INTERNATIONAL COMPUTER AND INFORMATION LITERACY STUDY (ICILS 2018) MAIN STUDY

OMB# 1850-0929 v.7

APPENDIX B.1

ICILS Main Study Questionnaires – Summary of Changes

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APPENDIX B.1: SUMMARY OF CHANGES TO U.S. ICILS INSTRUMENTS FROM FIELD TEST TO MAIN STUDY

The International Association for the Evaluation of Education Achievement (IEA) released the final international versions of the ICILS 2018 main study questionnaires, and has approved the adaptations to be made to the U.S. versions of the main study questionnaires. Appendix B.2 provides the final versions of the adapted U.S. versions of the ICILS 2018 main study questionnaires to be administered in the main study. This Appendix, B.1, lists the changes that were made to the U.S. versions of the field test questionnaire in preparation for the U.S. main study, which will begin in spring 2018.

The changes listed below are arranged by questionnaire (e.g., school principal, ICT coordinator, teacher, and student), and then by the four types of changes made: new U.S. adaptations (not already included in the field test U.S. versions); new items; deleted items; and revisions to item wording made to the U.S. versions of the field test items in preparation for using them in the U.S. versions of the main study questionnaires. This comparison is based on the final U.S. versions of the ICILS 2018 main study questionnaires, which were recently approved by the IEA.

The U.S. adaptations that were already made to the Field Test version of the questionnaires are kept for the Main Study version. New U.S. adaptations for the Main Study refer to any changes that need to be made from the Field Test version, such as the year of the test in the questionnaire introduction. Based on analysis of the field test data, the IEA and the international contractors revised some of the items from the field test international versions of the questionnaires, and also deleted some of the items. Furthermore, the U.S. added a few national questions that are commonly added to international surveys to provide data for the U.S. context. All of the changes are listed in this document. Straightforward adaptations of U.K. English to American English (e.g., favourite to favorite; adding a comma after "e.g.", or removal of ® registered trademark symbols) were applied throughout each questionnaire and are not included in the tables below.

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Summary of Changes from ICILS 2018 U.S. Field Test to U.S. Main Study Principal, ICT Coordinator, Teacher, and Student Questionnaire Items

Contents

A. Principal Questionnaire

1. New Adaptations of all items (not already included in the U.S. field test version)

ICILS 2018 US Main Study (final)

International term	U.S. adaptation	Item(s)
Principal Questionnaire for the Main Survey	Principal Questionnaire for the 2018 U.S. Main Study	Cover Header
Thank you for taking part in the 2018 International Computer and Information Literacy Study. The purpose of this study is to examine across different countries the extent to which young people in eighth grade have developed computer and information literacy, which is defined as the ability to use Information and Communications Technology (ICT) to investigate, create, and communicate with others at home, school, the workplace and in society.	Your school has agreed to participate in the 2018 Main Study for the International Computer and Information Literacy Study (ICILS). ICILS is an educational research project sponsored by the International Association for the Evaluation of Educational Achievement (IEA). The purpose of ICILS is to examine across different countries the extent to which young people in eighth grade have developed computer and information literacy, which is defined as the ability to use Information and Communications Technology (ICT) to investigate, create, and communicate with others at home, school, the workplace, and in society.	*Note: Intro language and year and study type updated for year and study.*
	OMB No. 1850-0929, Approval Expires 12/31/2020	*Note: Updated OMB date*
Q4 **What is the total number of boys and girls in the school?** *(Please record a whole number. Record 0 (zero), if none.)* • **Total number of girls** • **Total number of boys**	**Q3** **What is the total number of boys and girls in the school as of October 1, 2017?** *(Please record a whole number. Record 0 (zero), if none.)* • **Total number of girls** • **Total number of boys**	*Note: Added and updated new date. International version does not include a date.*
Q5 **What is the total number of boys and girls in eighth grade?** *(Please record a whole number. Record 0 (zero), if none.)* • **Total number of girls** • **Total number of boys**	**Q4** **What is the total number of boys and girls in eighth grade as of October 1, 2017?** *(Please record a whole number. Record 0 (zero), if none.)* • **Total number of girls** • **Total number of boys**	*Note: Added and updated new date. International version does not include a date.*

2. New Items

Item #	Added Text/Item
Q5 (U.S. Only)	**Around the 1st of October 2017, what percentage of students at this school were eligible to receive free or reduced-price lunches through the National School Lunch Program?** *(Please record a whole number. Record 0 (zero), if none.)* **_____ Percentage of students**

Q6 (U.S. Only)	**Of the students currently enrolled in your school, what percentage has been identified as limited-English proficient (LEP)/English language learners (ELL)?** *(Please record a whole number. Record 0 (zero), if none.)* **_____ Percentage of students**

3. Deleted Items (entire stem)

Item Number	Deleted Item
Q3	**If you use ICT for any other school-related activities at least once a month, please list them. _____**

4. Revised Items

2018 FT Final U.S. Version		2018 MS Final U.S. Version	
Item #	**Item**	**Item #**	**Revised Item**
Q4 – Q5 **Q6 – Q9** **Q10** **Q14 – Q15** **Q16 – Q18**		**Q3 – Q4** **Q7 – Q10** **Q10b** **Q14** **Q15 – Q17**	*Note: Renumbered items*
Q2	**How often do you use ICT for the following activities?** *(Please mark one choice in each row)* • **Never** • **Less than once a month** • **At least once a month but not every week** • **At least once a week but not every day** • **Every day** a) Search for information on the Internet or a network maintained by education authorities for its schools b) Provide information about an educational issue through a website c) Look up records in a database (e.g., in a student information system) d) Maintain, organize and analyze data (e.g., with a spreadsheet or database) e) Prepare presentations f) Communicate with teachers in your school g) Communicate with education authorities h) Communicate with principals and senior staff in other schools i) Communicate with parents j) Work with a learning management system (e.g., Blackboard, Edmodo, Moodle) k) Use social media to communicate with the wider community about school-related activities	**Q2**	*Note: New answer dimensions added* **How often do you use ICT for the following activities?** *(Please mark one choice in each row)* • **Never** • **Less than once a month** • **At least once a month but not every week** • **At least once a week but not every day** • **Every day** a) Search for information on the Internet or a network maintained by education authorities for its schools b) Provide information about an educational issue through a website c) Look up records in a database (e.g., in a student information system) d) Maintain, organize and analyze data (e.g., with a spreadsheet or database) e) Prepare presentations f) Communicate with teachers in your school g) Communicate with education authorities h) Communicate with principals and senior staff in other schools i) Communicate with parents j) Work with a learning management system (e.g., Blackboard, Edmodo, Moodle) k) Use social media to communicate with the wider community about school-related activities l) Management of staff (e.g., scheduling, professional development) m) Preparing the curriculum

2018 FT Final U.S. Version		2018 MS Final U.S. Version	
Item #	Item	Item #	Revised Item
			n) School financial management
Q8	**What are the total numbers of full-time and part-time teachers in your school?** *A full-time teacher is employed on a regular basis as a teacher for at least 90% of full-time hours for the full school year. All other teachers should be considered part-time. (Please record a whole number for each. Record 0 (zero), if none.)* a) Total number of full-time teachers b) Total number of part-time teachers	Q8	*Note: Instructions wording modified.* **What are the total numbers of full-time and part-time teachers in your school?** *A full-time teacher is employed on a regular basis as a teacher for at least 90% of full-time hours for the full school year. All other teachers should be considered part-time. (Please record a whole number. Record 0 (zero), if none.)* a) Total number of full-time teachers b) Total number of part-time teachers
Q11	**In your opinion, how important is each of the following outcomes of education in your school?** *(Please mark one choice in each row)* • **Very important** • **Quite important** • **Somewhat important** • **Not important** a) The development of students' basic computer skills (e.g., Internet use, email, word processing, presentation software) b) The development of students' skills in using ICT for collaboration with others c) The use of ICT for facilitating students' responsibility for their own learning d) The use of ICT to augment and improve students' learning e) The development of students' understanding and skills relating to safe and appropriate use of ICT f) The development of students' proficiency in accessing and using information with ICT g) The development of students' ability to write apps or programs	Q11	*Note: Item stem reworded.* **How important is the use of ICT in this school for each of the following outcomes of education?** *(Please mark one choice in each row)* • **Very important** • **Quite important** • **Somewhat important** • **Not important** a) The development of students' basic computer skills (e.g., Internet use, email, word processing, presentation software) b) The development of students' skills in using ICT for collaboration with others c) The use of ICT for facilitating students' responsibility for their own learning d) The use of ICT to augment and improve students' learning e) The development of students' understanding and skills relating to safe and appropriate use of ICT f) The development of students' proficiency in accessing and using information with ICT g) The development of students' ability to write apps or programs

2018 FT Final U.S. Version		2018 MS Final U.S. Version	
Item #	Item	Item #	Revised Item
Q14	**Who has the main responsibility for making decisions about each of the following aspects of ICT in this school?** *(Please mark one choice in each row)* • **School district or relevant education authority** • **School boards /councils** • **School principal or deputy** • **Heads of department** • **ICT Coordinator** • **Information specialist or librarian** • **Individual teachers** • **No one** a) The purchase /supply of ICT equipment b) The choice of non-digital learning materials c) The choice of digital learning materials d) The selection of a learning management system e) The maintenance of ICT equipment f) Decisions about whether ICT is used in teaching	Q14	*Note: Two item stems and dimensions combined into one. Also, answer dimensions reworded and new ones added.* **Who has the main responsibility for making decisions about each of the following aspects of ICT in this school?** *(Please mark one choice in each row)* • **School district or relevant education authority** • **School boards/ councils** • **School principal or deputy** • **Heads of department** • **ICT coordinator** • **Information specialist or librarian** • **Individual teachers** • **No one** a) The procurement of ICT equipment b) The choice of non-digital learning materials c) The choice of digital learning materials d) The selection of a learning management system e) The maintenance of ICT equipment f) Decisions about whether ICT is used in teaching g) The implementation of ICT-based approaches in teaching h) The implementation of ICT-based approaches in administration i) The use of ICT-based approaches to assessment
Q15	**Who has the main responsibility for each of the following aspects of ICT management in this school?** *(Please mark one choice in each row)* • **School district or relevant education authority** • **School boards /councils** • **School principal or deputy** • **Heads of department** • **ICT coordinator** • **Information specialist or librarian** • **Individual teachers** • **No one** a) The implementation of ICT-based approaches in teaching b) The implementation of ICT-based approaches in administration c) The use of ICT-based approaches to assessment d) The assessment of students' computer and information literacy e) The implementation of a computer and information literacy curriculum at the school f) The development of ICT-related teacher competencies		

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B. ICT Coordinator Questionnaire

1. New Adaptations of all items (not already included in the U.S. field test version)

ICILS 2018 US Main Study		
International term	**U.S. adaptation**	**Item(s)**
Introduction for ICT-coordinators to the questionnaire	ICT Coordinator Questionnaire for the 2018 Main Study	Cover Header
	OMB No. 1850-0929, Approval Expires 12/31/2020	*Note: Updated OMB date*

2. Revised Items

2018 FT Final U.S. Version		2018 MS Final U.S. Version	
Item #	**Item**	**Item #**	**Revised Item**
Q5 – Q6 Q7 Q8a Q10 – Q17		Q5 Q6 Q7 Q8 – Q15	*Note: Renumbered items*

Q2	**Which of the following teaching duties do you have?**
	(Please mark one choice in each row)
	
	• **Yes**
	• **No**
	
	    a) I teach ICT courses to students.
	    b) I teach other subjects (i.e., not ICT) to students.
	    c) I do not have any teaching duties for students.
	    d) I teach ICT courses to, or conduct workshops for, teachers and other school staff.
		Q2	*Note: Dimension reworded.*
			
			Which of the following teaching duties do you have?
			(Please mark one choice in each row)
			
			• **Yes**
			• **No**
			
			    a) I teach ICT courses to students.
			    b) I teach other subjects (not related to learning about ICT) to students.
			    c) I do not have any teaching duties for students.
			    d) I teach ICT courses to, or conduct workshops for, teachers and other school staff.

Q3	**How many years has your school been using ICT for teaching and/or learning purposes for students in eighth grade?** *(Please mark only one choice)* • **Never, we do not use computers** • **Fewer than 5 years** • **At least 5 but fewer than 10 years** • **10 years or more**	Q3	*Note: Dimension reworded* **How many years has your school been using ICT for teaching and/or learning purposes for students in eighth grade?** *(Please mark only one choice)* • **Never, we do not use ICT** • **Fewer than 5 years** • **At least 5 but fewer than 10 years** • **10 years or more**
Q5 - Q6	**Please indicate the availability of each of the following software resources at your school.** *(Please mark one choice in each row)* • **Available to teachers and students** • **Available only to teachers** • **Available only to students** • **Not available**	Q5	*Note: Two questions Q5 – Q6 combined into one. Some dimensions removed* **Please indicate the availability of each of the following software resources at your school.** *(Please mark one choice in each row)* • **Available to teachers and students**

2018 FT Final U.S. Version		2018 MS Final U.S. Version	
Item #	**Item**	**Item #**	**Revised Item**
	a) Practice programs or apps where teachers decide which questions are asked of students (e.g., Quizlet, Kahoot) b) Single user digital learning games (e.g., Languages Online) c) Multi-user digital learning games with graphics and inquiry tasks (e.g., Quest Atlantis) d) Word-processor software (e.g., Microsoft Word) e) Presentation software (e.g., Microsoft PowerPoint) f) Video and photo software for capture and editing (e.g., Windows Movie Maker, iMovie, Adobe Photoshop) g) Concept mapping software (e.g., Inspiration, Webspiration) **Please indicate the availability of each of the following software resources at your school.** *(Please mark one choice in each row)* • **Available to teachers and students** • **Available only to teachers** • **Available only to students** • **Not available** a) Data logging and monitoring tools (e.g., Logger Pro) that capture real-world data digitally for analysis (e.g. speed, temperature) b) Simulations and modeling software (e.g., NetLogo) c) A learning management system (e.g., Blackboard, Edmodo, Moodle) d) Graphing or drawing software e) e-portfolios (e.g., VoiceThread) f) Digital contents linked with textbooks g) Social media (e.g., Facebook, Twitter)		• **Available only to teachers** • **Available only to students** • **Not available** a) Practice programs or apps where teachers decide which questions are asked of students (e.g., Quizlet, Kahoot) b) Single user digital learning games (e.g., Languages Online) c) Multi-user digital learning games with graphics and inquiry tasks (e.g., Quest Atlantis) d) Word-processor software (e.g., Microsoft Word) e) Presentation software (e.g., Microsoft PowerPoint) f) Video and photo software for capture and editing (e.g., Windows Movie Maker, iMovie, Adobe Photoshop) g) Concept mapping software (e.g., Inspiration, Webspiration) h) Data logging and monitoring tools (e.g., Logger Pro) that capture real-world data digitally for analysis (e.g., speed, temperature) i) Simulations and modelling software (e.g., NetLogo) j) A learning management system (e.g., Blackboard, Edmodo, Moodle) k) Graphing or drawing software l) e-portfolios (e.g., VoiceThread) m) Digital contents linked with textbooks n) n) Social media (e.g., Facebook, Twitter)
Q7	**Please indicate the availability of the following technology facilities in eighth grade.** *(Please mark one choice in each row)* • **Available to teachers and students** • **Available only to teachers** • **Available only to students** • **Not available** a) Remote access to a school network b) Space on a school network to store files c) A school intranet with applications and workspaces d) Internet-based applications for collaborative work (e.g., Google Docs, Padlet, OneNote)	Q6	*Note: Dimension reworded and order changed.* **Please indicate the availability of the following technology facilities in eighth grade.** *(Please mark one choice in each row)* • **Available to teachers and students** • **Available only to teachers** • **Available only to students** • **Not available** a) Remote access to a school network b) Space on a school network to store files c) A school intranet with applications and workspaces

2018 FT Final U.S. Version		2018 MS Final U.S. Version	
Item #	**Item**	**Item #**	**Revised Item**
	e) A learning management system (e.g., Blackboard, Edmodo, Moodle) f) A 3D printer g) Programmable physical agents (e.g. robots) h) h) Access to a wireless LAN (Wi-Fi)		d) Internet-based applications for collaborative work (e.g., Google Docs, Padlet, OneNote) e) A 3D printer f) Robots or robotic devices g) Access to a wireless LAN (Wi-fi) h) A learning management system (e.g., Blackboard, Edmodo, Moodle)
Q11	**Approximately what percentage of students at the eighth grade have access to portable computers (laptops, netbooks or tablet devices) at school?** *(Please mark one choice in each row)* • **0 to 25%** • **26 to 50%** • **51 to 75%** • **76 to 100%** a) Students provided with portable computers for use at school only b) Students provided with portable computers for use at home and at school c) Students bringing their own portable computers for use at school	Q9	*Note: Answer dimensions reworded* **Approximately what percentage of students at the eighth grade have access to portable computers (laptops, netbooks or tablet devices) at school?** *(Please mark one choice in each row)* • **0 to 25%** • **26 to 50%** • **51 to 75%** • **76 to 100%** a) Students provided with portable computers by their school for use at school only b) Students provided with portable computers by their school for use at home <u>and</u> at school c) Students bring portable computers which they own to use at school
Q12	**Where are school ICT devices for teaching and learning in eighth grade located?** *(Please mark one choice in each row)* • **Yes** • **No** a) In most (80% or more) classrooms b) In computer laboratories c) As class sets of computers that can be moved between classrooms d) In the library e) In other places accessible to students (e.g., cafeteria, auditorium, study area) **f)** They are brought by students to class	Q10	*Note: Answer dimension reworded* **Where are school ICT devices for teaching and learning in eighth grade located?** *(Please mark one choice in each row)* • **Yes** • **No** a) In most (80% or more) classrooms b) In computer laboratories c) As class sets of computers that can be moved between classrooms d) In the library e) In other places accessible to students (e.g., cafeteria, auditorium, study area) f) Students bring the devices to class
Q13	**At your school, who provides day-to-day technical ICT support?** *(Please mark one choice in each row)* • **Yes** • **No** a) Yourself b) A network administrator in the school (other than yourself) c) Other ICT technical staff (not including yourself) at the school	Q11	*Note: Answer dimensions reworded* **At your school, who provides day-to-day technical ICT support?** *(Please mark one choice in each row)* • **Yes** • **No** a) Yourself b) A network administrator in the

2018 FT Final U.S. Version		2018 MS Final U.S. Version	
Item #	**Item**	**Item #**	**Revised Item**
	d) Other administrators and school staff e) Other teachers f) Staff from the relevant education authority responsible for the school g) Personnel from external companies contracted to provide maintenance h) Students from this school		school (other than yourself) c) Other ICT technical staff (not including yourself) at the school d) Administrators or school staff (other than yourself) e) Teachers (other than yourself) f) Staff from the relevant education authority responsible for the school g) Personnel from external companies contracted to provide maintenance h) Students from this school
Q14	**At your school, who provides day-to-day pedagogical ICT support for teachers?** *(Please mark one choice in each row)* • **Yes** • **No** a) Yourself b) Other ICT technical staff (not including yourself) at the school c) Other administrators and school staff d) Librarians, library staff or information specialists e) Other teachers f) Staff from the relevant education authority responsible for the school	**Q12**	*Note: Answer dimensions reworded* **At your school, who provides day-to-day pedagogical ICT support for teachers?** *(Please mark one choice in each row)* • **Yes** • **No** a) Yourself b) ICT technical staff (other than yourself) at the school c) Administrators or school staff (other than yourself) d) Librarians, library staff or information specialists (other than yourself) e) Teachers (other than yourself) f) Staff from the relevant education authority responsible for the school
Q15	**To what extent is the use of ICT in teaching and learning at your school hindered by each of the following obstacles?** *(Please mark one choice in each row)* • **A lot** • **To some extent** • **Very little** • **Not at all** a) Too few computers with an Internet connection b) Insufficient Internet bandwidth or speed c) Not enough computers for instruction d) Lack of sufficiently powerful computers e) Problems in maintaining ICT equipment f) Not enough computer software g) Insufficient ICT skills among teachers h) Insufficient time for teachers to prepare lessons i) Lack of effective professional learning resources for teachers j) Lack of an effective online learning support platform k) Insufficient incentives for teachers to	**Q13**	*Note: Answer dimensions reworded.* **To what extent is the use of ICT in teaching and learning at your school hindered by each of the following obstacles?** *(Please mark one choice in each row)* • **A lot** • **To some extent** • **Very little** • **Not at all** a) Too few computers with an Internet connection b) Insufficient Internet bandwidth or speed c) Not enough computers for instruction d) Lack of sufficiently powerful computers e) Problems in maintaining ICT equipment f) Not enough computer software g) Insufficient ICT skills among teachers h) Insufficient time for teachers to prepare lessons i) Insufficient effective professional

2018 FT Final U.S. Version		2018 MS Final U.S. Version	
Item #	Item	Item #	Revised Item
	integrate ICT use in their teaching l) Restricted access to useful Internet resources m) Insufficient technical ICT support n) Insufficient pedagogical support for the use of ICT		learning resources for teachers j) Lack of an effective online learning support platform k) Insufficient incentives for teachers to integrate ICT use in their teaching l) Restricted access to useful Internet resources m) Insufficient technical ICT support n) Insufficient pedagogical support for the use of ICT
Q17	**In the teaching of computing, computer science, information technology, informatics, or a similar subject at the eighth grade in your school, how much emphasis is given to the following tasks?** *(Please mark one choice in each row)* • **Strong emphasis** • **Some emphasis** • **Little emphasis** • **No emphasis** a) Develop algorithms (e.g., instructions for a program like Scratch) b) Design information systems c) Write computer programs d) Evaluate computer programs e) Develop applications f) Refine computer code to improve efficiency g) Debug computer code h) Build electronic devices i) Develop simulations j) Test solutions to problems using simulations k) Create visual displays of information or processes (such as graphs, flow charts, and decision trees)	**Q15**	*Note: Removed some answer dimensions. The order of the dimensions was also changed.* **In the teaching of computing, computer science, information technology, informatics, or a similar subject at the eighth grade in your school, how much emphasis is given to the following tasks?** *(Please mark one choice in each row)* • **Strong emphasis** • **Some emphasis** • **Little emphasis** • **No emphasis** a) Develop algorithms (e.g., instructions for a program like Scratch) b) Write computer programs c) Evaluate computer programs d) Develop applications e) Refine computer code to improve efficiency f) Debug computer code g) Develop simulations h) Test solutions to problems using simulations i) Create visual displays of processes (e.g., flow charts, decision trees)

C. Teacher Questionnaire

1. New Adaptations of all items (not already included in the U.S. field test version)

ICILS 2018 US Main Study

International term	U.S. adaptation	Item(s)
INTRODUCTION FOR TEACHERS TO THE QUESTIONNAIRE	Teacher Questionnaire for the 2018 Main Study	Cover Header
	OMB No. 1850-0929, Approval Expires 12/31/2020	*Note: Updated OMB date*

2. New Items

Item #	Added Text/Item
Q3 (U.S. only)	**What year did you start teaching?** **_____** *(Please write in a year)*

3. Deleted Items (entire stem)

Item #	Deleted Text/Item
Q16	**How confident do you feel about teaching the following skills to the reference class?** *(Please mark one choice in each row)* • **Very confident** • **Quite confident** • **Not very confident** • **Not at all confident** a) To display information in different ways b) To break a complex process into smaller parts c) To understand diagrams that describe or show real-world problems d) To plan tasks by setting out the steps needed to complete them e) To identify the most efficient solution to a problem f) To use tools to make diagrams that help solve problems g) To use simulations to help understand or solve real-world problems h) To make flow diagrams to show the different parts of a process i) To record and evaluate data to understand and solve a problem j) To work with instructions to complete or describe tasks k) To use real-world data to review and revise solutions to problems
Q23	**Teachers often have beliefs about the emphasis that they typically prefer to place on different approaches to teaching and learning.** **Which priority do you think is more important in each of the pairs below?** *(Please mark the more important priority in each pair.)* a) Instruction should be built around problems with clear, correct answers. **OR** Instruction should focus on students finding solutions to open-ended problems. b) The main role of a teacher is to facilitate students' own inquiry. **OR** The main role of a teacher is to demonstrate the correct way to do things. c) Students learn best by working through complex problems. **OR** Students learn best by progressing through sequences of simple elements of problems.

| | d) Teaching should be based on direct instruction of ideas that most students can grasp quickly. **OR** Teaching should be based on supporting student exploration of complex ideas
e) Knowledge of content and principles in core subject areas. **OR** Developing general inquiry processes that will support lifelong learning
f) Students learn best when they decide on the activities to be undertaken in class. **OR** Students learn best when the teacher – not the students – decides what activities are to be done in class. |

4. Revised Items

2018 FT Final US Version		2018 MS Final US Version	
Item #	**Item**	**Item #**	**Revised Item**
Q3 – Q9 **Q10 – Q11** **Q12** **Q13 – Q14** **Q15** **Q17 – Q20** **Q21 – Q22**		**Q4 – Q10** **Q11** **Q12** **Q13** **Q14** **Q15 – Q18** **Q19**	
Q3	**What are the main subjects that you teach in this school in the current school year?** *(Please indicate the subjects that you teach in this school, indicating only those that individually account for at least four classes or two classes if block scheduling is used each week in this school. The exact name of one or more of your subjects may not appear in the list for each category. If it does not, please mark the category you think best fits the subject.)* • English Language Arts • Spanish, or other foreign language • Mathematics • Sciences (general science and/or physics, chemistry, biology, geology, earth sciences, technical science) • Human sciences/Humanities/Social studies (history, geography, civics, law, economics, etc.) • Creative arts (visual arts, music, dance, drama etc.) • Information technology, computer studies, or similar subject • Practical and vocational subjects • Other (moral/ethics, physical education, home economics, personal and social development)	**Q4**	*Note: Dimension wording revised* **What are the main subjects that you teach in this school in the current school year?** *(Please indicate the subjects that you teach in this school, indicating only those that individually account for at least four classes or two classes if block scheduling is used each week in this school. The exact name of one or more of your subjects may not appear in the list for each category. If it does not, please mark the category you think best fits the subject.)* • English Language Arts • Spanish, or other foreign language • Mathematics • Sciences (e.g., general science and/or physics, chemistry, biology, geology, earth sciences, technical science) • Human sciences/Humanities/Social studies (e.g., history, geography, civics, law, economics) • Creative arts (e.g., visual arts, music, dance, drama) • Information technology, computer science, or similar subject • Practical and vocational subjects (e.g., mechanics and repair, healthcare occupations, construction trades) • Other (e.g., moral/ethics, physical education, personal and social development)
Q5	**Approximately how long have you been using ICT for teaching purposes?** *(Please mark only one choice in each row)*	**Q6**	*Note: Added a new category.* **Approximately how long have you been using ICT for teaching purposes?** *(Please*

2018 FT Final US Version		2018 MS Final US Version	
Item #	**Item**	**Item #**	**Revised Item**

	• **Never**
	• **Less than two years**
	• **Two years or more**
	
	   a) During lessons
	   b) Preparing lessons
			mark only one choice in each row)
			
			• **Never**
			• **Less than two years**
			• **Between two and five years**
			• **More than five years**
			
			   a) During lessons
			   b) Preparing lessons

Q7	**How well can you do these tasks using ICT?**
	(Please mark one choice in each row)
	
	• **I know how to do this**
	• **I haven't done this but I could find out how**
	• **I do not think I could do this**
	
	   a) Produce a letter using a word-processing program
	   b) Email a file as an attachment
	   c) Store your digital photos
	   d) File digital documents in folders and sub-folders
	   e) Monitor students' progress
	   f) Use a spreadsheet program (e.g., Microsoft Excel) for keeping records or analyzing data
	   g) Contribute to a discussion forum/user group on the Internet (e.g., a wiki or blog)
	   h) Produce presentations (e.g., Microsoft PowerPoint or a similar program), with simple animation functions
	   i) Use the Internet for online purchases and payments
	   j) Prepare lessons that involve the use of ICT by students
	   k) Find useful teaching resources on the Internet
	   l) Assess student learning
	   m) Collaborate with others using shared resources such as Google Docs, Padlet, OneNote
	   n) Install software
	   o) Use a learning management system (e.g., Blackboard, Edmodo, Moodle)
		Q8	*Note: Item Stem reworded. Some dimensions removed and reworded. The order of the dimensions was also changed.*
			
			How well can you do these tasks on ICT?
			(Please mark one choice in each row)
			
			• **I know how to do this**
			• **I haven't done this but I could find out how**
			• **I do not think I could do this**
			
			   a) Find useful teaching resources on the Internet
			   b) Contribute to a discussion forum / user group on the Internet (e.g., a wiki or blog)
			   c) Produce presentations (e.g., Microsoft PowerPoint or a similar program), with simple animation functions
			   d) Use the Internet for online purchases and payments
			   e) Prepare lessons that involve the use of ICT by students
			   f) Use a spreadsheet program (e.g., Microsoft Excel) for keeping records or analyzing data
			   g) Assess student learning
			   h) Collaborate with others using shared resources (e.g., Google Docs, Padlet, OneNote)
			   i) Use a learning management system (e.g., Moodle, Blackboard, Edmodo)

Q8	**Which of the following best describes the subject for this reference class?**
	(Please mark only one choice)
	
	   a) English Language Arts
	   b) Spanish, or other foreign language
	   c) Mathematics
		Q9	*Note: Answer dimensions and instructions reworded*
			
			In this section of the questionnaire please focus your responses on your teaching practices in a 'reference' class.
			
			This is the first eighth-grade class that you teach for a regular subject (e.g ., other than

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	d) Sciences (e.g., general science and/or physics, chemistry, biology, geology, earth sciences, technical sciences) e) Human sciences / Humanities / Social Studies (e.g., history, geography, civics, law, economics) f) Creative arts (e.g., visual arts, music, dance, drama) g) Information technology, computer studies or similar subject h) Practical and vocational subjects i) Other (e.g., moral/ethics, physical education, personal and social development)		*home room, assembly) on or after Tuesday following the last weekend before you first accessed this questionnaire. You may, of course, teach the class at other times during the week as well. If you did not teach an eighth-grade class on that Tuesday, please use the eighth-grade class that you taught on the first day after that Tuesday.* **Which of the following best describes the subject for this reference class?** *(Please mark only one choice)* a) English Language Arts b) Spanish, or other foreign language c) Mathematics d) Sciences (e.g., general science and/or physics, chemistry, biology, geology, earth sciences, technical science) e) Human sciences / Humanities / Social studies (e.g., history, geography, civics, law, economics) f) Creative arts (e.g., visual arts, music, dance, drama) g) Information technology, computer science or similar subject h) Practical and vocational subjects (e.g., mechanics and repair, healthcare occupations, construction trades) i) Other (e.g., moral/ethics, physical education, personal and social development)
Q9	**In your teaching of the reference class in this school year, how much emphasis have you given to developing the following ICT-based capabilities in your students?** *(Please mark one choice in each row)* • **Strong emphasis** • **Some emphasis** • **Little emphasis** • **No emphasis** a) To access information efficiently b) To evaluate the relevance of digital information c) To display information for a given audience/purpose d) To evaluate the credibility of digital information	Q10	*Note: The order of the dimensions was changed. Some dimensions removed.* **In your teaching of the reference class in this school year, how much emphasis have you given to developing the following ICT-based capabilities in your students?** *(Please mark one choice in each row)* • **Strong emphasis** • **Some emphasis** • **Little emphasis** • **No emphasis** a) To access information efficiently b) To display information for a given audience/purpose c) To evaluate the credibility of

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Item #	**Item**	**Item #**	**Revised Item**
	e) To share digital information with others f) To use computer software to construct digital work products (e.g., presentations, documents, images, and diagrams) g) To systematically evaluate the students' own approaches to information searches h) To provide digital feedback on the work of others (such as classmates) i) To explore a range of digital resources when searching for information j) To provide references for digital information sources k) To understand the consequences of making information publicly available online		digital information d) To share digital information with others e) To use computer software to construct digital work products (e.g., presentations, documents, images, and diagrams) f) To provide digital feedback on the work of others (such as classmates) g) To explore a range of digital resources when searching for information h) To provide references for digital information sources i) To understand the consequences of making information publically available online
Q10 - Q11	**How often do students in your reference class use ICT for the following activities?** *(Please mark one choice in each row)* • **They do not engage in this activity** • **They never use ICT in this activity** • **They sometimes use ICT in this activity** • **They often use ICT in this activity** • **They always use ICT in this activity** a) Work on extended projects (i.e., lasting over a week) b) Work on short assignments (i.e., within one week) c) Explain and discuss ideas with other students d) Submit completed work for assessment e) Work individually on learning materials at their own pace f) Undertake open-ended investigations or field work g) Reflect on their learning experiences (e.g., by using a learning log) h) Communicate with students in other schools on projects i) Seek information from experts outside the school j) Plan a sequence of learning activities for themselves **How often do students in your reference class use ICT for the following activities?** *(Please mark one choice in each row)* • **They do not engage in this activity** • **They never use ICT in this activity**	**Q11**	*Note: Two questions Q10 – Q11 combined into one. Also, some dimensions removed.* **How often do students in your reference class use ICT for the following activities?** *(Please mark one choice in each row)* • **They do not engage in this activity** • **They never use ICT in this activity** • **They sometimes use ICT in this activity** • **They often use ICT in this activity** • **They always use ICT in this activity** a) Work on extended projects (i.e., lasting over a week) b) Work on short assignments (i.e., within one week) c) Submit completed work for assessment d) Work individually on learning materials at their own pace e) Undertake open-ended investigations or field work f) Reflect on their learning experiences (e.g., by using a learning log g) Communicate with other students on projects h) Plan a sequence of learning activities for themselves i) Analyze data j) Evaluate information resulting from a search k) Collect data for a project l) Create visual products or videos m) Share products with other students

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	• **They sometimes use ICT in this activity** • **They often use ICT in this activity** • **They always use ICT in this activity** a) Analyze data b) Search for information on a topic using outside resources c) Evaluate information resulting from a search d) Collect data for a project e) Create visual products or videos f) Produce or edit music g) Share products with other students h) Produce animations		
Q12	**How often do you use ICT with the following practices when teaching your reference class?** *(Please mark one choice in each row)* • **I do not use this practice with the reference class** • **I never use ICT with this practice** • **I sometimes use ICT with this practice** • **I often use ICT with this practice** • **I always use ICT with this practice** a) The presentation of information through direct class instruction b) The provision of remedial or enrichment support to individual students or small groups of students c) The support of student-led whole-class discussions and presentations d) The assessment of students' learning through tests e) The provision of feedback to students on their work f) The reinforcement of learning of skills through repetition of examples g) The support of collaboration among students h) The mediation of communication between students and experts or external mentors i) The support of student collaboration with other students (within or outside school) j) The communication with parents or guardians about students' learning k) The support of inquiry learning	**Q12**	*Note: A dimension was removed* **How often do you use ICT with the following practices when teaching your reference class?** *(Please mark one choice in each row)* • **I do not use this practice with the reference class** • **I never use ICT with this practice** • **I sometimes use ICT with this practice** • **I often use ICT with this practice** • **I always use ICT with this practice** a) The presentation of information through direct class instruction b) The provision of remedial or enrichment support to individual students or small groups of students c) The support of student-led whole-class discussions and presentations d) The assessment of students' learning through tests e) The provision of feedback to students on their work f) The reinforcement of learning of skills through repetition of examples g) The support of collaboration among students h) The mediation of communication between students and experts or external mentors i) The communication with parents or guardians about students' learning j) The support of inquiry learning
Q13 - Q14	**How often did you use the following tools in**	**Q13**	**Note:** *Two questions Q13 – Q14 combined*

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Item #	**Item**	**Item #**	**Revised Item**
	your teaching of the reference class this school year? *(Please mark one choice in each row)* • **Never** • **In some lessons** • **In most lessons** • **In every or almost every lesson** a) Practice programs or apps where you ask students questions (e.g., Quizlet, Kahoot) b) Single user digital learning games (e.g., Languages Online) c) Multi-user digital learning games with graphics and inquiry tasks (e.g., Quest Atlantis). d) Word-processor software (e.g., Microsoft Word) e) Presentation software (e.g., Microsoft PowerPoint) f) Spreadsheets (e.g., Microsoft Excel) g) Video and photo software for capture and editing (e.g., Windows Movie Maker, iMovie, Adobe Photoshop) h) Concept mapping software (e.g., Inspiration, Webspiration) i) Data logging and monitoring tools (e.g., Logger Pro) j) Simulations and modelling software (e.g., NetLogo) **How often did you use the following tools in your teaching of the reference class this school year?** *(Please mark one choice in each row)* • **Never** • **In some lessons** • **In most lessons** • **In every or almost every lesson** a) A learning management system (e.g., Blackboard, Edmodo, Moodle) b) Communication software (e.g., email, direct messaging, Skype) c) Collaborative software (e.g., Google Docs, Onenote, Padlet) d) Computer-based information resources (e.g., websites, e) wikis, encyclopedia) f) Interactive digital learning resources (e.g., learning objects) g) Graphing or drawing software		*into one. Some dimensions removed and reworded. The order of the dimensions was changed.* **How often did you use the following tools in your teaching of the reference class this school year?** *(Please mark one choice in each row)* • **Never** • **In some lessons** • **In most lessons** • **In every or almost every lesson** a) Practice programs or apps where you ask students questions (e.g., Quizlet, Kahoot) b) Digital learning games c) Word-processor software (e.g., Microsoft Word) d) Presentation software (e.g., Microsoft PowerPoint) e) Spreadsheets (e.g., Microsoft Excel) f) Video and photo software for capture and editing (e.g., Windows Movie Maker, iMovie, Adobe Photoshop) g) Concept mapping software (e.g., Inspiration, Webspiration) h) Simulations and modelling software (e.g., NetLogo) i) A learning management system (e.g., Edmodo, Blackboard) j) Communication software (e.g., email, direct messaging, Skype) k) Collaborative software (e.g., Google Docs, Onenote, Padlet) l) Computer-based information resources (e.g., topic-related websites, wikis, encyclopedia) m) Interactive digital learning resources (e.g., learning objects) n) Graphing or drawing software o) e-portfolios (e.g., VoiceThread) p) Digital contents linked with textbooks q) Social media (e.g., Facebook, Twitter)

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Item #	**Item**	**Item #**	**Revised Item**
	h) e-portfolios (e.g., VoiceThread) i) Digital contents linked with textbooks j) Social media (e.g., Facebook, Twitter)		
Q15	**In your teaching of the reference class this school year, how much emphasis have you given to student learning of the following skills?** *(Please mark one choice in each row)* • **Strong emphasis** • **Some emphasis** • **Little emphasis** • **No emphasis** a) To display information in different ways b) To break a complex process into smaller parts c) To understand diagrams that describe or show real-world problems d) To plan tasks by setting out the steps needed to complete them e) To identify the most efficient solution to a problem f) To use tools making diagrams that help solve problems g) To use simulations to help understand or solve real-world problems h) To make flow diagrams to show the different parts of a process i) To record and evaluate data to understand and solve a problem j) To work with instructions to complete or describe tasks k) To use real-world data to review and revise solutions to problems	**Q14**	*Note: Item stem wording has changed. One answer dimension is removed.* **In your teaching of the reference class this school year, how much emphasis have you given to teaching the following skills?** *(Please mark one choice in each row)* • **Strong emphasis** • **Some emphasis** • **Little emphasis** • **No emphasis** a) To display information in different ways b) To break a complex process into smaller parts c) To understand diagrams that describe or show real-world problems d) To plan tasks by setting out the steps needed to complete them e) To use tools to make diagrams that help solve problems f) To use simulations to help understand or solve real-world problems g) To make flow diagrams to show the different parts of a process h) To record and evaluate data to understand and solve a problem i) To use real-world data to review and revise solutions to problems
Q17	**To what extent do you agree or disagree with the following statements about the use of ICT in teaching at your school?** *(Please mark one choice in each row)* • **Strongly agree** • **Agree** • **Disagree** • **Strongly disagree** a) To display information in different ways b) To break a complex process into smaller parts c) To understand diagrams that describe or show real-world d) problems	**Q15**	*Note: Removed and reworded some answer dimensions. The order of the some dimensions were also changed.* **To what extent do you agree or disagree with the following statements about the use of ICT in teaching at your school?** *(Please mark one choice in each row)* • **Strongly agree** • **Agree** • **Disagree** • **Strongly disagree** a) ICT is considered a priority for use in teaching. b) My school has sufficient ICT

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Item #	**Item**	**Item #**	**Revised Item**
	e) To plan tasks by setting out the steps needed to complete f) them g) To identify the most efficient solution to a problem h) To use tools to make diagrams that help solve problems i) To use simulations to help understand or solve real-world j) problems k) To make flow diagrams to show the different parts of a l) process m) To record and evaluate data to understand and solve a n) problem o) To work with instructions to complete or describe tasks p) To use real-world data to review and revise solutions to q) problems		equipment (e.g., computers). c) The computer equipment in my school is up-to-date. d) My school has access to sufficient digital learning resources (e.g., learning software or apps). e) My school has good connectivity (e.g., fast speed and stable) to the Internet. f) There is enough time to prepare lessons that incorporate ICT. g) There is sufficient opportunity for me to develop expertise in ICT. h) There is sufficient technical support to maintain ICT resources.

Q18	**To what extent do you agree or disagree with the following statements about your use of ICT in teaching and learning at your school?**
	(Please mark one choice in each row)
	
	• **Strongly agree**
	• **Agree**
	• **Disagree**
	• **Strongly disagree**
	
	   a) I work together with other teachers on improving the use of ICT in classroom teaching.
	   b) I follow a common set of rules about how ICT should be used in classrooms.
	   c) I collaborate with colleagues to develop ICT based lessons.
	   d) I observe how other teachers use ICT in teaching
	   e) I discuss with other teachers how to use ICT in teaching topics.
	   f) I share ICT-based resources with other teachers in my school.
		Q16	*Note: Removed and reworded some answer dimensions*
			
			To what extent do you agree or disagree with the following statements about your use of ICT in teaching and learning at your school? *(Please mark one choice in each row)*
			
			• **Strongly agree**
			• **Agree**
			• **Disagree**
			• **Strongly disagree**
			
			   a) I work together with other teachers on improving the use of ICT in classroom teaching.
			   b) I collaborate with colleagues to develop ICT-based lessons
			   c) I observe how other teachers use ICT in teaching.
			   d) I discuss with other teachers how to use ICT in teaching topics.
			   e) I share ICT-based resources with other teachers in my school.

Q20	**How often have you participated in any of the following professional learning activities in the past two years?** *(Please mark one choice in each row)* • **Not at all** • **Once only** • **More than once** a) A course on ICT applications (e.g., word processing, presentations,	**Q18**	*Note: Some answer dimensions removed and reworded.* **How often have you participated in any of the following professional learning activities in the past two years?** *(Please mark one choice in each row)* • **Not at all** • **Once only** • **More than once**

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Item #	Item	Item #	Revised Item
	b) Internet use, spreadsheets, databases) c) A course on integrating ICT into teaching and learning d) Training on subject-specific digital teaching and learning resources e) Observations of other teachers using ICT in teaching f) An ICT-mediated discussion or forum on teaching and learning g) The sharing of digital teaching and learning resources with others h) through a collaborative workspace i) Use of a collaborative workspace to jointly evaluate student work j) A course on use of ICT for students with disabilities k) A webinar on ICT integration in teaching and learning l) Use of a student data management system m) Use of ICT to support personalized learning by students		a) A course on ICT applications (e.g., word processing, presentations, Internet use, spreadsheets, databases) b) A course or webinar on integrating ICT into teaching and learning c) Training on subject-specific digital teaching and learning resources d) Observations of other teachers using ICT in teaching e) An ICT-mediated discussion or forum on teaching and learning f) The sharing of digital teaching and learning resources with others through a collaborative workspace g) g) Use of a collaborative workspace to jointly evaluate student work h) A course on use of ICT for students with special needs or specific learning difficulties i) A course on how to use ICT to support personalized learning by students
Q21 - Q22	**To what extent do you agree or disagree with the following statements about using ICT in teaching and learning at school?** *(Please mark one choice in each row)* **Using ICT at school …** • **Strongly agree** • **Agree** • **Disagree** • **Strongly disagree** a) impedes concept formation by students b) helps students develop greater interest in learning c) helps students to work at a level appropriate to their learning needs. d) encourages students to copy material from Internet sources. e) helps students develop problem solving skills f) distracts students from learning. g) results in poorer written expression among students. h) results in poorer calculation and estimation skills among students. i) helps students learn to collaborate with other students. **To what extent do you agree or disagree with the following statements about using ICT in teaching and learning at school?**	Q19	*Note: Two questions Q21 – Q22 combined into one. Some dimensions removed and reworded. The order of the dimensions was changed.* **To what extent do you agree or disagree with the following statements about using ICT in teaching and learning at school?** *(Please mark one choice in each row)* **Using ICT at school …** • **Strongly agree** • **Agree** • **Disagree** • **Strongly disagree** a) Impedes concept formation by students b) Helps students develop greater interest in learning. c) Helps students to work at a level appropriate to their learning needs. d) Results in students copying material from Internet sources. e) Helps students develop problem solving skills. f) Distracts students from learning. g) Results in poorer written expression among students h) Results in poorer calculation and estimation skills among students

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Item #	**Item**	**Item #**	**Revised Item**

	(Please mark one choice in each row)
	
	Using ICT at school …
	
	• **Strongly agree**
	• **Agree**
	• **Disagree**
	• **Strongly disagree**
	
	   a) limits the amount of personal communication among students.
	   b) enables students to communicate more effectively with others.
	   c) introduces organizational problems for schools
	   d) helps teachers communicate with students
	   e) helps students develop skills in planning and self-regulation of their work.
	   f) improves academic performance of students.
	   g) enables students to access better sources of information
	   h) helps students to consolidate and process information more effectively.
			i) Limits the amount of personal communication among students.
			j) Enables students to collaborate more effectively.
			k) Helps students develop skills in planning and self-regulation of their work.
			l) Improves academic performance of students.
			m) Enables students to access better sources of information

D. Student Questionnaire

1. New Adaptation of all items (not already included in the U.S. field test version)

2018 Main Study

International term	U.S. adaptation	Item(s)
Student Questionnaire for the Main Survey	Student Questionnaire for the 2018 U.S. Main Study	Cover Header
	OMB No. 1850-0929, Approval Expires 12/31/2020	*Note: Updated OMB date*
Does your parent or guardian 2 work in a paid job? • 1 = Yes (Note: Student will be directed to Q11a and Q12a) • 2 = No (Note: Student will be directed to Q11b and Q12b)	**Does your parent or guardian 2 work in a paid job?** • 1 = Yes (Note: Student will be directed to Q11a and Q12a) • 2 = No (Note: Student will be directed to Q11b and Q12b) • Not applicable	**Q12** *Note*: We have suggested to the IEA to add a third choice of "Not applicable" in case the student has only 1 parent. If approved by the IEA, Q12 and subsequent questions about parent/guardian 2 would not be seen by the student if they answer N/A.
At school, how often do you use ICT during lessons in the following subjects or subject areas? *(Please mark one choice in each row)* • 1 = I don't study this subject/these subjects • 2 = Never • 3 = In some lessons • 4 = In most lessons • 5 = In every or almost every lesson h) Practical or vocational	**At school, how often do you use ICT during lessons in the following subjects or subject areas?** *(Please mark one choice in each row)* • 1 = I don't study this subject/these subjects • 2 = Never • 3 = In some lessons • 4 = In most lessons • 5 = In every or almost every lesson h) Practical or vocational (e.g., mechanics and repair, healthcare occupations, construction trades)	**Q25H**

2. New Items

Item Number	Added Text/Item

Q3 (U.S. only)	**Are you Hispanic or Latino?** *(Please mark only one choice)* - Yes, I am Hispanic or Latino - No, I am not Hispanic or Latino

Q4 (U.S. only)	**Which of the following best describes you?**
	(Please mark all choices that apply)
	   a) White
	   b) Black or African American
	   c) Asian
	   d) American Indian or Alaska Native
	   e) Native Hawaiian or other Pacific Islander

3. Deleted Items (entire stem)

Item Number	Deleted Text/Item
	How often do you use ICT to read e-books in your home? *(Please mark only one choice)* **Never or hardly ever** **At least once a month but not every week** **At least once a week but not every day** **Every day**
	Do you have an Internet connection at home? *(Please mark only one choice)* **Yes** **No**

	How often have the following activities taken place in your lessons?
	(Please mark one choice for each row)
	    Never **In some lessons** **In most lessons** **In every or almost every lesson** a) We use ICT to present information
	   b) My teacher uses ICT to present information
	   c) We do tests on ICT
	   d) My teacher uses ICT to provide students with feedback on what they have learned
	   e) We work on projects using ICT to share resources and ideas
	   f) We use the Internet for research
	   g) We use the Internet to contact external experts

	How much do you agree or disagree with the following statements about ICT?
	(Please mark one choice in each row)
	    Strongly agree **Agree** **Disagree** **Strongly disagree** a) I would like to study subjects related to ICT after high school
	   b) I hope to find a job that involves advanced ICT
	   c) Learning how to use ICT applications will help me to do the work I am interested in
	   d) Knowing as much as possible about ICT will help me get a job
	   e) It is no longer possible to find work without knowing how to use ICT

	When studying during the current school year, to what extent have you learned how to do the following tasks? *(Please mark one choice in each row)* **To a large extent** **To a moderate extent** **To a small extent** **Not at all** a) Display information in different ways b) Break a complex process into smaller parts

	c) Understand diagrams that describe or show real-world problems d) Plan tasks by setting out the steps needed to complete them e) Identify the most efficient solution to a problem f) Use tools to make diagrams that help solve problems g) Use simulations to help understand or solve real-world problems h) Make flow diagrams to show the different parts of a process i) Record and evaluate data to understand and solve a problem j) Work with instructions to complete or describe tasks k) Use real-world data to review and revise solutions to problems
	How well do you think you can do the following tasks? *(Please mark one choice in each row)* • **Very well** • **Fairly well** • **Not very well** • **Not at all** a) Display information in different ways b) Break a complex process into smaller parts c) Understand diagrams that describe or show real-world problems d) Plan tasks by setting out the steps needed to complete them e) Identify the most efficient solution to a problem f) Use tools to make diagrams that help solve problems g) Use simulations to help understand or solve real-world problems h) Make flow diagrams to show the different parts of a process i) Record and evaluate data to understand and solve a problem j) Work with instructions to complete or describe tasks k) Use real-world data to review and revise solutions to problems

4. Revised Items

2018 FT Final U.S. Version		2018 MS Final U.S. Version	
Item #	**Item**	**Item #**	**Revised Item**
Q3 – Q14 **Q16** **Q28 – Q33**		**Q5 – Q16** **Q17** **Q27 – Q32**	*Note: Renumbered items*
Q11	**Does your parent or guardian 2 work in a paid job?** • Yes • No • N/A	**Q12**	*Note: Removed answer dimension* **Does your parent or guardian 2 work in a paid job?** • Yes • No
Q16	**How many of the following ICT are currently used in your home?** *(Please mark one choice in each row)* • **None** • **One** • **Two** • **Three or more** a) Desktop computers b) Portable computers (e.g., laptop, notebook, netbook) c) Tablet devices or e-readers (e.g., iPad, Surface Pro, Kindle) d) Smartphones	**Q17**	*Note: Some dimensions combined and removed* **How many of the following ICT devices are currently used in your home?** *(Please mark one choice in each row)* • **None** • **One** • **Two** • **Three or more** a) Desktop or laptop computers b) Tablet devices or e-readers (e.g., iPad, Surface Pro, Kindle)
Q18b	Tablet devices	**Q18b**	*Note: Dimension wording expanded*

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Item #	**Item**	**Item #**	**Revised Item**
			Tablet devices or e-readers (e.g., iPad, Surface Pro, Kindle)
Q19b	Create or edit documents	**Q19b**	*Note: Dimension word added* Create or edit digital documents
Q19c	Create or edit presentations	**Q19c**	*Note: Dimension word added* Create or edit digital presentations

Q20	**How often do you use ICT in these places?** *Please do not count the use of smartphones when making phone calls or writing text messages.* *(Please mark one choice in each row)*
	• **Never**
	• **Less than once a month**
	• **At least once a month but not every week**
	• **At least once a week but not every day**
	• **Every day**
	
	   a) At home
	   b) At school
	   c) At other places (e.g., local library, Internet café)
		Q20	*Note: Dimensions wording expanded, removed, and new dimensions added*
			
			How often do you use ICT in these places? *Please do not count the use of smartphones when making phone calls or writing text messages.* *(Please mark one choice in each row)*
			• **Never**
			• **Less than once a month**
			• **At least once a month but not every week**
			• **At least once a week but not every day**
			• **Every day**
			
			   a) At school for school-related purposes
			   b) At school for other purposes
			   c) Outside of school for school-related purposes
			   d) Outside of school for other purposes

Q22	**How often do you use ICT to do each of the following communication activities?** *(Please mark one choice in each row)*
	• Never
	• Less than once a month
	• At least once a month but not every week
	• At least once a week but not every day
	• Every day
	
	   a) Share news from current events on social media
	   b) Talk to friends, family, or other people using voice or video chat (e.g., Skype, FaceTime, WhatsApp, Viber)
	   c) Send texts or instant messages to friends, family, or other people
	   d) Write posts and updates about what happens in your life on social media
	
	   e) Ask questions on forums or Q&A, question and answer websites
	   f) Answer other peoples' questions on forums or Q&A, question and answer websites
	   g) Write posts for your own blog (e.g., WordPress, Tumblr, Blogger)
	   h) Post images or video in social networks or online communities
		Q21	*Note: Dimension reworded and another removed.*
			
			How often do you use ICT for each of the following activities? *(Please mark one choice in each row)*
			• **Never**
			• **Less than once a month**
			• **At least once a month but not every week**
			• **At least once a week but not every day**
			• **Every day**
			
			   a) Share news about current events on social media
			   b) Communicate with friends, family, or other people using instant messaging, voice or video chat (e.g., Skype, FaceTime, WhatsApp, Viber)
			   c) Send texts or instant messages to friends, family, or other people
			   d) Write posts and updates about what happens in your life on social media
			   e) Ask questions on forums or Q&A, question and answer websites
			   f) Answer other peoples' questions on forums or Q&A, question and answer websites
			   g) Write posts for your own blog (e.g., WordPress, Tumblr, Blogger)
			   h) Post images or video in social networks or online communities (e.g., Facebook,

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	(e.g., Facebook, Instagram or YouTube) i) Watch videos or images that other people have posted online j) Tag others online in posts or images on social media k) Send or forward information about events or activities to other people		Instagram or YouTube) i) Watch videos or images that other people have posted online j) Send or forward information about events or activities to other people
Q23	**How often do you use ICT to do each of the following leisure activities?** *(Please mark one choice in each row)* • **Never** • **Less than once a month** • **At least once a month but not every week** • **At least once a week but not every da** • **Every day** a) Search the Internet to find information about places to go or activities to do b) Read reviews on the Internet of things you might want to buy c) Read news stories on the Internet d) Search for online information about things you are interested in e) Read posts or websites about things you are interested in f) Use websites, forums, or online videos to find out how to do something g) Play single-player games h) Play multi-player games using the same device as the other player(s) i) Play multi-player games where each player uses his/her individual device j) Listen to downloaded or streamed music k) Watch downloaded or streamed TV shows or movies l) Buy things online	Q23	*Note: Removed and reworded some answer dimensions* **How often do you use ICT to do each of the following leisure activities?** *(Please mark one choice in each row)* • **Never** • **Less than once a month** • **At least once a month but not every week** • **At least once a week but not every day** • **Every day** a) Search the Internet to find information about places to go or activities to do b) Read reviews on the Internet of things you might want to buy c) Read news stories on the Internet d) Search for online information about things you are interested in e) Use websites, forums, or online videos to find out how to do something f) Play games g) Listen to downloaded or streamed music h) Watch downloaded or streamed TV shows or movies
Q24	**How often do you use ICT for the following school-related purposes?** *(Please mark one choice in each row)* • **Never** • **Less than once a month** • **At least once a month but not every week** • **At least once a week but not every school day** • **Every school day** a) Prepare reports or essays b) Prepare presentations c) Work online with other students from your own school d) Work online with other students from other schools	Q24	*Note: Changed wording and removed some answer dimensions.* **How often do you use ICT for the following school-related purposes?** *(Please mark one choice in each row)* • **Never** • **Less than once a month** • **At least once a month but not every week** • **At least once a week but not every school day** • **Every school day** a) Prepare reports or essays b) Prepare presentations c) Work online with other students d) Complete worksheets or exercises e) Organize your time and work

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	e) Complete worksheets or exercises f) Organize your time and work g) Write about your learning h) Complete tests i) Use software or applications to learn skills or a subject (e.g., mathematics tutoring software, language learning software) j) Use the Internet to search for information k) Use coding software to complete assignments (e.g., in Scratch, Logo, VBA, Java)		f) Take tests g) Use software or applications to learn skills or a subject (e.g., mathematics tutoring software, language learning software) h) Use the Internet to do research i) Use coding software to complete assignments (e.g., in Scratch, Logo, VBA, Java) j) Make video or audio productions
Q25	**At school, how <u>often</u> do you use ICT during lessons in the following subjects or subject areas?** *(Please mark one choice in each row)* • English • Spanish, or other foreign language • Mathematics • Sciences (general science and/or physics, chemistry, biology, geology, earth sciences, technical science) • Human sciences/Humanities/Social Studies (history, geography, civics, law, economics, etc.) • Creative arts (visual arts, music, dance, drama etc.) • Information technology, computer science studies, or similar subject • Practical and vocational subjects • Other (moral/ethics, physical education, home economics, personal and social development)	Q25	*Note: Dimensions reworded* **At school, how <u>often</u> do you use ICT during lessons in the following subjects or subject areas?** *(Please mark one choice in each row)* • English Language Arts • Spanish, or other foreign language • Mathematics • Sciences (e.g., general science and/or physics, chemistry, biology, geology, earth sciences, technical science) • Human sciences/Humanities/Social studies (e.g., history, geography, civics, law, economics) • Creative arts (e.g., visual arts, music, dance, drama) • Information technology, computer science, or similar subject • Practical and vocational subjects (e.g., mechanics and repair, healthcare occupations, construction trades) • Other (e.g., moral/ethics, physical education, personal and social development)
Q28	**At school, to what extent have you learned how to do the following tasks?** *(Please mark one choice in each row)* • **To a large extent** • **To a moderate extent** • **To a small extent** • **Not at all** a) Provide references to Internet sources b) Search for information using ICT c) Present information for a given audience or purpose using ICT d) Work out whether to trust information from the Internet e) Decide what information obtained from the Internet is relevant to include in school work f) Organize information obtained from Internet sources g) Decide where to look for	Q27	*Note: Added and removed answer dimensions.* **At school, to what extent have you learned how to do the following tasks?** (Please mark one choice in each row) • **To a large extent** • **To a moderate extent** • **To a small extent** • **Not at all** a) Provide references to Internet sources b) Search for information using ICT c) Present information for a given audience or purpose using ICT d) Work out whether to trust information from the Internet e) Decide what information obtained from the Internet is relevant to include in school work f) Organize information obtained from Internet sources

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	information on the Internet about an unfamiliar topic h) Look for different types of digital information on a topic i) Build or edit a webpage		g) Decide where to look for information on the Internet about an unfamiliar topic h) Use ICT to collaborate with others
Q29	**At school, have you learned about the importance of the following topics?** *(Please mark one choice in each row)* • **Yes** • **No** a) To keep anti-virus software on computers up-to-date b) To change passwords regularly (e.g., network account, email, social media) c) To check the origin of emails before opening attachments d) To log out of a shared computer at the end of a session e) To use social media responsibly (e.g., what types of information you share about yourself or other people)	Q28	*Note: Removed and reworded some answer dimensions.* **At school, have you learned about the importance of the following topics?** *(Please mark one choice in each row)* • **Yes** • **No** a) To change passwords regularly (e.g., network account, email, social media) b) To check the origin of emails before opening attachments c) To log out of a shared computer at the end of a session d) To share information on social media responsibly
	YOUR THOUGHTS ABOUT USING ICT	Section header	**YOUR THOUGHTS ABOUT USING AND LEARNING ABOUT ICT**
Q30	**How well can you do each of these tasks when using ICT?** *(Please mark one choice in each row)* • **I know how to do this** • **I have never done this but I could work out how to do this** • **I do not think I could do this** a) Search for and find a file b) Edit digital photographs or other graphic images c) Create a database (e.g., using Microsoft Access) d) Write or edit text for a school assignment e) Search for and find relevant information for a school project on the Internet f) Build or edit a webpage g) Change the settings on your device to improve the way it operates h) Use a spreadsheet to do calculations, store data or plot a graph i) Create a computer program, macro, or app (e.g., in Scratch, Logo, VBA, Java) j) Set up a local area network of computers or other ICT k) Create a multi-media presentation (with sound, pictures, or video) l) Upload text, images, or video to an online profile m) Insert an image into a document or	Q29	*Note: Removed several answer dimensions* **How well can you do each of these tasks when using ICT?** *(Please mark one choice in each row)* • **I know how to do this** • **I have never done this but I could work out how to do this** • **I do not think I could do this** a) Edit digital photographs or other graphic images b) Create a database (e.g., using Microsoft Access) c) Write or edit text for a school assignment d) Search for and find relevant information for a school project on the Internet e) Build or edit a webpage f) Change the settings on your device to improve the way it operates g) Create a computer program, macro, or app (e.g., in Scratch, Logo, VBA, Java) h) Set up a local area network of computers or other ICT i) Create a multi-media presentation (with sound, pictures, or video) j) Upload text, images, or video to an online profile k) Insert an image into a document or message l) Install a program or app m) Judge whether you can trust information

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	message n) Install a program or app o) Judge whether you can trust information you find on the Internet p) Select information from within a digital source to use in an assignment q) Create the best layout for a digital product to help viewers understand information		you find on the Internet
Q32	**How much do you agree or disagree with the following statements about the use of ICT in society?** *(Please mark one choice in each row)* • **Strongly agree** • **Agree** • **Disagree** • **Strongly disagree** a) Advances in ICT usually improve people's living conditions. b) ICT helps us to understand the world better. c) Using ICT makes people more isolated in society. d) Using ICT helps people to relate better to others. e) With more ICT there will be fewer jobs. f) People spend far too much time using ICT. g) ICT is valuable to society. h) Advances in ICT bring many social benefits. **i)** Using ICT may be dangerous for people's health.	**Q31**	*Note: Item stem wording has changed. Answer dimensions also added and removed..* **How much do you agree or disagree with the following statements about ICT?** *(Please mark one choice in each row)* • **Strongly agree** • **Agree** • **Disagree** • **Strongly disagree** a) Advances in ICT usually improve people's living conditions. b) ICT helps us to understand the world better. c) Using ICT makes people more isolated in society. d) With more ICT there will be fewer jobs. e) People spend far too much time using ICT. f) ICT is valuable to society. g) Advances in ICT bring many social benefits. h) Using ICT may be dangerous for people's health. i) I would like to study subjects related to ICT after [secondary school] j) I hope to find a job that involves advanced ICT k) Learning how to use ICT applications will help me to do the work I am interested in

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Q33	**When studying during the current school year, to what extent have you learned how to do the following tasks?** *(Please mark one choice in each row)* • **Very well** • **Fairly well** • **Not very well** • **Not at all** a) Display information in different ways b) Break a complex process into smaller parts c) Understand diagrams that describe or show real-world problems d) Plan tasks by setting out the steps needed to complete them e) Identify the most efficient solution to a problem f) Use tools to make diagrams that help solve problems g) Use simulations to help understand or solve real-world problems h) Make flow diagrams to show the different parts of a process i) Record and evaluate data to understand and solve a problem j) Work with instructions to complete or describe tasks k) Use real-world data to review and revise solutions to problems	**Q32**	*Note: The answer dimensions have "To" preceding each now. Also, some answer dimensions have been added and some removed.* **When studying during the current school year, to what extent have you been taught how to do the following tasks?** *(Please mark one choice in each row)* • **To a large extent** • **To a moderate extent** • **To a small extent** • **Not at all** a) To display information in different ways b) To break a complex process into smaller parts c) To understand diagrams that describe or show real-world problems d) To plan tasks by setting out the steps needed to complete them e) To use tools to make diagrams that help solve problems f) To use simulations to help understand or solve real world problems g) To make flow diagrams to show the different parts of a process h) To record and evaluate data to understand and solve a problem i) To use real-world data to review and revise solutions to problems