



Ministry of Education  
Government of the People's  
Republic of Bangladesh



United Nations  
Educational, Scientific and  
Cultural Organization

# Digital Kids Asia-Pacific

## Insights into Children's Digital Citizenship

### Country Report – 2019, Bangladesh



Directorate of Secondary and Higher Education  
Ministry of Education, Bangladesh

Supported by UNESCO

Education  
2030 



Ministry of Education  
Government of the People's  
Republic of Bangladesh



United Nations  
Educational, Scientific and  
Cultural Organization

# DIGITAL KIDS IN ASIA-PACIFIC

## INSIGHTS INTO CHILDREN'S DIGITAL CITIZENSHIP

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### *COUNTRY REPORT – 2019*

### *BANGLADESH*

# Digital Kids Asia-Pacific

## Country Report – 2019, Bangladesh

Prepared and published in 2019 by the Directorate of Secondary and Higher Education (DSHE), Ministry of Education, Government of the People's Republic of Bangladesh

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# MESSAGE



**Dr. Dipu Moni, MP**  
Minister  
Ministry of Education  
Government of the People's Republic of Bangladesh

Bangladesh has achieved the status of a developing country under the dynamic leadership of the Honorable Prime Minister Sheikh Hasina. Our next challenge is to transform it into a middle income country by 2021 and a developed country by 2041. In other words, we are moving toward Bangabandhu Sheikh Mujibur Rahman's dream land "Sonar Bangla" – a country of peace & prosperity on the one hand, and of equal opportunities for all on the other. In this journey, "quality education" has to play a pivotal role.

To this end in view, as digital competencies are essential components of "quality education", the Directorate of Secondary and Higher Education has taken an initiative to come up with the Digital Kids Asia-Pacific Study on Bangladesh. This is a part of UNESCO Bangkok's "Digital Kids Asia-Pacific (DKAP)" Project supported by Korean Funds-In-Trust. I am delighted to know that this study aims to promote policy dialogue in the region on using ICT safely, effectively and responsibly, and to build the education sector's capacity to foster digital citizenship among children and youths. To keep pace with the rapidly changing technology, it is important for children to develop a range of digital citizenship competencies.

Fostering such digital citizenship competencies will ensure that the kids have the capacity to maximize the opportunities that technology can offer while minimizing the concomitant risks that may arise from such experiences. Persistent challenges include cyber bullying, pornography, child grooming, child sexual exploitation, online harassment, fraud and management of children's technological habits. More recently, issues highlighted in the media include the proliferation of misinformation, data privacy concerns and increasing cyber security risks.

I appreciate the Directorate of Secondary & Higher Education (DSHE), the Bangladesh National Commission for UNESCO (BNCU), and the Access to Information (a2i) Programme for their sincere efforts. Also, I would like to offer my thanks to UNESCO for providing support for this research. I think that the findings of the research will be immensely beneficial for policy makers, researchers, academics, planners and development partners.

Dr. Dipu Moni, MP  
Minister



# MESSAGE



**Mohibul Hassan Chowdhury, MP**  
Deputy Minister  
Ministry of Education  
Government of the People's Republic of Bangladesh

Progression of a country largely depends on the availability of educated, knowledgeable and skillful manpower. This is the biggest asset for a country and key to sustainable development. A densely populated country with limited land space like ours requires a large pool of educated and a healthy workforce to achieve the development aspiration of becoming a middle income country by 2021 and achieving the status of developed country by 2041. This is the development dream of our visionary leader Sheikh Hasina that inspires us to take Bangladesh to a new trajectory of development path by accelerating growth and converting large human resource pool into assets through promoting education and the adoption of new technologies.

Our government has quite rightly identified "Education and Technology" as one of the cardinal sectors for investment and already laid out pragmatic strategies and targets to this end. The present government also recognizes that ICT is a key enabler for achieving Sustainable Development Goal 4 on quality education. Furthermore, the Education 2030 Agenda emphasizes ICT and digital literacy as key competencies needed for employment, decent job attainment, and entrepreneurship. Therefore we have no other alternative to fostering our children's digital citizenship and promote their safe, effective and responsible use of ICT.

It is in this context, the conduction of Digital Kids Asia-Pacific Study on Bangladesh by the Directorate of Secondary and Higher Education is a laudable attempt. I acknowledge that this is the first attempt of the Ministry of Education to assess the present status and future needs of our school children to acquire complete digital citizenship. At this stage, we fully agree with the policy recommendations forwarded by this study that curriculum development as well as development of necessary infrastructure with universal access to digital devices is immediately needed for the school children of our country. We are putting all out efforts earnestly to ensure that.

I take this opportunity to appreciate the efforts of the Directorate of Secondary and Higher Education and UNESCO in bringing out this publication. I hope that the content of this publication will fulfill the needs of education sector policy makers, development partners, NGOs, academics, other practitioners, researchers and students for tracking the challenges of the "Education and Technology" sector of our country.

Mohibul Hassan Chowdhury, MP  
Deputy Minister



# MESSAGE



**Md. Sohorab Hossain**

Senior Secretary

Secondary and Higher Education Division

Ministry of Education

Government of the People's Republic of Bangladesh

Education and Technology is a priority sector towards human development. The Government of Bangladesh led by the Hon'ble Prime Minister Sheikh Hasina has taken many steps for improving the sector. Under her leadership, Bangladesh has achieved commendable success towards achieving universal primary education, secondary education, expanding TVET education and promoting adult literacy rate. The contribution of this sector for pushing up economic growth process through creating knowledge based society and skillful labor force is undeniable. Boosting education and technological proficiency is also a means of poverty alleviation and reducing inequalities in society through creating employment opportunities.

I firmly believe that the Directorate of Secondary and Higher Education has carefully and methodically completed the Digital Kids Asia-Pacific Study on Bangladesh. This analytical document will help the government to achieve SDG-4 goals, which is embedded in our 7th FYP document. Similar types of studies were simultaneously conducted in four Asian countries including Bangladesh for a comparative analysis of the access and use of digital device among school children of grade 9. The government of Bangladesh has shown interest and commitment through policies, several Acts and programmes for expanding access and use of digital devices. Education policy has laid a great emphasis on ensuring children's access to digital devices at schools and curriculum is also upgraded accordingly.

This study also shows that in regard to ICT literacy, more than half of the surveyed students use social media platform although the pattern of use and safety vary. This is aligned to the national statistics of rapidly up-going number of digital device users. All these figures indicate that there is still no room for us for being complacent with the present situation.

We are planning to initiate multipronged strategies to implement most of the relevant policy recommendations derived from this study. I would like to congratulate the Director General, concerned Director and other officials of the DSHE and officials from Bangladesh National Commission for UNESCO (BNCU) and Access to Information (a2i) Programme who were actively involved in carrying out this study. We are grateful to UNESCO for providing technical and financial support for this project. I believe the findings of this study will be a good guideline and strategic in nature and it will serve as an effective instrument for identification of appropriate projects/ programs aiming at making school children as pro-active responsible digital citizen.

**সোহরাব**

Md. Sohorab Hossain  
Senior Secretary



# MESSAGE



**Professor Dr. Syed Md. Golam Faruk**

Director General

Directorate of Secondary & Higher Education

Ministry of Education

Government of the People's Republic of Bangladesh

It gives me immense pleasure to present the Digital Kids Asia-Pacific (DKAP) Study Report on Bangladesh on behalf of the Directorate of Secondary and Higher Education (DSHE). It has been prepared by DSHE as a sequel to the need felt by UNESCO to create a comparative research framework and concrete research tools specifically to provide guidelines for the development of education sector policies and programs aiming to equip children with digital competencies inclusive of their diverse contexts. It allows to make a comparative study in the region, having data from surveys with over 5,100 students in four pilot countries: Bangladesh, Fiji, Republic of Korea and Vietnam. The survey also investigates key factors that influence digital citizenship competencies among children such as age, sex, socio-economic status, ICT use, and the role of parents, teachers and schools.

The Digital Kids Asia-Pacific (DKAP) Study Report on Bangladesh brings to our notice that students have competence, intelligence and sensitivity up to a significant level. However, they need to have more access to digital devices. But with increasing access, more supervision is also needed so that the students can avail safe and secured information through the Internet.

The Directorate of Secondary and Higher Education (DSHE), under the overall direction and guidance of the Ministry of Education (MoE), is continuously working towards building skilled and efficient citizens who can contribute to the development goals of Bangladesh. DSHE has always focused on specific actions to enhance the quality of education and ensure equity and access in secondary and higher education through various continuous strategies. The findings of this study will also help us to take some effective measures towards expanding digital citizenship among our children, adolescents and youths.

We were fortunate to have the blessings of the Hon'ble Minister, Deputy Minister and Senior Secretary of the Ministry of Education who provided strategic directions in course of conducting this study. I heartily congratulate the DKAP-Bangladesh country team members for their contribution to this effort. I would like to convey my thanks to UNESCO and Korean Funds-in-Trust, for the technical and financial support they have extended to us for the successful completion of this study. Special thanks to Bangladesh National Commission for UNESCO (BNCU), Access to Information (a2i) Programme and the consultants for their cooperation in this study.

Professor Dr. Syed Md. Golam Faruk

Director General

# MESSAGE



## **Beatrice Kaldun**

Head of Office and  
UNESCO Representative to Bangladesh

The international development community has acknowledged the catalytic potential of Information and Communications Technology (ICT) to advance development agendas and priorities as laid out in the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs). The 2030 Agenda highlights ICT as a means to strengthen education systems, to disseminate knowledge, as well as to provide access to information, to quality and effective learning opportunities, and to more effective services.

Meanwhile, the Education 2030 Framework for Action emphasizes ICT skills as a necessary skill set that all citizens should acquire in order to confidently thrive in today's globalized, knowledge-based, and technology-driven world.

UNESCO, as a specialized agency of the United Nations in the field of education, supports Member States in developing and implementing sector-wide policies and plans that harness the potential of ICT and ensure equitable and inclusive lifelong learning opportunities for all. As part of its support and in partnership with Member States, UNESCO has developed global ICT in Education Policy Guidelines that show ways in which ICT can be leveraged to advance progress towards Education 2030 goals and targets.

To promote and to sustain policy dialogue in the Asia-Pacific around issues of safe, effective, and responsible use of ICT, as well as to build the education sector's capacity to foster digital citizenship competencies among children, UNESCO is implementing a project entitled "Fostering Digital Citizenship through Safe and Responsible Use of ICT" since 2014.

As part of the project, UNESCO conducted a "Digital Kids Asia Pacific (DKAP)" comparative cross-national study in four countries (Bangladesh, Fiji, Republic of Korea, Vietnam) which looked from an educational

perspective at ICT practices, attitudes, behaviors, and competency levels of children of 15 years of age. The conducted research, research findings, recommendations, as well as collated data on digital citizenship competency levels allow the Ministry of Education and its affiliate entities to enhance the national curricula as well as to strengthen quality assurance and accreditation mechanisms to monitor the quality of digital resources and learning programmes.

On behalf of UNESCO, I express my sincere gratitude to the Ministry of Education, particularly the Directorate of Secondary and Higher Education, for their leadership, as well as to the National Research Team (NRT) represented by the Directorate of Secondary and Higher Education, the Access to Information (A2I) Programme of the Office of the Prime Minister, and Experts of Dhaka University, to the Regional Research Team, the Bangladesh National Commission for UNESCO (BNCU), as well as to UNESCO colleagues in the Bangkok and Dhaka Offices for their contributions to and commitment in completing the DKAP research study successfully.

I would like to take the opportunity to thank all education officials, teachers and particularly students who were involved in the research. I hope the findings and recommendations of this research study will be of value for the policy making, education planning, and the implementation of education policies in Bangladesh.



Beatrice Kaldun  
Head of Office and UNESCO  
Representative to Bangladesh



# FOREWORD



## **Professor Dr. Md. Abdul Mannan**

Director (Secondary) & Convener (DKAP-Bangladesh)

Directorate of Secondary & Higher Education

Ministry of Education

Government of the People's Republic of Bangladesh

This Digital Kids Asia-Pacific Country Report Bangladesh has been produced under the aegis of the Directorate of Secondary and Higher Education (DSHE) with support from UNESCO and Korean Funds-in-Trust. While DSHE has shouldered overall responsibility of the report, the study has been shaped by the contributions of a wide ranging body of practicing individuals and organizations.

Given the rapidly changing state of technology, it is important for children to develop a range of digital citizenship competencies that are relevant in the present as well as for the foreseeable future. A growing body of evidence suggest that the future of work will continue to change with technology. It is estimated that one-third of jobs that will exist in 2020, do not currently exist today. Employers predict that these jobs will demand skills that include technology but also creativity, originality, critical thinking, and complex problem solving. Evidence is also overwhelming that children are accessing the Internet increasingly at younger ages. On the other hand, there has been a continuing concern that, although digital technologies present significant opportunities, the use of such technology and interactions arising from it also pose a variety of risks to children. Persistent challenges include cyber-bullying, pornography, child grooming, child sexual exploitation, online harassment, fraud and management of children's technological habits.

There is a need to provide guidelines for the development of education sector policies and programmes that will equip children with digital competencies inclusive of their diverse contexts. In response to this need, UNESCO initiated the Digital Kids Asia-Pacific Project (DKAP), supported by the Korean Funds-in-Trust, to assist Member States' development of evidence-based policies that foster children's digital citizenship and to promote the safe, effective and responsible use of ICT.

DKAP provides a comprehensive understanding of the ICT practices, attitudes, behaviors of 15 years old children in school and at home. It allows for a comparative study in the region, having data from surveys with over 5,100 students in the four pilot countries Bangladesh, Fiji, Republic of Korea and Vietnam. The survey also investigates key factors that influence digital citizenship competencies among children such as age, sex, socio-economic status, ICT use, and the role of parents, teachers and schools.

The Digital Citizenship Competency Framework consists of five domains:

- 1) Digital Literacy refers to the ability to seek, critically evaluate and use digital tools and information effectively to make informed decisions;
- 2) Digital Safety and Resilience refers to the ability of children to protect themselves and others from harm in the digital space;
- 3) Digital Participation and Agency refers to the ability to equitably interact, engage and positively influence society through ICT;
- 4) Digital Emotional Intelligence refers to the ability to recognize, navigate and express emotions in intrapersonal and interpersonal digital interaction; and
- 5) Digital Creativity and Innovation refers to the ability of children to express themselves and explore through the creation of content using ICT tools. This framework was however, translated into a 104-item survey instrument.

The country study of Bangladesh followed the same framework and data collection instruments as developed by Institute of School Violence Prevention at Ewha Womans University and UNESCO. The survey was conducted on 20 schools and data were

collected from 1052 students including both gender from diverse regional areas including rural and urban differences to find out effect of various variables on ICT practices of children. Qualitative data were collected through Focus Group Discussions (FGDs) from children, parents and teachers to explore roles and attitude of parents and teachers on pattern, prospects and challenges of ICT practices of children.

It is revealed from the study findings that students' access to and capability of using latest digital device is quite high, 80% students know how to use the latest digital devices. Around 50% students use computer software to complete learning tasks at school. 69% use digital devices in order to search for information and applications they need. Students' competency in these most commonly used software is appreciable but unutilized as not getting platform for using these abilities for academic purpose.

When students are exposed to unwanted disturbing files or websites (e.g. pornography website, violent media majority (78%) get rid of it immediately by closing the page, deleting the file, or scrolling away, 62% block the webpage or website, 49% use a program that prevents it from happening again. Around 50% discuss with a friend and around 40% consult with parents.

Regarding information literacy majority are capable. 58% respondents are aware of their feelings that they experience in their interactions online. 30% of students can assess the relevance of the digital information to complete learning tasks at school.

75% strongly agree that they should show respect to others on the Internet and 83% strongly agree that they should protect the privacy and security of others. 75% are aware of the copyright and respect of not copying materials illegally. 35% strongly agreed and

32% agreed a little that they read the privacy policy of websites visit when using the Internet.

The study encompasses not only the identification of students' cognitive and non-cognitive competencies but also in-depth exploration of how students' personal, social, cultural and educational factors are associated with their digital citizenship. The study has come up with several recommendations amongst them development of appropriate curriculum and infrastructure introducing grade based need assessment study prior to offering ICT courses or use of ICT at schools and arranging nationwide awareness raising campaign got top most priority.

The report has a threefold aim: to deepen analytical discourse on digital citizenship, provide credible evidence on process and outcomes and clarify where solutions are most promising. Ministry of Education with the assistance of UNESCO has already initiated the 'ICT in Education Master Plan' which aims at developing a quality education system based on information technology in connection with attaining the objectives of 'Vision 2021'.

The recommendations made in our DKAP country study need to be integrated into ICT in Education Master Plan and into curriculum development process.

We would like to extend our gratitude to UNESCO and Korean Funds-in-Trust, for their support for successful completion of this study. Special thanks to Bangladesh National Commission for UNESCO (BNCU), Access to Information (a2i) Programme and the consultants for their cooperation in this study.

Finally, it is our hope that the report will succeed in engaging the attention of policy makers, practitioners and academics at both national and global level.



Professor Dr. Md. Abdul Mannan  
Director (Secondary) & Convener (DKAP-Bangladesh)



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# Abbreviations and Acronyms

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|                |                                                                  |
|----------------|------------------------------------------------------------------|
| <b>A2I</b>     | Access to Information                                            |
| <b>BANBEIS</b> | Bangladesh Bureau of Educational Information and Statistics      |
| <b>BTRC</b>    | Bangladesh Telecommunication Regulatory Commission               |
| <b>CST</b>     | Competency Standards for Teachers                                |
| <b>DKAP</b>    | Digital Kids Asia-Pacific                                        |
| <b>DP</b>      | Development Partner                                              |
| <b>DSHE</b>    | Directorate of Secondary and Higher Education                    |
| <b>FGD</b>     | Focus Group Discussion                                           |
| <b>ICT</b>     | Information and Communication Technology                         |
| <b>IVSP</b>    | Institute of School Violence Prevention                          |
| <b>LGI</b>     | Local Government Institute                                       |
| <b>MoE</b>     | Ministry of Education                                            |
| <b>NGO</b>     | Non-Government Organization                                      |
| <b>NRT</b>     | National Research Team                                           |
| <b>SAARC</b>   | South Asia Association for Regional Cooperation                  |
| <b>SEDP</b>    | Secondary Education Development Programme                        |
| <b>SNS</b>     | Social Networking Services                                       |
| <b>SPSS</b>    | Statistical Package for the Social Science                       |
| <b>UN</b>      | United Nations                                                   |
| <b>UNESCO</b>  | United Nations Educational, Scientific and Cultural Organization |
| <b>UNICEF</b>  | United Nations Children's Fund                                   |

# Executive Summary

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The research study 'Digital Kids Asia-Pacific Project (DKAP)' was conducted in Bangladesh by the Directorate of Secondary and Higher Education (DSHE) of the Ministry of Education in collaboration with the Institute of School Violence Prevention (ISVP) of the Ewha Womans University (Seoul, Republic of Korea) and with support by UNESCO.

The overall objectives of the regional research study included:

- Contribute to creating an evidence-base on children's actual attitudes towards, behaviors with, competency levels of, and the overall use of ICT both within and outside of the educational context in the Asia-Pacific by obtaining and comparatively analyzing quantitative and qualitative data from four countries.
- Establish an evidence-based understanding of children's safe, effective and responsible use of ICT in the Asia-Pacific by developing and validating a framework that measures children's attitudes towards and behaviors with ICT, their ICT competency levels, as well as the use of ICT within an educational context.

The research was conducted in five domains - (i) Digital Literacy; (ii) Digital Safety & Resilience; (iii) Digital Participation and Agency; (iv) Digital Emotional Intelligence; and (v) Creativity & Innovation – and was expected to broaden the evidence base and understanding of ICT practices, attitudes, and behaviors of children aged 15 years.

Based on the conceptual research framework, data collection instruments were developed and research methodologies agreed upon. The Institute of School Violence Prevention and UNESCO provided technical advice on research methodologies, data disaggregation criteria, and the required sample size in order to get statistically significant results. In Bangladesh, the research was conducted at 20 secondary schools at which data

was collected from 1,052 male and female students from diverse urban and rural areas.

Focus Group Discussions (FGDs) with children, parents and teachers collected qualitative data on roles and attitudes of children, parents, and teachers as well as on patterns, prospects, and challenges of ICT practices among children.

Findings of the research are presented in this report according to the conceptual research framework and research questionnaire. Findings are gender disaggregated and some sections specify urban-rural differences. Research findings do not specify age-related information as all participating students were 15 years of age.

Socio-economic conditions and educational levels of parents were considered for behavioral variations of children with regard to access to digital devices, their attitude towards them, and their usage behavior. Differences between male and female have been visible and are discussed in detail in this report.

## Key findings of the research in Bangladesh

- Parents and teachers are concerned about the safety and security of their children. While parents and teachers are concerned about security issues of both boys and girls, they consider girls to be most at risk of being sexually harassed. At the same time, parents and teachers have expressed their concerns that due to the fact that boys use computers and the Internet in public places often away from the supervision of their parents, they are afraid that boys could be subject to bullying or involved in anti-social violent activities.
- Student's ICT competencies and skills are appreciated but are mostly not utilized

or leveraged for academic purposes. While students' access to and capability of using latest digital devices is quite high with 80% of respondents knowing how to use latest digital devices, around 50% of interviewed students use computer software to complete learning tasks at school. 69% of interviewed students use digital devices in order to search for information and applications they need.

- When students are exposed to unwanted, violent, or disturbing files or websites (e.g. pornography website or violent media) the majority of students (78%) immediately close the page, delete the file, or scroll away. 62% block the webpage or website and 49% of students use a program that prevents something similar from happening again. Around 50% of interviewed students discuss the issue with a friend and around 40% consult their parents.
- Privacy and security are areas of concern of students: 75% of students strongly agree that they should show respect to others on the Internet and 83% strongly agree that they should protect the privacy and security of others. 75% are aware of copyright and abstain from copying materials illegally. 35% strongly agree and 32% agree that they read the privacy policy of websites when using the Internet.
- Students' information literacy skills require strengthening. In the research study 30% of students strongly agreed that they assess the relevance of digital information when completing learning tasks at school, while 38% agreed only somewhat to the statement. 31% of students expressed that they can clearly and 35% expressed that they can somehow separate reliable from unreliable information when searching for digital information.

## Key recommendations from the research in Bangladesh

- There is a strong need to equip schools with adequate ICT facilities. Given the important role of schools as places providing universal access to ICT for children and adolescents, schools need to become ICT hubs that provide student with access to computers and the Internet. Considering that most schools ban the use of smartphones at schools, learning institutions should ensure that an adequate number of computers and high speed Internet, as well as electricity are available at all times.
- In order to ensure that teachers have adequate digital skills, it is essential to strengthen teachers digital capacity through training. The preparation of a framework of ICT Competency Standards for Teachers (ICT-CST) would be an important milestone towards preparing teachers to be able to provide appropriate digital skills training and guidance to students.
- Evidence, research findings, and recommendations from the DKAP project shall be mainstreamed and scaled up in line with SDG4 targets. The Secondary Education Development Programme (SEDP) is the most suitable vehicle for the mainstreaming and scaling up of findings and recommendations by incorporating them into the students' and teachers' training curricula.

# Background, Objectives, and Scope of Research

## 1.1 Background

ICT has become an integral part of how children participate in society, how they access information, how they exchange ideas, and how they learn. Globally, youth between the age of 15 and 24 years are the most connected age group. Latest research shows that the age when children start accessing the Internet continues to decrease.

In parallel, the way our society works and the nature of jobs continues to change with technology. It is estimated that one-third of the jobs of 2030, do not exist today. Employers predict that new and emerging jobs and professions will demand skills that include technology but also creativity, originality, critical thinking, and complex problem solving.

Although digital technologies present significant opportunities, their use and interactions with them also pose a variety of risks to children. Persistent challenges include cyber-bullying, pornography, child grooming, child sexual exploitation, online harassment, fraud and the management of children's technological habits. More recent issues include the proliferation of misinformation, data privacy concerns, and increasing cyber-security risks.

Given the rapidly changing state of technology, it is especially important for children to develop digital citizenship competencies that are relevant both today as well as in the foreseeable future. Fostering such digital citizenship competencies ensures that the next generation has the capacity to maximize the opportunities that technology can offer

while minimizing the concomitant risks that may arise from the use of digital technologies.

In front of this backdrop, UNESCO initiated the Digital Kids Asia-Pacific (DKAP) project, supported by a Funds-in-Trust from the Republic of Korea. The DKAP project assists UNESCO Member States in the development of evidence-based policies that foster digital citizenship skills for children and that promote the safe, effective and responsible use of ICT.

The UNESCO project entitled "Fostering Digital Citizenship through Safe and Responsible Use of ICT" supported pilot countries in the Asia Pacific, including Bangladesh, Fiji, Republic of Korea and Vietnam, through the implementation of the DKAP project.

Research conducted as part of the project was expected to provide insights and create research-backed evidence at a regional and country-level on ICT practices of, attitudes towards, and the behavior of 15-year-old adolescents with digital technologies. Conducted research intended to identify key factors that affect digital citizenship competencies among children by looking at parameters of gender, locality of ICT use, and support provided by parents and schools.

The research further intended to establish an evidence-based understanding on ways to make children's use of ICT safe, effective and responsible. As part of the project, a Digital Citizenship Competency Framework was developed which accounts for the diverse nature of the Asia Pacific region and can be adapted by Ministries of Education and other educational institutions for their further use.

## 1.2 Overall Objectives of the Research

The overall objectives of the research included to contribute to the evidence-base of research topics in the Asia-Pacific by obtaining and comparatively analyzing quantitative and qualitative data on children's actual attitudes, behaviors, competency levels, and use of ICT within an educational context.

Further, to establish an evidence-based understanding of children's safe, effective and responsible use of ICT in the Asia-Pacific by developing and validating a framework that measures children's attitudes and behaviors, competency levels, and use of ICT within a specific educational context.

### **Specific objectives of the research included to assess and identify:**

- Digital Literacy levels of students
- Digital Safety & Resilience behavior of students
- Issues of Digital Participation & Agency of students
- Digital Emotional Intelligence of students
- Pattern of Creativity & Innovation of students
- Gender differentials in access and use of digital devices and content
- Rural-urban differentials in access to and use of digital devices and content

## 1.3 Scope of the Research in Bangladesh

The scope of the study was school-based data collection and literature review of existing documents related to ICT and mobile usage in Bangladesh. The study included Focus Group Discussions (FGDs) with children, parents, and 9th grade teachers in Bangladesh. The study is based on adolescents of around 15 years of age and reflects gender differentials, rural-urban differentials, various socio-economic groups, and diverse geographical locations.

The study attempted to address the following broad research issues:

- Develop a better understanding and analysis of children's attitude and usage practice of digital devices and digital contents in Bangladesh, as well as gather ways to ensure a safe environment for all children of all socio-economic backgrounds and genders.
- Maximize the utilization of existing ICT facilities and digital devices for the promotion of ICT literacy and the sensitization of children.
- Identify effective approaches to integrate ICT and digital device access into schools, as well as promote and sustain policy dialogue in the Asia-Pacific around issues of safe, effective, and responsible use of ICT while building the education sector's capacity to foster digital citizenship among children.
- Formulate recommendations to improve access, quality, and safe use of ICT at home, school, and in community centers by adolescents, as well as improve ICT access and ICT usage environments for school children in order to promote life-skills, soft-skills, and learning behavior at educational institutions and beyond.

# Methodology of the Research

## 2.1 Nature of the Research

The conducted research study was exploratory and evidence-based empirical research. Following an initial desk review of relevant secondary literature, both quantitative and qualitative data was collected and analyzed.

**Figure 2.1.1: Data Collection Process**



### Desk Review (Secondary Research)

During the desk review, the National Research Team (NRT) collected and reviewed existing literature and reference documents. Literature included but was not limited to the DKAP Research Guidebook, the Master Plan for ICT in Education, the Teachers' Training Curriculum, the Curriculum for Grade 9 Students, and the UNESCO Framework for ICT Competency Standards for Teachers (ICT-CST).

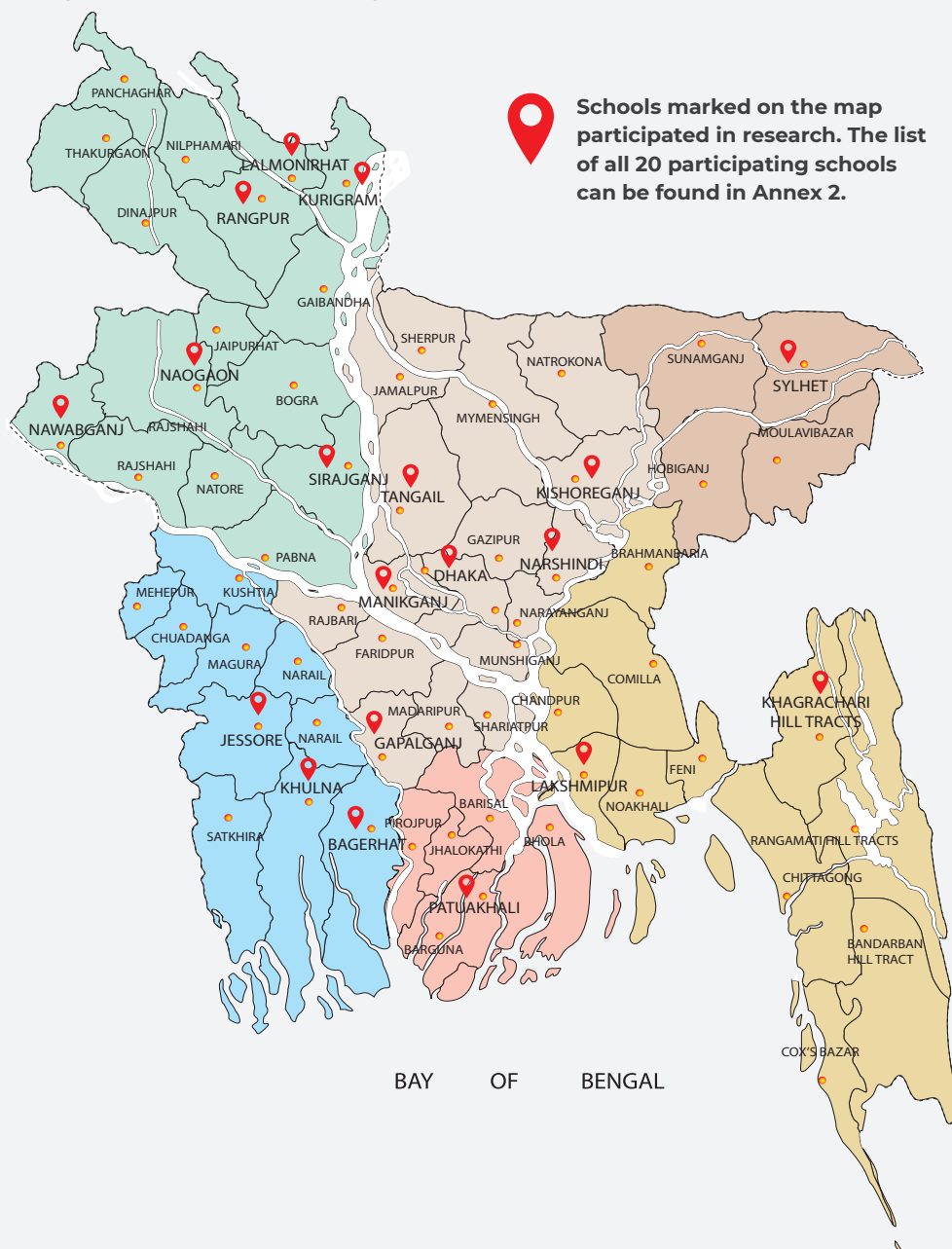
### Data Collection and Analysis (Primary Research)

The Research Country Team (RCT) followed an expert-suggested sampling procedure which had been agreed upon by all four pilot countries which participated in the study (Bangladesh, Fiji, Republic of Korea and Vietnam).

### Research Sampling Criteria and Locations

- Considerate of Bangladesh's diverse geographic landscape and socio-cultural variations, the research divided Bangladesh into several clusters including plain-land, coastal, haor (large water bodies), and hilly areas.
- 20 Upazilas (sub-districts) of 20 districts were randomly selected in order to capture diversity.
- Both rural and urban areas were covered to visualize rural urban differences.
- Non-government institutions and schools were selected.
- Co-education institutions and schools were selected except one boys and one girls school.
- Schools were significantly varied according to student size.
- 50 students from each school were selected. The male-female ratio was 50:50.

**Figure 2.1.2: Research Sampling Locations**



## Sources of Data and Procedure of Data Collection

The research leveraged both primary and secondary data sources. Focus Group Discussions (FGDs) were conducted with students, parents, and teachers, which supported quantitative data findings with qualitative data.

## Data Collection Tools

Both quantitative and qualitative data collection tools were developed as part of the research study.

A quantitative data questionnaire was developed which used closed-ended statements inquiring whether students agree/disagree with provided statements on a 4-level scale (strongly agree, agree, disagree, strongly disagree). Questions assessed the children's level of knowledge, their usage of digital devices, as well as their attitude towards different types of digital content. The questionnaire was coded following an agreed standard preset by UNESCO and the Institute of School Violence Prevention (ISVP). The English-language translated Questionnaire can be found in Annex 3 of this report.

A qualitative Focus Group Discussions (FGDs) checklist was developed that was used during FGDs with students, parents and teachers.

## Contextualization of Research Questions

Considerate of Bangladesh's socio-cultural context, the research questionnaire and other data collection tools were contextualized and translated into the Bangla language.

The data questionnaire, which was used for the quantitative part of the research study, was based on a standard questionnaire which had been developed by the regional team for all four research participating countries. The questionnaire was reviewed and translated into the Bangla language in a consultative process engaging the National Research Team (NRT) and research experts of other agencies, including representatives of DSHE, BANBEIS, the A2I Programme, Bangla Academy, academia, research institutes, UNICEF and UNESCO.

## Training of Research Implementing Stakeholders

Selected experts provided a 2-day training to research enumerators (administrating head teachers, IT teachers, and Education officials) on the research project and the questionnaire to ensure a common understanding and rigorous implementation of the research project.

## Collection of Quantitative Data: Student Questionnaire

Research enumerators, including head teachers, education officers and ICT teachers briefed Grade 9 students about the study and questionnaire, placing emphasis on the confidentiality and anonymity of the research.

Following the briefing, the questionnaire was distributed among students who filled in the self-administered interview questionnaire and returned the completed questionnaires to their teachers.

Enumerators checked the filled-in questionnaires before leaving school premises and ensured that all questions had been responded to.

## Collection of Qualitative Data

Three (3) Focus Group Discussions (FGDs) were conducted with parents, students and teachers at the Baniajuri Union School and College in Ghior, Manikganj, following a prepared FGD checklist.

Each FGD was gender balanced, included 10 participants, and took between 60 and 70 minutes. The discussions were open and flexible in nature. Participants were ensured confidentiality of the information they provide and the purpose of the research was explained. Probing questions were raised to explore risks, vulnerabilities, and limitations of using digital devices.

**Figure 2.1.3: Research Sample Design Criteria**

**Target students were 15-year-old students who are attending educational institutions in Grade 9, enrolled full-time, and who are not experiencing limited proficiency in the questionnaire language and/or any intellectual or functional disability.**

**The country research sample size consisted of at least 1,000 students, with a minimum of 20 schools and 50 students from each selected school.**

**First stage of stratification: Independent samples of schools were selected from each explicit stratum.**

**Second stage of stratification: Target-grade students were selected with equal probability within participating schools.**

**At the school level, exclusions were made for: schools that are geographically remote, have very few students, have a curriculum or an educational structure that is different from the mainstream education system, or are specifically for students with special needs.**

**At the student level, exclusions were made for: students who are intellectually and/or physically disabled, non-native language speakers, and students who do not want to participate in the survey.**

## 2.2 Data Analysis

### Data Cleaning, Data Processing, and Documentation

As a first step in the data analysis, the filled in questionnaires were processed, the data entered into a database, cleaned, and clustered in 5 domains and socio-economic factors.

All institutions involved in the data cleaning process applied quality control measures in order to assure the quality and accuracy of entered data.

In order to allow for regional comparisons, it was important that all information entered into the database conforms with the defined data structure, as well as that all content of all code books and documentation appropriately reflects national adaptations that had been made to the questionnaire in order to account for the local context.

Rigorous data coding, cleaning, and labeling of data and codebooks allowed that all variables could be used for international comparisons across countries by the Institute of School Violence Prevention (ISVP) team.

Inconsistencies and data issues that had been detected by ISVP during the follow-up cleaning and analysis had been resolved in collaboration with the National Research Team (NRT). Modifications in the database were documented for the purpose of communication between the ISVP team, the NRT, and UNESCO.

### Data Analysis and Presentation

The research data was analyzed using SPSS. Tables and graphs presenting the data were prepared. Collected qualitative data and notes from FGDs were analyzed descriptively using checklists.

The research data is presented in this report and includes secondary, quantitative and qualitative data.

### Quality Control Mechanism

Quality control was an important aspect of the conducted research. The school selection procedures and conducted trainings were rigorous and selected data enumerators were to a large extent Social Sciences and IT graduates from Dhaka University.

High officials from the Directorate of Secondary and Higher Education (DSHE), UNESCO, and the A2I Programme visited research-participating schools during the data collection process together with relevant authorities to ensure a high quality of collected data.

## 2.3 Ethical Considerations, Limitations, and Challenges

### Ethical Considerations

The research strictly maintained ethical issues. As research participants were students of the Grade 9 and mostly below the age of 18, consent forms were provided to parents and caregivers before students participated in the research. All research participants were clearly briefed about the purpose of the research and the usage of research findings.

The training for head teachers and ICT teachers sensitized research enumerators about important issues of voluntary participation, confidentiality, and the privacy of participants.

### Limitations of the Research

The sample size of the research was not large enough to provide concluding results to research questions. However, the research covered a diverse range of geographical areas of Bangladesh and provides a relevant general overview.

As all participating students were from Grade 9 and around 15 years of age, the research does not provide any insights about children of other ages and/or school grades. It has to be expected that the use of ICT and patterns of interaction change during childhood and adolescence.

### Challenges

As the student questionnaire included sensitive questions as well as questions related to student's attitude, some students did not respond at all and others may have responded dishonestly.

While head teachers, ICT teachers, education officers and enumerators provided students with an overview of the research study and the questionnaire, there is a chance that students misunderstood or misinterpreted some of the questions.

Students were ensured that their identities would not be exposed and that all information provided remains confidential and anonymous. Despite that, students may have feared that their information is exposed to other students, teachers or staff of the school administration.

The questionnaire used a 4-point scale for most questions. The analysis of the questionnaire has shown that many respondents selected the points "agree" and "disagree" for the majority of questions and rarely chose "strongly agree" or "strongly disagree". This could indicate that students either did not have a strong opinion, were confused about certain questions, or were discouraged to express their actual views. At the same time, respondents almost never answered "never or don't know" which indicates that they were aware of the issue at hand.

## Findings of the Research

### 3.1 Summary of research findings from primary data collection

This summary of research findings includes findings from the desk review, the quantitative data collection (student questionnaire), as well as the qualitative data collection (Focus Group Discussions).

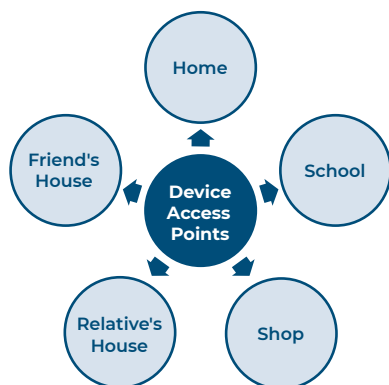
#### 1. Students have multiple ways to access digital devices and the Internet

Most households have multiple digital devices with access to the Internet, including computers, laptops, and smartphones. However, as students spend most the day at school, their access to the Internet and to digital devices is limited.

Schools have limited numbers of computers which are often not enough for the large number of students.

Female students have less access to digital devices in public places compared to male students, resulting in fewer digital skill development opportunities for girls.

Research findings provide quantitative information on locations at which children have access to digital devices and the Internet.



**Figure 3.1.1 : Children's Digital Device/ Internet Access Points**

#### 2. High price of mobile data impedes access to the Internet

Most students are accessing the Internet using mobile data. The high price of mobile data affects families from different income groups. Parents expressed that educational expenses are high including private tutorship and transportation.

As mobile data is more expensive in rural villages, people from lower income groups have comparatively less access to the Internet. Accordingly, students from less well-off families mentioned that due to the high price of mobile data they use the Internet less, which limits their social interaction. As a result, they use less Facebook and talk less to distant relatives.

#### 3. Students tend to use Facebook

Facebook is very popular in Bangladesh and the platform is used to communicate with local and foreign friends and family. Girls often communicate from home and mostly with other family members.

Many students use Facebook on their mobile phones - often in absence of their parents which may cause distorted perceptions among parents on how much their children use the social media platform.

Quantitative data collected during the research as well as existing surveys and studies show that children spend significant amounts of time on Facebook, especially

at home and in other private spaces. It is assumed that the use of Facebook leads to children interacting less with family members and relatives face to face.

#### **4. Rethinking admitting mobile phones on school campuses**

Mobile phones are prohibited on all school campuses in Bangladesh. However, students mentioned that they bring their mobile phones with them in order to contact their parents if need be or to use them while traveling to and from school. Further, as many schools do not have regular access to the Internet, students are at times using their personal mobile phones to conduct research.

Teachers are concerned that students either individually or in groups use their mobiles phones for gaming or to access disturbing content, which distracts them from their study and may create issues especially in the absence of their parents.

#### **5. Inadequate ICT devices and access to the Internet**

In many schools, students have one 60-min computer class per week. Often only one or two computers are used during the computer class. Students mentioned that the 60-min class does not provide them with sufficient opportunities to develop ICT skills. Students further expressed that better and more regular access to computers and the Internet would make them more ICT competent. Teachers and parents both agreed on this issue.

#### **6. Risk factors of using ICT require consideration**

Children who don't have a computer at home often visit friends and relatives to use their computers and to access the Internet. As parents cannot oversee what their children are doing during those times, parents are concerned of the types of information their children are accessing when using computers unsupervised, as well whether their children are exposed to or involved in anti-social activities.

Teachers are concerned about issues of online harassment and students engaging in anti-

social activities. Teachers try to keep an eye on student's mobile device use and children are instructed to use digital devices safely as well as to consult with their parents. The school management committee discusses issues related to mobile phones usage.

#### **7. Vulnerability to pornography and violent content**

Most students in secondary school are under the age of 18. Students are not always aware about what content they are allowed to watch and read, as well as which content they should not watch or read, particularly when it comes pornographic and/or violent content on the Internet that can lead children into juvenile delinquency. Even though many parents talk to their children about safe content, an awareness raising campaign among students could help them understand the severity of the issue and make them more concerned.

#### **8. Attraction to digital entertainment and Facebook**

Students are attracted to use digital devices and the Internet for entertainment purposes. Facebook is commonly accessed by both male and female students. Some students have multiple Facebook accounts and not every student is aware of data safety.

Gender disaggregated data of the survey showed that male students have expressed that they are concerned about the online safety of female students. Female students have indicated that they block unwanted people and messages on Facebook.

Many female students consult with their mothers and one female participant noted that she uses her mother's Facebook account in order to use social media securely, while enabling her mother to monitor her interactions on social media.

The survey has shown the role that mothers play in Bangladesh as core caregivers and trusted partners for girls growing up. Female students expressed that they are comfortable with their mother's supervision of their online activities. A comparative study on age, school grade and gender may give more detailed results on the social fabric and roles

of family members and primary caregivers in Bangladesh.

### 9. Girls are most at risks

Parents have expressed their concerns about the safety of their children when interacting with digital devices online. Parents consider girls to be most at risk of being sexually harassed online, but are also aware that as boys often use computers and the Internet in public places away from their supervision, there is a risk that boys are equally subject to or involved in bullying or other anti-social violent activities.

### 10. Digital safety and resilience

Students are concerned about digital safety. 75% of participating students strongly agree that one should show respect to others on the Internet and 83% strongly agree that they should protect the privacy and security of others. 75% of participants expressed to be aware of copyright issues and that they do not copy materials illegally. 35% strongly agreed and 32% agreed somewhat that they read the privacy policy of websites they visit when using the Internet.

### 11. Limited access for female students

Female students have expressed to have less access to digital devices in public places compared to male students, which results in fewer skill development opportunities.

## 3.2 Competency framework domains specific findings

### 3.2.1 Access to and Use of ICT, Usage of Digital Devices and the Internet

The research included both female (50%) and male (50%) students from 9th grade. All students were born in Bangladesh and 98% of all participating students speak the Bangla language as their mother tongue.

**Table 3.2.1.1: Highest grade or level of school students expect to complete (Gender and Area disaggregated)**

| Area of the School | Education levels  | No of students |            |            | Percentage of students |               |               |
|--------------------|-------------------|----------------|------------|------------|------------------------|---------------|---------------|
|                    |                   | Girl           | Boy        | Total      | Girl                   | Boy           | Total         |
| Rural              | Lower secondary   | 3              | 2          | 5          | 1.0%                   | 0.6%          | 0.8%          |
|                    | Upper secondary   | 24             | 21         | 45         | 7.9%                   | 6.4%          | 7.1%          |
|                    | Post-secondary    | 13             | 16         | 29         | 4.3%                   | 4.8%          | 4.6%          |
|                    | Masters/ Doctoral | 233            | 267        | 500        | 76.4%                  | 80.9%         | 78.7%         |
|                    | I don't know      | 31             | 22         | 53         | 10.2%                  | 6.7%          | 8.3%          |
|                    | No Response       | 1              | 2          | 3          | 0.3%                   | 0.6%          | 0.5%          |
|                    | <b>Total</b>      | <b>305</b>     | <b>330</b> | <b>635</b> | <b>100.0%</b>          | <b>100.0%</b> | <b>100.0%</b> |

|       |                   |            |            |            |               |               |               |
|-------|-------------------|------------|------------|------------|---------------|---------------|---------------|
| Urban | Lower secondary   | 1          | 2          | 3          | 0.5%          | 1.0%          | 0.7%          |
|       | Upper secondary   | 8          | 10         | 18         | 3.6%          | 5.0%          | 4.3%          |
|       | Post-secondary    | 8          | 10         | 18         | 3.6%          | 5.0%          | 4.3%          |
|       | Masters/ Doctoral | 184        | 173        | 357        | 83.3%         | 86.9%         | 85.0%         |
|       | I don't know      | 18         | 4          | 22         | 8.1%          | 2.0%          | 5.2%          |
|       | No Response       | 2          | 0          | 2          | 0.9%          | 0.0%          | 0.5%          |
|       | <b>Total</b>      | <b>221</b> | <b>199</b> | <b>420</b> | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> |

**Findings:** Most of the students (81%) wish to complete a Master's or a Doctoral degree. 7% of students expressed to not have any future plans yet. Further, while 83.3% of female students in urban area wish to complete a Master's or a Doctoral degree, 76% of female students living in rural areas follow the aspiration. For male students, 86.9% of urban male students and 80% of male students in rural areas wish to compete a Master's or a Doctoral degree.

**Table 3.2.1.2: Absent from school in the last month**

| Area of the School | Days absent       | No of students |            |            | Percentage of students |               |               |
|--------------------|-------------------|----------------|------------|------------|------------------------|---------------|---------------|
|                    |                   | Girl           | Boy        | Total      | Girl                   | Boy           | Total         |
| Rural              | None              | 77             | 98         | 175        | 25.2%                  | 29.7%         | 27.6%         |
|                    | 1-2 days          | 101            | 144        | 245        | 33.1%                  | 43.6%         | 38.6%         |
|                    | 3-4 days          | 85             | 66         | 151        | 27.9%                  | 20.0%         | 23.8%         |
|                    | 5-10 days         | 24             | 17         | 41         | 7.9%                   | 5.2%          | 6.5%          |
|                    | More than 10 days | 16             | 5          | 21         | 5.2%                   | 1.5%          | 3.3%          |
|                    | No Response       | 2              | 0          | 2          | 0.7%                   | 0.0%          | 0.3%          |
|                    | <b>Total</b>      | <b>305</b>     | <b>330</b> | <b>635</b> | <b>100.0%</b>          | <b>100.0%</b> | <b>100.0%</b> |
| Urban              | None              | 53             | 46         | 99         | 24.0%                  | 23.1%         | 23.6%         |
|                    | 1-2 days          | 66             | 80         | 146        | 29.9%                  | 40.2%         | 34.8%         |
|                    | 3-4 days          | 52             | 47         | 99         | 23.5%                  | 23.6%         | 23.6%         |
|                    | 5-10 days         | 30             | 10         | 40         | 13.6%                  | 5.0%          | 9.5%          |
|                    | More than 10 days | 20             | 16         | 36         | 9.0%                   | 8.0%          | 8.6%          |
|                    | <b>Total</b>      | <b>221</b>     | <b>199</b> | <b>420</b> | <b>100.0%</b>          | <b>100.0%</b> | <b>100.0%</b> |

**Findings:** The majority of students attend school regularly, with 5.4% (urban: 9.5%, rural: 3.3%) of students interviewed having missed school for more than 10 days in the previous month. Generally, absenteeism is higher in urban areas than in rural areas.

When male students miss class, both in urban and rural areas, it tends to be for short durations (1-4 days), whereas female students tend to be absent for longer periods (5+ days). During conducted Focus Group Discussions (FGDs), it was expressed that female students at times miss class during their menstruation cycle.

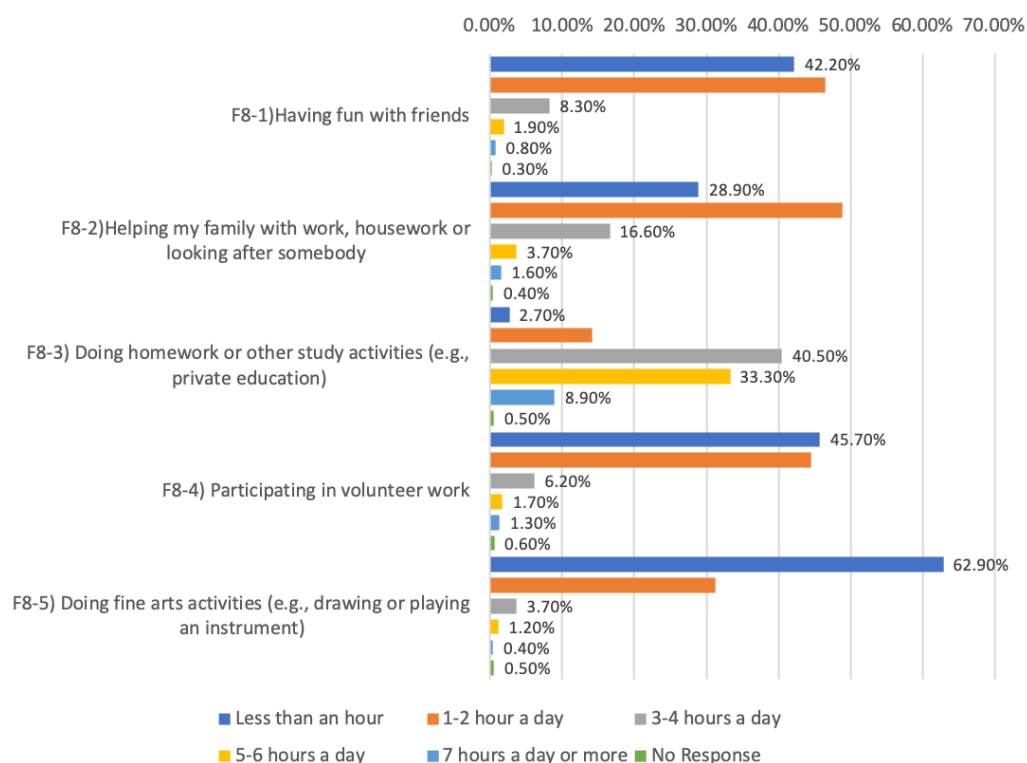
**Table 3.2.1.3: Outside of school, time spent each day on activities**

| Outside of school, time spent each day on activities                     | Less than an hour |       | 1-2 hours a day |       | 3-4 hours a day |       | 5-6 hours a day |       | 7 hours a day or more |      | No Response |      |
|--------------------------------------------------------------------------|-------------------|-------|-----------------|-------|-----------------|-------|-----------------|-------|-----------------------|------|-------------|------|
|                                                                          | Girl              | Boy   | Girl            | Boy   | Girl            | Boy   | Girl            | Boy   | Girl                  | Boy  | Girl        | Boy  |
| F8-1) Having fun with friends                                            | 36.3%             | 48.0% | 51.9%           | 41.2% | 9.9%            | 6.8%  | 0.6%            | 3.2%  | 1.1%                  | 0.4% | 0.2%        | 0.4% |
| F8-2) Helping my family with work, housework or looking after somebody   | 31.6%             | 26.3% | 48.7%           | 49.0% | 15.8%           | 17.4% | 2.7%            | 4.7%  | 1.1%                  | 2.1% | 0.2%        | 0.6% |
| F8-3) Doing homework or other study activities (e.g. private education)  | 3.0%              | 2.5%  | 15.0%           | 13.2% | 40.3%           | 40.7% | 32.1%           | 34.4% | 8.7%                  | 9.1% | 0.4%        | 0.6% |
| F8-4) Participating in volunteer work                                    | 50.6%             | 40.8% | 40.5%           | 48.6% | 5.3%            | 7.0%  | 2.3%            | 1.0%  | 1.7%                  | 1.0% | 0.4%        | 0.8% |
| F8-5) Doing fine arts activities (e.g. drawing or playing an instrument) | 71.3%             | 54.6% | 24.7%           | 37.8% | 2.3%            | 5.1%  | 1.3%            | 1.1%  | 1.1%                  | 0.2% | 0.2%        | 0.8% |

**Findings:** 41% students indicated that they spend on average 3-4 hours and 33% students spend on average 5-6 hours doing homework or other research activities (e.g. private education) after school.

Most children expressed that they use the Internet for less than an hour per day. Also, most children (63%) use digital devices and the Internet for creative purposes such as doing fine arts, drawing, or playing instruments. 46% of students use their digital devices to participate in volunteer work and 42% use their digital devices only for fun.

**Graph 3.2.1.3: Outside of school, time spent each day on various activities**



**Table 3.2.1.4: Duration of using digital devices (e.g. desktop/laptop, smartphone, tablet PC)**

| Duration          | Percentage of students |             |             |
|-------------------|------------------------|-------------|-------------|
|                   | Girl                   | Boy         | Total       |
| Hardly ever       | 12.5%                  | 34.2%       | 23.4%       |
| Less than an hour | 29.3%                  | 32.9%       | 31.1%       |
| 1-2 hour          | 42.4%                  | 27.0%       | 34.7%       |
| 3-4 Hours         | 10.6%                  | 5.1%        | 7.9%        |
| 5-6 hours         | 3.6%                   | 0.4%        | 2.0%        |
| 7 hours or more   | 1.5%                   | 0.2%        | 0.9%        |
| No Response       | 0.0%                   | 0.2%        | 0.1%        |
| <b>Total</b>      | <b>100%</b>            | <b>100%</b> | <b>100%</b> |

**Findings:** A total of 1,055 students participated in the research. Of all participants, about one third (31%) had been using digital devices for between 1 and 2 years prior to the survey, and the same percentage (31%) had been using devices for less than 1 year. Surprisingly, 8% of students expressed that they had been using digital devices for more than 5 years. 10% of interviewed students expressed that they had never used a digital device.

**Table 3.2.1.5: Frequency of going online or using the Internet using digital devices per day**

|                       | Home  |       |       | School |       |       | Internet Cafe |       |       | Local Community |       |       |
|-----------------------|-------|-------|-------|--------|-------|-------|---------------|-------|-------|-----------------|-------|-------|
|                       | Girl  | Boy   | Total | Girl   | Boy   | Total | Girl          | Boy   | Total | Girl            | Boy   | Total |
| Hardly ever           | 11.2% | 28.0% | 19.6% | 70.2%  | 67.9% | 69.0% | 58.0%         | 68.1% | 63.0% | 56.1%           | 67.7% | 61.9% |
| At least every month  | 4.8%  | 7.0%  | 5.9%  | 4.0%   | 6.6%  | 5.3%  | 8.4%          | 8.1%  | 8.2%  | 9.5%            | 11.2% | 10.3% |
| At least every week   | 7.8%  | 10.4% | 9.1%  | 7.0%   | 7.9%  | 7.5%  | 10.1%         | 7.8%  | 8.9%  | 7.8%            | 5.7%  | 6.7%  |
| Less than an hour     | 24.3% | 25.5% | 24.9% | 6.7%   | 7.0%  | 6.8%  | 9.9%          | 7.6%  | 8.7%  | 11.8%           | 6.0%  | 8.9%  |
| 1-2 hours a day       | 30.6% | 21.6% | 26.1% | 3.0%   | 5.1%  | 4.1%  | 5.1%          | 3.8%  | 4.5%  | 6.3%            | 3.8%  | 5.0%  |
| 3-4 hours a day       | 8.4%  | 2.5%  | 5.4%  | 0.6%   | 0.4%  | 0.5%  | 1.5%          | 0.4%  | 0.9%  | 2.1%            | 0.9%  | 1.5%  |
| 5-6 hours a day       | 2.3%  | 0.8%  | 1.5%  | 1.3%   | 1.1%  | 1.2%  | 0.4%          | 0.0%  | 0.2%  | 0.2%            | 0.4%  | 0.3%  |
| 7 hours a day or more | 2.1%  | 0.6%  | 1.3%  | 0.8%   | 0.6%  | 0.7%  | 0.2%          | 0.6%  | 0.4%  | 0.6%            | 0.4%  | 0.5%  |
| Didn't respond        | 8.6%  | 3.8%  | 6.2%  | 6.5%   | 3.4%  | 4.9%  | 6.5%          | 3.8%  | 5.1%  | 5.7%            | 3.8%  | 4.7%  |
| Total                 | 100%  | 100%  | 100%  | 100%   | 100%  | 100%  | 100%          | 100%  | 100%  | 100%            | 100%  | 100%  |

**Findings:** Looking at how often students use the Internet with digital devices (e.g. smartphone, desktop/laptop, tablet PC) per day, 35% of students expressed that they spent between 1 and 2 hours per day, 3% spend more than 5 hours per day and, 23% responded that they use the Internet only occasionally.

**Table 3.2.1.6: Places students usually access the Internet**

|                      | Home  |       |       | School |       |       | Internet Cafe |       |       | Local Community |       |       |
|----------------------|-------|-------|-------|--------|-------|-------|---------------|-------|-------|-----------------|-------|-------|
|                      | Girl  | Boy   | Total | Girl   | Boy   | Total | Girl          | Boy   | Total | Girl            | Boy   | Total |
| Hardly ever          | 11.2% | 28.0% | 19.6% | 70.2%  | 67.9% | 69.0% | 58.0%         | 68.1% | 63.0% | 56.1%           | 67.7% | 61.9% |
| At least every month | 4.8%  | 7.0%  | 5.9%  | 4.0%   | 6.6%  | 5.3%  | 8.4%          | 8.1%  | 8.2%  | 9.5%            | 11.2% | 10.3% |
| At least every week  | 7.8%  | 10.4% | 9.1%  | 7.0%   | 7.9%  | 7.5%  | 10.1%         | 7.8%  | 8.9%  | 7.8%            | 5.7%  | 6.7%  |
| Less than an hour    | 24.3% | 25.5% | 24.9% | 6.7%   | 7.0%  | 6.8%  | 9.9%          | 7.6%  | 8.7%  | 11.8%           | 6.0%  | 8.9%  |
| 1-2 hours a day      | 30.6% | 21.6% | 26.1% | 3.0%   | 5.1%  | 4.1%  | 5.1%          | 3.8%  | 4.5%  | 6.3%            | 3.8%  | 5.0%  |

|                       |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| 3-4 hours a day       | 8.4% | 2.5% | 5.4% | 0.6% | 0.4% | 0.5% | 1.5% | 0.4% | 0.9% | 2.1% | 0.9% | 1.5% |
| 5-6 hours a day       | 2.3% | 0.8% | 1.5% | 1.3% | 1.1% | 1.2% | 0.4% | 0.0% | 0.2% | 0.2% | 0.4% | 0.3% |
| 7 hours a day or more | 2.1% | 0.6% | 1.3% | 0.8% | 0.6% | 0.7% | 0.2% | 0.6% | 0.4% | 0.6% | 0.4% | 0.5% |
| Didn't respond        | 8.6% | 3.8% | 6.2% | 6.5% | 3.4% | 4.9% | 6.5% | 3.8% | 5.1% | 5.7% | 3.8% | 4.7% |
| Total                 | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

**Findings:** Around 50% of respondents use the Internet at home for less than 1 to 2 hours per day. Internet café and local community Internet facilities are rarely used by students. 69% of students expressed that they hardly use the Internet at school. 20% of students don't have access to the Internet at home or hardly use the Internet at home.

Overall, female students use Internet facilities at home, school, community centres, and Internet café less than their male counterparts.

**Table 3.2.1.7: Access to digital devices at home**

| G4 Access to digital devices at home*              | Responses, N |            |             | Percentage of Cases |       |       |
|----------------------------------------------------|--------------|------------|-------------|---------------------|-------|-------|
|                                                    | Girl         | Boy        | Total       | Girl                | Boy   | Total |
| Desktop Computer                                   | 119          | 76         | 195         | 22.6%               | 14.4% | 18.5% |
| Laptop                                             | 203          | 182        | 385         | 38.6%               | 34.4% | 36.5% |
| Smartphone                                         | 454          | 437        | 891         | 86.3%               | 82.6% | 84.5% |
| Tablet PC (e.g. iPad, Galaxy Tab)                  | 109          | 84         | 193         | 20.7%               | 15.9% | 18.3% |
| Printer                                            | 33           | 25         | 58          | 6.3%                | 4.7%  | 5.5%  |
| None of the above                                  | 35           | 55         | 90          | 6.7%                | 10.4% | 8.5%  |
| <b>Total</b>                                       | <b>953</b>   | <b>859</b> | <b>1812</b> |                     |       |       |
| Number of Respondents = 1055<br>*Multiple Response |              |            |             |                     |       |       |

**Findings:** Even in rural areas of Bangladesh, access to smartphones is quite high. 84% of urban and rural respondents stated that they had access to a smartphone at home. Following the smartphone, the most common digital devices with access to the Internet are laptops (36%) and tablets (18%). For printing, students mostly use commercial printers as only 5% expressed to have a printer at home. Overall, girls have expressed to have more access to digital devices than boys.

During Focus Group Discussions (FGDs) students mentioned that they commonly use printers outside their home and mostly for academic purpose.

**Table 3.2.1.8: Access to digital devices at school**

| G5 Access to digital devices at School*            | Responses, N |             |             | Percentage of Cases |       |       |
|----------------------------------------------------|--------------|-------------|-------------|---------------------|-------|-------|
|                                                    | Girl         | Boy         | Total       | Girl                | Boy   | Total |
| Desktop Computer                                   | 288          | 369         | 657         | 54.9%               | 69.8% | 62.3% |
| Laptop                                             | 288          | 314         | 602         | 54.9%               | 59.4% | 57.1% |
| Smartphone                                         | 81           | 84          | 165         | 15.4%               | 15.9% | 15.7% |
| Tablet PC(e.g. iPad, Galaxy Tab)                   | 34           | 30          | 64          | 6.5%                | 5.7%  | 6.1%  |
| Printer                                            | 151          | 173         | 324         | 28.8%               | 32.7% | 30.7% |
| None of the above                                  | 107          | 50          | 157         | 20.4%               | 9.5%  | 14.9% |
| <b>Total</b>                                       | <b>949</b>   | <b>1020</b> | <b>1969</b> |                     |       |       |
| Number of Respondents = 1055<br>*Multiple Response |              |             |             |                     |       |       |

**Findings:** At school, 62% of students expressed that they can access desktop computers and 57% have access to laptops. However, during FGDs students and teachers mentioned that due to a shortage of computers, students can only access existing devices in a very limited way.

*"In school we have very limited number of computers, laptops, Internet modem. We arrange a weekly mandatory ICT class. But it is near to impossible to facilitate all the students' access to computer with current ICT infrastructure." – ICT Teacher during Focus Group Discussion (FGD).*

**Table 3.2.1.9: Access to digital devices at local community**

| G6 Access to digital devices at local community*   | Responses, N |             |             | Percentage of Cases |       |       |
|----------------------------------------------------|--------------|-------------|-------------|---------------------|-------|-------|
|                                                    | Girl         | Boy         | Total       | Girl                | Boy   | Total |
| Desktop Computer                                   | 275          | 299         | 574         | 52.3%               | 56.7% | 54.5% |
| Laptop                                             | 228          | 305         | 533         | 43.3%               | 57.9% | 50.6% |
| Smartphone                                         | 256          | 307         | 563         | 48.7%               | 58.3% | 53.5% |
| Tablet PC(e.g. iPad, Galaxy Tab)                   | 113          | 92          | 205         | 21.5%               | 17.5% | 19.5% |
| Printer                                            | 160          | 175         | 335         | 30.4%               | 33.2% | 31.8% |
| None of the above                                  | 128          | 76          | 204         | 24.3%               | 14.4% | 19.4% |
| <b>Total</b>                                       | <b>1160</b>  | <b>1254</b> | <b>2414</b> |                     |       |       |
| Number of Respondents = 1055<br>*Multiple Response |              |             |             |                     |       |       |

**Findings:** Looking at student's access to digital devices at local community facilities (e.g. a local library or a community center), about 50 percent of respondents expressed that they had access to desktop computers, laptops, and smartphones. 31.8% said they had access to a printer. Overall, girls have less access to digital devices at local community facilities than their male counterparts: 24.3% of female students responded that they did not have access of any digital devices at their local community facilities, whereas only 14.4% of male students felt that way, indicating a gender disparity in access.

**Table 3.2.1.10: Internet access at Home, School, Community**

| Internet access*                                   | Percentage of Cases |       |       |        |       |       |           |       |       |
|----------------------------------------------------|---------------------|-------|-------|--------|-------|-------|-----------|-------|-------|
|                                                    | Home                |       |       | School |       |       | Community |       |       |
|                                                    | Girl                | Boy   | Total | Girl   | Boy   | Total | Girl      | Boy   | Total |
| Wired Internet                                     | 17.7%               | 20.1% | 18.9% | 22.0%  | 24.7% | 23.3% | 31.2%     | 33.1% | 32.2% |
| Wireless Internet                                  | 71.2%               | 63.9% | 67.6% | 50.1%  | 45.7% | 47.9% | 71.1%     | 68.4% | 69.7% |
| None                                               | 18.7%               | 23.7% | 21.2% | 37.5%  | 38.3% | 37.9% | 17.0%     | 19.2% | 18.1% |
| Number of Respondents = 1055<br>*Multiple Response |                     |       |       |        |       |       |           |       |       |

**Findings:** Looking at the type of Internet access that students use at home, at school, and at community facilities, 67% of students said that they had wireless Internet access at home, 47% expressed that there was wireless Internet at school, and 69% said that their community facilities provided wireless Internet. Wired Internet connections remain somewhat common at community centers (32% of respondents).

During Focus Group Discussions, students expressed that while many schools had wireless Internet facilities, not all students could access the Internet, and that the Internet speed is so slow that not even teachers can use the Internet at times.

## Role of Parents, Caregivers, and Friends on Usage of Digital Devices and the Internet

**Table 3.2.11: Who taught you most about how to use computers**

| Persons Who Taught                                        | Percent     |             |             |
|-----------------------------------------------------------|-------------|-------------|-------------|
|                                                           | Girl        | Boy         | Total       |
| My teachers                                               | 30.6%       | 47.1%       | 38.9%       |
| My friends                                                | 14.6%       | 5.9%        | 10.2%       |
| My family                                                 | 17.9%       | 21.6%       | 19.7%       |
| I learned myself                                          | 17.1%       | 6.2%        | 11.7%       |
| My local community (e.g. local library, community center) | 2.3%        | 1.9%        | 2.1%        |
| Others                                                    | 1.0%        | 1.7%        | 1.3%        |
| No Response                                               | 16.5%       | 15.7%       | 16.1%       |
| <b>Total</b>                                              | <b>100%</b> | <b>100%</b> | <b>100%</b> |

**Findings:** Teachers are the most common learning resource for students to learn how to use computers. 39% of students expressed that their teachers taught them most about computers. The second most important learning source are family members (20%), the third are friends (10%). 12% of students expressed that they learnt how to use a computer by themselves.

**Table 3.2.12: Who taught most about how to use the Internet**

| Persons Who Taught                                        | Percent     |             |             |
|-----------------------------------------------------------|-------------|-------------|-------------|
|                                                           | Girl        | Boy         | Total       |
| My teachers                                               | 16.5%       | 31.8%       | 24.2%       |
| My friends                                                | 24.9%       | 16.6%       | 20.8%       |
| My family                                                 | 14.3%       | 19.7%       | 17.0%       |
| I learned myself                                          | 25.3%       | 11.7%       | 18.5%       |
| My local community (e.g. local library, community center) | 3.0%        | 1.7%        | 2.4%        |
| Others                                                    | 1.3%        | 3.2%        | 2.3%        |
| No Response                                               | 14.6%       | 15.3%       | 15.0%       |
| <b>Total</b>                                              | <b>100%</b> | <b>100%</b> | <b>100%</b> |

**Findings:** Similar in the case of the Internet. Teachers are the major source of learning about the Internet. 24% of respondents stated that their teachers taught them most about what they know about how to use the Internet. Teachers are followed by friends (21%) and family members (17%) as learning sources. 19% of students mentioned that they learnt how to use the Internet by themselves.

**Table 3.2.1.13: How often students use computers or the Internet for school study**

| Response          | Percent     |             |             |
|-------------------|-------------|-------------|-------------|
|                   | Girl        | Boy         | Total       |
| Hardly ever       | 28.3%       | 34.0%       | 31.2%       |
| Less than an hour | 33.3%       | 26.7%       | 30.0%       |
| 1-2 hour          | 31.6%       | 28.5%       | 30.0%       |
| 3-4 Hours         | 4.0%        | 4.5%        | 4.3%        |
| 5-6 hours         | 1.5%        | 1.9%        | 1.7%        |
| 7 hours or more   | 1.0%        | 0.6%        | 0.8%        |
| No Response       | 0.4%        | 3.8%        | 2.1%        |
| <b>Total</b>      | <b>100%</b> | <b>100%</b> | <b>100%</b> |

**Findings:** Looking at the question how often students use computers or the Internet for study purposes, the majority of respondents (31%) responded that they hardly ever use computers or the Internet for school-related study purposes. About 30% of respondents use them less than an hour per day and another 30% use them for 1-3 hours per day. Female students use computers and the Internet more often than male students.

**Table 3.2.1.14: How often students use computers or the Internet for studying for personal purpose per day**

| Response          | Percent     |             |             |
|-------------------|-------------|-------------|-------------|
|                   | Girl        | Boy         | Total       |
| Hardly ever       | 27.6%       | 32.9%       | 30.2%       |
| Less than an hour | 32.1%       | 26.7%       | 29.4%       |
| 1-2 hour          | 31.9%       | 31.4%       | 31.7%       |
| 3-4 Hours         | 6.5%        | 4.9%        | 5.7%        |
| 5-6 hours         | 1.0%        | 1.5%        | 1.2%        |
| 7 hours or more   | 0.6%        | 0.6%        | 0.6%        |
| No Response       | 0.4%        | 2.1%        | 1.2%        |
| <b>Total</b>      | <b>100%</b> | <b>100%</b> | <b>100%</b> |

**Findings:** Similar to the previous research question, 30% of students hardly ever use their computers or the Internet for personal study purposes. Another 29% use them for less than an hour per day for study.

**Table 3.2.1.15: How often students use computers or the Internet for leisure per day**

| Response          | Percent     |             |             |
|-------------------|-------------|-------------|-------------|
|                   | Girl        | Boy         | Total       |
| Hardly ever       | 12.0%       | 21.0%       | 16.5%       |
| Less than an hour | 35.0%       | 36.5%       | 35.7%       |
| 1-2 hour          | 40.5%       | 36.7%       | 38.6%       |
| 3-4 Hours         | 8.9%        | 4.0%        | 6.4%        |
| 5-6 hours         | 1.9%        | 0.4%        | 1.1%        |
| 7 hours or more   | 1.3%        | 0.0%        | 0.7%        |
| No Response       | 0.4%        | 1.5%        | 0.9%        |
| <b>Total</b>      | <b>100%</b> | <b>100%</b> | <b>100%</b> |

**Findings:** Different from previous questions, students expressed that they use computers and the Internet for leisure. 38% responded to spend between 1 and 2 hours per day using a computer or the Internet for leisure. Another 35% of students expressed to spend less than an hour in front of digital devices for leisurely purposes every day. 16% mentioned that they hardly ever use computers or the Internet for leisure.

**Table 3.2.1.16: Frequency of using computers or the Internet for socializing with friends per day**

| Area of the School | Response          | Percent     |             |             |
|--------------------|-------------------|-------------|-------------|-------------|
|                    |                   | Girl        | Boy         | Total       |
| Rural              | Hardly ever       | 18.4%       | 39.1%       | 29.1%       |
|                    | Less than an hour | 40.3%       | 36.4%       | 38.3%       |
|                    | 1-2 hour          | 32.5%       | 19.4%       | 25.7%       |
|                    | 3-4 Hours         | 6.2%        | 3.0%        | 4.6%        |
|                    | 5-6 hours         | 1.3%        | 0.3%        | 0.8%        |
|                    | 7 hours or more   | 0.7%        | 0.0%        | 0.3%        |
|                    | No Response       | 0.7%        | 1.8%        | 1.3%        |
|                    | <b>Total</b>      | <b>100%</b> | <b>100%</b> | <b>100%</b> |
| Urban              | Hardly ever       | 20.8%       | 28.6%       | 24.5%       |
|                    | Less than an hour | 33.5%       | 38.2%       | 35.7%       |
|                    | 1-2 hour          | 33.0%       | 25.6%       | 29.5%       |
|                    | 3-4 Hours         | 8.1%        | 7.0%        | 7.6%        |
|                    | 5-6 hours         | 1.4%        | 0.5%        | 1.0%        |
|                    | 7 hours or more   | 3.2%        | 0.0%        | 1.7%        |
|                    | <b>Total</b>      | <b>100%</b> | <b>100%</b> | <b>100%</b> |

**Findings:** Looking at whether students use computers and the Internet for socializing with friends, 64% of respondents expressed that they spend 1-2 hours per day in front of digital devices socializing with friends. 27% of respondents stated that they hardly use computers or the Internet for socializing with friends. Overall, female students living in rural areas use computers and the Internet more often than those living in urban areas. Male students appear to use computers and the Internet less than female students. 28% of male students in urban areas and 39% of male students in rural areas stated that they hardly ever use computers and the Internet to socialize with friends.

**Table 3.2.1.17: Places where students use the Internet (Gender and Area disaggregated)**

| Area of the School | Internet Access       | Home  |       |       | School |       |       | Internet Cafe |       |       | Local Community |       |       |
|--------------------|-----------------------|-------|-------|-------|--------|-------|-------|---------------|-------|-------|-----------------|-------|-------|
|                    |                       | Girl  | Boy   | Total | Girl   | Boy   | Total | Girl          | Boy   | Total | Girl            | Boy   | Total |
| Rural              | Hardly ever           | 14.8% | 27.9% | 21.6% | 74.1%  | 65.5% | 69.6% | 55.1%         | 68.2% | 61.9% | 51.5%           | 68.5% | 60.3% |
|                    | At least every month  | 4.6%  | 8.2%  | 6.5%  | 3.6%   | 7.9%  | 5.8%  | 10.5%         | 8.5%  | 9.4%  | 10.2%           | 12.1% | 11.2% |
|                    | At least every week   | 7.2%  | 12.7% | 10.1% | 5.6%   | 7.6%  | 6.6%  | 10.2%         | 7.9%  | 9.0%  | 9.2%            | 5.8%  | 7.4%  |
|                    | Less than an hour     | 28.5% | 27.3% | 27.9% | 6.6%   | 7.9%  | 7.2%  | 11.1%         | 7.6%  | 9.3%  | 13.4%           | 4.8%  | 9.0%  |
|                    | 1-2 hours a day       | 31.1% | 18.2% | 24.4% | 2.0%   | 6.1%  | 4.1%  | 5.2%          | 4.2%  | 4.7%  | 7.5%            | 3.6%  | 5.5%  |
|                    | 3-4 hours a day       | 6.9%  | 1.2%  | 3.9%  | 0.3%   | 0.6%  | 0.5%  | 2.3%          | 0.3%  | 1.3%  | 3.0%            | 1.2%  | 2.0%  |
|                    | 5-6 hours a day       | 1.3%  | 0.9%  | 1.1%  | 1.6%   | 1.2%  | 1.4%  | 0.3%          | 0.0%  | 0.2%  | 0.0%            | 0.6%  | 0.3%  |
|                    | 7 hours a day or more | 1.0%  | 0.6%  | 0.8%  | 1.3%   | 0.9%  | 1.1%  | 0.3%          | 0.6%  | 0.5%  | 0.7%            | 0.3%  | 0.5%  |
|                    | Didn't respond        | 4.6%  | 3.0%  | 3.8%  | 4.9%   | 2.4%  | 3.6%  | 4.9%          | 2.7%  | 3.8%  | 4.6%            | 3.0%  | 3.8%  |
| Urban              | Hardly ever           | 6.3%  | 28.1% | 16.7% | 64.7%  | 71.9% | 68.1% | 62.0%         | 67.8% | 64.8% | 62.4%           | 66.3% | 64.3% |
|                    | At least every month  | 5.0%  | 5.0%  | 5.0%  | 4.5%   | 4.5%  | 4.5%  | 5.4%          | 7.5%  | 6.4%  | 8.6%            | 9.5%  | 9.0%  |
|                    | At least every week   | 8.6%  | 6.5%  | 7.6%  | 9.0%   | 8.5%  | 8.8%  | 10.0%         | 7.5%  | 8.8%  | 5.9%            | 5.5%  | 5.7%  |
|                    | Less than an hour     | 18.6% | 22.6% | 20.5% | 6.8%   | 5.5%  | 6.2%  | 8.1%          | 7.5%  | 7.9%  | 9.5%            | 8.0%  | 8.8%  |
|                    | 1-2 hours a day       | 29.9% | 27.1% | 28.6% | 4.5%   | 3.5%  | 4.0%  | 5.0%          | 3.0%  | 4.0%  | 4.5%            | 4.0%  | 4.3%  |
|                    | 3-4 hours a day       | 10.4% | 4.5%  | 7.6%  | 0.9%   | 0.0%  | 0.5%  | 0.5%          | 0.5%  | 0.5%  | 0.9%            | 0.5%  | 0.7%  |
|                    | 5-6 hours a day       | 3.6%  | 0.5%  | 2.1%  | 0.9%   | 1.0%  | 1.0%  | 0.5%          | 0.0%  | 0.2%  | 0.5%            | 0.0%  | 0.2%  |
|                    | 7 hours a day or more | 3.6%  | 0.5%  | 2.1%  | 0.0%   | 0.0%  | 0.0%  | 0.0%          | 0.5%  | 0.2%  | 0.5%            | 0.5%  | 0.5%  |
|                    | Didn't respond        | 14.0% | 5.0%  | 9.8%  | 8.6%   | 5.0%  | 6.9%  | 8.6%          | 5.5%  | 7.1%  | 7.2%            | 5.0%  | 6.2%  |

**Findings:** Female students tend to use the Internet at home. 10% of female students responded to use Internet cafés at least once a week. While the survey findings show similar usage behavior among boys and girls using community facilities to access the Internet, during Focus Group Discussions it was expressed that female students tend to use home Internet while boys use community Internet facilities more frequently.

**Table 3.2.1.18: Learning basic coding skills at school and developing websites or applications**

| Response     | Percent     |             |             |
|--------------|-------------|-------------|-------------|
|              | Girl        | Boy         | Total       |
| Yes          | 24.5%       | 25.0%       | 24.7%       |
| No           | 75.3%       | 74.7%       | 75.0%       |
| No Response  | 0.2%        | 0.4%        | 0.3%        |
| <b>Total</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> |

**Findings:** 25% of students have mentioned in the survey that they have learnt basic coding skills at school that included skills to develop websites or mobile applications. However, during Focus Group Discussions (FGDs) students and teachers mentioned that students do not learnt basic coding skills but basic computer operating skills in class.

## Support from Parents, Teachers, Siblings, and Peers for Digital Safety

**Table 3.2.1.19: Person/people who suggest ways to use the Internet safely**

| Response     | Parents/ caregivers |             |             | Teachers    |             |             | Siblings    |             |             | Peers       |             |             |
|--------------|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|              | Girl                | Boy         | Total       | Girl        | Boy         | Total       | Girl        | Boy         | Total       | Girl        | Boy         | Total       |
| Never        | 14.3%               | 14.4%       | 14.3%       | 6.1%        | 3.4%        | 4.7%        | 12.9%       | 13.6%       | 13.3%       | 10.5%       | 8.7%        | 9.6%        |
| Hardly ever  | 6.8%                | 3.2%        | 5.0%        | 5.9%        | 3.0%        | 4.5%        | 8.0%        | 4.0%        | 6.0%        | 6.7%        | 6.4%        | 6.5%        |
| Sometimes    | 25.7%               | 22.3%       | 24.0%       | 26.0%       | 23.6%       | 24.8%       | 25.5%       | 19.5%       | 22.5%       | 25.1%       | 27.8%       | 26.4%       |
| Often        | 23.6%               | 23.6%       | 23.6%       | 32.5%       | 30.1%       | 31.3%       | 25.3%       | 26.3%       | 25.8%       | 22.8%       | 25.9%       | 24.4%       |
| Very often   | 7.6%                | 8.9%        | 8.2%        | 11.6%       | 17.0%       | 14.3%       | 15.4%       | 18.7%       | 17.1%       | 18.3%       | 16.1%       | 17.2%       |
| All the time | 21.5%               | 27.2%       | 24.4%       | 16.2%       | 22.5%       | 19.3%       | 11.6%       | 17.8%       | 14.7%       | 15.6%       | 14.9%       | 15.3%       |
| No Response  | 0.6%                | 0.4%        | 0.5%        | 1.7%        | 0.4%        | 1.0%        | 1.3%        | 0.2%        | 0.8%        | 1.1%        | 0.2%        | 0.7%        |
| <b>Total</b> | <b>100%</b>         | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> |

**Findings:** 25% of students expressed that they get suggestions related to Internet safety from their teachers sometimes and 31% expressed that they often receive advice. 26% of students stated that they often receive support from their peers and 24% often from their parents. 17% of students stated that they get suggestions on ways to use the Internet safely very often from their siblings and peers. During Focus Group Discussions (FGDs) students mentioned that they learn from and consult with siblings and peers more often due to their technical knowledge. It was also mentioned that parents are often busy with work.

**Table 3.2.1.20: When using the Internet, person/people who encourage students to explore or learn things on the Internet**

| Response     | Parents/ caregivers |             |             | Teachers    |             |             | Siblings    |             |             | Peers       |             |             |
|--------------|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|              | Girl                | Boy         | Total       | Girl        | Boy         | Total       | Girl        | Boy         | Total       | Girl        | Boy         | Total       |
| Never        | 15.8%               | 12.3%       | 14.0%       | 4.2%        | 3.0%        | 3.6%        | 12.2%       | 11.7%       | 11.9%       | 4.4%        | 7.2%        | 5.8%        |
| Hardly ever  | 7.8%                | 5.5%        | 6.6%        | 5.3%        | 2.5%        | 3.9%        | 8.2%        | 5.5%        | 6.8%        | 5.5%        | 5.5%        | 5.5%        |
| Sometimes    | 29.8%               | 25.0%       | 27.4%       | 26.0%       | 20.4%       | 23.2%       | 20.5%       | 19.3%       | 19.9%       | 26.4%       | 27.8%       | 27.1%       |
| Often        | 20.5%               | 20.8%       | 20.7%       | 33.7%       | 34.2%       | 33.9%       | 27.6%       | 23.1%       | 25.3%       | 24.0%       | 28.2%       | 26.1%       |
| Very often   | 7.6%                | 13.6%       | 10.6%       | 13.7%       | 18.1%       | 15.9%       | 17.9%       | 20.2%       | 19.1%       | 19.2%       | 17.0%       | 18.1%       |
| All the time | 17.7%               | 22.3%       | 20.0%       | 16.3%       | 21.2%       | 18.8%       | 12.4%       | 18.7%       | 15.5%       | 20.0%       | 14.0%       | 17.0%       |
| No Response  | 0.8%                | 0.6%        | 0.7%        | 0.8%        | 0.6%        | 0.7%        | 1.3%        | 1.5%        | 1.4%        | 0.6%        | 0.4%        | 0.5%        |
| <b>Total</b> | <b>100%</b>         | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> |

**Findings:** The research has shown that parents, siblings, teachers and peers encourage students “often” and “all the time” to explore and to learn things on the Internet. This shows that all groups have important and effective roles in promoting the Internet as a place to explore and learn.

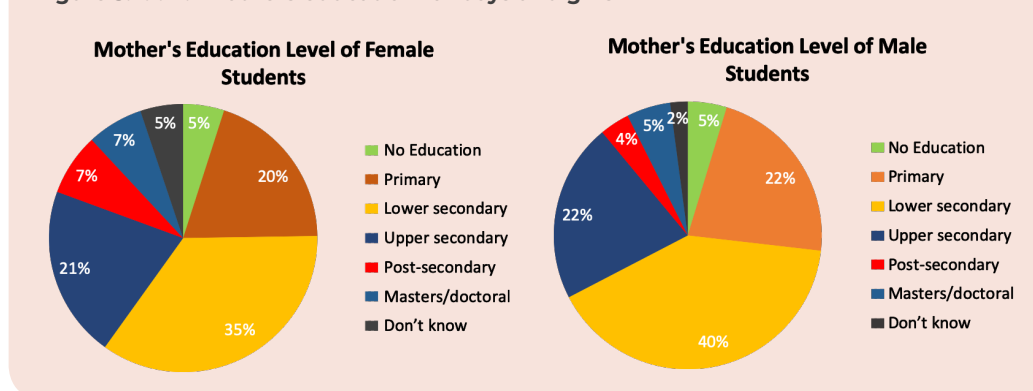
## Socio-Economic Background

**Table 3.2.1.21: Highest level of education of mother and father**

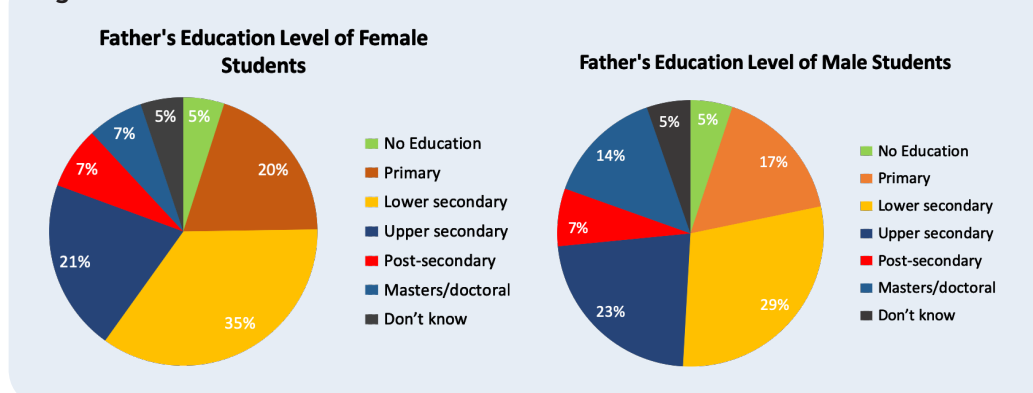
| Mother's Education  | %   | Father's Education  | %   |
|---------------------|-----|---------------------|-----|
| Didn't go to school | 5%  | Didn't go to school | 5%  |
| Primary             | 21% | Primary             | 18% |
| Lower secondary     | 38% | Lower secondary     | 26% |
| Upper secondary     | 21% | Upper secondary     | 20% |
| Post-secondary      | 6%  | Post-secondary      | 10% |
| Masters/doctoral    | 6%  | Masters/doctoral    | 16% |
| Don't know          | 4%  | Don't know          | 6%  |

**Findings:** Looking at the levels of education of participant's parents, the majority of mothers (80%) and fathers (70%) have passed upper secondary education. 6% of mothers and fathers have completed post-secondary education. Education levels of parents of male and female students are largely identical.

**Figure 3.2.1.21.1 Mothers education for boys and girls**



**Figure 3.2.1.21.2: Father's education level**



**Table 3.2.1.22: Luxury items at students' household**

|              | Car         |             |             | Television  |             |             | Bathrooms with a bath-tub or shower |             |             |
|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------------------------------|-------------|-------------|
|              | Girl        | Boy         | Total       | Girl        | Boy         | Total       | Girl                                | Boy         | Total       |
| Yes          | 28.1%       | 23.3%       | 25.7%       | 85.6%       | 82.6%       | 84.1%       | 63.3%                               | 65.6%       | 64.5%       |
| No           | 65.4%       | 69.4%       | 67.4%       | 12.9%       | 16.6%       | 14.8%       | 31.7%                               | 31.4%       | 31.6%       |
| No Response  | 6.5%        | 7.4%        | 6.9%        | 1.5%        | 0.8%        | 1.1%        | 4.9%                                | 3.0%        | 4.0%        |
| <b>Total</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b>                         | <b>100%</b> | <b>100%</b> |

**Findings:** Most students do not come from households with a large number of luxury items. Among the surveyed students 84% stated that their households has a TV and 67% responded that the household has a vehicle, which includes rickshaws.

**Table 3.2.1.23: Number of books at home**

| No of books         | Percent     |             |             |
|---------------------|-------------|-------------|-------------|
|                     | Girl        | Boy         | Total       |
| 0-10 books          | 26.4%       | 28.7%       | 27.6%       |
| 11-25 books         | 35.6%       | 34.2%       | 34.9%       |
| 26-100 books        | 24.3%       | 17.6%       | 20.9%       |
| 101-200 books       | 9.3%        | 10.4%       | 9.9%        |
| 201-500 books       | 1.9%        | 4.7%        | 3.3%        |
| More than 500 books | 2.1%        | 4.2%        | 3.1%        |
| No Response         | 0.4%        | 0.2%        | 0.3%        |
| <b>Total</b>        | <b>100%</b> | <b>100%</b> | <b>100%</b> |

**Findings:** The number of books at the household level varied but was similar for boys and girls. 27% of households possess less than 10 books and 35% possess between 11 and 25 books.

**Table 3.2.1.24: Who usually lives at home**

| Mothers | Fathers | Grand Parents | Siblings | Children's Home, Orphanage |
|---------|---------|---------------|----------|----------------------------|
| 88%     | 78%     | 33%           | 78%      | 1%                         |

**Findings:** Most consulted students live with their families. The majority of students (88%) live with their mothers and 33% live with their grandparents which indicates larger households. 1% of students live in special children's homes or orphanages.

### 3.2.2 Digital Literacy: Competency of students in using digital devices and resources

**Table: 3.2.2.1: ICT Literacy**

| No | Statement                                                                                                                                                | Disagree a lot | Disagree a little | Agree a little | Agree a lot |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------|----------------|-------------|
| A1 | I can edit electronic resources (e.g. text, graphics, audio, videos)                                                                                     | 6%             | 12%               | 60%            | 22%         |
| A2 | I use social media platform (e.g. Facebook, Instagram, Snapchat, LINE, We Chat) to share ideas, participate in discussions, and collaborate with others. | 12%            | 14%               | 29%            | 45%         |
| A3 | I can set up a safe computing environment (e.g. remove computer viruses, install security programs/anti-virus).                                          | 24%            | 16%               | 27%            | 34%         |
| A4 | I can transfer photos, music, and video files saved on my computer into other digital devices (e.g. mobile phone, tablet PC).                            | 7%             | 7%                | 25%            | 61%         |
| A5 | I use computer software (e.g. Microsoft Word, Microsoft PowerPoint, Google Docs) to complete learning tasks at school.                                   | 23%            | 22%               | 34%            | 21%         |
| A6 | I know how to use the latest digital devices.                                                                                                            | 7%             | 15%               | 41%            | 38%         |
| A7 | I use digital devices in order to search for information and applications I need.                                                                        | 13%            | 18%               | 30%            | 39%         |
| A8 | I use digital devices for learning at home.                                                                                                              | 8%             | 13%               | 35%            | 44%         |
| A9 | I use digital devices for my personal interest (e.g. games, chatting, shopping, searching for information).                                              | 6%             | 9%                | 28%            | 57%         |

**Findings:** ICT literacy rates are generally high. The findings show that more than half of surveyed students use social media platforms, though the amount of use and the understanding of safety varies. 60% students agreed and 29% agreed a lot about knowing how to edit electronic resources (e.g. text, graphics, audio, videos).

45% of students strongly agreed and 27% agreed about using social media platforms (e.g. Facebook, Instagram, Snapchat, LINE, WeChat) to share ideas, to participate in discussions, and to collaborate with others. 34% strongly agreed and 27% agreed that they can set up a safe computing environment (e.g. remove computer viruses, install security programs/ anti-virus). 61% of students strongly agreed and 25% agreed that they can transfer photos, music, and video files saved on one computer onto other digital devices (e.g. mobile phones, tablet PCs).

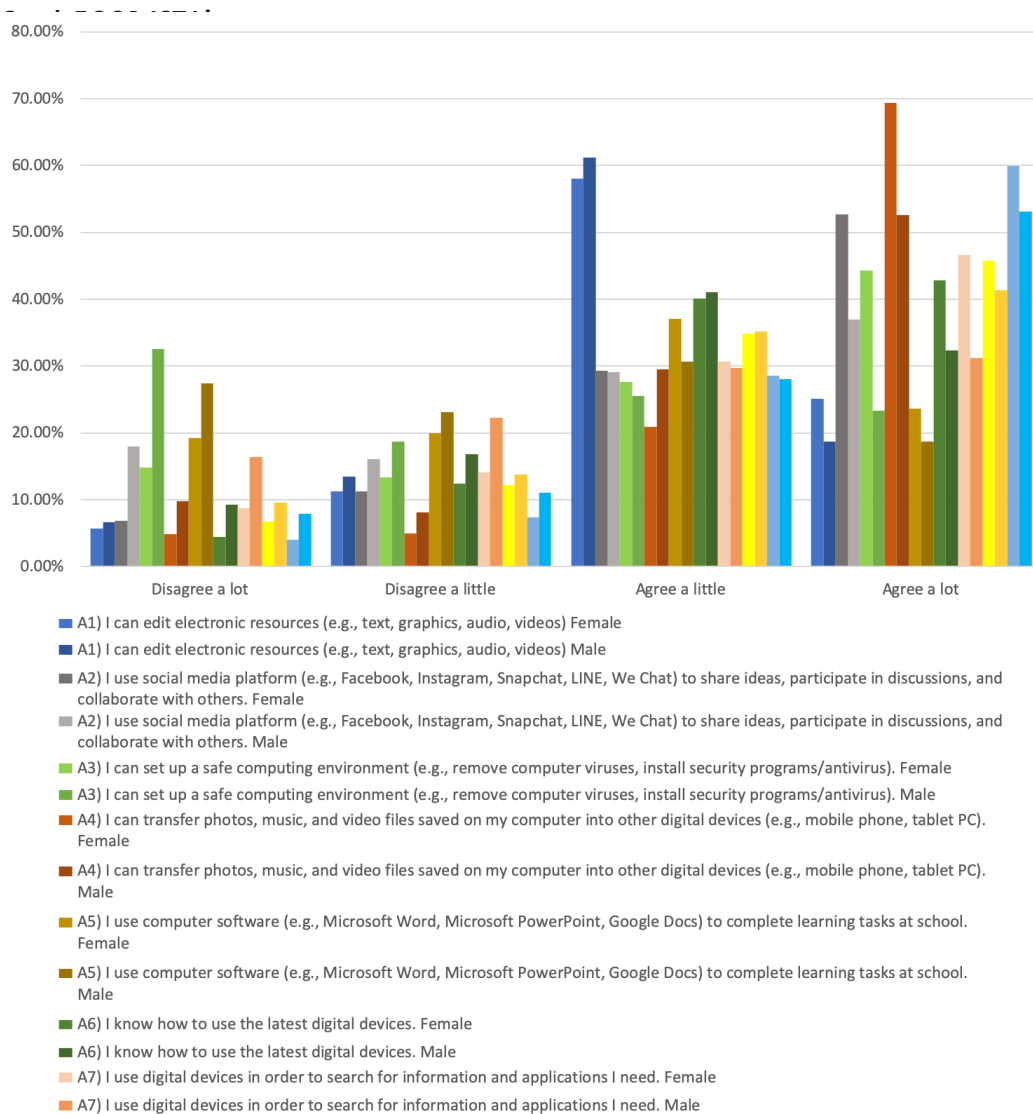
Students' access to and capability of using latest digital device is high. Around 80% of students know how to use latest digital devices. More than 50% of students use computer software (e.g. Microsoft Word, Microsoft PowerPoint, Google Docs) to complete learning tasks at school and 69% use digital devices to search for information and applications they need.

The majority of students (79%), both male and female, use digital devices to study at home. 85%

of students use digital devices for personal interest (e.g. games, chatting, shopping, searching for information). When it comes to editing electronic resources (e.g. texts, graphics, audio, videos) both boys (61%) and girls (58%) expressed that they lack skills.

Digital devices are often used to access social media platforms (e.g. Facebook, Instagram). 58% of female students and 37% of male students strongly agreed with having digital literacy skills in social media. This was confirmed during FGDs at which students expressed their literacy in social media and the use of Facebook for socializing and maintaining social networks.

According to the survey, girls expressed higher ICT literacy skills than their male counterparts in all areas of ICT.



## Information Literacy

**Table 3.2.2.2: Information Literacy**

| No  | Statement                                                                                      | Disagree a lot | Disagree a little | Agree a little | Agree a lot |
|-----|------------------------------------------------------------------------------------------------|----------------|-------------------|----------------|-------------|
| A10 | I assess the relevance of the digital information to complete learning tasks at school.        | 11%            | 21%               | 38%            | 30%         |
| A11 | I can separate reliable from unreliable information when searching for digital information.    | 15%            | 19%               | 35%            | 31%         |
| A12 | I search for and find information to complete learning tasks on the Internet.                  | 6%             | 10%               | 29%            | 55%         |
| A13 | I know I need to report the source of information when using information attained from online. | 11%            | 16%               | 27%            | 46%         |
| A14 | If I find wrong information on the Internet, I can correct it.                                 | 17%            | 17%               | 36%            | 31%         |

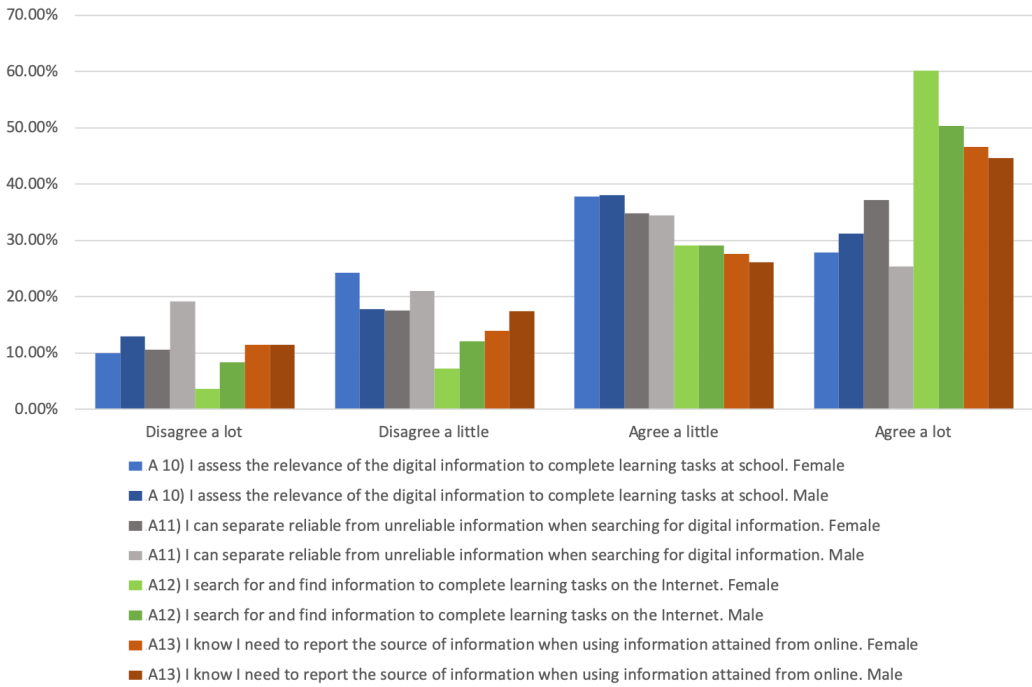
**Findings:** When looking at Information Literacy, 30% of students strongly agree and 38% agree that they are able to assess the relevance of digital information to complete learning tasks at school. 31% of students expressed that they can clearly separate and 35% expressed that they are able to separate reliable from unreliable information when searching for information online.

55% of students strongly agree and 29% somewhat agree about their skill to be able to search for and to find relevant information on the Internet to complete learning tasks. This shows that a significant percentage of students look for and find relevant information on the Internet.

When it comes to including the source of information when using information attained from online sources, the majority (73%) responded that they are aware about sources and principles of properly quoting sources. A significant percentage (31%) of students strongly agreed that when they see wrong Information on the Internet, they can correct it. 36% agreed that they can make corrections in such cases.

Overall, self-reported Information literacy is similar between boys and girls. Female students agreed stronger (60%) than their male counterparts (50%) that they are able complete learning tasks utilizing digital sources.

**Graph 3.2.2.2: Information Literacy**



### 3.2.3 Digital Safety & Resilience: Understanding Child Rights

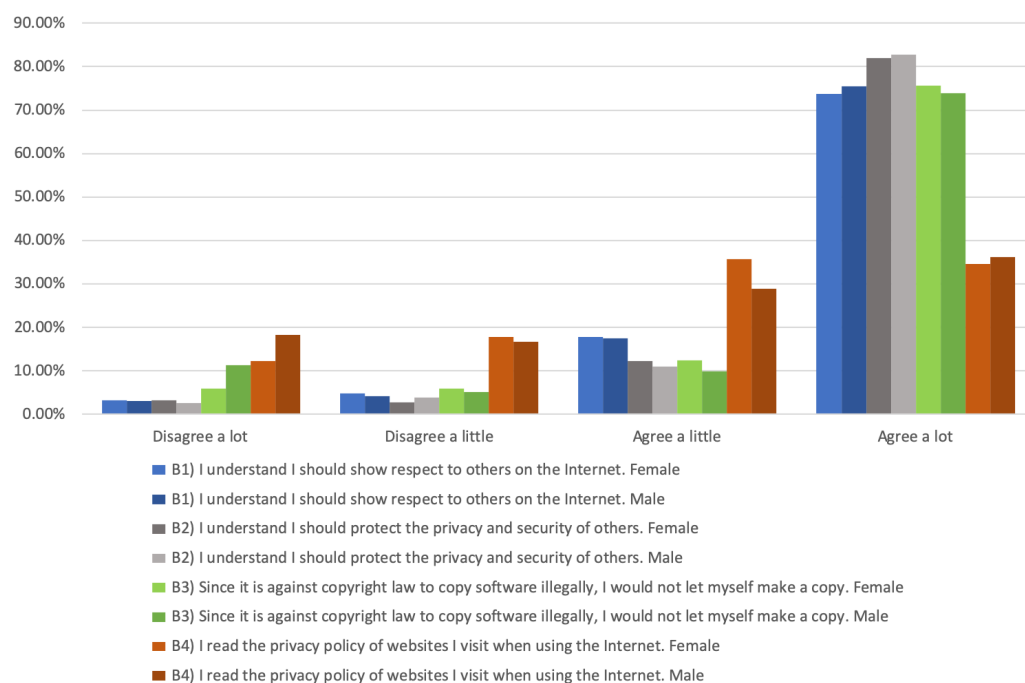
**Table 3.2.3.1: Understanding Child Rights**

| No | Statement                                                                                         | Disagree a lot | Disagree a little | Agree a little | Agree a lot |
|----|---------------------------------------------------------------------------------------------------|----------------|-------------------|----------------|-------------|
| B1 | I understand I should show respect to others on the Internet.                                     | 3%             | 4%                | 18%            | 75%         |
| B2 | I understand I should protect the privacy and security of others.                                 | 3%             | 3%                | 12%            | 83%         |
| B3 | Since it is against copyright law to copy software illegally, I would not let myself make a copy. | 9%             | 6%                | 11%            | 75%         |
| B4 | I read the privacy policy of websites I visit when using the Internet.                            | 15%            | 17%               | 32%            | 35%         |

**Findings:** Students have expressed their concern about digital safety and resilience. 75% of students strongly agree that one should show respect to others on the Internet and 83% strongly agree that they should protect the privacy and security of others. 75% of students expressed that they are aware of copyright and that they do not copy materials illegally. Further, 35% strongly agreed and 32% somewhat agreed that they read privacy policies of websites they visit when using the Internet.

Girls and boys are both concerned about children's rights. Female respondents stronger agreed that they check privacy policy of websites.

**Graph 3.2.3.1: Understanding Child Rights**



**Table 3.2.3.2: Personal data, Privacy and Reputation**

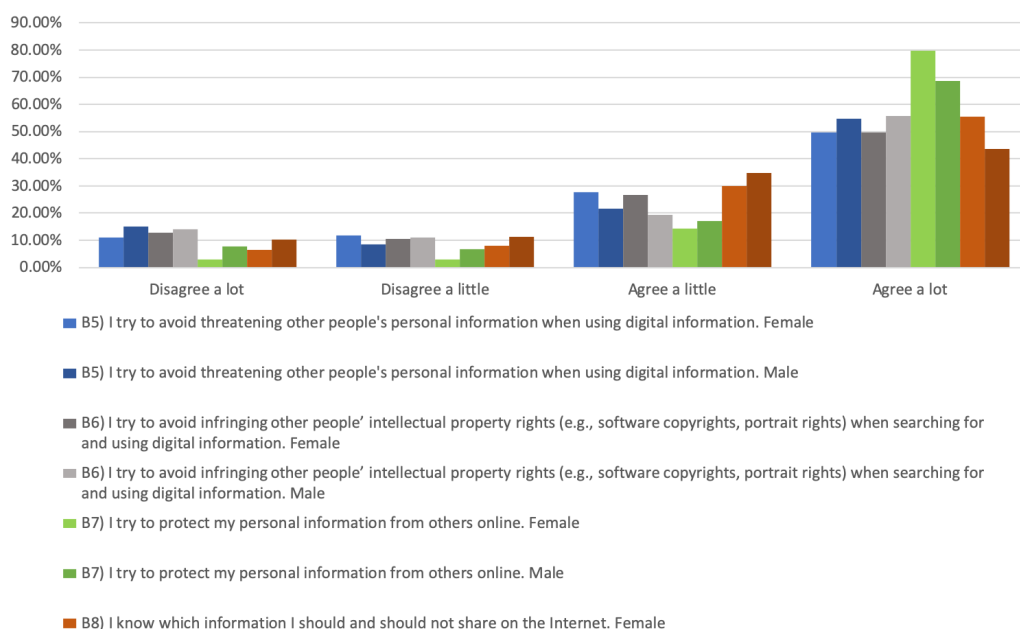
| No |                                                                                                                                                                    | Disagree a lot | Disagree a little | Agree a little | Agree a lot |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------|----------------|-------------|
| B5 | I try to avoid threatening other people's personal information when using digital information.                                                                     | 13%            | 10%               | 25%            | 52%         |
| B6 | I try to avoid infringing other people' intellectual property rights (e.g. software copyrights, portrait rights) when searching for and using digital information. | 13%            | 11%               | 23%            | 53%         |
| B7 | I try to protect my personal information from others online.                                                                                                       | 5%             | 5%                | 16%            | 74%         |
| B8 | I know which information I should and should not share on the Internet.                                                                                            | 8%             | 10%               | 32%            | 50%         |

**Findings:** Students are aware of the protection of personal data, privacy, and reputational issues. More than half of the students (52%) strongly agreed and 25% agreed that they try to avoid threatening other people's personal information when using digital information.

53% of students agreed that they try to avoid infringing other people' intellectual property rights (e.g. software copyrights, photo rights) when searching for and when using digital information. 74% of students expressed that they try to protect personal information from others online. 50% of respondents agreed that they are aware which information they should and which information they should not share on the Internet.

79% of girls and 79% of boys agreed that they are concerned about protecting privacy. Overall girls are more careful and modify privacy settings.

**Graph 3.2.3.2: Personal data, Privacy and Reputation**



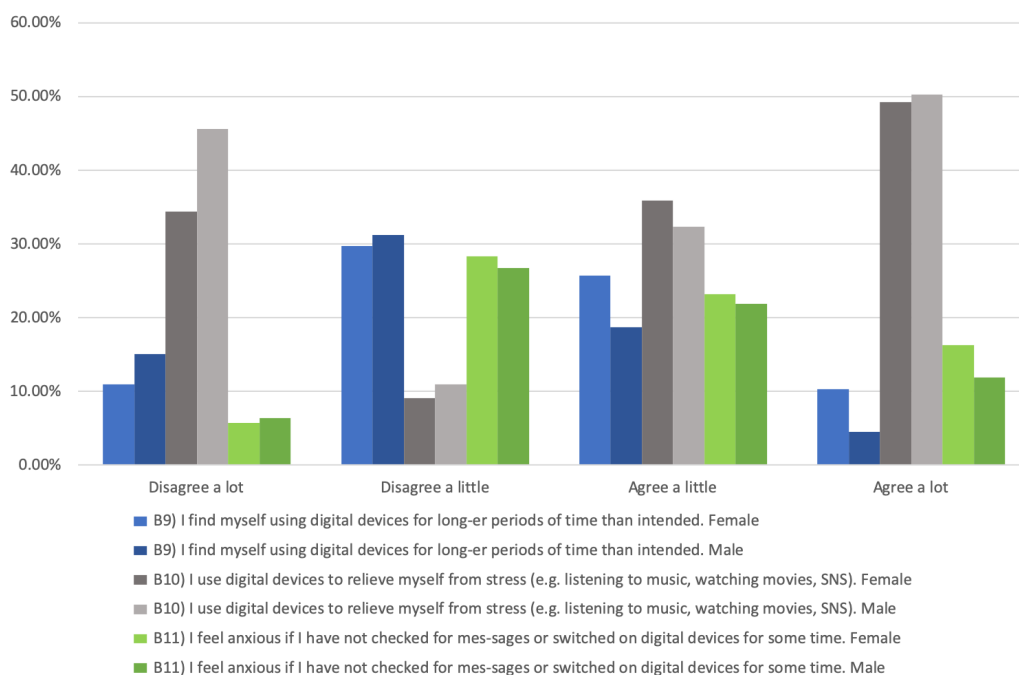
**Table 3.2.3.3: Promoting and Protecting Health and Well-Being**

| No  |                                                                                                      | Disagree a lot | Disagree a little | Agree a little | Agree a lot |
|-----|------------------------------------------------------------------------------------------------------|----------------|-------------------|----------------|-------------|
| B9  | I find myself using digital devices for longer periods of time than intended.                        | 40%            | 30%               | 22%            | 7%          |
| B10 | I use digital devices to relieve myself from stress (e.g. listening to music, watching movies, SNS). | 6%             | 10%               | 34%            | 50%         |
| B11 | I feel anxious if I have not checked for messages or switched on digital devices for some time.      | 36%            | 28%               | 23%            | 14%         |

**Findings:** The findings show that students believe to have control over the use of digital devices. 7% expressed that they find themselves using digital devices for longer periods of time than intended. Looking at gender differences, female students expressed that they use digital devices more than intended as well as that they feel more anxious if not using their devices for longer periods.

The majority (84%) of students use digital devices to relieve themselves from stress by listening to music, watching movies, etc. Among the respondents, 64% mentioned that they do not feel anxious if they have not checked for messages or if they have switched off their digital devices for some time.

**Graph 3.2.3.3: Promoting and Protecting Health and Well-Being**



## Digital Resilience

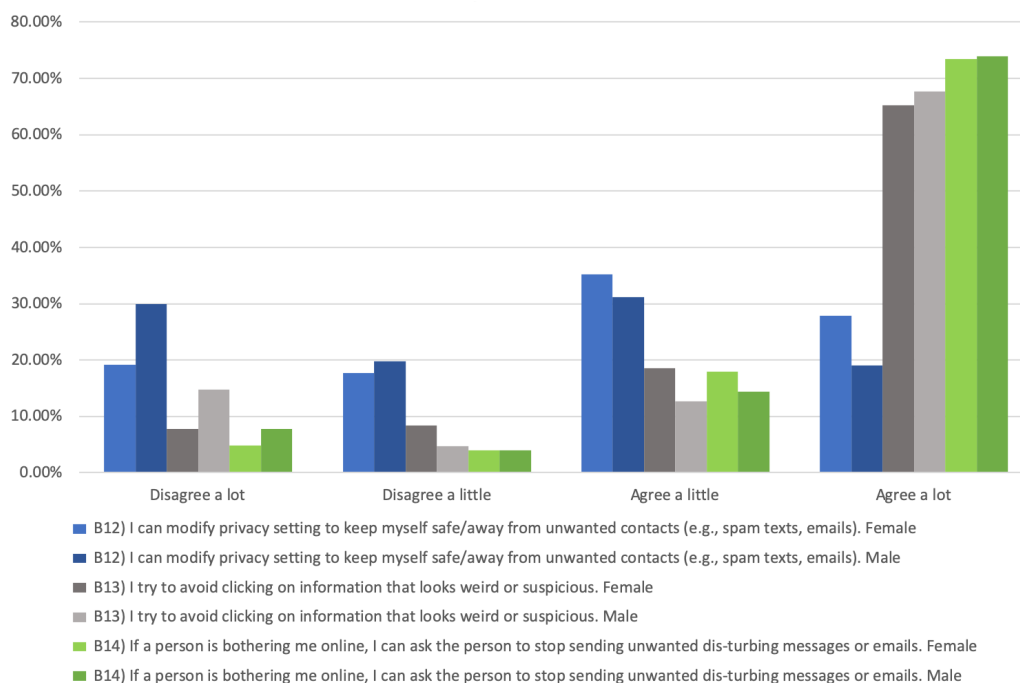
**Table 3.2.3.4: Digital Resilience**

| No  | Statement                                                                                                        | Disagree a lot | Disagree a little | Agree a little | Agree a lot |
|-----|------------------------------------------------------------------------------------------------------------------|----------------|-------------------|----------------|-------------|
| B12 | I can modify privacy setting to keep myself safe/away from unwanted contacts (e.g. Spam texts, emails).          | 25%            | 19%               | 33%            | 23%         |
| B13 | I try to avoid clicking on information that looks weird or suspicious.                                           | 11%            | 7%                | 16%            | 67%         |
| B14 | If a person is bothering me online, I can ask the person to stop sending unwanted disturbing messages or emails. | 6%             | 4%                | 16%            | 74%         |

**Findings:** Students showed awareness and agreed about their digital resilience. More than half (56%) of students surveyed expressed that they can modify privacy settings to keep themselves safe and undisturbed from unwanted contacts (e.g. Spam texts, emails). 83% of respondents agreed that they try to avoid clicking on information that looks weird or suspicious. Most of the students (90%) agreed that if a person bothers them online, they can ask the person to stop sending unwanted disturbing messages or emails.

Looking at gender differences, boys expressed to consult with their parents or caregivers while girls expressed that they consult with their peers. During Focus Group Discussions (FGDs) it appeared that girls are afraid that they may be misunderstood by their parents, that girls often feel more comfortable to share, and that girls often get more support from their peers, who are often experiencing similar occurrences. More than 60% of male and female students expressed that they use programmes to prevent unwanted disturbances and that they block websites and people.

**Graph 3.2.3.4: Digital Resilience**



**Table: 3.2.3.5 Reaction when exposed to unwanted disturbing files or websites**

| B15 Reaction when you are exposed to unwanted disturbing files or websites (e.g. pornography website, violent media)* | Responses, N |      |       | Percentage of Cases |       |       |
|-----------------------------------------------------------------------------------------------------------------------|--------------|------|-------|---------------------|-------|-------|
|                                                                                                                       | Girl         | Boy  | Total | Girl                | Boy   | Total |
| B15.1 Get rid of it immediately by closing the page, deleting the file, or scrolling away                             | 428          | 390  | 818   | 81.4%               | 73.9% | 77.6% |
| B15.2 Talk about it with parents/ caregivers                                                                          | 169          | 231  | 400   | 32.1%               | 43.8% | 38.0% |
| B15.3 Use a program that prevents it from happening again                                                             | 254          | 264  | 518   | 48.3%               | 50.0% | 49.1% |
| B15.4 Talk about it with a friend                                                                                     | 291          | 223  | 514   | 55.3%               | 42.2% | 48.8% |
| B15.5 Look away or close my eyes                                                                                      | 83           | 79   | 162   | 15.8%               | 15.0% | 15.4% |
| B15.6 Keep looking                                                                                                    | 39           | 15   | 54    | 7.4%                | 2.8%  | 5.1%  |
| B15.7 Block the webpage or website                                                                                    | 333          | 319  | 652   | 63.3%               | 60.4% | 61.9% |
| B15.8 Don't know what to do                                                                                           | 20           | 54   | 74    | 3.8%                | 10.2% | 7.0%  |
| Total                                                                                                                 | 1617         | 1575 | 3192  |                     |       |       |
| Number of Respondents = 1054<br>*Multiple Response                                                                    |              |      |       |                     |       |       |

**Findings:** When students are exposed to unwanted disturbing files or websites (e.g. pornography website, violent media majority), 78% expressed that they get rid of it immediately by closing the page, deleting the file, or scrolling away. 62% expressed that they block the webpage or website, and 49% stated that they use a program that prevents it from happening again. Around 50% of students expressed that they discuss with a friend and 40% consult their parents. The results show that students are aware of and act responsibly when dealing with unwanted and violent content online.

**Table 3.2.3.6: Reaction when receiving unwanted, disturbing messages including annoying messages or embarrassing pictures from someone on student's contact list**

| B16 Reaction when you receive unwanted disturbing messages including annoying messages or embarrassing pictures from someone on your contact list* | Responses, N |      |       | Percentage of Cases |       |       |
|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------|-------|---------------------|-------|-------|
|                                                                                                                                                    | Girl         | Boy  | Total | Girl                | Boy   | Total |
| B16.1 Block and report the person                                                                                                                  | 317          | 301  | 618   | 60.3%               | 57.0% | 58.6% |
| B16.2 Delete the contact                                                                                                                           | 324          | 299  | 623   | 61.6%               | 56.6% | 59.1% |
| B16.3 Ignore the messages and the person                                                                                                           | 269          | 258  | 527   | 51.1%               | 48.9% | 50.0% |
| B16.4 Talk with parents/ caregivers about what to do                                                                                               | 160          | 254  | 414   | 30.4%               | 48.1% | 39.3% |
| B16.5 Ask the person to stop sending these messages or pictures                                                                                    | 427          | 398  | 825   | 81.2%               | 75.4% | 78.3% |
| B16.6 Talk with teachers about what to do                                                                                                          | 97           | 99   | 196   | 18.4%               | 18.8% | 18.6% |
| B16.7 Report the issue to the police and show them what happened                                                                                   | 66           | 55   | 121   | 12.5%               | 10.4% | 11.5% |
| B16.8 Don't know what to do                                                                                                                        | 17           | 17   | 34    | 3.2%                | 3.2%  | 3.2%  |
| Total                                                                                                                                              | 1677         | 1681 | 3358  |                     |       |       |
| Number of Respondents = 1055<br>*Multiple Response                                                                                                 |              |      |       |                     |       |       |

**Findings:** When receiving unwanted disturbing messages including annoying messages or embarrassing pictures from someone on their contact list, 78% of students (Boys: 75%, Girls: 81%) expressed that they ask the person to stop sending such messages and/or pictures.

59% said they delete or block the contact, or report the person. 39% of students (Boys: 41%, Girls: 3%) expressed to talk with parents/caregivers about what to do. 19% of respondents stated to consult teachers in such situations to discuss what to do. 50% of respondents stated that they simply ignore the messages and the person who sent them – indicating that they remain at risk of being disturbed.

**Table 3.2.3.7: Reaction when personal information is misused, compromised or acquired without permission online**

| B17 Reaction when you find that your personal information is misused, compromised or acquired without permission online* | Responses, N |             |             | Percentage of Cases |       |       |
|--------------------------------------------------------------------------------------------------------------------------|--------------|-------------|-------------|---------------------|-------|-------|
|                                                                                                                          | Girl         | Boy         | Total       | Girl                | Boy   | Total |
| B17.1 Change your account password                                                                                       | 437          | 413         | 850         | 83.2%               | 78.4% | 80.8% |
| B17.2 Review privacy settings and choose a more secure password                                                          | 407          | 383         | 790         | 77.5%               | 72.7% | 75.1% |
| B17.3 Use a report button                                                                                                | 169          | 84          | 253         | 32.2%               | 15.9% | 24.0% |
| B17.4 Disable or delete the account and make a new account                                                               | 166          | 240         | 406         | 31.6%               | 45.5% | 38.6% |
| B17.5 Ask parents/ caregivers to help                                                                                    | 143          | 201         | 344         | 27.2%               | 38.1% | 32.7% |
| B17.6 Ask teachers to help                                                                                               | 108          | 79          | 187         | 20.6%               | 15.0% | 17.8% |
| B17.7 Report the issue to the police and show them what happened                                                         | 85           | 40          | 125         | 16.2%               | 7.6%  | 11.9% |
| B17.8 Don't know what to do                                                                                              | 26           | 35          | 61          | 5.0%                | 6.6%  | 5.8%  |
| <b>Total</b>                                                                                                             | <b>1541</b>  | <b>1475</b> | <b>3016</b> |                     |       |       |
| Number of Respondents = 1054                                                                                             |              |             |             |                     |       |       |
| *Multiple Response                                                                                                       |              |             |             |                     |       |       |

**Findings:** In cases of students' personal information being misused, compromised or acquired online without their permission, most students take care of the issue by themselves. 81% of students (Boys: 79%, Girls: 83%) change their account password. 75% of students (Boys: 73%, Girls: 78%) review privacy settings and choose a more secure password. 38% ask their parents/caregivers to help and 18% of students (Boys: 15%, Girls: 20%) ask their teachers for help.

**Table 3.2.3.8: Reaction when bullied online by friends or others**

| B18 Reaction when you are bullied online by friends or others*              | Responses, N |             |             | Percentage of Cases |       |       |
|-----------------------------------------------------------------------------|--------------|-------------|-------------|---------------------|-------|-------|
|                                                                             | Girl         | Boy         | Total       | Girl                | Boy   | Total |
| B18.1 Block and report the persons                                          | 332          | 306         | 638         | 63.1%               | 58.0% | 60.5% |
| B18.2 Delete the contact                                                    | 332          | 292         | 624         | 63.1%               | 55.3% | 59.2% |
| B18.3 Show the persons I am not bothered by their behavior by ignoring them | 319          | 301         | 620         | 60.6%               | 57.0% | 58.8% |
| B18.4 Talk with parents/ caregivers about what to do                        | 147          | 250         | 397         | 27.9%               | 47.3% | 37.7% |
| B18.5 Ask the persons to stop sending annoying messages or pictures         | 360          | 351         | 711         | 68.4%               | 66.5% | 67.5% |
| B18.6 Talk with teachers about what to do                                   | 100          | 87          | 187         | 19.0%               | 16.5% | 17.7% |
| B18.7 Report the issue to the police and show them what happened            | 83           | 56          | 139         | 15.8%               | 10.6% | 13.2% |
| B18.8 Keep the evidence of bullying (e.g. screen shot)                      | 249          | 165         | 414         | 47.3%               | 31.2% | 39.3% |
| B18.9 Don't know what to do                                                 | 21           | 39          | 60          | 4.0%                | 7.4%  | 5.7%  |
| <b>Total</b>                                                                | <b>1943</b>  | <b>1847</b> | <b>3790</b> |                     |       |       |
| Number of Respondents = 1054<br>*Multiple Response                          |              |             |             |                     |       |       |

**Findings:** If students are bullied online by their friends or by others, the majority of students (67%) directly contact and ask the persons to stop sending annoying messages or pictures. 60% of students block and report the person, 59% delete the contact. 59% of students respond by ignoring the person and issue, and more than 50% consult their parents and teachers.

### 3.2.4 Digital Participation and Agency

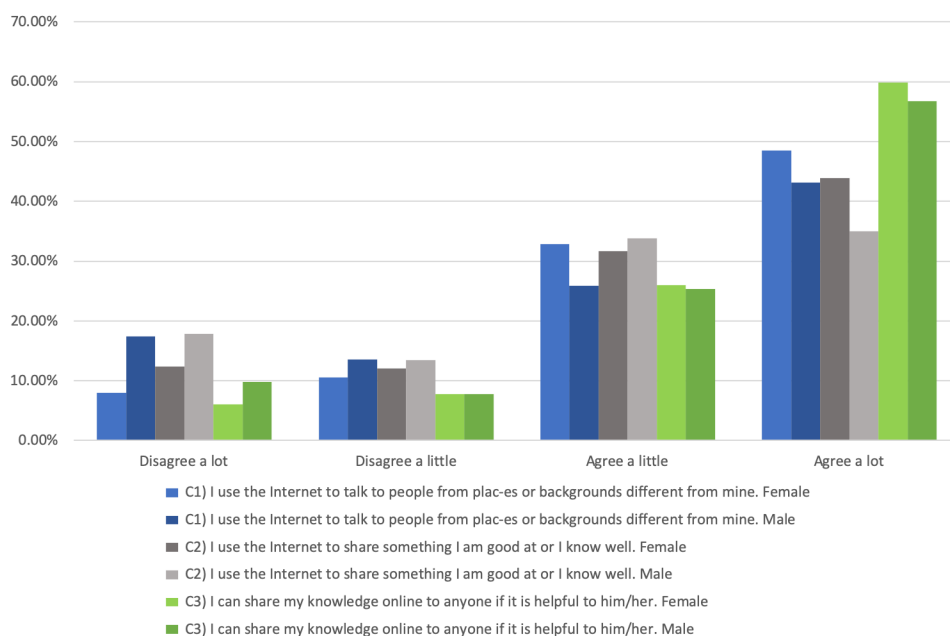
**Table 3.2.4.1: Interacting, Sharing, and Collaborating**

| No | Statement                                                                            | Disagree a lot | Disagree a little | Agree a little | Agree a lot |
|----|--------------------------------------------------------------------------------------|----------------|-------------------|----------------|-------------|
| C1 | I use the Internet to talk to people from places or backgrounds different from mine. | 13%            | 12%               | 29%            | 46%         |
| C2 | I use the Internet to share something I am good at or I know well.                   | 15%            | 13%               | 33%            | 40%         |
| C3 | I can share my knowledge online to anyone if it is helpful to him/her.               | 8%             | 8%                | 26%            | 58%         |
| C4 | I make new friendships with other people online.                                     | 8%             | 10%               | 25%            | 57%         |

**Findings:** In regard to questions asked relating to students using the Internet to interact, share, and collaborate with others, students strongly agreed or agreed to most statements.. 46% of respondents strongly agree and 29% agree that they use the Internet to talk to people from places or backgrounds different from theirs. The numbers show that female students expressed to be more open and receptive to people from other backgrounds and locality. 25% of students disagreed to the statement that they use the Internet to talk to people from places or backgrounds different from theirs.

Further, 40% of respondents strongly agree and 33% agree that they use the Internet to share things they are good at or know well. 28% of respondents disagreed and do not share those skills or knowledge online. 58% of students (Boys: 35%, Girls: 44%) strongly agreed and 26% agreed that the Internet enables them to share knowledge online with others if it is helpful knowledge. 16% disagreed with the statement. 57% of students (Boys: 57%, Girls: 66%) strongly agreed and 26% agreed that they make new friendships with other people online. 18% disagreed with the statement and do not make new friendships online.

**Graph 3.2.4.1: Interacting, Sharing, and Collaborating**

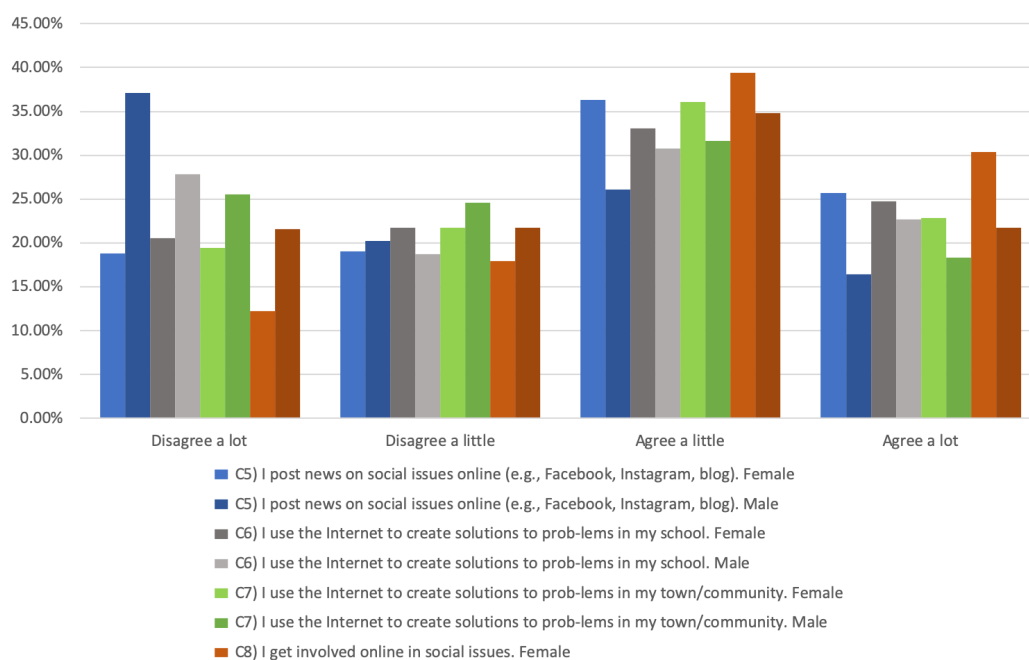


**Table 3.2.4.2: Civic Engagement**

| No | Statement                                                                | Disagree a lot | Disagree a little | Agree a little | Agree a lot |
|----|--------------------------------------------------------------------------|----------------|-------------------|----------------|-------------|
| C5 | I post news on social issues online (e.g. Facebook, Instagram, blog).    | 28%            | 20%               | 31%            | 21%         |
| C6 | I use the Internet to create solutions to problems in my school.         | 24%            | 20%               | 32%            | 24%         |
| C7 | I use the Internet to create solutions to problems in my town/community. | 22%            | 23%               | 34%            | 21%         |
| C8 | I get involved online in social issues.                                  | 17%            | 20%               | 37%            | 26%         |

**Findings:** Survey questions relating to students' civic engagement showed mixed responses. 21% of respondents (Boys: 16%, Girls: 25%) strongly agreed and 31% agreed that they post news on social issues online (e.g. Facebook, Instagram, blog). 48% of students disagreed and stated to not post news on social issues online. 24% strongly agreed and 32% of respondents somewhat agreed that they use the Internet to create solutions to problems in their school. Similarly, 21% strongly agreed and 34% of respondents somewhat agreed that they use the Internet to create solutions to problems in their town/community. 26% of students strongly agreed and 37% somewhat agreed that they get involved in social issues online. 37% of students disagreed to the statement that they get involved in social issues online.

**Graph 3.2.2.2: Civic Engagement**

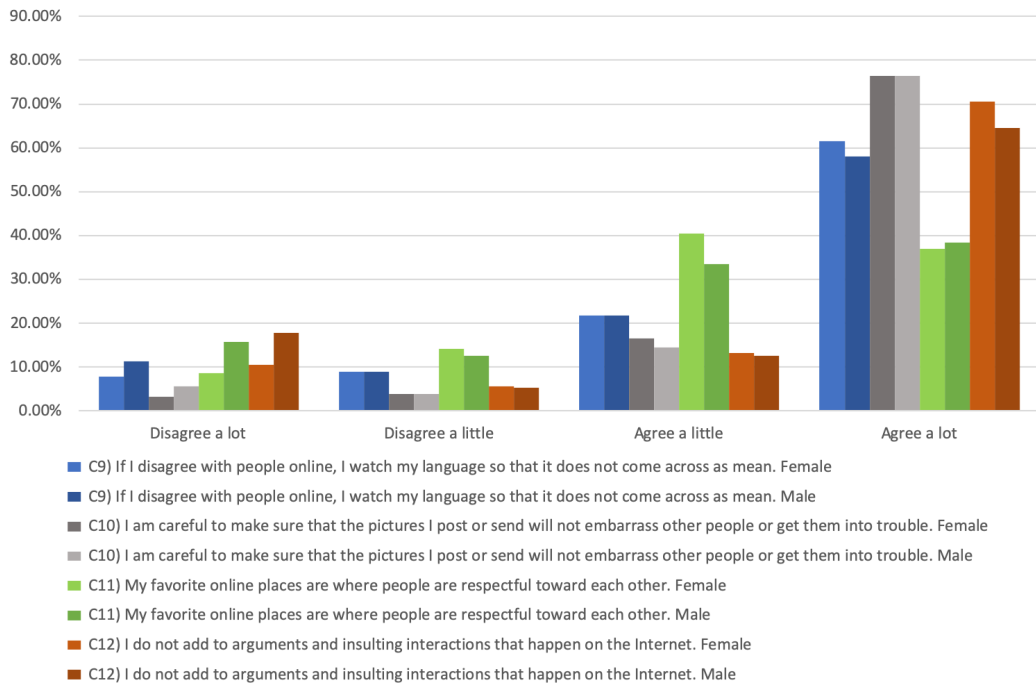


**Table 3.2.4.3: Netiquette**

| No  | Statement                                                                                                            | Disagree a lot | Disagree a little | Agree a little | Agree a lot |
|-----|----------------------------------------------------------------------------------------------------------------------|----------------|-------------------|----------------|-------------|
| C9  | If I disagree with people online, I watch my language so that it does not come across as mean.                       | 10%            | 9%                | 22%            | 60%         |
| C10 | I am careful to make sure that the pictures I post or send will not embarrass other people or get them into trouble. | 4%             | 4%                | 15%            | 77%         |
| C11 | My favorite online places are where people are respectful toward each other.                                         | 12%            | 13%               | 37%            | 38%         |
| C12 | I do not add to arguments and insulting interactions that happen on the Internet.                                    | 14%            | 5%                | 13%            | 68%         |

**Findings:** Students expressed great awareness of and respect to online ethics and netiquette. The majority of students (60%) strongly agreed, and 22% of students agreed to a statement relating to them watching their language when disagreeing with people online, so that it does not come across as mean. 77% of respondents strongly agreed and 15% agreed that they are careful that the pictures they post or send will not embarrass other people or get them into trouble. Further, 38% of respondents strongly agree and 36% agree that their favorite online places are places where people are respectful towards each other. The vast majority of students expressed that they avoid insulting interactions and do not add to arguments when they happen on the Internet (68% strongly agree, 13% agree).

**Graph 3.2.4.3: Netiquette**



### 3.2.5 Digital Emotional Intelligence

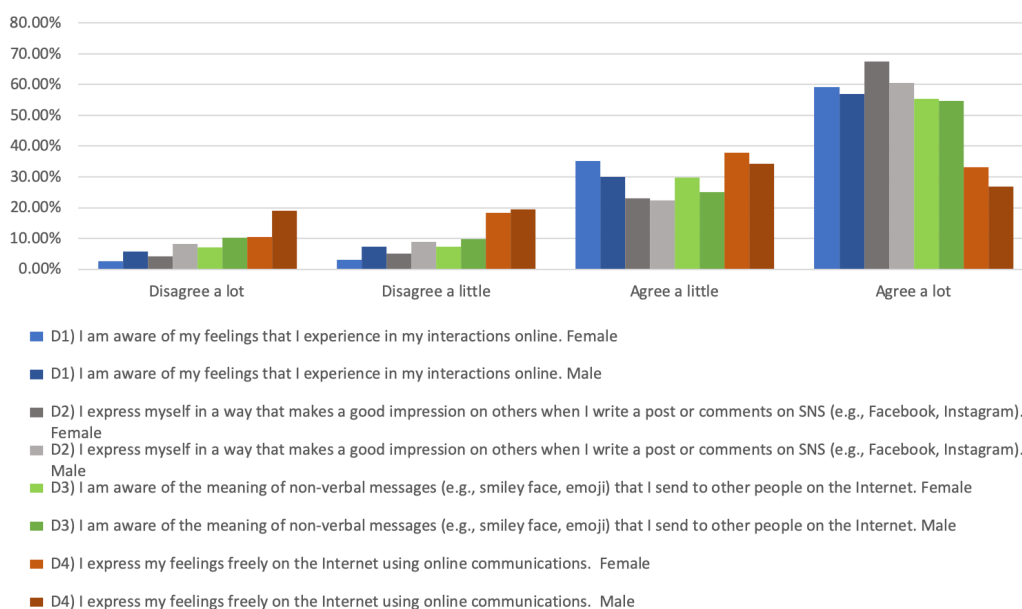
**Table 3.2.5.1: Self-awareness**

| No | Statement                                                                                                                           | Disagree a lot | Disagree a little | Agree a little | Agree a lot |
|----|-------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------|----------------|-------------|
| D1 | I am aware of my feelings that I experience in my interactions online.                                                              | 4%             | 5%                | 33%            | 58%         |
| D2 | I express myself in a way that makes a good impression on others when I write a post or comments on SNS (e.g. Facebook, Instagram). | 6%             | 7%                | 23%            | 64%         |
| D3 | I am aware of the meaning of non-verbal messages (e.g. smiley face, emoji) that I send to other people on the Internet.             | 9%             | 9%                | 27%            | 55%         |
| D4 | I express my feelings freely on the Internet using online communications.                                                           | 15%            | 19%               | 36%            | 30%         |

**Findings:** Looking at issues relating to self-awareness, students showed positive responses. 58% strongly agreed and 33% agreed that they are aware of feelings that they experience in their interactions online.

64% of respondents strongly agree and 23% agree that they express themselves in a way that makes a good impression on others when they write a post or comments on social media (e.g. Facebook, Instagram). 55% respondents strongly agreed and 26% agreed that they are aware of the meaning of non-verbal messages (e.g. smiley faces, emoji) that they send to others on the Internet. 18% expressed that they are not aware of the meaning of certain non-verbal messages. Further, 30% of students strongly agreed and 36% agreed to a statement about them expressing their feelings freely on the Internet using online communications.

**Graph 3.2.5.1: Self awareness**



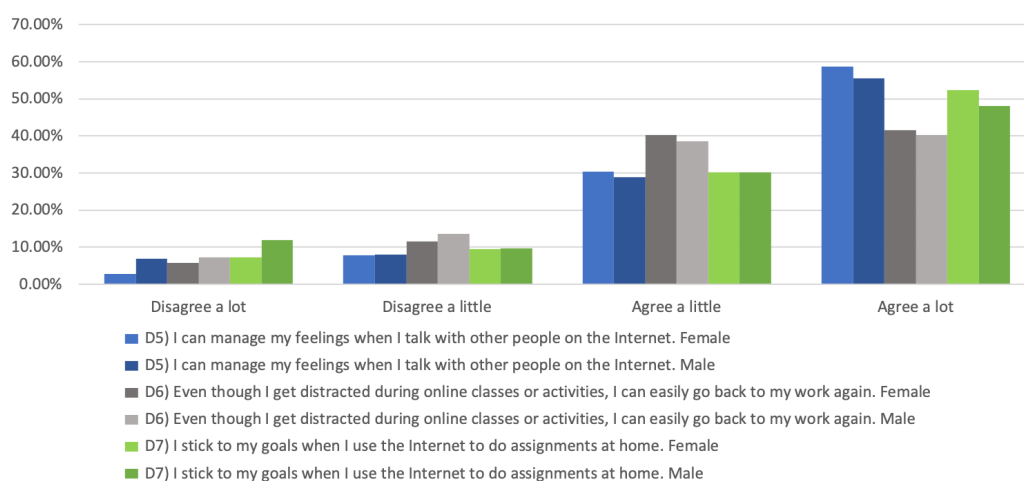
**Table 3.2.5.2: Self-regulation**

| No | Statement                                                                                                | Disagree a lot | Disagree a little | Agree a little | Agree a lot |
|----|----------------------------------------------------------------------------------------------------------|----------------|-------------------|----------------|-------------|
| D5 | I can manage my feelings when I talk with other people on the Internet.                                  | 5%             | 8%                | 30%            | 57%         |
| D6 | Even though I get distracted during online classes or activities, I can easily go back to my work again. | 6%             | 13%               | 40%            | 41%         |
| D7 | I stick to my goals when I use the Internet to do assignments at home.                                   | 10%            | 10%               | 30%            | 50%         |

**Findings:** Looking at issues of self-regulation of digital devices and online communications, students expressed confidence that they can manage their feelings when talking with others on the Internet. 57% strongly agreed and 30% agreed to them being able to manage their feelings. 13% disagreed with the statement. Further, 41% fully agreed and 40% agreed that even though they get distracted during online classes or activities, they can easily go back to their work.

50% of students strongly agreed and 30% agreed that they stick to their goals when they use the Internet to do assignments at home.

**Graph 3.2.5.2: Self-regulation**



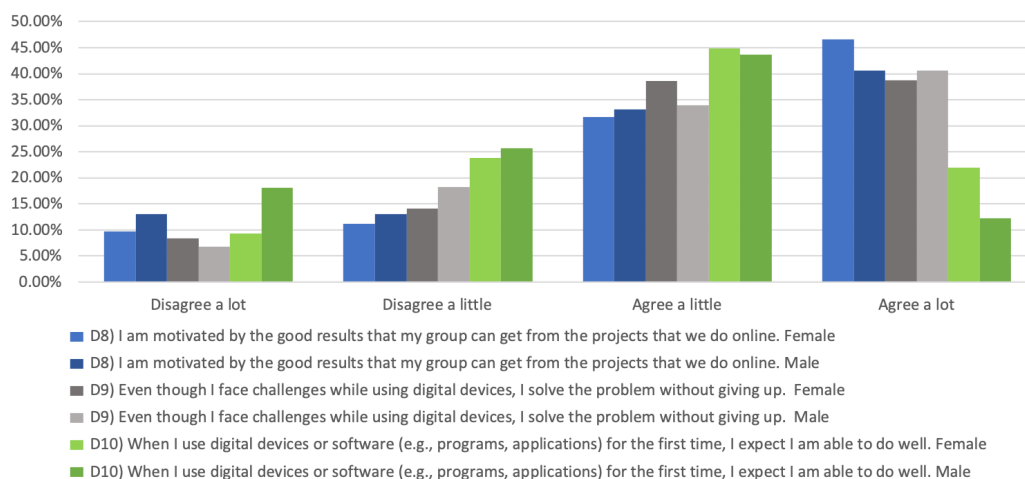
**Table 3.2.5.3: Self-motivation**

| No  | Statement                                                                                                               | Disagree a lot | Disagree a little | Agree a little | Agree a lot |
|-----|-------------------------------------------------------------------------------------------------------------------------|----------------|-------------------|----------------|-------------|
| D8  | I am motivated by the good results that my group can get from the projects that we do online.                           | 11%            | 12%               | 32%            | 44%         |
| D9  | Even though I face challenges while using digital devices, I solve the problem without giving up.                       | 8%             | 16%               | 36%            | 40%         |
| D10 | When I use digital devices or software (e.g. programs, applications) for the first time, I expect I am able to do well. | 14%            | 25%               | 44%            | 17%         |

**Findings:** The majority of students strongly agreed (44%) and agreed (32%) that they get motivated by the good results from group projects completed online. Similarly, when it comes to not giving up when facing challenges while using digital devices, 40% strongly agreed and 36% agreed that they solve the problem without giving up.

The statement that when a student uses a digital device or a software for the first time, he/she expects to do well received mixed responses. 17% strongly agree, while 44% agree, 25% disagree, and 14% strongly disagree.

**Graph 3.2.5.3: Self-motivation**



**Table 3.2.5.4: Interpersonal skills**

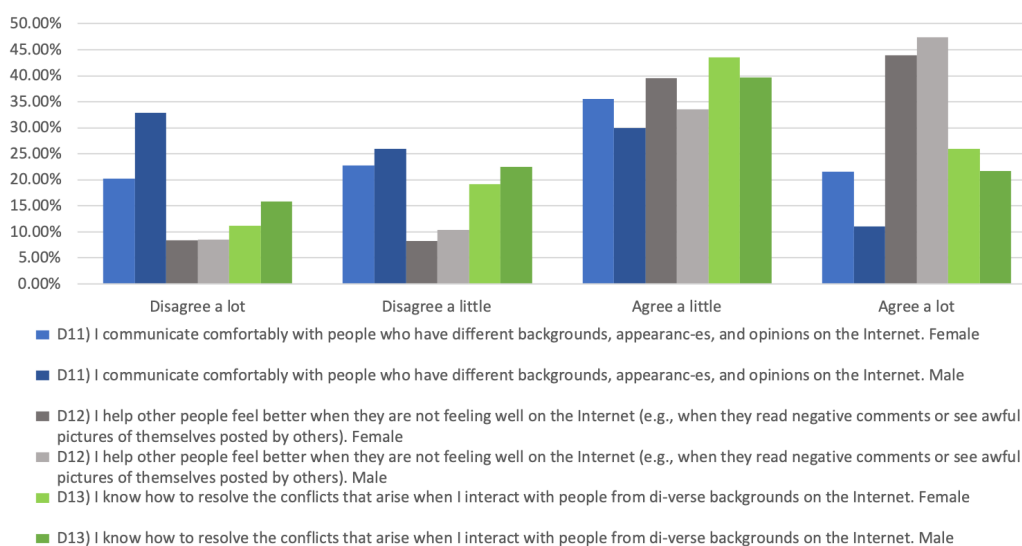
| No  | Statement                                                                                                                                                                    | Disagree a lot | Disagree a little | Agree a little | Agree a lot |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------|----------------|-------------|
| D11 | I communicate comfortably with people who have different backgrounds, appearances, and opinions on the Internet.                                                             | 27%            | 24%               | 33%            | 16%         |
| D12 | I help other people feel better when they are not feeling well on the Internet (e.g. when they read negative comments or see awful pictures of themselves posted by others). | 8%             | 9%                | 37%            | 46%         |
| D13 | I know how to resolve the conflicts that arise when I interact with people from diverse backgrounds on the Internet.                                                         | 14%            | 21%               | 42%            | 24%         |

**Findings:** Looking into issues of interpersonal skills and digital devices, students responded differently to a statement relating to whether they communicate comfortably with people who have different backgrounds, appearances, and opinions on the Internet. 17% strongly agreed, 33% agreed somewhat, 24% disagreed and 27% of students strongly disagreed.

On the contrary, students strongly agreed (46%) and agreed (37%) to a statement about helping other people feel better when they are not feeling well on the Internet (e.g. when they read negative comments or see awful pictures of themselves posted by others).

A statement whether students know how to resolve conflicts that arise when they interact with people from diverse backgrounds on the Internet received mixed answers. 24% of students fully agree, 42% agree somewhat, 21% disagree, and 14% fully disagree with the statement.

**Graph 3.2.5.4: Interpersonal skills**

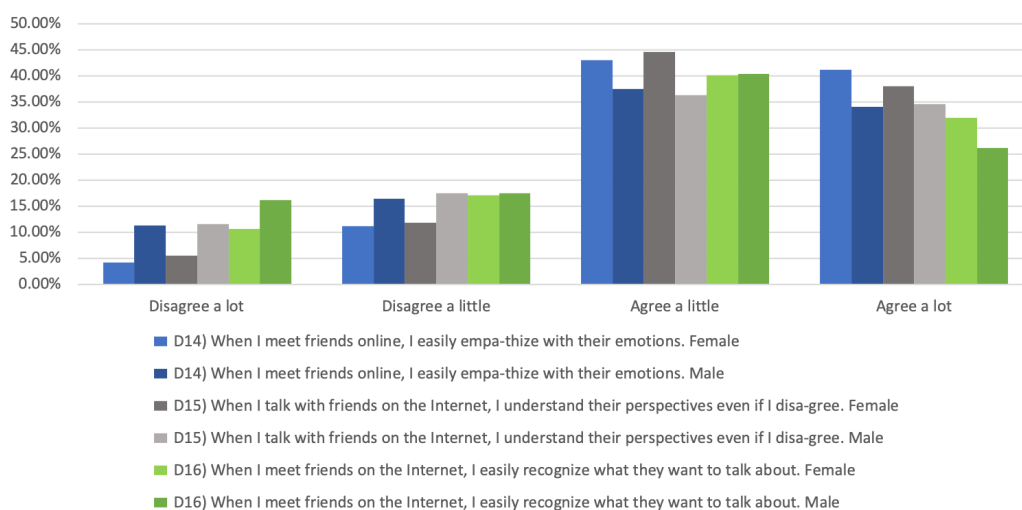


**Table 3.2.5.5: Empathy**

| No  | Statement                                                                                     | Disagree a lot | Disagree a little | Agree a little | Agree a lot |
|-----|-----------------------------------------------------------------------------------------------|----------------|-------------------|----------------|-------------|
| D14 | When I meet friends online, I easily empathize with their emotions.                           | 8%             | 14%               | 40%            | 38%         |
| D15 | When I talk with friends on the Internet, I understand their perspectives even if I disagree. | 9%             | 15%               | 40%            | 36%         |
| D16 | When I meet friends on the Internet, I easily recognize what they want to talk about.         | 13%            | 17%               | 40%            | 29%         |

**Findings:** When it comes to empathy online, students showed mixed responses. 38% of respondents fully agreed and 40% agreed that they easily empathize with their online friends' emotions. When talking with friends online, 36% strongly agreed and 40% somewhat agreed that they understand their perspectives even if they disagree. Further, 29% of students fully agreed and 40% somewhat agreed that when they meet friends on the Internet, they easily recognize what their friends want to talk about.

**Graph 3.2.5.5: Empathy**



### 3.2.6 Digital Creativity & Innovation

**Table 3.2.6.1: Creative Literacy**

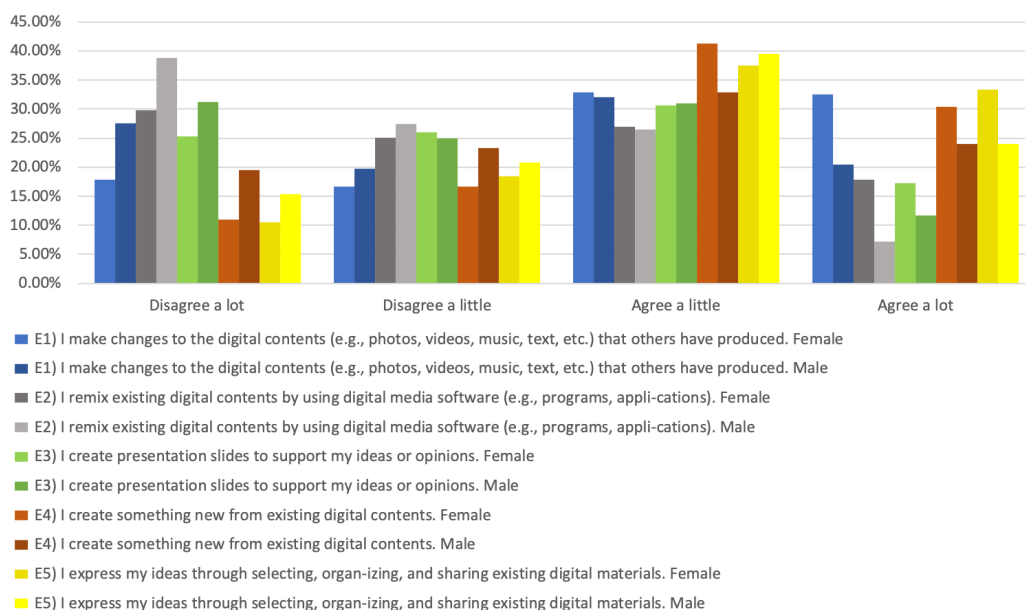
| No. | Statement                                                                                                 | Disagree a lot | Disagree a little | Agree a little | Agree a lot |
|-----|-----------------------------------------------------------------------------------------------------------|----------------|-------------------|----------------|-------------|
| E1  | I make changes to the digital content (e.g. photos, videos, music, text, etc.) that others have produced. | 23%            | 18%               | 33%            | 27%         |
| E2  | I remix existing digital content by using digital media software (e.g. programs, applications).           | 34%            | 26%               | 27%            | 13%         |
| E3  | I create presentation slides to support my ideas or opinions.                                             | 28%            | 26%               | 31%            | 15%         |
| E4  | I create something new from existing digital content.                                                     | 15%            | 20%               | 37%            | 27%         |
| E5  | I express my ideas through selecting, organizing, and sharing existing digital materials.                 | 13%            | 20%               | 39%            | 29%         |

**Findings:** Looking at issues of creative literacy, students expressed confidence in making changes to digital content that others have produced. 27% of participants fully agreed and 33% agreed somewhat to a statement relating to them making changes to digital content.

Similarly, but slightly less confidence was expressed about remixing existing digital content using digital media software. 40% of participants agreed (13% fully agreed, 27% agreed) about them remixing existing digital content whereas 60% disagreed (26% slightly disagreed, 34% fully disagreed). Even less confident were students when it comes to creating presentation slides to support ideas or opinions. 15% fully agreed and 31% somewhat agreed, whereas 26% disagreed and 28% fully disagreed.

Students feel creatively literate in creating new things from existing digital content. 64% of students agreed that they create new things from existing content. Similar confidence levels were expressed about expressing ideas through selecting, organizing, and sharing existing digital materials. 68% agreed (including 29% strongly agreeing) that they express their ideas selecting, organizing, and sharing existing digital content.

**Graph 3.2.6.1: Creative Literacy**



**Table 3.2.6.2: Expression**

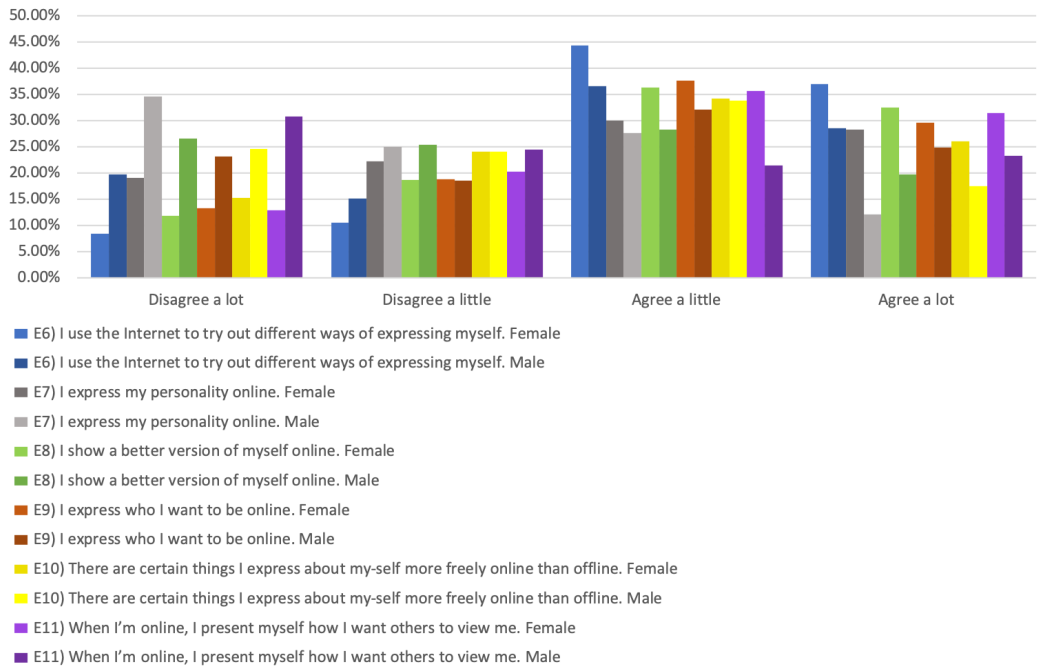
| No. | Statement                                                                        | Disagree a lot | Disagree a little | Agree a little | Agree a lot |
|-----|----------------------------------------------------------------------------------|----------------|-------------------|----------------|-------------|
| E6  | I use the Internet to try out different ways of expressing myself.               | 14%            | 13%               | 40%            | 33%         |
| E7  | I express my personality online.                                                 | 27%            | 24%               | 29%            | 20%         |
| E8  | I show a better version of myself online.                                        | 19%            | 22%               | 32%            | 26%         |
| E9  | I express who I want to be online.                                               | 18%            | 19%               | 35%            | 27%         |
| E10 | There are certain things I express about myself more freely online than offline. | 20%            | 24%               | 34%            | 22%         |
| E11 | When I'm online, I present myself how I want others to view me.                  | 22%            | 22%               | 28%            | 27%         |

Looking at ways students express themselves online, students showed mixed responses. The majority of students agreed (33% fully agreed 40% agreed) that they use the Internet to try out different ways of expressing themselves.

Less confidence was expressed in students expressing their personality online. About half of students (49%) either strongly agreed (20%) or agreed (29%) that they use the Internet to express their personality. However, students agreed that they show better versions of themselves online (26% fully agreed, 32% agreed), that they are able to express who they want to be online (27% fully agreed, 35% agreed), as well as that the Internet is a place where they feel more confident expressing certain things about themselves than in the offline world (22% fully agreed, 34%

agreed). Students also agreed to a statement that when they are online, they present themselves how they want others to view them (27% fully agreed, 28% agreed).

**Graph 3.2.6.2: Expression**



## Recommendations

The following recommendations emerged from the research study and are based on both the quantitative and qualitative research.

Recommendations are summarized in the context of ICT Infrastructure, Data Collection, Research, Mainstreaming Findings, Multi-Stakeholder Partnership, and Awareness Raising.

### ICT INFRASTRUCTURE

#### Adequate ICT infrastructure is essential

School education is the basis for universal access of children and adolescents to ICT. Thus, schools need to become hubs for ICT and provide all students with access to computers and the Internet. Considering that schools often restrict the use of mobile phones for students, schools should provide an adequate number of working computers, high-speed Internet, as well as solutions to power breakdowns. Further, it is recommended to prepare a framework of ICT Competency Standards for Teachers (ICT-CST) that ensures that teachers receive training and are prepared to provide ICT guidance to students.

### RESEARCH

#### Leverage ICT for academic purposes

It is recommended to enhance access to digital media and ICT facilities and knowledge at schools. Students shall be given more opportunities to use digital labs and to participate in substantive and relevant courses on the use of ICT. Students shall be encouraged to adopt a range of ICT skills and to utilize these for academic purposes.

### DATA COLLECTION

#### Conduct study to gather more disaggregated data

It is suggested to conduct a grade-based needs assessment study in order to gather more disaggregated data before offering ICT courses and ICT facilities to students at schools. As the DKAP study has shown, both boys and girls are using digital devices for personal and recreational purposes and are thus exposed to cyber threats who they are often not fully aware of and thus vulnerable to. It is important to teach cyber security and gender-specific issues about digital devices and the Internet to students at schools.

### MAINSTREAMING FINDINGS

#### Mainstreaming and scaling up findings and recommendations of DKAP Research

It is recommended to mainstream and to scale up the evidence-based DKAP research findings and recommendations in line with SDG4 targets. The Secondary Education Development Programme (SEDP) is the most suitable vehicle for mainstreaming and scaling up of the findings and recommendations of this research by amending the curricula for students as well as the teacher training curriculum.

### Need for an enhanced multi-stakeholder partnership

Union Digital Centres (UDC) play an important role as hubs for social access to ICT. In order to address security issues and to promote an effective use of ICT by children and youth, Local Government Institutions' (LGI) representatives along with Government officials and NGOs, Civil Society Organizations (CSOs), as well as private service providers shall work together on joint initiatives. Further, a partnership with telecom providers and private companies including local Internet service providers, Facebook, Intel, Microsoft or Google would enhance students' knowledge and access to safe and efficient use of software and digital devices.

### Awareness raising and advocacy initiatives to reduce students' vulnerability when using ICTs

Advocacy and awareness raising campaigns targeting at students, teachers, parents and caregivers can reduce vulnerabilities when using ICTs. As the research shows, most students use digital devices at home and some students use devices at community facilities. Dialogue between children and their parents on the safe use of digital devices is important. However, as the research shows, parents are often not aware of their children's access to specific sites which yields certain risks and exposure. Thus, awareness raising and advocacy initiatives on the safe use of ICT, targeting parents and communities, can increase awareness and provide avenues for parents and community members to engage with their children, promoting the safe use of digital devices. Further, regular parent-teacher meetings can provide a platform for parents and teachers to discuss issues related to the safe use of ICT by their children.

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# Annex

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The following documents can be found in the Annex of this report.

## **Annex 1: Digital Competency Framework for DKAP Research**

Annex 1 includes the Digital Citizenship Competency Framework for students which was considered when designing and implementing the research project.

## **Annex 2: List of Participating Schools**

Annex 2 includes the list of schools that participated in the research project.

## **Annex 3: Data Collections Tools - Questionnaire English**

Annex 3 includes an English language translation of the data collection questionnaire which was used during the research project as primary data collection tool.

## **Annex 4: Data Correlations Tables**

Annex 4 includes all data and data correlation tables that have emerged from the research project.

## **Annex 5: DKAP Bangladesh National Research Team**

Annex 5 includes a list of all members of the DKAP Bangladesh National Research Team (NRT).

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# Annex 1: Digital Competency Framework for DKAP Research

Below Digital Citizenship Competency Framework (**Table A1.1**) for students was used in the research. Principles of the Digital Citizenship Competency Framework are rights-based and child-centered. Prerequisites include equity in quality of access to ICT.

## Citizenship Education in the 21st Century

**Table A1.1: Digital Citizenship Competency Framework**

|                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Digital Literacy:</b><br/>Includes ICT literacy and information literacy and critical thinking for decision making</p>                                                                                                                    | <p><b>1.1 ICT Literacy:</b> Managing and operating ICT hardware and software responsibly in digital environments to access and search for data, information and content, and to utilize them</p> <p><b>1.2 Information Literacy:</b> The ability to seek, critically evaluate and use digital information effectively to make informed decisions</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <p><b>Digital Safety &amp; Resilience:</b><br/>Have knowledge of and ability to protect the physical and psychological well-being of oneself and others, while dealing effectively with risky situations to improve oneself for the future.</p> | <p><b>2.1 Understanding Child Rights:</b> Knowledge of legal rights and obligations within the global and local context</p> <p><b>2.2 Personal Data, Privacy and Reputation:</b> To understand how to use and share personally identifiable information while being able to protect oneself and others from harm. Be able to implement strategies for information and device security and personal security protocols.</p> <p><b>2.3 Promoting and Protecting Health and Well-Being:</b> Ability to identify and manage health risks, and use digital technology in order to protect and improve the physical and psychological well-being of oneself and others</p> <p><b>2.4 Digital Resilience:</b> A set of preventative, reactive and transformative competencies that allow young people to avoid or cope with risky situations they face and improve themselves.</p> |
| <p><b>Digital Participation &amp; Agency:</b> The ability to equitably interact, engage and positively influence society through ICT</p>                                                                                                        | <p><b>3.1 Interacting, Sharing and Collaborating:</b> The ability to interact, share data and information, and collaborate with others using suitable digital technologies to achieve shared goals (work, social, leveraging network, education, entertainment, etc.).</p> <p><b>3.2 Civic Engagement:</b> The ability and willingness to recognize seek, and act on opportunities to positively influence local and global communities online and/or offline through appropriate digital technologies.</p> <p><b>3.3 Netiquette:</b> Demonstrate ethical and courteous behavior to inform choices in interacting and engaging in different digital environments with different audiences.</p> <p><b>3.4 Problem Diagnoses &amp; Solving:</b> Ability to assess needs &amp; challenges, synthesize knowledge, harness digital &amp; other resources to design solutions</p> |

|                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Digital Emotional Intelligence:</b> The ability to recognize, navigate and express emotions in one's digital intrapersonal and interpersonal interactions</p>                                                                           | <p><b>4.1 Self-Awareness:</b> Ability to explain one's moods, emotions, drives, and how these affect oneself and others in the digital world through introspection.</p> <p><b>4.2 Self-Regulation:</b> Ability to manage one's emotions, moods and impulses during online engagements</p> <p><b>4.3 Self-Motivation:</b> Demonstrates initiative, commitment to attain internal or external goals despite setbacks in the digital sphere.</p> <p><b>4.4 Interpersonal Skills:</b> Build positive online relationships to communicate, build rapport and trust, embrace diversities, manage conflicts and make sound decisions.</p> <p><b>4.5 Empathy:</b> Demonstrate awareness and compassion for the feelings, needs and concerns of others during digital interactions</p> |
| <p><b>Digital Creativity and Innovation:</b> Expression and exploration of self through creation of content using digital technology &amp; tools and using a variety of technology to identify &amp; solve problems by creating solutions</p> | <p><b>5.1 Creative Literacy:</b> Apply skills and use tools to create/adapt and/or curate digital content</p> <p><b>5.2 Expression:</b> Use technology to creatively represent identities</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## Annex 2: List of Participating Schools

The following schools participated in the research project.

**Table A2.1: List of participating schools**

| Sl | Zone       | District        | Upazila     | Name of Institute                         | Community Type/ Geo-location | School Type | Boys/ Girls/ Co-ed | Total Students in School | Grade 9 Students |
|----|------------|-----------------|-------------|-------------------------------------------|------------------------------|-------------|--------------------|--------------------------|------------------|
| 1  | Chattogram | Chattogram      | Anowara     | Raipur Union M. L High School             | Rural                        | Private     | Co-education       | 1583                     | 234              |
| 2  | Rajshahi   | Chapainawabganj | Nachole     | Kholi Bilateral High School               | Rural                        | Private     | Co-education       | 839                      | 145              |
| 3  | Rangpur    | Kurigram        | Fulbari     | Barabhita High School                     | Rural                        | Private     | Co-education       | 778                      | 154              |
| 4  | Dhaka      | Narsingdi       | Shibpur     | Gulesta Hafiz Memorial Institute          | Rural                        | Private     | Co-education       | 1058                     | 197              |
| 5  | Khulna     | Bagerhat        | Mollahat    | Wazed Memorial Model Secondary School     | Urban                        | Private     | Co-education       | 1196                     | 201              |
| 6  | Dhaka      | Gopalganj       | Tungipara   | Bangabandhu Smrity Govt Girls High School | Urban                        | Public      | Girls              | 523                      | 102              |
| 7  | Barisal    | Patuakhali      | Kalapara    | Charchapli Islamia Sec. School            | Rural                        | Private     | Co-education       | 769                      | 119              |
| 8  | Chattogram | Khagrachhari    | Guimara     | Guimara Model High School                 | Urban                        | Private     | Co-education       | 1519                     | 277              |
| 9  | Rajshahi   | Naogaon         | Sadar       | Naogaon Zilla School                      | Urban                        | Public      | Boys               | 860                      | 150              |
| 10 | Mymensingh | Kishoreganj     | Itna        | Mohesh Chandra Model Shiksha Niketan      | Rural                        | Private     | Co-education       | 1061                     | 178              |
| 11 | Khulna     | Khulna          | Kotwali     | H.r.h. Prince Agakhan Secondary School    | Urban                        | Private     | Co-education       | 662                      | 153              |
| 12 | Rangpur    | Lalmonirhat     | Aditmari    | Kisamat Charitabari High School           | Rural                        | Private     | Co-education       | 520                      | 82               |
| 13 | Dhaka      | Manikganj       | Ghior       | Baniajuri Union School & College          | Rural                        | Private     | Co-education       | 1065                     | 148              |
| 14 | Rangpur    | Rangpur         | Kaunia      | Bangla Bazar High School                  | Rural                        | Private     | Co-education       | 926                      | 160              |
| 15 | Khulna     | Jeshore         | Jhikargacha | Jhikargacha B M High School               | Urban                        | Private     | Co-education       | 1440                     | 257              |
| 16 | Rajshahi   | Sirajganj       | Sirajganj   | Sayadabad High School                     | Rural                        | Private     | Co-education       | 2011                     | 417              |
| 17 | Sylhet     | Sylhet          | Beani Bazar | Bairagi Bazar High School                 | Rural                        | Private     | Co-education       | 1211                     | 246              |
| 18 | Cumilla    | Lakshmipur      | Kamal-nagar | Hazirhat Millat Academy                   | Rural                        | Private     | Co-education       | 1245                     | 308              |
| 19 | Mymensingh | Tangail         | Sadar       | Police Lines Adarsha High School          | Urban                        | Private     | Co-education       | 1733                     | 311              |
| 20 | Dhaka      | Dhaka           | Lalbag      | West End High School                      | Urban                        | Private     | Co-education       | 1220                     | 255              |

## Annex 3: Data Collections Tools - Questionnaire English

The following data collection questionnaire was used during the research project as primary data collection tool. The original questionnaire was in the Bangla language and has been translated into the English language for this report.

The questionnaire examines children's attitude, behaviors, competency levels, and use of ICT when engaging with the Internet or digital technologies in their everyday lives. The questionnaire has been developed by the Institute of School Violence Prevention at Ewha Womans University, South Korea, in consultation with the UNESCO Office in Bangkok.

[Students do not fill out the following blank]

|            |  |  |  |  |  |  |
|------------|--|--|--|--|--|--|
| Student ID |  |  |  |  |  |  |
| School ID  |  |  |  |  |  |  |



Please read each question carefully and answer as accurately as you can. In the test, you usually circled your answers. For this questionnaire, you will normally answer by darkening a circle. For a few questions you will need to write a short answer.

If you make a mistake when darkening a circle, erase your mistake and darken the correct circle. If you make a mistake when writing an answer, simply cross it out and write the correct answer next to it.

In this questionnaire, there are no right or wrong answers. Your answers should be the ones that are right for you.

You may ask for help if you do not understand something or are not sure how to answer a question. Your answers will be combined with answers from other students to calculate totals and averages. All information (or responses) you provide may only be used for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose.

**Note:** People use the Internet differently, so let's now talk about how you use it. Think about all the different ways you might use the Internet, such as emailing, visiting websites, or chatting with your friends. Also think about how you use digital devices at school or home. Digital devices technically mean electronic devices that can receive, store, process or send digital information. They can include your mobile phones, tablet PCs, laptops or desktop computers to send or receive messages, emails, browse or to chat with friends and family, or anything else that you usually do online.

## A. How much do you agree with the following statements?

| No  |                                                                                                                                                          | Disagree<br>a lot | Disagree<br>a little | Agree<br>a little | Agree<br>a lot |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------|-------------------|----------------|
| A1  | I can edit electronic resources (e.g. text, graphics, audio, videos)                                                                                     | ❶                 | ❷                    | ❸                 | ❹              |
| A2  | I use social media platform (e.g. Facebook, Instagram, Snapchat, LINE, We Chat) to share ideas, participate in discussions, and collaborate with others. | ❶                 | ❷                    | ❸                 | ❹              |
| A3  | I can set up a safe computing environment (e.g. remove computer viruses, install security programs/anti-virus).                                          | ❶                 | ❷                    | ❸                 | ❹              |
| A4  | I can transfer photos, music, and video files saved on my computer into other digital devices (e.g. mobile phone, tablet PC).                            | ❶                 | ❷                    | ❸                 | ❹              |
| A5  | I use computer software (e.g. Microsoft Word, Microsoft PowerPoint, Google Docs) to complete learning tasks at school.                                   | ❶                 | ❷                    | ❸                 | ❹              |
| A6  | I know how to use the latest digital devices.                                                                                                            | ❶                 | ❷                    | ❸                 | ❹              |
| A7  | I use digital devices in order to search for information and application I need.                                                                         | ❶                 | ❷                    | ❸                 | ❹              |
| A8  | I use digital devices for learning at home.                                                                                                              | ❶                 | ❷                    | ❸                 | ❹              |
| A9  | I use digital devices for my personal interest (e.g. games, chatting, shopping, searching for information).                                              | ❶                 | ❷                    | ❸                 | ❹              |
| A10 | I assess the relevance of the digital information to complete learning tasks at school.                                                                  | ❶                 | ❷                    | ❸                 | ❹              |
| A11 | I can separate reliable from unreliable information when searching for digital information.                                                              | ❶                 | ❷                    | ❸                 | ❹              |
| A12 | I search for and find information to complete learning tasks on the Internet.                                                                            | ❶                 | ❷                    | ❸                 | ❹              |
| A13 | I know I need to report the source of information when using information attained from online.                                                           | ❶                 | ❷                    | ❸                 | ❹              |
| A14 | If I find wrong information on the Internet, I can correct it.                                                                                           | ❶                 | ❷                    | ❸                 | ❹              |

## B. How much do you agree with the following statements?

| No |                                                                       | Disagree<br>a lot | Disagree<br>a little | Agree<br>a little | Agree<br>a lot |
|----|-----------------------------------------------------------------------|-------------------|----------------------|-------------------|----------------|
| B1 | I understand I should show respect to the others on the Internet.     | ❶                 | ❷                    | ❸                 | ❹              |
| B2 | I understand I should protect the privacy and security of the others. | ❶                 | ❷                    | ❸                 | ❹              |

|     |                                                                                                                                                                     |   |   |   |   |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|
| B3  | Since it is against the copyright law to copy software illegally, I would not let myself make a copy.                                                               | 1 | 2 | 3 | 4 |
| B4  | I read the privacy policy of websites I visit when using the Internet.                                                                                              | 1 | 2 | 3 | 4 |
| B5  | I try to avoid threatening other people's personal information when using digital information.                                                                      | 1 | 2 | 3 | 4 |
| B6  | I try to avoid infringing other people's intellectual property rights (e.g. software copyrights, portrait rights) when searching for and using digital information. | 1 | 2 | 3 | 4 |
| B7  | I try to protect my personal information from others online.                                                                                                        | 1 | 2 | 3 | 4 |
| B8  | I know which information I should and should not share on the Internet.                                                                                             | 1 | 2 | 3 | 4 |
| B9  | I find myself using on digital devices for longer periods of time than intended.                                                                                    | 1 | 2 | 3 | 4 |
| B10 | I use digital devices to relieve myself from stress (e.g. listening to music, watching movies, SNS).                                                                | 1 | 2 | 3 | 4 |
| B11 | I feel anxious if I have not checked for messages or switched on digital devices for some time.                                                                     | 1 | 2 | 3 | 4 |
| B12 | I can modify privacy setting to keep myself safe/away from unwanted contacts (e.g. Spam texts, emails).                                                             | 1 | 2 | 3 | 4 |
| B13 | I try to avoid clicking on information that look weird or suspicious.                                                                                               | 1 | 2 | 3 | 4 |
| B14 | I can ask the person to stop sending unwanted disturbing messages or emails.                                                                                        | 1 | 2 | 3 | 4 |

### B15-18. Think about how you will react on the following situation:

**B15. How will you react when you are exposed to unwanted disturbing file or website (e.g. pornography website, violent media)? Choose all that apply.**

- 1 Get rid of it immediately by closing the page, deleting the file, or scrolling away
- 2 Talk about it with parents/caregivers
- 3 Use a program that prevents it from happening again
- 4 Talk about it with a friend
- 5 Look away or close my eyes
- 6 Keep looking
- 7 Block the webpage or website
- 8 Don't know what to do

**B16. How will you react when you receive unwanted disturbing messages including annoying messages or embarrassing pictures from someone on your contact list? Choose all that apply.**

- 1 Block and report the person
- 2 Delete the contact

- ③ Ignore the messages and the person
- ④ Talk with parents/caregivers about what to do
- ⑤ Ask the person to stop sending these messages or pictures
- ⑥ Talk with teachers about what to do
- ⑦ Report the issue to the police and show them what happened
- ⑧ Don't know what to do

**B17. How will you react when you find that your personal information is misused, compromised or acquired without permission online? Choose all that apply.**

- ① Change password
- ② Review privacy settings and choose a more secure password
- ③ Use a report button
- ④ Disable or delete the account and make a new account
- ⑤ Ask parents/caregivers to help
- ⑥ Ask teachers to help
- ⑦ Report the issue to the police and show them what happened
- ⑧ Don't know what to do

**B18. How will you react when you are bullied online by friends or others? Choose all that apply.**

- ① Block and report the persons
- ② Delete the contact
- ③ Show the persons I am not bothered by their behavior by ignoring them
- ④ Talk with parents/caregivers about what to do
- ⑤ Ask the persons to stop sending annoying messages or pictures
- ⑥ Talk with teachers about what to do
- ⑦ Report the issue to the police and show them what happened
- ⑧ Keep the evidence of bullying (e.g. screen shot)
- ⑨ Don't know what to do

**C. How much do you agree with the following statements?**

| No |                                                                                      | Disagree<br>a lot | Disagree<br>a little | Agree<br>a little | Agree<br>a lot |
|----|--------------------------------------------------------------------------------------|-------------------|----------------------|-------------------|----------------|
| C1 | I use the Internet to talk to people from places or backgrounds different from mine. | ①                 | ②                    | ③                 | ④              |
| C2 | I use the Internet to share something I am good at or I know well.                   | ①                 | ②                    | ③                 | ④              |
| C3 | I can share my knowledge online to anyone if it is helpful to him/her.               | ①                 | ②                    | ③                 | ④              |
| C4 | I make a new friendship online.                                                      | ①                 | ②                    | ③                 | ④              |
| C5 | I post news on social issues online (e.g. Facebook, Instagram, blog).                | ①                 | ②                    | ③                 | ④              |
| C6 | I use the Internet to make a solution on my school problems.                         | ①                 | ②                    | ③                 | ④              |
| C7 | I use the Internet to make a solution on my town/community problems.                 | ①                 | ②                    | ③                 | ④              |
| C8 | I get involved online in social issues.                                              | ①                 | ②                    | ③                 | ④              |

|     |                                                                                                                      |   |   |   |   |
|-----|----------------------------------------------------------------------------------------------------------------------|---|---|---|---|
| C9  | If I disagree with people online, I watch my language so that it doesn't come across as mean.                        | ❶ | ❷ | ❸ | ❹ |
| C10 | I am careful to make sure that the pictures I post or send will not embarrass other people or get them into trouble. | ❶ | ❷ | ❸ | ❹ |
| C11 | My favorite online places are where people are respectful toward each other.                                         | ❶ | ❷ | ❸ | ❹ |
| C12 | I do not add to arguments and insulting interactions that happen on the Internet.                                    | ❶ | ❷ | ❸ | ❹ |

#### D. How much do you agree with the following statements?

| No  |                                                                                                                                                                              | Disagree<br>a lot | Disagree<br>a little | Agree<br>a little | Agree<br>a lot |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------|-------------------|----------------|
| D1  | I am aware of my feelings that I experience in my interactions online.                                                                                                       | ❶                 | ❷                    | ❸                 | ❹              |
| D2  | I express myself in a way that makes a good impression on others when I write a post or comments on SNS (e.g. Facebook, Instagram).                                          | ❶                 | ❷                    | ❸                 | ❹              |
| D3  | I am aware of the meaning of non-verbal messages (e.g. smiley face, emoji) that I send to other people on the Internet.                                                      | ❶                 | ❷                    | ❸                 | ❹              |
| D4  | I express my feelings freely on the Internet using online communications.                                                                                                    | ❶                 | ❷                    | ❸                 | ❹              |
| D5  | I manage my feelings when I talk with other people on the Internet.                                                                                                          | ❶                 | ❷                    | ❸                 | ❹              |
| D6  | Even though I get distracted during online classes or activities, I can easily go back to my work again.                                                                     | ❶                 | ❷                    | ❸                 | ❹              |
| D7  | I stick on my goals when I use the Internet to do assignment at home.                                                                                                        | ❶                 | ❷                    | ❸                 | ❹              |
| D8  | I am motivated by the good results that my group can get from the projects that we do online.                                                                                | ❶                 | ❷                    | ❸                 | ❹              |
| D9  | Even though I face challenges while using digital devices, I solve the problem without giving up.                                                                            | ❶                 | ❷                    | ❸                 | ❹              |
| D10 | When I use digital devices or software (e.g. programs, applications) for the first time, I expect I am able to do well.                                                      | ❶                 | ❷                    | ❸                 | ❹              |
| D11 | I communicate comfortably with people who have different backgrounds, appearances, and opinions on the Internet.                                                             | ❶                 | ❷                    | ❸                 | ❹              |
| D12 | I help other people feel better when they are not feeling well on the Internet (e.g. when they read negative comments or see awful pictures of themselves posted by others). | ❶                 | ❷                    | ❸                 | ❹              |

| No  |                                                                                                                      | Disagree<br>a lot | Disagree<br>a little | Agree<br>a little | Agree<br>a lot |
|-----|----------------------------------------------------------------------------------------------------------------------|-------------------|----------------------|-------------------|----------------|
| D13 | I know how to resolve the conflicts that arise when I interact with people from diverse backgrounds on the Internet. | ❶                 | ❷                    | ❸                 | ❹              |
| D14 | When I meet friends online, I easily empathize with their emotions.                                                  | ❶                 | ❷                    | ❸                 | ❹              |
| D15 | When I talk with friends on the Internet, I understand their perspectives even if I disagree.                        | ❶                 | ❷                    | ❸                 | ❹              |
| D16 | When I meet friends on the Internet, I easily recognize what they want to talk about.                                | ❶                 | ❷                    | ❸                 | ❹              |

### E. How much do you agree with the following statements?

| No  |                                                                                                           | Disagree<br>a lot | Disagree<br>a little | Agree<br>a little | Agree<br>a lot |
|-----|-----------------------------------------------------------------------------------------------------------|-------------------|----------------------|-------------------|----------------|
| E1  | I make changes to the digital content (e.g. photos, videos, music, text, etc.) that others have produced. | ❶                 | ❷                    | ❸                 | ❹              |
| E2  | I remix existing digital content by using digital media software(e.g. programs, applications).            | ❶                 | ❷                    | ❸                 | ❹              |
| E3  | I create presentation slides to support my ideas or opinions.                                             | ❶                 | ❷                    | ❸                 | ❹              |
| E4  | I create something new from existing digital content.                                                     | ❶                 | ❷                    | ❸                 | ❹              |
| E5  | I express my ideas through selecting, organizing, and sharing existing digital materials.                 | ❶                 | ❷                    | ❸                 | ❹              |
| E6  | I use the Internet to try out different ways of expressing myself.                                        | ❶                 | ❷                    | ❸                 | ❹              |
| E7  | I express my personality online.                                                                          | ❶                 | ❷                    | ❸                 | ❹              |
| E8  | I show a better version of myself online.                                                                 | ❶                 | ❷                    | ❸                 | ❹              |
| E9  | I express who I want to be online.                                                                        | ❶                 | ❷                    | ❸                 | ❹              |
| E10 | There are certain things I express about myself more freely online than offline.                          | ❶                 | ❷                    | ❸                 | ❹              |
| E11 | When I'm online, I present myself how I want others to view me.                                           | ❶                 | ❷                    | ❸                 | ❹              |

#### F1. Are you a girl or a boy?

- ❶ Girl
- ❷ Boy

#### F2. When were you born? Month (January-December) \_\_\_\_\_ Year \_\_\_\_\_

#### F3. What grade are you in? \_\_\_\_\_

**F4. What language do you speak at home most of the time?**

- ① Test language
- ② Other, please specify \_\_\_\_\_

**F5. Which country were you born in?**

- ① Test country
- ② Other, please specify \_\_\_\_\_

**F6. What is the highest grade or level of school you expect to complete?**

- ① Lower secondary
- ② Upper secondary
- ③ Post-secondary
- ④ Masters/ Doctoral
- ⑤ I don't know

**F7. How many days were you absent from school in the last month?**

[Note: The month should not include school vacation or holidays]

- ① None
- ② 1 or 2 days
- ③ 3 or 4 days
- ④ 5 to 10 days
- ⑤ More than 10 days

**F8. Outside of school, how much time each day do you usually spend doing the following activities?**

|                                                                                | Less than<br>an hour | 1-2 hours a<br>day | 3-4 hours<br>a day | 5-6 hours a<br>day | 7 hours<br>a day or<br>more |
|--------------------------------------------------------------------------------|----------------------|--------------------|--------------------|--------------------|-----------------------------|
| F8-1) Having fun with friends                                                  | ①                    | ②                  | ③                  | ④                  | ⑤                           |
| F8-2) Helping my family with<br>work, housework or looking<br>after somebody   | ①                    | ②                  | ③                  | ④                  | ⑤                           |
| F8-3) Doing homework or other<br>study activities (e.g. private<br>education)  | ①                    | ②                  | ③                  | ④                  | ⑤                           |
| F8-4) Participating in volunteer<br>work                                       | ①                    | ②                  | ③                  | ④                  | ⑤                           |
| F8-5) Doing fine arts activities<br>(e.g. drawing or playing an<br>instrument) | ①                    | ②                  | ③                  | ④                  | ⑤                           |

**G1. How long have you been using digital devices (e.g. desktop/laptop, smartphone, tablet PC)?**

- ① Never
- ② Less than 1 year
- ③ 1-2 years
- ④ 3-4 years
- ⑤ More than 5 years

**G2. How often do you go online or use the Internet using digital devices (e.g. smartphone, desktop/laptop, tablet PC) per day?**

- ① Hardly ever
- ② Less than an hour
- ③ 1-2 hours
- ④ 3-4 hours
- ⑤ 5-6 hours
- ⑥ 7 hours or more

**G3. Where do you usually access Internet?**

|                                                                                | Hardly ever | At least every month | At least every week | Daily or almost daily |                 |                 |                 |                       |
|--------------------------------------------------------------------------------|-------------|----------------------|---------------------|-----------------------|-----------------|-----------------|-----------------|-----------------------|
|                                                                                |             |                      |                     | Less than an hour     | 1-2 hours a day | 3-4 hours a day | 5-6 hours a day | 7 hours a day or more |
| G3-1) Home                                                                     | ①           | ②                    | ③                   | ④                     | ⑤               | ⑥               | ⑦               | ⑧                     |
| G3-2) School                                                                   | ①           | ②                    | ③                   | ④                     | ⑤               | ⑥               | ⑦               | ⑧                     |
| G3-3) Internet Cafe                                                            | ①           | ②                    | ③                   | ④                     | ⑤               | ⑥               | ⑦               | ⑧                     |
| G3-4) local community or local district (e.g. local library, community center) | ①           | ②                    | ③                   | ④                     | ⑤               | ⑥               | ⑦               | ⑧                     |

**G4. Do you have access to any of these things at your home? Please check all that apply.**

- ① Desktop Computer
- ② Laptop
- ③ Smartphone
- ④ Tablet PC (e.g. iPad, Galaxy Tab)
- ⑤ Printer
- ⑥ None of the above

**G5. Do you have access to any of these things in your school? Please check all that apply.**

- ① Desktop computer
- ② Laptop
- ③ Smartphone
- ④ Tablet PC (e.g. iPad, Galaxy Tab)
- ⑤ Printer
- ⑥ None of the above

**G6. Do you have access to any of these things in your local community (e.g. local library, community center)? Please check all that apply.**

- ① Desktop computer
- ② Laptop
- ③ Smartphone
- ④ Tablet PC (e.g. iPad, Galaxy Tab)
- ⑤ Printer
- ⑥ None of the above

**G7. Which of the following can you access at home? Please check all that apply.**

[Note. Wireless Internet means Internet connectivity via radio waves rather than wires. Simply imagine WiFi. Wired Internet means Internet connectivity using a network hub via a wired connection like satellite, cable, DSL, etc.]

- ❶ Wired Internet
- ❷ Wireless Internet
- ❸ None

**G8. Which of the following can you access at school? Please check all that apply.**

- ❶ Wired Internet
- ❷ Wireless Internet
- ❸ None

**G9. Does your local community (e.g. local library, community center) or local district provide any place to use the Internet?**

- ❶ Yes
- ❷ No

**G10. Which of the following can you access in your local community or local district? Please check all that apply.**

- ❶ Wired Internet
- ❷ Wireless Internet
- ❸ None

**G11. Who taught you most about how to use computers?**

- ❶ My teachers
- ❷ My friends
- ❸ My family
- ❹ I learned myself
- ❺ My local community (e.g. local library, community center)
- ❻ Others

**G12. Who taught you most about how to use the Internet?**

- ❶ My teachers
- ❷ My friends
- ❸ My family
- ❹ I learned myself
- ❺ My local community (e.g. local library, community center)
- ❻ Others

**G13. How often do you use computers or the Internet for school study (e.g. doing homework, preparing and reviewing classes) per day?**

- ❶ Hardly ever
- ❷ Less than an hour
- ❸ 1-2 hours
- ❹ 3-4 hours
- ❺ 5-6 hours
- ❻ 7 hours or more

**G14. How often do you use computers or the Internet for studying for personal purpose (e.g. studying English, preparing certificates, or searching information for your career) per day?**

- ❶ Hardly ever
- ❷ Less than an hour
- ❸ 1-2 hours
- ❹ 3-4 hours

- ⑤ 5-6 hours
- ⑥ 7 hours or more

**G15. How often do you use computers or the Internet for leisure (e.g. computer games, music, comics, videos) per day?**

- ① Hardly ever
- ② Less than an hour
- ③ 1-2 hours
- ④ 3-4 hours
- ⑤ 5-6 hours
- ⑥ 7 hours or more

**G16. How often do you use computers or the Internet for socializing with your friends (e.g. Social Network Services, messenger program, blog) per day?**

- ① Hardly ever
- ② Less than an hour
- ③ 1-2 hours
- ④ 3-4 hours
- ⑤ 5-6 hours
- ⑥ 7 hours or more

**G17. Have you ever learned basic coding skills at school?**

- ① Yes
- ② No

**G18. Have you ever developed websites or applications?**

- ① Yes
- ② No

**H1. Who usually lives at home with you? Please check all that apply**

- ① Mother (including step or foster mother)
- ② Father (including step or foster father)
- ③ Grandparent(s) or other relatives
- ④ Siblings (including half, step or foster siblings)
- ⑤ I live in a foster home or children's home
- ⑥ I live alone
- ⑦ Someone or somewhere else (please state) : \_\_\_\_\_

**H2. What is the highest level of schooling completed by your mother?**

- ① No Education
- ② Primary
- ③ Lower secondary
- ④ Upper secondary
- ⑤ Post-secondary
- ⑥ Masters/ Doctoral
- ⑦ I don't know

**H3. What is the highest level of schooling completed by your father?**

- ① No Education
- ② Primary
- ③ Lower secondary
- ④ Upper secondary

- 5 Post-secondary
- 6 Masters/ Doctoral
- 7 I don't know

**H4. Do you have the following item(s) at your home?**

|                                          | Yes | No |
|------------------------------------------|-----|----|
| H4-1) Car                                | 1   | 2  |
| H4-2) Television                         | 1   | 2  |
| H4-3) Bathrooms with a bathtub or shower | 1   | 2  |

**H5. How many books are there in your home?**

[Note. There are usually about 15 books per foot of shelving. Do not include magazines, newspapers, or your schoolbooks.]

- 1 0-10 books
- 2 11-25 books
- 3 26-100 books
- 4 101-200 books
- 5 201-500 books
- 6 More than 500 books

**H6. When you use the Internet, how often do the following person/people suggest ways to use the Internet safely?**

|                           | Never | Hardly ever | Some-times | Often | Very often | All the time |
|---------------------------|-------|-------------|------------|-------|------------|--------------|
| H6-1) parents/care-givers | 1     | 2           | 3          | 4     | 5          | 6            |
| H6-2) teachers            | 1     | 2           | 3          | 4     | 5          | 6            |
| H6-3) siblings            | 1     | 2           | 3          | 4     | 5          | 6            |
| H6-4) peers               | 1     | 2           | 3          | 4     | 5          | 6            |

**H7. When you use the Internet, how often do the following person/people encourage you to explore or learn things on the Internet?**

|                          | Never | Hardly ever | Some-times | Often | Very often | All the time |
|--------------------------|-------|-------------|------------|-------|------------|--------------|
| H7-1) Parents/caregivers | 1     | 2           | 3          | 4     | 5          | 6            |
| H7-2) Teachers           | 1     | 2           | 3          | 4     | 5          | 6            |
| H7-3) Siblings           | 1     | 2           | 3          | 4     | 5          | 6            |
| H7-4) Peers              | 1     | 2           | 3          | 4     | 5          | 6            |

# Annex 4: Data Correlation Tables

The following data has emerged from conducted surveys during the research project.

**Table A4.i: ICT Literacy (Gender disaggregated)**

| No | Statement                                                                                                                                                | Disagree a lot |       |       | Disagree a little |       |       | Agree a little |       |       | Agree a lot |       |       | No Response |      |       |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------|-------|-------------------|-------|-------|----------------|-------|-------|-------------|-------|-------|-------------|------|-------|
|    |                                                                                                                                                          | Girl           | Boy   | Total | Girl              | Boy   | Total | Girl           | Boy   | Total | Girl        | Boy   | Total | Girl        | Boy  | Total |
| A1 | I can edit electronic resources (e.g. text, graphics, audio, videos)                                                                                     | 5.7%           | 6.6%  | 6.2%  | 11.2%             | 13.4% | 12.3% | 58.0%          | 61.2% | 59.6% | 25.1%       | 18.7% | 21.9% | 0%          | 0%   | 0%    |
| A2 | I use social media platform (e.g. Facebook, Instagram, Snapchat, LINE, We Chat) to share ideas, participate in discussions, and collaborate with others. | 6.8%           | 18.0% | 12.4% | 11.2%             | 16.1% | 13.6% | 29.3%          | 29.1% | 29.2% | 52.7%       | 36.9% | 44.7% | 0%          | 0%   | 0%    |
| A3 | I can set up a safe computing environment (e.g. remove computer viruses, install security programs/anti-virus).                                          | 14.8%          | 32.5% | 23.7% | 13.3%             | 18.7% | 16.0% | 27.6%          | 25.5% | 26.5% | 44.3%       | 23.3% | 33.7% | 0%          | 0%   | 0%    |
| A4 | I can transfer photos, music, and video files saved on my computer into other digital devices (e.g. mobile phone, tablet PC).                            | 4.8%           | 9.8%  | 7.3%  | 4.9%              | 8.1%  | 6.5%  | 20.9%          | 29.5% | 25.2% | 69.4%       | 52.6% | 60.9% | 0%          | 0%   | 0%    |
| A5 | I use computer software (e.g. Microsoft Word, Microsoft PowerPoint, Google Docs) to complete learning tasks at school.                                   | 19.2%          | 27.4% | 23.3% | 20.0%             | 23.1% | 21.5% | 37.1%          | 30.6% | 33.8% | 23.6%       | 18.7% | 21.1% | 0.2%        | 0.2% | 0.2%  |
| A6 | I know how to use the latest digital devices.                                                                                                            | 4.4%           | 9.3%  | 6.8%  | 12.4%             | 16.8% | 14.6% | 40.1%          | 41.0% | 40.6% | 42.8%       | 32.3% | 37.5% | 0.4%        | 0.6% | 0.5%  |
| A7 | I use digital devices in order to search for information and applications I need.                                                                        | 8.7%           | 16.4% | 12.6% | 14.1%             | 22.3% | 18.2% | 30.6%          | 29.7% | 30.1% | 46.6%       | 31.2% | 38.9% | 0.0%        | 0.4% | 0.2%  |
| A8 | I use digital devices for learning at home.                                                                                                              | 6.7%           | 9.6%  | 8.2%  | 12.2%             | 13.8% | 13.0% | 34.8%          | 35.2% | 35.0% | 45.8%       | 41.4% | 43.6% | 0.6%        | 0.0% | 0.3%  |
| A9 | I use digital devices for my personal interest (e.g. games, chatting, shopping, searching for information).                                              | 4.0%           | 7.9%  | 6.0%  | 7.4%              | 11.0% | 9.2%  | 28.5%          | 28.0% | 28.2% | 59.9%       | 53.1% | 56.5% | 0.2%        | 0.0% | 0.1%  |

Table A4.2: Information Literacy (Gender disaggregated)

| No  | Statement                                                                                      | Disagree a lot |       |       | Disagree a little |       |       | Agree a little |       |       | Agree a lot |       |       | No Response |      |       |
|-----|------------------------------------------------------------------------------------------------|----------------|-------|-------|-------------------|-------|-------|----------------|-------|-------|-------------|-------|-------|-------------|------|-------|
|     |                                                                                                | Girl           | Boy   | Total | Girl              | Boy   | Total | Girl           | Boy   | Total | Girl        | Boy   | Total | Girl        | Boy  | Total |
| A10 | I assess the relevance of the digital information to complete learning tasks at school.        | 9.9%           | 12.9% | 11.4% | 24.3%             | 17.8% | 21.0% | 37.8%          | 38.0% | 37.9% | 27.8%       | 31.2% | 29.5% | 0.2%        | 0.2% | 0.2%  |
| A11 | I can separate reliable from unreliable information when searching for digital information.    | 10.6%          | 19.1% | 14.9% | 17.5%             | 21.0% | 19.2% | 34.8%          | 34.4% | 34.6% | 37.1%       | 25.3% | 31.2% | 0.0%        | 0.2% | 0.1%  |
| A12 | I search for and find information to complete learning tasks on the Internet.                  | 3.6%           | 8.3%  | 6.0%  | 7.2%              | 12.1% | 9.7%  | 29.1%          | 29.1% | 29.1% | 60.1%       | 50.3% | 55.2% | 0.0%        | 0.2% | 0.1%  |
| A13 | I know I need to report the source of information when using information attained from online. | 11.4%          | 11.5% | 11.5% | 13.9%             | 17.4% | 15.6% | 27.6%          | 26.1% | 26.8% | 46.6%       | 44.6% | 45.6% | 0.6%        | 0.4% | 0.5%  |
| A14 | If I find wrong information on the Internet, I can correct it.                                 | 13.3%          | 20.2% | 16.8% | 17.7%             | 15.3% | 16.5% | 35.9%          | 36.3% | 36.1% | 33.1%       | 27.8% | 30.4% | 0.0%        | 0.4% | 0.2%  |

Table A4.3: Understanding Child Rights (Gender disaggregated)

| No | Statement                                                                                         | Disagree a lot |       |       | Disagree a little |       |       | Agree a little |       |       | Agree a lot |       |       | No Response |      |       |
|----|---------------------------------------------------------------------------------------------------|----------------|-------|-------|-------------------|-------|-------|----------------|-------|-------|-------------|-------|-------|-------------|------|-------|
|    |                                                                                                   | Girl           | Boy   | Total | Girl              | Boy   | Total | Girl           | Boy   | Total | Girl        | Boy   | Total | Girl        | Boy  | Total |
| B1 | I understand I should show respect to others on the Internet.                                     | 3.2%           | 3.0%  | 3.1%  | 4.8%              | 4.2%  | 4.5%  | 17.7%          | 17.4% | 17.5% | 73.8%       | 75.4% | 74.6% | 0.6%        | 0.0% | 0.3%  |
| B2 | I understand I should protect the privacy and security of others.                                 | 3.2%           | 2.5%  | 2.8%  | 2.7%              | 3.8%  | 3.2%  | 12.2%          | 11.0% | 11.6% | 81.9%       | 82.8% | 82.4% | 0.0%        | 0.0% | 0.0%  |
| B3 | Since it is against copyright law to copy software illegally, I would not let myself make a copy. | 5.9%           | 11.2% | 8.5%  | 5.9%              | 5.1%  | 5.5%  | 12.4%          | 9.8%  | 11.1% | 75.7%       | 73.9% | 74.8% | 0.2%        | 0.0% | 0.1%  |
| B4 | I read the privacy policy of websites I visit when using the Internet.                            | 12.2%          | 18.3% | 15.3% | 17.7%             | 16.6% | 17.2% | 35.6%          | 28.9% | 32.2% | 34.6%       | 36.1% | 35.4% | 0.0%        | 0.0% | 0.0%  |

**Table A4.4: Personal data, Privacy and Reputation (Gender disaggregated)**

| No | Statement                                                                                                                                                           | Disagree a lot |       |       | Disagree a little |       |       | Agree a little |       |       | Agree a lot |       |       | No Response |      |       |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------|-------|-------------------|-------|-------|----------------|-------|-------|-------------|-------|-------|-------------|------|-------|
|    |                                                                                                                                                                     | Girl           | Boy   | Total | Girl              | Boy   | Total | Girl           | Boy   | Total | Girl        | Boy   | Total | Girl        | Boy  | Total |
| B5 | I try to avoid threatening other people's personal information when using digital information.                                                                      | 11.0%          | 15.1% | 13.1% | 11.8%             | 8.5%  | 10.1% | 27.6%          | 21.6% | 24.5% | 49.6%       | 54.8% | 52.2% | 0.0%        | 0.0% | 0.0%  |
| B6 | I try to avoid infringing other people's intellectual property rights (e.g. software copyrights, portrait rights) when searching for and using digital information. | 12.9%          | 14.0% | 13.5% | 10.6%             | 11.0% | 10.8% | 26.6%          | 19.3% | 22.9% | 49.6%       | 55.8% | 52.7% | 0.2%        | 0.0% | 0.1%  |
| B7 | I try to protect my personal information from others online.                                                                                                        | 3.0%           | 7.8%  | 5.4%  | 2.9%              | 6.6%  | 4.7%  | 14.3%          | 17.0% | 15.6% | 79.8%       | 68.6% | 74.2% | 0.0%        | 0.0% | 0.0%  |
| B8 | I know which information I should and should not share on the Internet.                                                                                             | 6.5%           | 10.2% | 8.3%  | 8.0%              | 11.3% | 9.7%  | 30.0%          | 34.8% | 32.4% | 55.5%       | 43.7% | 49.6% | 0.0%        | 0.0% | 0.0%  |

**Table A4.5: Promoting and Protecting Health and Well-Being (Gender disaggregated)**

| No  | Statement                                                                                            | Disagree a lot |       |       | Disagree a little |       |       | Agree a little |       |       | Agree a lot |       |       | No Response |      |       |
|-----|------------------------------------------------------------------------------------------------------|----------------|-------|-------|-------------------|-------|-------|----------------|-------|-------|-------------|-------|-------|-------------|------|-------|
|     |                                                                                                      | Girl           | Boy   | Total | Girl              | Boy   | Total | Girl           | Boy   | Total | Girl        | Boy   | Total | Girl        | Boy  | Total |
| B9  | I find myself using digital devices for longer periods of time than intended.                        | 34.4%          | 45.6% | 40.0% | 29.7%             | 31.2% | 30.4% | 25.7%          | 18.7% | 22.2% | 10.3%       | 4.5%  | 7.4%  | 0.0%        | 0.0% | 0.0%  |
| B10 | I use digital devices to relieve myself from stress (e.g. listening to music, watching movies, SNS). | 5.7%           | 6.4%  | 6.1%  | 9.1%              | 11.0% | 10.0% | 35.9%          | 32.3% | 34.1% | 49.2%       | 50.3% | 49.8% | 0.0%        | 0.0% | 0.0%  |
| B11 | I feel anxious if I have not checked for messages or switched on digital devices for some time.      | 32.1%          | 39.5% | 35.8% | 28.3%             | 26.7% | 27.5% | 23.2%          | 21.9% | 22.6% | 16.3%       | 11.9% | 14.1% | 0.0%        | 0.0% | 0.0%  |

**Table A4.6: Digital Resilience (Gender disaggregated)**

| No  | Statement                                                                                                        | Disagree a lot |       |       | Disagree a little |       |       | Agree a little |       |       | Agree a lot |       |       | No Response |      |       |
|-----|------------------------------------------------------------------------------------------------------------------|----------------|-------|-------|-------------------|-------|-------|----------------|-------|-------|-------------|-------|-------|-------------|------|-------|
|     |                                                                                                                  | Girl           | Boy   | Total | Girl              | Boy   | Total | Girl           | Boy   | Total | Girl        | Boy   | Total | Girl        | Boy  | Total |
| B12 | I can modify privacy setting to keep myself safe/away from unwanted contacts (e.g. Spam texts, emails).          | 19.2%          | 29.9% | 24.5% | 17.7%             | 19.8% | 18.8% | 35.2%          | 31.2% | 33.2% | 27.8%       | 19.1% | 23.4% | 0.2%        | 0.0% | 0.1%  |
| B13 | I try to avoid clicking on information that looks weird or suspicious.                                           | 7.8%           | 14.7% | 11.3% | 8.4%              | 4.7%  | 6.5%  | 18.6%          | 12.7% | 15.6% | 65.2%       | 67.7% | 66.4% | 0.0%        | 0.2% | 0.1%  |
| B14 | If a person is bothering me online, I can ask the person to stop sending unwanted disturbing messages or emails. | 4.8%           | 7.8%  | 6.3%  | 4.0%              | 4.0%  | 4.0%  | 17.9%          | 14.4% | 16.1% | 73.4%       | 73.9% | 73.6% | 0.0%        | 0.0% | 0.0%  |

**Table A4.7: Reaction when exposed to unwanted disturbing files or websites (Gender disaggregated)**

| B15 How will you react when you are exposed to unwanted disturbing files or websites (e.g. pornography website, violent media)?* | Responses, N |      |       | Percentage of Cases |       |       |
|----------------------------------------------------------------------------------------------------------------------------------|--------------|------|-------|---------------------|-------|-------|
|                                                                                                                                  | Girl         | Boy  | Total | Girl                | Boy   | Total |
| B15.1 Get rid of it immediately by closing the page, deleting the file, or scrolling away                                        | 428          | 390  | 818   | 81.4%               | 73.9% | 77.6% |
| B15.2 Talk about it with parents/ caregivers                                                                                     | 169          | 231  | 400   | 32.1%               | 43.8% | 38.0% |
| B15.3 Use a program that prevents it from happening again                                                                        | 254          | 264  | 518   | 48.3%               | 50.0% | 49.1% |
| B15.4 Talk about it with a friend                                                                                                | 291          | 223  | 514   | 55.3%               | 42.2% | 48.8% |
| B15.5 Look away or close my eyes                                                                                                 | 83           | 79   | 162   | 15.8%               | 15.0% | 15.4% |
| B15.6 Keep looking                                                                                                               | 39           | 15   | 54    | 7.4%                | 2.8%  | 5.1%  |
| B15.7 Block the webpage or website                                                                                               | 333          | 319  | 652   | 63.3%               | 60.4% | 61.9% |
| B15.8 Don't know what to do                                                                                                      | 20           | 54   | 74    | 3.8%                | 10.2% | 7.0%  |
| Total                                                                                                                            | 1617         | 1575 | 3192  |                     |       |       |
| Number of Respondents = 1055<br>*Multiple Response                                                                               |              |      |       |                     |       |       |

**Table A4.8: Interacting, Sharing, and Collaborating (Gender disaggregated)**

| No | Statement                                                                            | Disagree a lot |       |       | Disagree a little |       |       | Agree a little |       |       | Agree a lot |       |       | No Response |      |       |
|----|--------------------------------------------------------------------------------------|----------------|-------|-------|-------------------|-------|-------|----------------|-------|-------|-------------|-------|-------|-------------|------|-------|
|    |                                                                                      | Girl           | Boy   | Total | Girl              | Boy   | Total | Girl           | Boy   | Total | Girl        | Boy   | Total | Girl        | Boy  | Total |
| C1 | I use the Internet to talk to people from places or backgrounds different from mine. | 8.0%           | 17.4% | 12.7% | 10.6%             | 13.6% | 12.1% | 32.9%          | 25.9% | 29.4% | 48.5%       | 43.1% | 45.8% | 0%          | 0%   | 0%    |
| C2 | I use the Internet to share something I am good at or I know well.                   | 12.4%          | 17.8% | 15.1% | 12.0%             | 13.4% | 12.7% | 31.7%          | 33.8% | 32.8% | 43.9%       | 35.0% | 39.4% | 0%          | 0%   | 0%    |
| C3 | I can share my knowledge online to anyone if it is helpful to him/her.               | 6.1%           | 9.8%  | 8.0%  | 7.8%              | 7.8%  | 7.8%  | 26.0%          | 25.3% | 25.7% | 59.9%       | 56.7% | 58.3% | 0.2%        | 0.4% | 0.3%  |
| C4 | I make new friendships with other people online.                                     | 4.2%           | 12.5% | 8.3%  | 6.5%              | 13.0% | 9.8%  | 23.2%          | 27.0% | 25.1% | 66.0%       | 47.3% | 56.6% | 0.2%        | 0.2% | 0.2%  |

**Table A4.9: Civic Engagement (Gender disaggregated)**

| No | Statement                                                                | Disagree a lot |       |       | Disagree a little |       |       | Agree a little |       |       | Agree a lot |       |       | No Response |      |       |
|----|--------------------------------------------------------------------------|----------------|-------|-------|-------------------|-------|-------|----------------|-------|-------|-------------|-------|-------|-------------|------|-------|
|    |                                                                          | Girl           | Boy   | Total | Girl              | Boy   | Total | Girl           | Boy   | Total | Girl        | Boy   | Total | Girl        | Boy  | Total |
| C5 | I post news on social issues online (e.g. Facebook, Instagram, blog).    | 18.8%          | 37.1% | 28.0% | 19.0%             | 20.2% | 19.6% | 36.3%          | 26.1% | 31.2% | 25.7%       | 16.4% | 21.0% | 0.2%        | 0.2% | 0.2%  |
| C6 | I use the Internet to create solutions to problems in my school.         | 20.5%          | 27.8% | 24.2% | 21.7%             | 18.7% | 20.2% | 33.1%          | 30.8% | 31.9% | 24.7%       | 22.7% | 23.7% | 0%          | 0%   | 0%    |
| C7 | I use the Internet to create solutions to problems in my town/community. | 19.4%          | 25.5% | 22.5% | 21.7%             | 24.6% | 23.1% | 36.1%          | 31.6% | 33.8% | 22.8%       | 18.3% | 20.6% | 0%          | 0%   | 0%    |
| C8 | I get involved online in social issues.                                  | 12.2%          | 21.6% | 16.9% | 17.9%             | 21.7% | 19.8% | 39.4%          | 34.8% | 37.1% | 30.4%       | 21.7% | 26.1% | 0.2%        | 0.2% | 0.2%  |

**Table A4.10: Netiquette (Gender disaggregated)**

| No  | Statement                                                                                                            | Disagree a lot |       |       | Disagree a little |       |       | Agree a little |       |       | Agree a lot |       |       | No Response |      |       |
|-----|----------------------------------------------------------------------------------------------------------------------|----------------|-------|-------|-------------------|-------|-------|----------------|-------|-------|-------------|-------|-------|-------------|------|-------|
|     |                                                                                                                      | Girl           | Boy   | Total | Girl              | Boy   | Total | Girl           | Boy   | Total | Girl        | Boy   | Total | Girl        | Boy  | Total |
| C9  | If I disagree with people online, I watch my language so that it does not come across as mean.                       | 7.8%           | 11.3% | 9.6%  | 8.9%              | 8.9%  | 8.9%  | 21.7%          | 21.7% | 21.7% | 61.6%       | 58.0% | 59.8% | 0%          | 0%   | 0%    |
| C10 | I am careful to make sure that the pictures I post or send will not embarrass other people or get them into trouble. | 3.2%           | 5.5%  | 4.4%  | 3.8%              | 3.8%  | 3.8%  | 16.5%          | 14.4% | 15.5% | 76.4%       | 76.4% | 76.4% | 0%          | 0%   | 0%    |
| C11 | My favorite online places are where people are respectful toward each other.                                         | 8.6%           | 15.7% | 12.1% | 14.1%             | 12.5% | 13.3% | 40.5%          | 33.5% | 37.0% | 36.9%       | 38.4% | 37.6% | 0%          | 0%   | 0%    |
| C12 | I do not add to arguments and insulting interactions that happen on the Internet.                                    | 10.5%          | 17.8% | 14.1% | 5.5%              | 5.3%  | 5.4%  | 13.1%          | 12.5% | 12.8% | 70.5%       | 64.5% | 67.5% | 0.4%        | 0.0% | 0.2%  |

**Table A4.11: Self-awareness (Gender disaggregated)**

| No | Statement                                                                                                                           | Disagree a lot |      |       | Disagree a little |      |       | Agree a little |       |       | Agree a lot |       |       | No Response |      |       |
|----|-------------------------------------------------------------------------------------------------------------------------------------|----------------|------|-------|-------------------|------|-------|----------------|-------|-------|-------------|-------|-------|-------------|------|-------|
|    |                                                                                                                                     | Girl           | Boy  | Total | Girl              | Boy  | Total | Girl           | Boy   | Total | Girl        | Boy   | Total | Girl        | Boy  | Total |
| D1 | I am aware of my feelings that I experience in my interactions online.                                                              | 2.5%           | 5.7% | 4.1%  | 3.0%              | 7.4% | 5.2%  | 35.2%          | 29.9% | 32.5% | 59.1%       | 56.9% | 58.0% | 0.2%        | 0.2% | 0.2%  |
| D2 | I express myself in a way that makes a good impression on others when I write a post or comments on SNS (e.g. Facebook, Instagram). | 4.2%           | 8.3% | 6.3%  | 5.1%              | 8.9% | 7.0%  | 23.0%          | 22.3% | 22.7% | 67.5%       | 60.5% | 64.0% | 0.2%        | 0.0% | 0.1%  |

|    |                                                                                                                         |       |       |       |       |       |       |       |       |       |       |       |       |      |      |      |
|----|-------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|
| D3 | I am aware of the meaning of non-verbal messages (e.g. smiley face, emoji) that I send to other people on the Internet. | 7.0%  | 10.2% | 8.6%  | 7.4%  | 9.8%  | 8.6%  | 29.8% | 25.0% | 27.4% | 55.3% | 54.8% | 55.1% | 0.4% | 0.2% | 0.3% |
| D4 | I express my feelings freely on the Internet using online communications.                                               | 10.5% | 19.1% | 14.8% | 18.3% | 19.5% | 18.9% | 37.8% | 34.2% | 36.0% | 33.1% | 26.8% | 30.0% | 0.4% | 0.4% | 0.4% |

**Table A4.12: Self-regulation (Gender disaggregated)**

| No | Statement                                                                                                | Disagree a lot |       |       | Disagree a little |       |       | Agree a little |       |       | Agree a lot |       |       | No Response |      |       |
|----|----------------------------------------------------------------------------------------------------------|----------------|-------|-------|-------------------|-------|-------|----------------|-------|-------|-------------|-------|-------|-------------|------|-------|
|    |                                                                                                          | Girl           | Boy   | Total | Girl              | Boy   | Total | Girl           | Boy   | Total | Girl        | Boy   | Total | Girl        | Boy  | Total |
| D5 | I can manage my feelings when I talk with other people on the Internet.                                  | 2.7%           | 6.8%  | 4.7%  | 7.8%              | 8.1%  | 8.0%  | 30.4%          | 28.9% | 29.7% | 58.7%       | 55.6% | 57.2% | 0.4%        | 0.6% | 0.5%  |
| D6 | Even though I get distracted during online classes or activities, I can easily go back to my work again. | 5.7%           | 7.2%  | 6.4%  | 11.6%             | 13.6% | 12.6% | 40.3%          | 38.6% | 39.4% | 41.6%       | 40.3% | 40.9% | 0.8%        | 0.4% | 0.6%  |
| D7 | I stick to my goals when I use the Internet to do assignments at home.                                   | 7.2%           | 11.9% | 9.6%  | 9.5%              | 9.6%  | 9.6%  | 30.2%          | 30.1% | 30.1% | 52.3%       | 48.0% | 50.1% | 0.8%        | 0.4% | 0.6%  |

**Table A4.13: Self-motivation (Gender disaggregated)**

| No  | Statement                                                                                                               | Disagree a lot |       |       | Disagree a little |       |       | Agree a little |       |       | Agree a lot |       |       | No Response |      |       |
|-----|-------------------------------------------------------------------------------------------------------------------------|----------------|-------|-------|-------------------|-------|-------|----------------|-------|-------|-------------|-------|-------|-------------|------|-------|
|     |                                                                                                                         | Girl           | Boy   | Total | Girl              | Boy   | Total | Girl           | Boy   | Total | Girl        | Boy   | Total | Girl        | Boy  | Total |
| D8  | I am motivated by the good results that my group can get from the projects that we do online.                           | 9.7%           | 13.0% | 11.4% | 11.2%             | 13.0% | 12.1% | 31.7%          | 33.1% | 32.4% | 46.6%       | 40.6% | 43.6% | 0.8%        | 0.2% | 0.5%  |
| D9  | Even though I face challenges while using digital devices, I solve the problem without giving up.                       | 8.4%           | 6.8%  | 7.6%  | 14.1%             | 18.3% | 16.2% | 38.6%          | 34.0% | 36.3% | 38.8%       | 40.6% | 39.7% | 0.2%        | 0.2% | 0.2%  |
| D10 | When I use digital devices or software (e.g. programs, applications) for the first time, I expect I am able to do well. | 9.3%           | 18.1% | 13.7% | 23.8%             | 25.7% | 24.7% | 44.9%          | 43.7% | 44.3% | 21.9%       | 12.3% | 17.1% | 0.2%        | 0.2% | 0.2%  |

**Table A4.14: Interpersonal skills (Gender disaggregated)**

| No  | Statement                                                                                                                                                                    | Disagree a lot |       |       | Disagree a little |       |       | Agree a little |       |       | Agree a lot |       |       | No Response |      |       |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------|-------|-------------------|-------|-------|----------------|-------|-------|-------------|-------|-------|-------------|------|-------|
|     |                                                                                                                                                                              | Girl           | Boy   | Total | Girl              | Boy   | Total | Girl           | Boy   | Total | Girl        | Boy   | Total | Girl        | Boy  | Total |
| D11 | I communicate comfortably with people who have different backgrounds, appearances, and opinions on the Internet.                                                             | 20.2%          | 32.9% | 26.5% | 22.8%             | 25.9% | 24.4% | 35.6%          | 29.9% | 32.7% | 21.5%       | 11.0% | 16.2% | 0.0%        | 0.4% | 0.2%  |
| D12 | I help other people feel better when they are not feeling well on the Internet (e.g. when they read negative comments or see awful pictures of themselves posted by others). | 8.4%           | 8.5%  | 8.4%  | 8.2%              | 10.4% | 9.3%  | 39.5%          | 33.5% | 36.5% | 43.9%       | 47.4% | 45.7% | 0.0%        | 0.2% | 0.1%  |
| D13 | I know how to resolve the conflicts that arise when I interact with people from diverse backgrounds on the Internet.                                                         | 11.2%          | 15.9% | 13.6% | 19.2%             | 22.5% | 20.9% | 43.5%          | 39.7% | 41.6% | 26.0%       | 21.7% | 23.9% | 0.0%        | 0.2% | 0.1%  |

**Table A4.15: Empathy (Gender disaggregated)**

| No  | Statement                                                                                     | Disagree a lot |       |       | Disagree a little |       |       | Agree a little |       |       | Agree a lot |       |       | No Response |      |       |
|-----|-----------------------------------------------------------------------------------------------|----------------|-------|-------|-------------------|-------|-------|----------------|-------|-------|-------------|-------|-------|-------------|------|-------|
|     |                                                                                               | Girl           | Boy   | Total | Girl              | Boy   | Total | Girl           | Boy   | Total | Girl        | Boy   | Total | Girl        | Boy  | Total |
| D14 | When I meet friends online, I easily empathize with their emotions.                           | 4.2%           | 11.3% | 7.8%  | 11.2%             | 16.4% | 13.8% | 43.0%          | 37.4% | 40.2% | 41.1%       | 34.0% | 37.5% | 0.6%        | 0.8% | 0.7%  |
| D15 | When I talk with friends on the Internet, I understand their perspectives even if I disagree. | 5.5%           | 11.5% | 8.5%  | 11.8%             | 17.4% | 14.6% | 44.5%          | 36.3% | 40.4% | 38.0%       | 34.6% | 36.3% | 0.2%        | 0.2% | 0.2%  |
| D16 | When I meet friends on the Internet, I easily recognize what they want to talk about.         | 10.6%          | 16.1% | 13.4% | 17.1%             | 17.4% | 17.3% | 40.1%          | 40.3% | 40.2% | 31.9%       | 26.1% | 29.0% | 0.2%        | 0.2% | 0.2%  |

Table A4.16: Creative Literacy (Gender disaggregated)

| No | Statement                                                                                                 | Disagree a lot |       |       | Disagree a little |       |       | Agree a little |       |       | Agree a lot |       |       | No Response |      |       |
|----|-----------------------------------------------------------------------------------------------------------|----------------|-------|-------|-------------------|-------|-------|----------------|-------|-------|-------------|-------|-------|-------------|------|-------|
|    |                                                                                                           | Girl           | Boy   | Total | Girl              | Boy   | Total | Girl           | Boy   | Total | Girl        | Boy   | Total | Girl        | Boy  | Total |
| E1 | I make changes to the digital content (e.g. photos, videos, music, text, etc.) that others have produced. | 17.9%          | 27.6% | 22.7% | 16.7%             | 19.7% | 18.2% | 32.9%          | 32.1% | 32.5% | 32.5%       | 20.4% | 26.4% | 0.0%        | 0.2% | 0.1%  |
| E2 | I remix existing digital content by using digital media software (e.g. programs, applications).           | 29.8%          | 38.8% | 34.3% | 25.1%             | 27.4% | 26.3% | 27.0%          | 26.5% | 26.7% | 17.9%       | 7.2%  | 12.5% | 0.2%        | 0.2% | 0.2%  |
| E3 | I create presentation slides to support my ideas or opinions.                                             | 25.3%          | 31.2% | 28.2% | 26.0%             | 25.0% | 25.5% | 30.6%          | 31.0% | 30.8% | 17.3%       | 11.7% | 14.5% | 0.8%        | 1.1% | 0.9%  |
| E4 | I create something new from existing digital content.                                                     | 11.0%          | 19.5% | 15.3% | 16.7%             | 23.3% | 20.0% | 41.3%          | 32.9% | 37.1% | 30.4%       | 24.0% | 27.2% | 0.6%        | 0.4% | 0.5%  |
| E5 | I express my ideas through selecting, organizing, and sharing existing digital materials.                 | 10.5%          | 15.3% | 12.9% | 18.4%             | 20.8% | 19.6% | 37.5%          | 39.5% | 38.5% | 33.3%       | 24.0% | 28.6% | 0.4%        | 0.4% | 0.4%  |

Table A4.17: Expression (Gender disaggregated)

| No  | Statement                                                                        | Disagree a lot |       |       | Disagree a little |       |       | Agree a little |       |       | Agree a lot |       |       | No Response |      |       |
|-----|----------------------------------------------------------------------------------|----------------|-------|-------|-------------------|-------|-------|----------------|-------|-------|-------------|-------|-------|-------------|------|-------|
|     |                                                                                  | Girl           | Boy   | Total | Girl              | Boy   | Total | Girl           | Boy   | Total | Girl        | Boy   | Total | Girl        | Boy  | Total |
| E6  | I use the Internet to try out different ways of expressing myself.               | 8.4%           | 19.7% | 14.0% | 10.5%             | 15.1% | 12.8% | 44.3%          | 36.5% | 40.4% | 36.9%       | 28.5% | 32.7% | 0.0%        | 0.2% | 0.1%  |
| E7  | I express my personality online.                                                 | 19.0%          | 34.6% | 26.8% | 22.2%             | 25.0% | 23.6% | 30.0%          | 27.6% | 28.8% | 28.3%       | 12.1% | 20.2% | 0.4%        | 0.8% | 0.6%  |
| E8  | I show a better version of myself online.                                        | 11.8%          | 26.5% | 19.1% | 18.6%             | 25.3% | 22.0% | 36.3%          | 28.2% | 32.2% | 32.5%       | 19.7% | 26.1% | 0.8%        | 0.4% | 0.6%  |
| E9  | I express who I want to be online.                                               | 13.3%          | 23.1% | 18.2% | 18.8%             | 18.5% | 18.7% | 37.6%          | 32.1% | 34.9% | 29.5%       | 24.8% | 27.1% | 0.8%        | 1.3% | 1.0%  |
| E10 | There are certain things I express about myself more freely online than offline. | 15.2%          | 24.6% | 19.9% | 24.1%             | 24.0% | 24.1% | 34.2%          | 33.8% | 34.0% | 26.0%       | 17.4% | 21.7% | 0.4%        | 0.2% | 0.3%  |
| E11 | When I'm online, I present myself how I want others to view me.                  | 12.9%          | 30.8% | 21.9% | 20.2%             | 24.4% | 22.3% | 35.6%          | 21.4% | 28.4% | 31.4%       | 23.3% | 27.3% | 0.0%        | 0.2% | 0.1%  |

## Annex 5:

# DKAP Bangladesh National Research Team

The Digital Kids in Asia-Pacific (DKAP) - Bangladesh National Research Team (NRT) included the following members.

**Table A5.1: Members of DKAP Bangladesh National Research Team**

| SL | Name and Designation                                               | Organization                                                      |
|----|--------------------------------------------------------------------|-------------------------------------------------------------------|
| 01 | Professor Dr. Md. Abdul Mannan<br>Director (Secondary)<br>Convener | Directorate of Secondary and Higher Education (DSHE)              |
| 02 | Khandaker Azizur Rahman<br>Senior System Analyst<br>Focal Point    | EMIS Cell<br>Directorate of Secondary and Higher Education (DSHE) |
| 03 | Jagat Jyuti Basak<br>Education statistician<br>Member              | EMIS Cell<br>Directorate of Secondary and Higher Education (DSHE) |
| 04 | Sun Lei<br>Education Programme Specialist<br>Member                | UNESCO Dhaka Office                                               |
| 05 | Shereen Akther<br>Programme Officer - Education<br>Member          | UNESCO Dhaka Office                                               |
| 06 | M. Shahidul Islam<br>Programme Officer - Education<br>Member       | UNESCO Dhaka Office                                               |
| 07 | Professor Faruque Ahmed<br>e-Learning Specialist<br>Member         | Access to Information Programme (a2i )                            |
| 08 | Mohammed Rafiqul Islam<br>Educational Technology Expert<br>Member  | Access to Information Programme (a2i )                            |
| 09 | Afsana Ayub<br>Programme Officer<br>Member                         | Bangladesh National Commission for UNESCO (BNCU)                  |
| 10 | Professor Salma Akhter<br>Consultant                               | Professor, Department of Sociology<br>University of Dhaka         |





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