs, no matter what was the subject, served as valuable resource material for teachers for learning teaching methodology, how to motivate students and new information. Teachers also found VCDs highly recommendable to others and easy to apply due to its teaching examples and applicable exercises. Project produced teacher guide meets its purpose to serve primary teacher development needs.

Therefore, it is possible to conclude that the development of training materials for teachers using ICT can be an effective way to encourage wider use of ICT in education for the improvement of the quality of teaching and learning in primary education.

Findings from focus group discussion (1)

1. **Increase of motivation** : Project increased teachers' motivation for ICT use and strengthened team work spirit among teachers
2. **Reflecting New Education Standard** : Content and presentation style are aligned well with education reform process, education standards and the goal of promoting student-centered learning
3. **Attitude Change** : The project contributed to changing the way of teaching with introducing new methodology and creative thinking
4. **Need for Equipment** : Gap of technological capacity among rural schools exists and more ICT equipment are needed

Findings from focus group discussion (2)

5. **Upgrading Skills** : VCDs and guidelines upgraded teachers' methodological and planning skills
6. **Student Motivation Increased** : The student-centered learning methods introduced in the materials increased students' motivation for learning
7. **New relationship between ECDs and Schools Needed** : Teachers and training managers suggest ECDs to change their way of communication with schools and teachers
8. **Increased collaboration** : Good teaching material shared among teachers promoted network and collaboration
9. **Cost Effectiveness** : Teachers appreciate VCDs as a cost effective tool for their professional development

Summary of Findings

- **Contents** developed by the teachers in a short span of time are evaluated as of high-quality and relevant to the needs of practicing teachers.
- There was **increased student motivation** to learn because of student-centered learning methods introduced in the materials.
- Teachers were **more confident in their ability to deliver** lessons and have become more creative (applying methods to different subjects, conducting activities outside the classroom).
- **Parents were more involved** in child education (teachers conducted parent training & events for parents)
- Teachers became more **inspired by other teachers** (who use new methodologies) to improve.
- **Lessons were integrated between different disciplines** and more connections were made between them.
- **Teacher professionalism** improved (teacher ethics, child psychology). Motivation of teachers to use ICT in teaching has increased. Collaboration and exchange of professional practices among teachers has increased

The project outcomes I phase

Main outputs

1 Tangible training materials

primary school
teacher training VCDs
in 6 priority subjects

primary school
teacher guideline for
6 subjects

three user manuals
“Bahshiinhugjil” for web
portal for trainers,
teachers, and guests

interactive teacher
self-evaluation tools for
communication and Mongolian
language subjects

pilot interactive materials
for classroom use for Math

2 Analytic reports

ICT policy in education with
recommendation on analytic review of
current condition of ICT use in primary
schools in Ulaanbaatar city,

Teacher training web portal with
recommendations for expanding

Additional outputs

- Project Brochure

- Pilot training materials by teachers from Jargalant
suum school of Bayankhongor province

The project outcomes II phase

Main outputs

1 Tangible training materials

primary school
teacher training VCDs
in 5 priority subjects

primary school
teacher guideline for
5 subjects

CD with scratch program,
manual, vocabulary, and
examples

International symposium
materials including 17
presentations

Scratch chapter in the
teacher guide

2 Analytic reports

Report on the monitoring survey and
interviews

Feedback comment analysis report
(Primary education specialists)

Three presentations at CIES 2012
conference

Additional outputs

- Project Brochure

- Teacher developed teaching & learning materials using Scratch (about 40 different materials)

Expected Impact

Training

Cascade model in training increased effectiveness of in-service training in local and school levels

VDC Materials

VCD, guidelines, web-based training materials enabling teaching skills be constantly improved.

Web Training

Web prototype increased opportunities for teachers' materials development and sharing

Document Analysis

Review of current policies enabled to light key areas for improvement

Overall

- ICT educational material development served as an example for UNESCO's contribution to fundamental education
- Quality and relevance of materials improved resulting from involvement and feedback of teachers and methodologists
- Motivation of children and their interest in subject increased with improved teaching using ICT.

Dissemination of the project outcomes

Web Site

- Tokyo Tech website
- Pamphlet and UNESCO website
- MSUE's website

Brochure

- In English (300 copies) and in Mongolian (700 copies)
- Mongolian version distributed to all primary schools in Mongolia together with VCDs and teacher guidelines

Workshop

- Participate in ICT material development workshops hosted by UNESCO Bangkok and UNESCO Beijing

Conference

- Panel at CIES 2011 Annual Conference in Montreal
- 3 presentations at CIES 2012 Annual Conference in Puerto Rico

Factors contributed to the success of the project

Internal

- ***Commitment of all project members.***
 - Frequent meetings and consultations enabled clear understanding of project goals and objectives.
- ***Team approach.***
 - Each of team members was assigned to a specific output of the project.
- ***Expertise from previous experiences.***
 - Multiple members involved in “Dzud” project,
 - very close collaboration with administrators and teachers in rural schools.
 - VCD development was one of the significant outcomes from Dzud project.
- ***Strong ownership.***
 - Tokyo Tech team’s close and necessary oversight
 - Mongolian team as advisors and facilitators
 - strong sense of country ownership

Center

- ***Strong coordination and management.***
 - Project coordination team demonstrated required coordination, management abilities and dedication

External

- ***Active advisory board.***
 - AB members participated in the training activities, reviewed and commented on project deliverables, advised teams, and collegially discussed and found solutions to issues raised in the course of project implementation.
- ***Effective feedback and evaluation.***
 - close monitoring and feedback from the beneficiaries
 - effective collection of comments, analysis and review for VCDs, interactive training materials, training

Lessons learned

1. Needs for training and guideline for developing VCDs

- limited experience of VCD team members
- need simple guideline for developing VCD or DVD contents and train the team members.

2. Needs for strong local IT team

- one expert responsible for recording, designing, making animations, integrating and editing all VCD.
- need strong IT team to be created including camera operator, assistant operator, and editor.

3. Importance of integrated approach

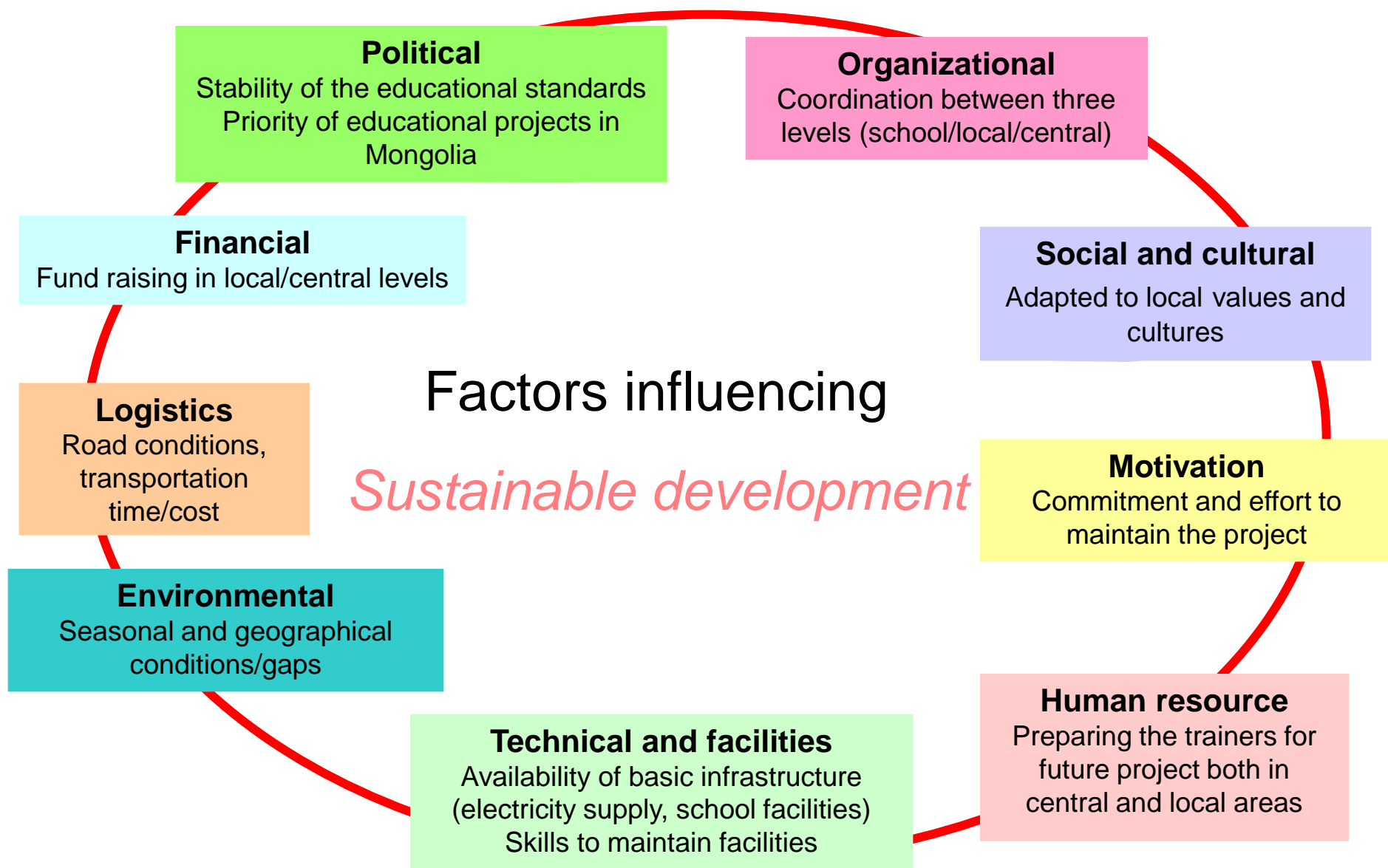
- not traditional top-down approach, but was not really grass-root initiative-based project. In the development of teacher training materials using ICT it is important to combine both approaches.
- should include activities that would encourage grass root initiatives from rural and urban teachers and schools in using ICT in education.:
- open competition among teachers for developing e-content and interactive training material

4. Meetings needs of education sector

- great need for teacher training materials development using ICT in Mongolia.
- similar activities should be continued by using any possible means.

Sustainability factors: Testing Our Assumptions

Analyze possible sustainable development factors in Mongolian Project



Factors Influencing Sustainable Development

Political

Student centered &
decentralized education
Transition to 12 years system

Support of authority

Organizational

Good coordination
Formation of National Project Team
Participatory Needs Assessment

Financial

Limited budget for school management
On time disbursement

Bottom up approach

Social and cultural

Awareness of parents for education
Professional ethics of teachers
Local attachment
Transition from central to market economy

Transportation

Increasing price for gasoline
Difficulty in finding solid vehicle

Logistics

Lack of accessibility for teachers
delayed delivery of training materials

Quality of contents

Quality of training and material
Content which reflects the demand of
principals and teachers

Motivation

Willingness to teach better using VCD
Willingness to improve the management
for better quality of school
Willingness to go to school & cooperation with school
Logists willingness to cooperate with schools

Geographical and climate

Disperseness &
Sever climate

Technical and facilities

Insufficient electricity
School facilities and equipment

Human resource

Improvement of teaching skill
Teachers' professional development
Management skill of school principal
Self-training of national project team

Teachers training material for Communication subject

«Айдсыг зурах» хичээлийн дараалал

№	«Айдсыг зурах» дасгалын дараалал	Дасгалын даалгавар тус бүрийн ач холбогдол
	»Хүүхдүүд айдаг боловч чиний айдаггүй зүйл юу вэ?» зургаар харуулна уу?	Өөрийгөө зоригтой чөлөөтэй авч явдаг орчныг тодорхойлох боломжийг хүүхдэд олгож өөртөө итгэх итгэлийг сайжруулна.
	»Юунаас айдаг байгаад юунаас айдаггүй болсон бэ?» гэдгээ зурна уу. /Ярьж болно/	Өөртөө итгэх итгэлийг нь сайжруулахдаа хүүхдийн туршлагыг ашиглахад чиглэнэ.
	»Айдаг зүйлтэйгээ хамт байгаагаар өөрийгөө дүрсэлж зур/Ярьж болно/	Айдаг зүйлтэйгээ зоригтойг зэрэгцэн оршиж чадна гэсэн мэдрэмж төрүүлэх алхам.
	»Айдаг зүйлээ ялан дийлж байгаагаа зур» /Ярьж болно/	Хүүхдийг тайвшруулах, айдаг зүйлээ тоглоом, хошигнол болгох замаар дасгал болгох зориулалттай.
	Зурсан цуврал зургаараа өгүүлэл, үлгэр зохиож багш, эцэг эх, найз нөхөддөө ярьж өгөх, эсвэл зурсан зургаа багшдаа тайлбарлах	Зурж, ярьж байгаа зүйлдээ итгэх хүүхдийн итгэлийг сайжруулах, найз нөхөддөө өөрийгөө ойлгуулах ач холбогдолтой.

ЗУРГАА. Харилцаатай холбоотой дасгал тоглоомууд, эрэгцүүлэн ярилцах жишээнүүд

«Бөмбөг бөмбөг хөөрхөндөө»

Зориулалт: Хүүхдүүдийг хамтын ажиллагаанд дасгах, нүүр хагалах зориулалттай.

Хэрэглэгдэх материал: Зургаан настай болон сургуулийн бага насны хүүхдүүдэд тохирох зөөлөн, хөнгөн бөмбөг. **Явуулах журам:** Хэд хэдэн үе шаттай явуулж болно. Хүүхдүүд тойргоор зогсоно. Тойрч зогсоод юу ч ярихгүйгээр бие биендээ бөмбөг дамжуулна. Хэсэг хугацаанд бөмбөг дамжуулж тоглосны дараа нэрээ хэлж бөмбөг дамжуулж тоглоно. Бүх хүүхэд нэрээ хэлж

бөмбөг дамжуулсны дараа гэрийнхнээсээ хэн нэг хүний нэрийг хэлж бөмбөгөө дамжуулна. Аав, ээжийнхээ нэрийг гэж хэлэхгүйгээр гэрийнхнээсээ хэн нэг хүний нэрийг хэлээрэй гэсэн зааврыг багш өгөх нь зохимжтой. Учир нь өнчин хүүхэд байвал сэтгэл эмзэглэж болзошгүй ..

Тоглоомын нэмэлт журам: Хэрвээ ийнхүү тоглох явцад огт дуугарахгүй буюу зэрч байгаа хүүхэд ажиглагдвал дотуур байрны багш түүнийг сонгон авч дотны таньдаг хүүхэд, эсвэл ах эгч нь байранд байдаг бол тэднээс нь оролцуулан тусдаа тоглоно. Өөрөөр хэлбэл тодорхой хугацааны дараа хүүхэдтэй ганцаарчилсан буюу хэсэгчилсэн хэлбэрээр тоглох хэрэгтэй. Энэ нь бүрэг хүүхдийн хувьд дотно харилцаатай жижиг орчин үүсгэхэд тус дөхөм болох билээ.

Дасгал «Хүүхэд уйлж байвал яах вэ?»

Зориулалт: Хүүхдүүд бие биенийхээ сэтгэл санааг ойлгож хуваалцах чадварыг сайжруулах зориулалттай.

Хэрэглэгдэх материал: Уйлж, гуниглаж, инээж баярлаж байгаа хүүхдүүдийн зургийг багш урьдчилан бэлтгэсэн байна. Компьютерийн зураасан зураг ашиглаж болно.

Бэлтгэл: Хүүхдүүд тойрч суугаад ярилцах боломжтой өрөө тасалгааг сонгон авна.

Журам: Хүүхдүүдийг тойруулж суулгаад зурагнуудыг үзүүлж «Энэ зураг дээр байгаа хүүхдүүд яаж байна?» гэж асууна. Зургийг хамтаараа ялгаж «Уйлж байгаа хүүхэд», «Баярлаж байгаа хүүхэд» гэх зэргээр ялгана.

Дараа нь хүүхдүүдээс «Уйлмаар үе ямар байдаг вэ?» гэж асууна. Хүүхдүүд хариулж чадахгүй байгаа бол «Хэцүү байдаг уу?», «Ямар байдаг вэ?» гэж асууна. «Хэцүү, муухай байдаг гэх зэргээр хүүхдүүд хариулбал» «Тийм ээ хэцүү байдаг шүү дээ» гэх зэргээр багш сэтгэгдлээ хуваалцана.

Дараа нь «Та нар уйлж байгаа хүүхдийг харвал яах вэ?» гэж асууна. «Туслана, асууна. Найзаа тоглоё.» гэж хэлэх нөхцлийг бүрдүүлэхэд анхаарна. Мөн «Уйлж байгаа хүүхдийг шоолвол яах бол?» гэж асууна. Энэ маягаар хүүхдүүдтэй ярилцаар төгсгөлд нь «Уйлж байгаа хүүхдийг харвал яах билээ?» гэж дахин асууна. «Шоолохгүй», «Тусална, аргадна, хамт тоглохыг хүснэ» гэх зэрээр дэмжих хариулт авч хүүхдүүдэд баяр хүргэнэ.

Teachers training material for Art subject

Оюуны зураглалын жишээ (Сурагчийн бүтээл)



Цацаргах сэтгэлгээ нь «Оюуны зураглал» хийх суурь үндэс нь болдог.

Баруун тал бөмбөлөг. Зураг дүрслэл, өнгө хэмнэл, орон зайн мэдрэхүйг бүхэлд нь нэгтгэн дүгнэх зэргийг хариуцна.

Сайн тал нь: Бодит дүрслэлийн ойн үйл ажиллагаа, орчлон ертөнцийн юмс, үзэгдлийг хүлээн авах үүрэгтэй. Ухаан бодлыг гайхалтай хөгжүүлдэг. Хүний хүсэл мөрөөдөл, уран зөгнөл, ургуулан бодох, утга уянга, орон зайн мэдрэхүйг хөгжүүлэхэд онцгой үүрэгтэй. Мөн далд ухамсрыг ойлгоход чухал үүрэг гүйцэтгэнэ.

Сул тал нь: Юмыг ялган салгахдаа сайн боловч нарийн тооцоолох зүйлийг төдийлөн анхаардаггүй.

Зүүн тал бөмбөлөг. Үг яриа, математик, логик, юмыг ялган салгах логик сэтгэлгээ зэргийг хариуцдаг.

Сайн тал нь: Шүүн тунгаах чадвар сайтай. Бүх юмсыг утга төгс ойлгохыг боддог. Хүмүүстэй харьцах, үгийн сүлжээ бөглөх, бодлого бодох зэрэгт илүү чадвартай.

Логик сэтгэлгээ, шугаман дараалал, математик болон шинжлэх ухааны сэтгэлгээтэй холбоотой зүйлийг илүү хүртэж чадна.

Сул тал: Цөөнгүй муу зуршилтай. Зан авирын хувьд алдаа гаргах нь их. Аливаа зүйлийг эргэцүүлэн бодох чадвар султай. Юмсын учир холбогдлыг тунгаахгүй цээжлэхийг чухалчилдаг.

Монголын 9 настай хүүхдүүдийн их тархины баруун, зүүн тал бөмбөлгийн хөгжлийн талаар Г.Адлерийн тестээр сорил авч дүгнэв. Үүнд: Улаанбаатар хотын ерөнхий боловсролын 11 жилийн зарим

сургуулийн 4 дүгээр ангийн 115 сурагч хамрагдав. Үүнээс зүүн тал бөмбөлгөө давамгайлан хөгжүүлэх боломжтой 25 сурагч, харин баруун тал бөмбөлгийг давамгай хөгжүүлэх боломжтой 90 сурагч байв. Гэвч дүрслэх урлагийн хичээлээр тухайн 115 сурагчийн мэдлэг чадварын төвшинг шалгахад маш чамлалттай үзүүлэлт гарч байгаа юм. Баруун, зүүн тал бөмбөлгийн хөгжлийн боломжит төвшинд тун ойролцоо буюу нэг тоогоор зөрүүтэй байгаа сурагч 41 байлаа. Сурагчдын зурах дүрслэх чадварыг хөгжүүлнэ гэдэг нь тэдний их тархины хоёр тал бөмбөлгийг тэнцвэртэй хөгжүүлэх асуудал юм.

1.2 Ажил хөдөлмөр, тоглоом нь хүүхдийн оюун ухааныг хөгжүүлэх гол хэрэгсэл

Агуулга, бүтцийн хувьд боловсролыг байгаль, нийгэм, хүмүүнлэгийн болон урлагийн шинжлэх ухааны үндсэн мэдлэг, дадлага олгодог **ерөнхий**, амьдрал орчноос олж авах **ажил хөдөлмөрийн**, орчин үеийн үйлдвэрлэлийн тухай анхны мэдэгдэхүүн олгож, түүний үйл ажиллагааны үндсэн зарчимтай танилцуулан, хөдөлмөрийн энгийн багаж зэвсгийг хэрэглэх чадвар, дадал эзэмшүүлдэг **хөдөлмөр политехникийн**, хүнийг чадваржуулах, аливаа асуудлыг технологийн аргаар шийдвэрлэхэд шаардагдах мэдлэг, үйл ажиллагааг суралцагчдад төлөвшүүлэх **технологийн**, улс ардын аж ахуйн хөгжлийн шаардлагын дагуу сурагчдад тодорхой мэргэжлийн мэдлэг, чадвар, дадлыг системтэй олгож, тэднийг нийгмийн хөдөлмөрт бэлтгэдэг **мэргэжлийн** гэж ангилдаг.

«ЮНЕСКО-ийн Ази, Номхон далайн бүсийн төвөөс хүн амын бичиг үсгийн боловсролыг дээшлүүлэх талаар гаргасан цувралд боловсролыг албан ёсны ба албан бус, амьдрал орчноос олох боловсролын тогтолцооноос бүрдэнэ» [5.5], амьдрах орчноос олох боловсролын тогтолцоо нь «мэдээллийн хэрэгслээр, амьдрал үйл ажиллагааны явцад, гэр бүлийн орчноос, бие дааж суралцах» [5.7] гэж тодорхойлсон байна. Манай орны өргөн уудам нутаг дэвсгэр дээр үүсэж хөгжсөн боловсрол нь нүүдэлчдийн соёл иргэншлийг тусгасан бөгөөд түүнд тохирсон өвөрмөц онцлогтой боловсрол байсныг олон судлаачид өөрийн бүтээлүүддээ харуулсан байдаг. Ийм тогтолцоо байснаар нэг талаас байнга өөрчлөгдөн шинэчлэгдэж буй нийгмийн болон хувь хүний хэрэгцээ, шаардлагыг хангах, нөгөө талаас насан туршдаа боловсрол тасралтгүй эзэмших нөхцлийг бүрдүүлж байна. «Хүнээр хүн хийх ардын ухаан, арга туршлагын арвин сан, өв уламжлалыг ардын сурган хүмүүжүүлэх зүй гэж нэрлэдэг...Хүний насан туршийн хүмүүжлийн 80-90 хувь

Teachers training material for Mongolian Language subject

«Үгийн утга айн агуулгын хүрээ» 1-4 анги

Хүснэгт 1

	I	II	III	IV
Үгийн утгын зүйлчлэл	хүн юм амьтан	хүн үзэгдэл юм амьтан ургамал гариг эрхэс	хүн хүний бүтээсэн зүйл үзэгдэл юм амьтан ургамал амьтны бүтээсэн зүйл	үгийн сангийн утга хэлзүйн утга оноосон нэрийн зүйл
Нэрлэх үг	хүн юм үзэгдэл тоо үйл	хүн юм үзэгдэл шинж тоо үйл	хүн юм үзэгдэл шинж тоо үйл орон цаг	
Төлөөлөх үг		асуух үг	биеийг төлөөлөх үг, заах үг	
Үгийн утгын ай		эсрэг утгатай үг	эсрэг утгатай үг	ойролцоо үг төрөл үг

«НЭРЛЭСЭН ҮГ» СЭДВЭЭР МОНГОЛ ХЭЛНИЙ НЭГЖ ХИЧЭЭЛИЙН ХӨТӨЛБӨР БОЛОВСРУУЛАХАД АШИГЛАХ ЗАРИМ ДАСГАЛ ТОГЛООМ

Сэдэв: Нэрлэсэн үг

Зорилго: Сурагчдын унших, бичих чадварыг хөгжүүлж, нэрлэсэн үг, асуух ба төлөөлөх үгийг яриандаа зөв хэрэглэж сургах

Зорилт:

Хүн, юм, үзэгдэл тэдгээрийн тоо ширхэг, шинж чанар орон цаг, үйл хөдлөлийг нэрлэсэн үгийн хэрэглээтэй танилцах

Нэрлэх үгсэд асуулт тавьж сурах

Нэрлэх үгийг асуух ба төлөөлөх үгээр сольж нэрлэх

Онцлого, ... ардын аман зохиолоос уншиж ойлгох

Агуулга:

	Мэдлэг	Чадвар
Ярих-сонсох	Нэрлэсэн үг Асуух үг Төлөөлөх үг	Хүн, юм, үзэгдэл тэдгээрийн тоо ширхэг, шинж чанар орон цаг, үйл хөдлөлийг нэрлэсэн үгийг таних, тэдгээрт асуулт тавьж сурах

Унших	Онцлого	Нэрлэсэн үгийн асуултыг зөв сонгон хэрэглэж сурах Онцлогыг сонсож таах үгийн нөөцийг нэмэгдүүлэх
Бичих	Монгол гэр түүний бүтэц, барих дараалал	Нэрлэсэн үгийг асуух төлөөлөх үгээр солин найруулж хэрэглэж сурах Өгүүлбэрт үг нэмж хасан найруулж бичиж сурах
Хэлний нэгж	Зөөлний тэмдэг «и» болох г.м-г зөв бичиж сурах г.м

Арга зүй:

	Багшийн үйл ажиллагаа	Сурагчийн үйл ажиллагаа
	I. Монгол гэр Зорилго: Нэрлэсэн үгийг утгаар нь таних, тэдгээрт асуулт тавьж сурах	
Дасгал 1	Багш нимгэн гялгар уутан дахь хэрчмэл үгсийг харуулна. Уутанд юу байна вэ? Үг гэж юу вэ?	Боломжит хариулт: Үг, бичиг, цаас, бичигтэй цаас Боломжит хариулт: Хүмүүс санаагаа илэрхийлэхдээ ашигладаг зүйл, юмны нэр, үсэгнүүд гэх мэт
	Баг бүрт ууттай үг өгч ажиглуулна. Өгөгдсөн үгсийг бүлэглэвэл ямар боломжууд байгааг нэрлүүлнэ. Боломжит хариултуудыг хэлүүлсний дараа үгсийг утгаар нь ангилах даалгавар өгнө. Юуг нэрлэсэн үгс болох тухай өмнөх мэдлэгийг сэргээн ярилцаж, тохирох асуултыг тавина. Бүдүүвчийг ашиглан холбоо үг бүтээх: тоо + юм шинж + юм тоо + шинж + юм	Боломжит хариулт: - Эр үг, эм үгээр - Үеэр - Үгсийн тоогоор - Утгаар Ангилах нь: 1. тооно, унь, хана, эмч, гэр, ус, шал, багана 2. таван, нэг, арав, хоёр, наян 3. улаан, шинэ, хатуу, эвхмэл, гашуун, 4. дээр, зүүн, өдөр, хажууд, эртхэн 5. барих, нүүх, үсрэх, явах таван + хана эвхмэл + хана таван + эвхмэл + хана
Дасгал 2	"Гэр" слайдыг ашиглана. Онцлогыг таахын өмнө цэгийн оронд байх үгийн асуулт гарч ирнэ. Монгол гэр түүний бүтэц, барих дарааллыг тодруулан асуулт тавьж ярилцана.	Баруун талаас гарч ирэх үгсэд асуулт тавьж, цэгийн оронд тохирох үгийг олно. Онцлогыг бүрэн болгож давтартээ хуулж бичээд, хариуг таана. Таасан хариугаа гарч ирэх зурагтай тохируулан, хариуг бичнэ.
Гэрийн даалгавар: Онцлогоо дахин хуулж бичихдээ өнөөдөр нөхсөн үгээс өөр үгийг орхин цэгээр үлдээн, түүнд тохирох асуултыг бичиж ирээд бусдаар олуулна.		



