



# INTEGRATION OF 21ST CENTURY SKILLS INTO THE CURRICULUM OF MONGOLIA

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The KIX EAP hub facilitates cross-country knowledge and innovation exchange and mobilisation, learning, synthesis, and collaboration among national education stakeholders in 21 GPE partner countries in the EAP region. The hub also offers opportunities for peer learning and exchange by means of professional development and inter-country visits.



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## ABOUT THE LEARNING CYCLE ON INTEGRATION OF 21ST CENTURY SKILLS IN CURRICULUM

From June to September 2021, the KIX EAP Hub, in partnership with the Australian Council for Educational Research (ACER), delivered two rounds of a four-week course focused on strengthening the link between policy and implementation regarding 21st century skills. 69 participants in 14 country teams participated in the course which addressed the steps required and the challenges faced by policy makers to implement systematic curriculum reform that further emphasizes 21st century skills within learning outcomes and ensures these are connected to relevant assessment measures and pedagogical strategies.



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## A BIOGRAPHICAL NOTE ON THE AUTHORS

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## LIST OF ACRONYMS AND ABBREVIATIONS

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ADB	Asian Development Bank
AFE	All for Education
CPD	Continuous Professional Development
ERI-Net	Education Research Institutes Network
IE	Institute of Education
ITPD	Institute of Teachers' Professional Development
JICA	Japan International Cooperation Agency
NGO	Non-governmental organization
MEA	Mongolian Education Alliance
MIER	Mongolian Institute for Educational Research
MOES	Ministry of Education and Science

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## EXECUTIVE SUMMARY

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In this case study we review the extent to which 21st century skills have been integrated across the education system in Mongolia so far and take a deeper look at coverage within elements of the curriculum.

We first conducted a needs analysis to review the 10 alignment steps for 21st-century skills integration. We find that there are a few challenges in implementing the changes. First, there is a persisting mismatch between the curriculum, classroom teaching and the assessment of learning outcomes. Second, the skills need to be integrated into pedagogical practice at the classroom level through initial teacher education as well as teachers' continuous professional development (CPD).

Next, we carried out a skills audit and mapping of English and biology in the grade 9 curriculum. This exercise brings together the information from individual subjects to identify which key skills are already well embedded in the learning area and which skills have been neglected to a greater or lesser extent. The initial skills audit and mapping of the indicators of the learning areas brings several major benefits. The first is identifying that the level of embeddedness varies across the learning areas. It also provides an overview of the skills within the learning areas by identifying deficiencies, excesses and expectations within the learning areas of the syllabus regarding the broader skills and skill aspects.

Last, we brought all the elements of analysis together to form a strategic plan for further integrating skills into the curriculum and the system more broadly. The strategic plan consists of three phases. The first involves finalizing the skills priorities, the second phase plans to conduct skills audit for subject-related matters and grade levels and the final step involves organizing a forum with the curriculum team (headed by MIER) to share the results of the system heat map and skills audit.

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## CORE STRATEGY TEAM CONTEXT

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Our team consists of three people, one government representative and two non-governmental organization (NGO) representatives. The government representative works at the Institute of Teachers' Professional Development (ITPD), which is responsible for the continuing professional development (CPD) of teachers and school leaders.

She has extensive experience in classroom teaching, curriculum guidance development and teachers' professional development.

The other two team members represent two civil society organizations which are active in education policy advocacy: The Mongolian Education Alliance (MEA) and All for Education (AFE). These NGOs promote quality, inclusive and equitable education for all children, youth and adults in Mongolia based on the principles and targets identified in the SDG 4 framework. The MEA representative has a research background and policy development experience. The AFE representative has experience in classroom teaching, textbook development and teachers' professional development.

We admit that the team does not have sufficient expertise in the area of curriculum and skills integration. In our opinion, there should be two more members of the team, representing the Ministry of Education and Science (MOES) and the Institute of Education (IE). We are planning to invite a MOES official who is responsible for primary and secondary education curricula. The IE is currently experiencing reorganization. Once this has been completed, we will add one more member from that organization, whose primary responsibility will be curriculum development, evaluation and updating.

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## MISSION AND VISION STATEMENTS

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The mission and vision statements express reform initiatives for student-centred education, which includes the learning of transversal competencies, equivalent of the 21st century skills. The new curriculum for primary education in Mongolia has been radically changed, with transversal competencies included, and it now emphasizes developing each student holistically. The inclusion of 'activities to learn life skills in the curriculum provides an opportunity for facilitating the learning of transversal competencies by engaging students in a variety of activities that can help develop their unique abilities and talents.

Teachers are confident that they are prepared to teach transversal competencies and feel that they possess the necessary skills, especially in terms of communication and listening skills, knowledge of subject matter and student development, passion/love for teaching, collaboration and empathy. However, teachers are not certain if their efforts to facilitate the learning of transversal competencies are understood or supported by management.

In addition, a review of the curriculum implementation conducted with Asian Development Bank's (ADB) technical assistance showed that most teachers accept the curriculum but struggle with implementation because of a lack of (i) learning outcome statements in the curriculum, (ii) understanding, knowledge and skills regarding child-centred methodologies and formative and summative student assessment and evaluation methods and (iii) quality teaching and learning materials (*Mongolia: Sustaining access to and quality of education during economic difficulties project. Project Administration Manual, 2017*).

In our opinion, the mission and vision statements need to be reviewed and updated so that they explicitly refer to the 21st century skills we are prioritizing for the curriculum outcomes. According to the Ministry of Education, a core curriculum review is planned for 2024, and the curriculum will be updated in 2025.

### Dissemination

Among the factors that hinder the integration of transversal competencies into teaching and learning, insufficient awareness of parents and community members was the factor most frequently named by school principals and teachers. Parents demand or expect that their children master academic content rather than skills development through curriculum outcomes, so school principals and teachers are hesitant in this area. Therefore, we conclude that the mission and vision of the core curriculum need to be communicated in simple language to the general public, especially to parents.

## PRIORITIZING ALIGNMENT COMPONENTS

The following table outlines the priority steps for integrating 21<sup>st</sup> CS into the curriculum.

**Table 1: Priority steps for integrating 21st CS into the curriculum**

Priority number	Step	Status
1	Audit existing curriculum	Completed
2	Identify opportunities for skills in curriculum	Completed
3	Integrate and layer skills into curriculum	Underway
4	Identify pedagogical strategies for enhancing growth	Underway
5	Develop teaching resources	Underway
6	Review pedagogical training	Underway
7	Audit existing assessment(s)	Completed
8	Identify opportunities for skills in assessment(s)	Underway
9	Review existing and potential classroom activities	Not started
10	Develop assessment(s)	Not started

Challenges to implementing the changes:

- The first and foremost challenge in implementing the alignment is that there is a persisting mismatch between the curriculum, classroom teaching and the assessment of learning outcomes. This mismatch has existed since the curriculum reform of 2005, and it has not been meticulously addressed in any of the reforms that have since taken place.
- Most importantly, the skills need to be integrated into pedagogical practice at the classroom level through initial teacher education as well as teachers' continuous professional development (CPD).

## ADOPTING SKILL FRAMEWORKS AND DEFINITIONS

Our team has prioritised three skills: collaboration, critical thinking and creative thinking. The rationale for prioritising these skills follows:

**Collaboration:** About one quarter of Mongolians still lead traditional nomadic lives in Mongolia, which is the world’s most sparsely populated country. Therefore, we thought that most Mongolians would lack collaboration skills.

**Critical thinking:** Due to Mongolia’s socialist past, most of the people tend to follow what the government or other authorities tell them without questioning. Therefore, critical thinking skills need to be taught at school for all.

**Creative thinking:** Creativity and talent development is one of the top priority skills in the current curriculum. Therefore, we want to assess its integration and implementation at the classroom level.

Several researchers mention in their reports that the *Toward Universal Learning: What Every Child Should Learn* report from the Learning Metrics Task Force established by UNESCO served as the basis for the current curriculum, which has been implemented since the 2014–2015 academic year. The task force proposed a broad definition of learning that encompasses seven domains, with corresponding subdomains, that are important for all children and youth to develop (Figure 1).

Moreover, according to the Mongolian Institute for Educational Research (MIER), the framework of transversal competencies (See Figure 2 below) developed by the Asia Pacific Education Research Institutes Network (ERI-Net) and adopted by the UNESCO Bangkok office was used as a foundational document for the definition of the skills and competencies reflected in the new curricula.

Figure 1: A global framework of learning domains

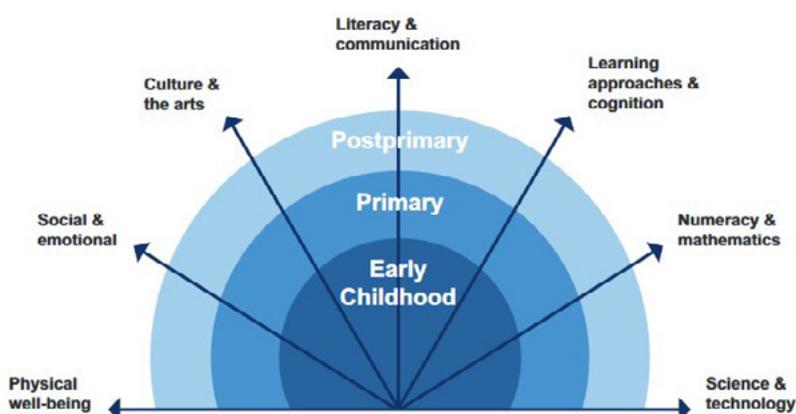


Figure 2: The ERI-Net definition of transversal competencies

Domains	Examples of key skills, competencies, values and attitudes
<b>Critical and innovative thinking</b>	Creativity, entrepreneurship, resourcefulness, application skills, reflective thinking, reasoned decision-making
<b>Interpersonal skills</b>	Communication skills, organizational skills, teamwork, collaboration, sociability, collegiality, empathy, compassion
<b>Intrapersonal skills</b>	Self-discipline, ability to learn independently, flexibility and adaptability, self-awareness, perseverance, self-motivation, compassion, integrity, self-respect
<b>Global citizenship</b>	Awareness, tolerance, openness, responsibility, respect for diversity, ethical understanding, intercultural understanding, democratic participation, conflict resolution, respect for the environment, national identity, sense of belonging
<b>Media and information literacy</b>	Ability to obtain and analyse information through information and communication technology (ICT), ability to critically evaluate information and media content, ethical use of ICT
<b>Others</b>	Skills and competencies as defined by countries/economies

The core curriculum, which emphasizes the development of skills over imparting knowledge, includes the following:

- Independent learning skills as a foundation for lifelong learning;
- Cognitive skills, including thinking and problem-solving skills;
- Language–social skills, including communication and learning in groups;
- Life skills, including independent learning, information and technology, a healthy lifestyle and a proper relationship with nature.

The core curriculum also emphasizes the development of motivation, aspiration and a positive interest in studying.

Schools are required to plan programmes of instruction to reach the core curriculum’s goals and outcomes. The core curriculum has defined five general domains of skills (creative and innovative thinking, social and emotional skills, intrapersonal skills, Mongolian and global citizenship, and media and information literacy), and subdomains are listed under each of these domains. However, a clear definition of skills is non-existent. In 2016, ERI-Net research noted that there is a need to reach a consensus regarding the definitions of non-cognitive skills among education policymakers in Mongolia (Sukhbaatar, 2014).

## SKILLS AUDIT AND HEAT MAP

Upon consultation, the team decided to conduct a skills audit on two subjects: English and biology. Initially, Grade 6 was selected. However, during the initial audit, learning outcomes that could demonstrate the relevant aspects of the various skills were not identified in the curricular documents. Therefore, Grade 9 was selected in the end.

The two aspects that we found that represent collaboration skills in Biology and English are communicating with others

and recognizing contributions of others. With respect to creative thinking skills, the aspects 'shifting perspectives' and 'range of ideas' are found. We also identified five aspects reflecting critical thinking skills: applying logic, identifying patterns and making connections, justifying arguments, identifying assumptions and motivations, and discriminating between information.

The following tables present the results of the audit.

**Table 2: Skills audit of grade 9 English and biology curriculum (collaboration skills)**

Subject / learning area	Subject topic	Learning outcome	Collaboration aspect
Biology 9	Unit 2. Structure and functions of living organisms	Б9.2е. Дэлхийн хүн амын хүнс тэжээлийн хүрэлцээ хангамж, хомсдолыг ган гачиг, үер усны аюул, хүн амын тоо хэт ихсэх зэрэг асуудлуудтай холбон шүүн хэлэлцэх / Link and critically discuss food supply and shortage of the world population to issues such as draught, flood and overpopulation.	1.1 Communicates with others
		Б9.2и. Зүрхний титэм судас нарийсах өвчний шалтгааныг тодруулан ойлгож, түүнээс урьдчилан сэргийлэх боломжуудыг таамаглан хэлэлцэх / Define the causes of coronary artery disease and share assumptions to prevent it.	2.2 Recognizes contributions of others
		Б9.2у. Ургамал нь гэрэл ба хүндийн хүчний үйлчлэлд хариу үйлдэл үзүүлдэг болохыг хэлэлцэх, туршилтаар илрүүлэх / Discuss and experiment how plants react to lights and gravitational force.	1.1 Communicates with others
English 9	Unit 1. All about me	9.L2. Хувийн мэдээллийг лавлах асуултыг нийлмэл өгүүлбэрийн түвшинд сонсож ойлгох / Understand more complex questions that ask for personal information.	1.1 Communicates with others
		9.S2. Ерөнхий сэдвийн хүрээнд утга тодруулах асуулт асуух / Ask questions to clarify meaning on a range of general and curricular topics.	1.1 Communicates with others
		9.L4. Өгүүлэгчийн товч болон дэлгэрэнгүй ярианаас гол санааг ерөнхий сэдвийн хүрээнд бага зэрэг дэмжлэгтэй эсвэл дэмжлэггүй сонсож ойлгох / Understand the main points in both short and extended speeches on a range of general and curricular topics with little or no support.	2.2 Recognizes contributions of others
		9.L5. Өгүүлэгчийн товч болон дэлгэрэнгүй ярианаас туслах санааг ерөнхий сэдвийн хүрээнд бага зэрэг дэмжлэгтэй эсвэл дэмжлэггүй сонсож ойлгох / Understand specific information and detail in both short and extended speeches on a range of general and curricular topics with little or no support.	2.2 Recognizes contributions of others

Subject / learning area	Subject topic	Learning outcome	Collaboration aspect
English 9	Unit 3. Sport and fitness	9.L8. Энгийн болон дэлгэрэнгүй ярианаас өгүүлэгчийн хандлага, санаа бодлыг ерөнхий сэдвийн хүрээнд бага зэрэг дэмжлэгтэй эсвэл дэмжлэггүй сонсож ойлгох / Recognize the attitude or opinion of the speaker(s) in both short and extended speeches on a range of general and curricular topics with little or no support.	2.2 Recognizes contributions of other
	Unit 4. Clothes	9.S7. Танил бус сэдвийн хүрээнд дэлгэрэнгүй мэдээллийн талаар харилцан ярианд оролцох / Interact in longer exchanges on a wide range of general and curricular topics.	1.1 Communicates with others
	Unit 5. Time and special days	9.L7. Богино болон дэлгэрэнгүй хүүрнэлийг ерөнхий сэдвийн хүрээнд бага зэрэг дэмжлэгтэй эсвэл дэмжлэггүй сонсож ойлгох / Understand both short and extended narratives on a range of general and curricular topics with little or no support.	2.2 Recognizes contributions of other

**Table 3: Skills audit of grade 9 English and biology curriculum (creative thinking skills)**

Subject / learning area	Subject topic	Learning outcome	Creative thinking aspect
Biology 9	Unit 2. Structure and functions of living organisms	Б9.2и. Зүрхний титэм судас нарийсах өвчний шалтгааныг тодруулан ойлгож, түүнээс урьдчилан сэргийлэх боломжуудыг таамаглан хэлэлцэх / Define the causes of coronary artery disease and share assumptions to prevent from it.	2.1 Shifting perspectives
English 9	Unit 2. At school	9.W2. Ерөнхий сэдвийн хүрээнд бодит, зохиомжлон дүрсэлсэн, өнгөрсөн үйл явдал, туршлагын талаар тодорхой дэмжлэгтэйгээр бичих / Write about factual and imaginary past events, activities and experiences on a range of general and curricular topics with some support.	1.2 Range of ideas
	Unit 8. People and jobs	9.W3. Хувийн үзэл бодол, мэдрэмжээ тодорхой сэдвийн хязгаарлагдмал хүрээнд бага зэргийн дэмжлэгтэйгээр бичих / Write about personal feelings and opinions on a limited range of general and curricular topics with some support.	1.2 Range of ideas
	Unit 10. Making plans	9.S8. Танил сэдвийн хүрээнд дэлгэрэнгүй үйл явдал, үлгэр, түүхтэй холбогдуулан ярих / Relate extended stories and events on a growing range of general and curricular topics.	1.2 Range of ideas

**Table 4: Skills audit of grade 9 English and biology curriculum (critical thinking skills)**

Subject/ Learning area	Subject topic	Learning outcome	Critical thinking aspect
Biology 9	Unit 1. Biological diversity and classification	Б9.1в. Ангилал зүйн бага нэгж болох зүйлийг хос нэршлээр нэрлэх болсон түүх, учир шалтгааныг тайлбарлах / Explain the origin and reasons for using dual terminology for naming species.	2.1 Applies logic
	Unit 2. Structure and functions of living organisms	Б9.2г. Хүнсний бүтээгдэхүүнд агуулагдах шим бодисыг туршилтаар илрүүлж, амьд биед гүйцэтгэх үүрэг, ач холбогдлыг тодруулах / Reveal the nutrients from food items through experiment, and define their roles and importance in living organisms.	1.3 Identifies patterns and makes connections
		Unit 2. Structure and functions of living organisms	Б9.2е. Дэлхийн хүн амын хүнс тэжээлийн хүрэлцээ хангамж, хомсдолыг ган гачиг, үер усны аюул, хүн амын тоо хэт ихсэх зэрэг асуудлуудтай холбон шүүн хэлэлцэх / Link and critically discuss food supply and shortage of the world population to issues such as draught, flood, and overpopulation.
		Б9.2и. Зүрхний титэм судас нарийсах өвчний шалтгааныг тодруулан ойлгож, түүнээс урьдчилан сэргийлэх боломжуудыг таамаглан хэлэлцэх / Define the causes of coronary artery disease and share assumptions to prevent from it.	2.2 Identifies assumptions and motivations

Subject/ Learning area	Subject topic	Learning outcome	Critical thinking aspect
English 9	Unit 1. All about me	9.W1. Танил сэдвийн өргөн хүрээнд эхийн түвшинд дэмжлэгтэйгээр бичих зүйлээ төлөвлөх, бичих, засварлах / Plan, write, edit and proofread work at text level with some support on a range of general and curricular topics.	1.3 Identifies patterns and makes connections
		9.W5. Тодорхой сэдвийн өргөн хүрээнд үндсэн холбоосыг ашиглан өгүүлбэрийг холбон, логик дараалал бүхий эхийг дэмжлэггүйгээр бичих / Link sentences into coherent text using a variety of basic connectors on an increasing range of general and curricular topics when writing independently.	2.1 Applies logic
		9.S6. Хос, бүлэг, ангиар ажиллахад өгүүлбэрээр харилцааны түвшинд бусдын хэлсэнд өөрийн санаа бодлоо илэрхийлэх / Link comments to what others say at sentence and discourse level in pair, group and whole-class exchanges.	2.2 Identifies assumptions and motivations
		9.R6. Ерөнхий сэдвийн хүрээнд богино эхээс баримт мэдээ болон өгүүлэгчийн санаа хоёрын ялгааг таних / Recognize the difference between fact and opinion in short, simple texts on a range of general and curricular topics.	1.2 Discriminates between information

The following table illustrates the alignment between curriculum, teaching and assessment of the various skills, using Grade 9 English as the subject for examining alignment. In half of the instances, the assessment criteria were missing from the curriculum document.

**Table 5: Alignment table**

Skill	Aspect	Curriculum	Assessment	Pedagogy
		Learning outcome	Assessment criteria	Teaching strategy
Collaboration	Aspect 1.1 Communicates with others	<b>Element:</b> Social management <b>Sub-element:</b> Ask questions to clarify meaning on a range of general and curricular topics.	<b>High:</b> Consistently and actively works toward group goals <b>Mid:</b> Works toward group goals without prompting <b>Low:</b> Works toward group goals with occasional prompting	providing opportunities for learners to interact in pairs, groups and plenary discussion; helping learners reach shared meanings and understandings
	Aspect 2.2 Recognizes contributions of others	<b>Element:</b> Social management <b>Sub-element:</b> Recognize the attitude or opinion of the speaker(s) in both short and extended talk on a range of general and curricular topics with little or no support.	<b>High:</b> Is sensitive to the feelings and learning needs of all group members <b>Mid:</b> Shows sensitivity to the feelings of others <b>Low:</b> Needs occasional reminders to be sensitive to the feelings of others	providing opportunities for learners to interact in pairs, groups and plenary discussion; helping learners reach shared meanings and understandings
Critical thinking	Aspect 1.2 Discriminates between information	<b>Element:</b> <i>Missing in the curriculum document</i> <b>Sub-element:</b> Recognize the difference between fact and opinion in short, simple texts on a range of general and curricular topics.	<b>High:</b> <b>Mid:</b> <b>Low:</b> <i>Assessment criteria missing in the curriculum document</i>	continuing to develop learners' ability to evaluate and refine their work and participate in the sharing of the work with others
	Aspect 2.1 Applies logic	<b>Element:</b> <i>Missing in the curriculum document</i> <b>Sub-element:</b> Link sentences into coherent text using a variety of basic connectors on an increasing range of general and curricular topics when writing independently.	<b>High:</b> <b>Mid:</b> <b>Low:</b> <i>Assessment criteria missing in the curriculum document</i>	modelling language to allow learners to see how different areas of language are related, thus helping them assimilate and accommodate new language and produce language chunks
Creative thinking	Aspect 1.2 Range of ideas	<b>Element:</b> <i>Missing in the curriculum document</i> <b>Sub-element:</b> Write about factual and imaginary past events, activities and experiences on a range of general and curricular topics with some support.	<b>High:</b> <b>Mid:</b> <b>Low:</b> <i>Assessment criteria missing in the curriculum document</i>	modelling language to allow learners to see how different areas of language are related, thus helping them assimilate and accommodate new language and produce language chunks

### System-level heat map:

In developing the system-level heat map, the team imagined what the curriculum would look like trying to create a picture of a preferred curriculum heat map. Then, upon discussion, the team selected collaboration skills as the skill that is most needed to be integrated into the curriculum.

The aspects we selected for the heat map are as follows:

Collaboration skills, aspect 1.1 – communicates with others

Collaboration skills, aspect 1.3 – negotiates roles and responsibilities

Collaboration skills, aspect 2.1 – participates in the group

Collaboration skills, aspect 2.2 – recognizes contributions of others

Collaboration skills, aspect 2.3 – engages with roles and responsibilities

Collaboration skills, aspect 3.3 – maintains shared understanding

**Figure 3: Heat map produced after skills audit**

	English	Mongolian language	Math	IT	Science	Geo-graphy	Social studies	Arts	Design and technology	Physical education	Health
Collab 1.1	80%	80%	30%	30%	50%	60%	100%	50%	70%	20%	80%
Collab 1.3	30%	30%	30%	40%	50%	40%	70%	50%	70%	50%	30%
Collab 2.1	80%	20%	30%	30%	100%	30%	20%	50%	60%	30%	30%
Collab 2.2	50%	60%	20%	50%	80%	70%	100%	40%	90%	30%	30%
Collab 2.3	30%	10%	10%	20%	80%	20%	70%	50%	80%	60%	20%
Collab 3.3	30%	50%	20%	20%	80%	50%	80%	60%	80%	60%	40%

We believe that there are certain subjects that can be used to “teach” certain aspects of collaboration skills; for instance, science, social studies, or design and technology. Mongolia, as a country with a small population size, needs people who can effectively collaborate to solve social and economic problems and advance the lives of people. However, in our current classroom practices, collaborative assignments are not used to nurture collaboration even though policy documents, within and beyond education, refer to developing teamwork or collaboration skills among youth.

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# STRATEGIC PLAN

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The following activities have been decided upon by the team as the next steps:

1. **Finalize the skills priorities.**
  - Set up a meeting with the core curriculum development team to learn about the skills prioritizing process and examine the definition documentation and reference materials.
  - Finalize the system heat map. During the learning cycle, the team tried out a system-level heat map using the relevant strands and aspects for the skill of collaboration. Therefore, we would like to do the same for the other two skills. In order to do this, the following actions are planned:
    - Set up teams that consist of representatives from the Ministry of Education and Science, MIER, ITPD, the National University of Education, National University of Mongolia, and Japan International Cooperation Agency (JICA).<sup>1</sup>
    - Conduct a session on how the team conducted the system-level heat map to familiarize the new team members with both the process and the other two skills: critical thinking and creative thinking.
    - After conducting the system heat maps, the team will organize a workshop to share the results with relevant stakeholders.
2. **Skills audit for subject-related matters / learning areas**

Conduct skills audit for subject-related matters and grade levels:

  - Expand the team that conducted the system heat map with additional members so that there are representatives from each of the subjects. The additional members may come from local education departments and schools in addition to the original institutions.
  - Organize a training session for the team. The training should cover the following topics:
    - 21<sup>st</sup>-century skills;
    - Strands and aspects related to the three skills (collaboration, critical thinking and creative thinking);
    - How to conduct a skills audit.
  - The subject matter teams will conduct the skills audit.
  - The teams will then organize workshops to share the results with relevant stakeholders, including school teachers.
3. **Engage in the curriculum review process**
  - Organize a forum with the curriculum team (headed by MIER) to share the results of the system heat map and skills audit.

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<sup>1</sup> With support from JICA, the Ministry of Education, Culture, Science and Sports developed the guidelines for improving the general education curricula in 2018.

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## LESSONS LEARNED

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- The last two curriculum development processes were not complete. They lacked proper teacher training in line with the then newly developed curricula and alignment with the assessment system. As we see the importance of completing the cycle of steps for improving the teaching and learning process, we will promote the application of the full cycle in the next curriculum process. Skills integration will be complete when it is reflected and realized not only in the curriculum document but also in the learning objectives, teaching and assessment. Teachers and principals have identified that one of the biggest hindrances in their teaching of transversal skills is the lack of practical guidance (*2015 ERI-Net Regional Study on Transversal Competencies in Education Policy and Practice (Phase III)*, 2016). In addition, assessment practice in schools needs to be improved to become more appropriate for measuring students' transversal competencies.
- The local context should be considered when aligning/ adapting skills definitions and determining priorities. The team concluded that the skills were not adequately defined. In other words, there was insufficient deliberation regarding the strands and aspects relating to the learning objectives for the subject areas (at least among the subject areas that we selected). In addition, we came to the conclusion that the skills prioritization was not evidence-based and the skills that need to be developed in Mongolian children were not identified.
- In order to make sure that skills integration reaches the classroom level, clear links and collaborations between the agencies, namely MIER, ITPD and the Education Evaluation Center, have to be achieved which should be coordinated by the Ministry of Education and Science.

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## REFERENCES

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*2015 ERI-Net Regional Study on Transversal Competencies in Education Policy and Practice (Phase III)*. (2016).

*Mongolia: Sustaining access to and quality of education during economic difficulties project. Project Administration Manual*. (2017) (p. 2).

Sukhbaatar. (2014). *Country Case Study: Mongolia*.

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