DATE: 7 December 2016

TO: Robert Sivinski, OMB

THROUGH: Kashka Kubzdela, NCES

FROM: Lydia Malley, NCES

Re: International Computer and Information Literacy Study (ICILS 2018) Field Test Questionnaires Change Request (OMB# 1850-0929 v.2)

The International Association for the Evaluation of Education Achievement (IEA) is currently reviewing the U.S. adaptations to the International Computer and Information Literacy Study (ICILS 2018) field trial questionnaires proposed by NCES (as reflected in this submission). Should there be any changes between what is submitted here and the final versions of the field test questionnaires upon IEA’s final approval, we expect them to be minor wording edits, which we would submit to OMB for approval as a change request upon OMB’s approval of this submission.

The draft international source versions of the questionnaires were approved in May 2016 as part of the ICILS 2018 Field Test and Recruitment for Main Study clearance package (OMB# 1850-0929 v.1). This request amends the approved record with the versions of the ICILS 2018 field test questionnaires that contain the finalized international versions of the questionnaires along with the U.S. adaptations that have been submitted for approval to the IEA (see the attached updated Appendix B). Accordingly, this memo details the changes made to the international source versions in preparation for the U.S. field test, which will be conducted in spring 2017. 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: (1) U.S. adaptations; (2) new items and (3) deleted items (where applicable); and (4) revisions to wording between the approved draft and the provided here final international questionnaires.

In addition to changes to the questionnaires outlined in this memo, the estimated time for completing the school (principal and ICT) questionnaire has been re-evaluated. While the previous OMB submission estimated that the total time for these 2 questionnaires would be 20 minutes, this change request updates the total time for completing the school questionnaires to 30 minutes (15 minutes for each, the principal and ICT components). Also, the time to complete the student assessment has been revised from 90 to 120 minutes, although this does not affect the burden totals for which clearance is requested. These revisions to burden have been reflected in the attached here updated Part A. These changes increase the total requested burden time by 5 hours (from 2,041 to 2,046 hours), and correspond to an increase in estimated respondent burden time cost of $224 (from $57,061 to $67,285). Lastly, the international assessment framework for distribution and naming of dimensions has been slightly revised, as reflected in the revised Part A.

Because a few new questionnaire items have been added and burden time slightly increased, NCES is announcing in the Federal Register another 30-day public comment period to accompany this change request.

**U.S. Adaptations to ICILS Questionnaires – Background**

The international source versions are authored in U.K. English with the “terms to-be-standardized” marked inside brackets ([ ]). In the tables below, these changes are referred to as adaptations. This includes adaptations of common terms, such as ISCED levels mapped to U.S. education system; adjusting grammar to U.S. standard usage, etc. The IEA and the international contractors have also revised several items from the draft international questionnaires, deleted several items from the draft international questionnaires, as well as added a few new items. Straightforward adaptations of U.K. English to American English (e.g., favourite to favorite) are not included in the tables below given that they do not require an explanation.

**Summary of Changes to Field Test School, ICT Coordinator, Teacher, and Student Questionnaire Items**

1. Principal Questionnaire
2. Adaptations of all items
3. Deleted Items
4. Revised Items
5. ICT Coordinator Questionnaire
6. Adaptations of all items
7. New Items
8. Revised Items
9. Teacher Questionnaire
10. Adaptations of all items
11. New Items
12. Deleted Items
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14. Student Questionnaire
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16. New Items
17. Revised Items

**A. Principal Questionnaire**

1. **Adaptations of all items**

| **ICILS 2018 US Field Test** | | |
| --- | --- | --- |
| **International term** | **U.S. adaptation** | **Item(s)** |
| [INTRODUCTION TO THE SCHOOL PRINCIPAL QUESTIONNAIRE] | **School Principal** Questionnaire | Intro 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 [target 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.  In this questionnaire ICT can refer to:   * desktop computers * notebook or laptop computers * netbook computers * tablet devices * [smartphones], except when being used for talk and text.   In this questionnaire you will find questions about:   * You and your use of ICT * Characteristics of your school * The application of ICT in teaching and learning at your school * Aspects of the management of ICT in your school.   Please answer the questions with reference to [the school of the sampled students] as a whole.  In answering the questions please refer to the following definition of ‘school’: A school is [to be country adapted].  For some of the questions you are asked to answer referring only to [target grade] students. Please look at the instructions given in each of the questions.  We thank you for your effort and cooperation! | Your school has agreed to participate in the 2017 Field Test 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.  In this questionnaire ICT can refer to:   * desktop computers * notebook or laptop computers * netbook computers * tablet devices * smartphones, except when being used for talk and text.   This questionnaire is addressed to school principals who are asked to provide information about their schools. Since your school has been selected as part of a nationwide sample, your responses are very important in helping to evaluate the questions as relevant to describing eighth-grade education in the United States. Some of the questions may require that you look up school records, so you may wish to arrange for the assistance of another staff member to help provide this information.  In this questionnaire you will find questions about you and your use of ICT; characteristics of your school; the application of ICT in teaching and learning at your school; and aspects of the management of ICT in your school. Since ICILS is an international study and all countries are using the same questionnaire, you may find that some of the questions seem unusual or are not entirely relevant to you or schools in the United States. Nevertheless, it is important that you do your best to answer all the questions so comparisons can be made across countries in the study. Please answer the questions with reference to your school as a whole. For some of the questions you are asked to answer referring only to eighth-grade students. Please look at the instructions given in each of the questions.  It is estimated that you will need about 15 minutes to complete the questionnaire. **We appreciate the time and effort this takes and thank you for your cooperation and contribution.**  The National Center for Education Statistics (NCES) is authorized to collection information from the questionnaire under the Education Science Reform Act of 2002 (ESRA), 20 U.S. Code, § 9543. You do not have to provide the information requested. However, the information you provide will help the U.S. Department of Education’s ongoing efforts to understand better how the educational system in the United States compares to that in other countries. There are no penalties should you choose not to participate in this study. Your answers may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S. Code, § 9573). Your responses will be combined with those from other participants to produce summary statistics and reports.  Thank You. | Intro |
| [target grade] | eighth grade, eighth-grade | Intro, PQ4 |
| [smartphones] | smartphones | Intro |
| Please answer the questions with reference to [the school of the sampled students] as a whole. | your school | Intro |
| A school is [to be country adapted] | ~~A school is [to be country adapted]~~  (Sentence removed) | Intro |
| **How often do you use ICT for the following activities?**  Work with a learning management system (e.g. [Moodle]) | Moodle, Blackboard | PQ2aj |
| **What is the total number of boys and girls in the school?** | **What is the total number of boys and girls in your school as of April 3, 2017?** | PQ3 |
| **What is the total number of boys and girls in the eighth grade?** | **What is the total number of boys and girls in the eighth grade as of April 3, 2017?** | PQ4 |
| **What is the lowest (youngest) grade that is taught at your school?**  National Adaptation 1 | Pre-Kindergarten | PQ5a |
| National Adaptation 2 | Kindergarten | PQ5a |
| National Adaptation 3 | First grade | PQ5a |
| National Adaptation 4 | Second grade | PQ5a |
| National Adaptation 5 | Third grade | PQ5a |
| National Adaptation 6 | Fourth grade | PQ5a |
| National Adaptation 7 | Fifth grade | PQ5a |
| National Adaptation 8 | Sixth grade | PQ5a |
|  | Seventh grade | PQ5a |
|  | Eighth grade | PQ5a |
| **What is the highest (oldest) grade that is taught at your school?** |  | PQ5b |
| National Adaptation 9 | Eighth grade | PQ5b |
| National Adaptation 10 | Ninth grade | PQ5b |
| National Adaptation 11 | Tenth grade | PQ5b |
| National Adaptation 12 | Eleventh grade | PQ5b |
| National Adaptation 13 | Twelfth grade | PQ5b |
| **In your opinion, how important is each of the following outcomes of education?**  [apps]  **Are there procedures in place to monitor whether teachers at this school use ICT to achieve the following learning outcomes?**  [apps] | apps, apps | PQ9g, PQ10g |
| **Are teachers in your school expected to acquire knowledge and skills in each of the following activities?**  Assess students’ [computer and information literacy  **Who has the main responsibility for making decisions about each of the following aspects of ICT in this school?**  The assessment of students’ [computer and information literacy]  The implementation of a [computer and information literacy] curriculum at the school | computer and information literacy | PQ11k, PQ12j, PQ12k |
| **Who has the main responsibility for making decisions about each of the following aspects of ICT in this school?**  [Ministry department or local/district authority] | School district or relevant education authority | PQ12 |
| **Does your school or school system have policies with regard to the following aspects of ICT use?**  [students with special needs or specific learning difficulties] | students with disabilities | PQ13i |
| [Cyberbullying] | Cyberbullying | PQ13j |
| **Throughout the current school year, how many teachers in this school participate in the following forms of professional development about ICT for teaching and learning?**  [community of practice] | community of practice | PQ14h |

**2. Deleted Items**

| **Item Number** | **Deleted Item** |
| --- | --- |
| PQ3 | **How long have you been the [principal] of this school including the current school year?**  *(Please mark only one choice)*   * 1 – 2 years * 3 – 5 years * 6 years or more |

**3. Revised Items**

| 2018 FT Draft International Version | | 2018 FT Final International Version | |
| --- | --- | --- | --- |
| **Item Number** | **Item** | **Item Number** | **Revised Item** |
|  | Thank you for taking part in the 2018 International Computer and Information Literacy Education Study. The purpose of this study is to study across different countries the extent to which young people in [target grade] have developed computer and information literacy, which is defined as the ability to use digital devices to investigate, create, and communicate with others at home, school, the workplace and in society.  We know that the interpretation of the results of the student assessment and questionnaire depends on the culture of the country, the school, and the teachers’ intentions.  In order to understand the context of student learning outcomes in this area, we need information from you, as school principal, about the school context in which the students’ learning of computer and information literacy takes place.  Please help us to understand the findings from the student assessment by completing this school questionnaire.  If you find something in our questions that does not perfectly match the conditions of this school, please take into account that this questionnaire has been developed for an international study and has to be used in different school systems. |  | *Note: Changed wording and removed and added paragraphs.*  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 [target 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.  In this questionnaire ICT can refer to:   * desktop computers * notebook or laptop computers * netbook computers * tablet devices * [smartphones], except when being used for talk and text. |
| PQ4  PQ5  PQ6  PQ7  PQ8  PQ9  PQ10  PQ11  PQ12  PQ13  PQ14  PQ15  PQ16  PQ17 |  | PQ3  PQ4  PQ5  PQ6  PQ7  PQ8a  PQ9  PQ10  PQ11  PQ12  PQ13  PQ14  PQ15  PQ8b | *Note: Items renumbered* |
| PQ2 | **How often do you use ICT to:**  a) Search for information on the Internet or an education system network | PQ2  PQ2b | *Note: Modified stem and answer dimension; also added second part to question.*  **How often do you use ICT for the following activities?**  a) Search for information on the Internet or a network maintained by education authorities for its schools  **If you use ICT for any other school-related activities at least once a month, please list them.**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| PQ4 |  | PQ3 | *Note: Added instructions but removed for U.S. version*  When answering the questions in this section, please refer to the definition of ‘school’ given in the note at the beginning of this questionnaire. |
| PQ7 | *A full-time teacher is employed at least 90% of the time as a teacher for the full school year.**All other teachers should be considered part-time.* | PQ6 | *Note: Modified instructions*  *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.* |
| PQ10 | **In your opinion, how important is the use of ICT in this school for each of the following outcomes of education?**  a) Developing students’ basic computer skills (e.g. internet use, word processing, presentation software)  b) Developing students’ skills in using ICT for collaboration with others  c) Using ICT for facilitating students’ responsibility for their own learning  d) Using ICT to augment and improve students’ learning  e) Developing students’ understanding and skills relating to safe and appropriate use of ICT  f) Developing students’ proficiency in accessing and using information with ICT  g) Developing students’ ability to write [apps] or programs | PQ9 | Note: Modified stem and tense of answer dimensions  **In your opinion, how important is each of the following outcomes of education?**  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 |
| PQ11 | a) Developing students’ basic computer skills (e.g. internet use, word processing, presentation software)  b) Developing students’ skills in using ICT for collaboration with others  c) Using ICT for facilitating students’ responsibility for their own learning  d) Using ICT to augment and improve students’ learning  e) Developing students’ understanding and skills relating to safe and appropriate use of ICT  f) Developing students’ proficiency in accessing and using information with ICT  g) Developing students’ ability to write [apps] or programs | PQ10 | *Note: Modified verb tense of answer dimensions*  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 |
| PQ12 | a) Integrating Web-based learning in their instructional practice  b) Using ICT-based forms of student assessment  c) Using ICT for monitoring student progress  d) Collaborating with other staff via ICT  e) Communicating with parents via ICT  f) Integrating ICT into teaching and learning  g) Using subject-specific learning software (e.g. tutorials, simulation)  h) Using e-portfolios for assessment  i) Using ICT to develop authentic (real-life) assignments for students  j) Assessing students’ [computer and information literacy] | PQ11 | *Note: Modified verb tense of answer dimensions and added dimension*  a) Integrate Web-based learning in their instructional practice  b) Use ICT-based forms of student assessment  c) Use ICT for monitoring student progress  d) Collaborate with other teachers via ICT  e) Communicate with parents via ICT  f) Communicate with students via ICT  g) Integrate ICT into teaching and learning  h) Use subject-specific digital learning resources (e.g. tutorials, simulation)  i) Use e-portfolios for assessment  j) Use ICT to develop authentic (real-life) assignments for students  k) Assess students’ [computer and information literacy] |
| PQ13 | **Who has the main responsibility for each of the following aspects of ICT management in this school?**   * Other teachers * No one   a) Purchasing/supplying ICT equipment  b) Selecting software to be used  c) Maintaining ICT equipment  d) Choosing whether ICT is used in teaching  e) Implementing ICTbased approaches in teaching  f) Implementing ICTbased  approaches in administration  g) Using ICT-based approaches to assessment  h) Assessment of students’ [computer and information literacy]  i) Implementation of a [computer and information literacy] curriculum at the school  j) Monitoring and maintaining networks  k)Maintaining network security | PQ12 | *Note: Modified stem and verb tense of answer dimensions, removed answer dimensions, and also added dimension.*  **Who has the main responsibility for making decisions about each of the following aspects of ICT in this school?**  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  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  j) The assessment of students’ [computer and information literacy]  k) The implementation of a [computer and information literacy] curriculum at the school  l) The development of ICT-related teacher competencies |
| PQ14 | a) Setting up security measures to prevent unauthorised system access or entry  b) Restricting the number of hours students are allowed to sit at a computer  c) Student access to school computers outside class hours (but during school hours)  d) Student access to school computers outside school hours  e) Honouring of intellectual property rights (e.g. software copyrights)  f) Prohibiting access to inappropriate material (e.g. pornography, violence)  g) Playing games on school computers  h) Giving the local community (parents and/or others) access to school  computers and/or the Internet | PQ13 | *Note: Modified verb tense of answer dimensions and added new answer dimensions*  a) The provision of security measures to prevent unauthorized system access or entry  b) Restrictions on the number of hours students are allowed to sit at a computer  c) Student access to school computers outside class hours (but during school hours)  d) Student access to school computers outside school hours  e) The fulfilment of intellectual property rights (e.g. software copyrights)  f) Prohibitions of access to inappropriate material (e.g. pornography, violence)  g) Student use of non-school related games on school computers  h) The provision of access to school computers and/or the Internet for the local community (parents and/or others)  i) Support for [students with special needs or specific learning difficulties]  j) Unacceptable behaviours towards other students (e.g. [Cyberbullying])  k) The provision of laptop computers and/or other mobile learning devices for student use at school and at home  l) Student use of their own digital devices at school |
| PQ15 | **How many teachers in this school participate in the following forms of professional development about ICT for teaching and learning?**  *(Please mark one choice in each row)*   * *None or almost none* * *Some Many* * *All or almost all*   a) Participating in courses on the use of ICT in teaching provided by the school  b) Working with another teacher who has attended a course and then trains other teachers  c) Discussing the use of ICT in education as a regular item during meetings of the teaching staff  d) Observing colleagues using ICT in their teaching  e) Discussing within groups of teachers about using ICT in their teaching  f) Participating in a [community of practice] concerned with ICT in teaching  g) Participating in courses conducted by an external agency or expert  h) Participating in professional learning programs delivered through ICT | PQ14 | *Note: Modified stem and verb tense and descriptions of answer dimensions; also added a response category and modified responses*  **Throughout the current school year, how many teachers in this school participate in the following forms of professional development about ICT for teaching and learning?**  (*Please mark one choice in each row)*   * *None or hardly any* * *Some of them* * *Most of them* * *All or nearly all*   a) Courses on the use of ICT in teaching provided by the school or the school system  b) Training by another teacher who has attended a course on ICT  c) Discussions about the use of ICT in education as a regular item during meetings of the teaching staff  d) Observations of colleagues using ICT in their teaching  e) Group discussions of teachers about their use of ICT in teaching  f) Participation in professional learning programs delivered online  g) Participation in courses on ICT conducted by an external agency or expert  h) Participation in a [community of practice] concerned with ICT in teaching |
| PQ16 | d) Increasing the range of digital learning resources  f) Providing for participation in professional development on pedagogical use of ICT | PQ15 | *Note: Modified wording of dimensions and added a new dimension*  d) Increasing the range of digital learning resources available for teaching and learning  f) Supporting participation in professional development on pedagogical use of ICT  k) Providing for students to bring their own ICT for use at school |

**B. ICT Coordinator Questionnaire**

1. Adaptation of all items

| **ICILS 2018 US Field Test** | | |
| --- | --- | --- |
| **International term** | **U.S. adaptation** | **Item(s)** |
| [Introduction for ICT-coordinators to the questionnaire] | **ICT coordinator** questionnaire | Intro header |
| This questionnaire is concerned with Information and Communication Technology (ICT) in schools, its use in teaching and learning, and students’ development of Computer and Information Literacy (CIL).  In this questionnaire, ICT can refer to:   * desktop computers * notebook or laptop computers * netbook computers * tablet devices * [smartphones], except when being used for talk and text.   In this questionnaire you will find questions about:   * Your background and familiarity with ICT * Your use of ICT in teaching a reference [target grade] class * The use of ICT in the school * Learning to use ICT in teaching.   Some questions focus on a nominated ‘reference’ class. This is the first [target grade] class that you teach for a regular subject (i.e. other than home room, assembly) on or after the 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 a [target grade] class on that Tuesday, please use the [target grade] class that you taught on the first day after that Tuesday.  Please answer as accurately as you can. You will mostly answer by clicking on a button. You can change your responses at any time until you have clicked on ‘I’ve finished’ at the end of the questionnaire.  We have estimated that it will take less than 30 minutes of your time to complete the questionnaire.  Thank you for making that time available. | Your school has agreed to participate in the 2017 Field Test 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.  In this questionnaire ICT can be:   * desktop computers * notebook or laptop computers * netbook computers * tablet devices * smartphones, except when being used for talk and text.   This questionnaire is concerned with ICT in schools and in particular the ICT resources (including computers) as well as pedagogical practices that use ICT. The questionnaire is addressed to ICT Coordinators who are asked to provide information about their schools. It is important that the person responding knows about the ICT facilities in your school and about practices regarding their use. The questionnaire should be completed by the person with designated responsibility for ICT in the school. If there is no person with designated responsibility for ICT in the school, the questionnaire should be completed by the principal or assistant principal.  Since your school has been selected as part of a nationwide sample, your responses are very important in helping to evaluate the questions as relevant to describing eighth-grade education in the United States. If you do not have the information to answer particular questions, then please consult other persons in your school.  In this questionnaire you will find questions about your position as ICT Coordinator; ICT resources in your school; and support for ICT use in your school. Since ICILS is an international study and all countries are using the same questionnaire, you may find that some of the questions seem unusual or are not entirely relevant to you or schools in the United States. Nevertheless, it is important that you do your best to answer all the questions as accurately as you can so comparisons can be made across countries in the study.  It is estimated that you will need about 15 minutes to complete the questionnaire. **We appreciate the time and effort this takes and thank you for your cooperation and contribution.**  The National Center for Education Statistics (NCES) is authorized to collection information from the questionnaire under the Education Science Reform Act of 2002 (ESRA), 20 U.S. Code, § 9543. You do not have to provide the information requested. However, the information you provide will help the U.S. Department of Education’s ongoing efforts to understand better how the educational system in the United States compares to that in other countries. There are no penalties should you choose not to participate in this study. Your answers may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S. Code, § 9573). Your responses will be combined with those from other participants to produce summary statistics and reports.  Thank You. | Intro |
| [smartphones] | smartphones | Intro |
| The questionnaire should be completed by the person with designated responsibility for ICT in the school. If there is no person with designated responsibility for ICT in the school, the questionnaire should be completed by the principal or [deputy-principal]. | assistant principal | Intro |
| [target grade] | eighth grade | ICTQ3, ICTQ6, ICTQ9, ICTQ10, ICTQ14, ICTQ15 |
| **Please indicate the availability of each of the following software resources at your school.**  Practice programs or [apps] where teachers decide which questions are asked of students (e.g. [Quizlet, Kahoot], [mathfessor]) | apps | ICTQ5a |
| Practice programs or [apps] where teachers decide which questions are asked of students (e.g. [Quizlet, Kahoot], [mathfessor]) | Quizlet, Kahoot | ICTQ5a |
| single user digital learning games (e.g. [languages online]) | languages online, Garageband | ICTQ5b |
| Multi-user digital learning games with graphics and inquiry tasks (e.g. [Quest Atlantis]) | Quest Atlantis | ICTQ5c |
| Word-processor software (e.g. [Microsoft Word ®], | Microsoft Word ® | ICTQ5d |
| Presentation software (e.g. [Microsoft PowerPoint ®]) | Microsoft PowerPoint ® | ICTQ5e |
| Video and photo software for capture and editing (e.g. [Windows Movie Maker, iMovie, Adobe Photoshop]) | Windows Movie Maker, iMovie, Adobe Photoshop | ICTQ5f |
| Concept mapping software (e.g. [Inspiration ®], [Webspiration ®]) | Inspiration Maps ®, Webspiration ® | ICTQ5g |
| Data logging and monitoring tools (e.g. [Logger Pro]) that capture real-world data digitally for analysis (e.g. speed, temperature) | Logger Pro | ICTQ5h |
| Simulations and modelling software (e.g. [NetLogo]) | NetLogo | ICTQ5i |
| A learning management system (e.g. [Edmodo], [Blackboard]) | Edmodo, Blackboard, Moodle | ICTQ5j |
| e-portfolios (e.g. [VoiceThread]) | VoiceThread | ICTQ5l |
| Social media (e.g. [Facebook, Twitter]) | Facebook, Twitter | ICTQ5n |
| **Please indicate the availability of the following technology facilities at [target grade].**  Internet-based applications for collaborative work (e.g. [Google Docs ®]) | Google Docs ®, Padlet, Onenote ® | ICTQ6d |
| A learning management system (e.g. [WebCT ®],[Moodle]) | Edmodo, Blackboard, Moodle | ICTQ6e |
| **Does your school or [educational authority] provide teachers with their own portable digital device?** | School district or relevant education authority | ICTQ8 |
| **At your school, who provides [routine/day-to-day] technical ICT support?**  **At your school, who provides [routine/day-to-day] pedagogical ICT support for teachers?** | day-to-day | ICTQ11, ICTQ12 |
| **Is [computing, computer science, information technology, informatics or similar] taught as a standalone subject at the [target grade] in your school?** | computing, computer science, information technology, informatics or similar  eighth grade | ICTQ14, ICTQ15 |
| Develop algorithms (e.g. instructions for a program like [Scratch]) | Scratch | ICTQ15a |

**2. New Items**

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| --- | --- |
| **Item Number** | **Added Item** |
| ICTQ7b | **Approximately, what percentage of all ICT devices in the school (include all types) are connected to the Internet?** |
| ICTQ7c | **In your school, about how many (school-provided) smart boards or interactive whiteboards are available?**  (*Please record a whole number. Record 0 (zero), if none.)*  \_\_\_\_\_\_\_\_\_\_\_ Smart boards / interactive white boards |
| ICTQ8 | **Does your school or [educational authority] provide teachers with their own portable digital device?**  (*Please mark only one choice)*   * Yes, for every teacher * Yes, but not for all teachers * No |
| ICTQ14 | **Is [computing, computer science, information technology, informatics or similar] taught as a standalone subject at the [target grade] in your school?**  Yes  Please continue with question 15  No  Please go to the end of the questionnaire |
| ICTQ15 | **In the teaching of [computing, computer science, information technology, informatics or similar] at the [target grade] in your school, how much emphasis is given to the following tasks?**  *(Please mark one choice in each row)*   1. Develop algorithms (e.g. instructions for a program like [Scratch]) 2. Design information systems 3. Write computer programs 4. Evaluate computer programs 5. Develop applications 6. Refine computer code to improve efficiency 7. Debug computer code 8. Build electronic devices 9. Develop simulations 10. Test solutions to problems using simulations 11. Create visual displays of information or processes (such as graphs, flow charts and decision trees) |

**3. Revised Items**

| **2018 FT Draft International Version** | | **2018 FT Final International Version** | |
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| **Item Number** | **Item** | **Item Number** | **Revised Item** |
| Intro | In this questionnaire you will find questions about:   * Your position as ICT coordinator * Resources for ICT in your school * Support for ICT use in your school, | Intro | *Note: Reordered intro and added paragraph*  In this questionnaire ICT can be:   * desktop computers * notebook or laptop computers * netbook computers * tablet devices * [smartphones], except when being used for talk and text.   In this questionnaire you will find questions about:   * Your position as ICT coordinator * ICT resources in your school * Support for ICT use in your school. |
| ICTQ8  ICTQ9  ICTQ10  ICTQ11  ICTQ12 |  | ICTQ9  ICTQ10  ICTQ11  ICTQ12  ICTQ13 | *Note: renumbered items* |
| ICTQ4, ICTQ5, ICTQ6 | * *Available to teachers and students* * *Available to teachers only* * *Not available* | ICTQ4, ICTQ5, ICTQ6 | *Note: Response category added and responses slightly modified*   * *Available to teachers and students* * *Available only to teachers* * *Available only to students* * *Not available* |
| ICTQ3 | **How many years has your school been using computers for teaching and/or learning purposes for students in [target grade]?** | ICTQ3 | *Note: Changed stem wording slightly*  **How many years has your school been using ICT for teaching and/or learning purposes for students in [target grade]?** |
| ICTQ4 | 1. Computer-based offline information resources (e.g. digital textbooks) 2. Interactive digital learning resources (e.g. learning objects) 3. Access to the World Wide Web 4. Access to an education site or network maintained by an education system 5. Mail accounts | ICTQ4 | *Note: Wording of the answer dimensions have changed.*   1. Digital learning resources that can be accessed offline 2. Digital learning resources that can only be used online 3. Access to the Internet through the school network 4. Access to an education site or network maintained by education authorities 5. Email accounts for school-related use |
| ICTQ5 | 1. Tutorial software or [practice programs] 2. Digital learning games 3. Word-processing, databases, spreadsheets (e.g. [Microsoft© office suite]) 4. Multimedia production tools (e.g. media capture and editing, web production) 5. Data-logging and monitoring tools 6. Simulations and modelling software 7. Presentation software (e.g. [Microsoft PowerPoint ®], [Keynote ®]) 8. Graphing or drawing software | ICTQ5 | *Note: Wording of the answer dimensions have changed and new dimensions added.*   1. Practice programs or [apps] where teachers decide which questions are asked of students (e.g. [Quizlet, Kahoot], [mathfessor]) 2. Single user digital learning games (e.g. [languages online]) 3. Multi-user digital learning games with graphics and inquiry tasks (e.g. [Quest Atlantis]) 4. Word-processor software (e.g. [Microsoft Word ®], 5. Presentation software (e.g. [Microsoft PowerPoint ®]) 6. Video and photo software for capture and editing (e.g. [Windows Movie Maker, iMovie, Adobe Photoshop]) 7. Concept mapping software (e.g. [Inspiration ®], [Webspiration ®]) 8. Data logging and monitoring tools (e.g. [Logger Pro]) that capture real-world data digitally for analysis (e.g. speed, temperature) 9. Simulations and modelling software (e.g. [NetLogo]) 10. A learning management system (e.g. [Edmodo], [Blackboard]) 11. Graphing or drawing software 12. e-portfolios (e.g. [VoiceThread]) 13. Digital contents linked with textbooks 14. Social media (e.g. [Facebook, Twitter]) |
| ICTQ6 | e) A learning management system (e.g. [WebCT®]) | ICTQ6 | *Note: Answer dimensions have been modified and new ones added*  e) A learning management system (e.g. [WebCT ®],[Moodle])  f) A 3D printer  g ) Programmable physical agents (e.g. robots)  h) Access to a wireless LAN (Wi-fi) |
| ICTQ7 | **In your school, approximately how many (school-provided) computers are:**  *(Please record a whole number. Record 0 (zero), if none.)*  *For this question please:*  • Count terminals (if they have a keyboard and a screen) as computers  • Count laptops, netbooks and tablet devices as computers  • Exclude computers which are not in use  • Exclude computers which are only used as servers   * In the school altogether? * Available to students? * Connected to the Internet/World Wide Web? | ICTQ7a | *Note: Q7 is divided into three items in the November version. Response categories and answer dimensions changed.*  **In your school, approximately how many of the following types of (school-provided) ICT devices are available?**  (Please record a whole number. Record 0 (zero), if none.)  For this question please:   * Count terminals (if they have a keyboard and a screen) as computers * Exclude computers that are not in use (e.g. in storage) * Exclude computers that are only used as servers   + Desktop computers   + Laptops/notebooks   + Tablet devices |
| ICTQ8 | **Do students at the [target grade] use portable computers (laptops, netbooks or tablet devices) at school?**  *(Please mark one choice in each row)*   * All students * Some students * No students  1. Students are provided with portable computers for use at home and at school 2. Students are provided with portable computers for use at school only 3. Students are required to provide their own portable computers for use at school | ICTQ9 | *Note: Changed stem, response categories, and wording of dimensions*  **Approximately what percentage of students at the [target 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%  1. Students provided with portable computers for use at school only 2. Students provided with portable computers for use at home and at school 3. Students bringing their own portable computers for use at school |
| ICTQ9 | **Where are school computers for teaching and learning in [target grade] located?**   1. In most classrooms (80% or more) | ICTQ10 | *Note: Modified wording of stem and some dimensions; also added dimension*  **Where are school ICT devices for teaching and learning in [target grade] located?**   1. In most (80% or more) classrooms 2. They are brought by students to class |
| ICTQ10 | **At your school, who provides regular technical ICT support?**  f) Staff from the education system to which the school belongs  h) Students trained as [assistants] | ICTQ11 | *Note: Modified wording of stem and answer dimensions*  **At your school, who provides [routine/day-to-day] technical ICT support?**  f) Staff from the relevant education authority responsible for the school  h) Students from this school |
| ICTQ11 | **At your school, who provides regular pedagogical ICT support for teachers?**  f) Staff from the education system to which the school belongs | ICTQ12 | *Note: Modified wording of stem and an answer dimension*  **At your school, who provides [routine/day-to-day] pedagogical ICT support for teachers?**  f) Staff from the relevant education authority responsible for the school |
| ICTQ12 | **To what extent is the use of ICT in teaching and learning in this school hindered by each of the following obstacles?**  *(Please mark one choice in each row)*   1. Too few computers connected to the Internet 2. Poorly maintained ICT equipment 3. Lack of ICT skills among teachers 4. Lack of effective professional learning resources for teachers 5. Lack of incentives for teachers to integrate ICT use in their teaching 6. Lack of technical ICT support 7. Lack of pedagogical support for the use of ICT | ICTQ13 | *Note: Modified wording of stem and answer dimensions*  **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)*   1. Too few computers with an Internet connection 2. Problems in maintaining ICT equipment 3. Insufficient ICT skills among teachers 4. Insufficient effective professional learning resources for teachers 5. Insufficient incentives for teachers to integrate ICT use in their teaching 6. Insufficient technical ICT support 7. Insufficient pedagogical support for the use of ICT |

1. **Teacher Questionnaire**
2. **Adaptation of all items**

| **ICILS 2018 US Field Test** | | |
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| **International term** | **U.S. adaptation** | **Item(s)** |
| [Introduction for Teachers to the questionnaire] | **Teacher** Questionnaire | Intro header |
| This questionnaire is concerned with Information and Communication Technology (ICT) in schools, its use in teaching and learning, and students’ development of Computer and Information Literacy (CIL).  In this questionnaire, ICT can refer to:   * desktop computers * notebook or laptop computers * netbook computers * tablet devices * [smartphones], except when being used for talk and text.   In this questionnaire you will find questions about:   * Your background and familiarity with ICT * Your use of ICT in teaching a reference [target grade] class * The use of ICT in the school * Learning to use ICT in teaching.   Some questions focus on a nominated ‘reference’ class. This is the first [target grade] class that you teach for a regular subject (i.e. other than home room, assembly) on or after the 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 a [target grade] class on that Tuesday, please use the [target grade] class that you taught on the first day after that Tuesday.  Please answer as accurately as you can. You will mostly answer by clicking on a button. You can change your responses at any time until you have clicked on ‘I’ve finished’ at the end of the questionnaire.  We have estimated that it will take less than 30 minutes of your time to complete the questionnaire.  Thank you for making that time available. | Your school has agreed to participate in the 2017 Field Test 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 in order to improve teaching and learning worldwide.  In this questionnaire ICT can refer to:   * desktop computers * notebook or laptop computers * netbook computers * tablet devices * smartphones, except when being used for talk and text.   This questionnaire is addressed to teachers who are asked to provide information about ICT in their schools, its use in teaching and learning, and students’ development of Computer and Information Literacy (CIL). Since your school has been selected as part of a nationwide sample, your responses are very important in helping to evaluate the questions as relevant to describing eighth-grade education in the United States.  In this questionnaire you will find questions about your background and familiarity with ICT; your use of ICT in teaching a reference eighth-grade class; the use of ICT in the school; and learning to use ICT in teaching. Some questions focus on a nominated ‘reference’ class. This is the first eighth-grade class that you teach for a regular subject (i.e. other than home room or assembly) on or after the 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.  Since ICILS is an international study and all countries are using the same questionnaire, you may find that some of the questions seem unusual or are not entirely relevant to you or schools in the United States. Nevertheless, it is important that you do your best to answer all the questions as accurately as you can so comparisons can be made across countries in the study.  It is estimated that you will need about 30 minutes to complete the questionnaire. **We appreciate the time and effort this takes and thank you for your cooperation and contribution.**  The National Center for Education Statistics (NCES) is authorized to collection information from the questionnaire under the Education Science Reform Act of 2002 (ESRA), 20 U.S. Code, § 9543. You do not have to provide the information requested. However, the information you provide will help the U.S. Department of Education’s ongoing efforts to understand better how the educational system in the United States compares to that in other countries. There are no penalties should you choose not to participate in this study. Your answers may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S. Code, § 9573). Your responses will be combined with those from other participants to produce summary statistics and reports.  Thank You. |  |
| [smartphones] | smartphones | Intro |
| [target grade] | eighth grade, eighth-grade | Intro, TQ4, TQ8, Section intro |
| (Please indicate the subjects that you teach in this school, indicating only those that individually account for at least [four lessons] 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.) | four classes or two classes if block scheduling is used | TQ3 |
| What are the main subjects that you teach in this school in the current school year?  [Language arts: test language] | English Language Arts | TQ3, TQ8 |
| [Language arts: foreign or other national languages] | Spanish, or other foreign language | TQ3, TQ8 |
| [Information technology, computer studies or similar] | Information technology, computer studies or similar | TQ3, TQ8 |
| **How well can you do these tasks on ICT?**  Use a spreadsheet program (e.g. [Lotus 1 2 3 ®, Microsoft Excel ®]) for keeping records or analyzing data | e.g. Microsoft Excel ® | TQ7f |
| Produce presentations (e.g. [Microsoft PowerPoint®] or a similar program) with simple animation functions | e.g. Microsoft PowerPoint ® | TQ7h |
|  |  |  |
| Collaborate with others using shared resources such as [Google Docs ®] [Padlet] | Collaborate with others using shared resources such as Google Docs ®, Padlet, Onenote ® | TQ7m |
| Use a learning management system (e.g. [Moodle], [Blackboard], [Edmodo]) | e.g. Moodle, Blackboard, Edmodo) | TQ7o |
| How often do you use ICT with the following practices when teaching your reference class?  The communication with parents or [guardians] about students’ learning | guardians | TQ11j |
| Practice programs or apps where you ask students questions (e.g. [Quizlet, Kahoot], [mathfessor]) | Quizlet, Kahoot | TQ12a |
| Single user digital learning games (e.g. [languages online]) | languages online, Garageband | TQ12b |
| Multi-user digital learning games with graphics and inquiry tasks (e.g. [Quest Atlantis]) | Quest Atlantis | TQ12c |
| Word-processor software (e.g. [Microsoft Word ®] | Microsoft Word ® | TQ12d |
| Presentation software (e.g. [Microsoft PowerPoint ®]) | Microsoft PowerPoint ® | TQ12e |
| Spreadsheets (e.g. [Microsoft Excel ®]) | Microsoft Excel ® | TQ12f |
| Video and photo software for capture and editing (e.g. [Windows Movie Maker, iMovie, Adobe Photoshop]) | Windows Movie Maker, iMovie, Adobe Photoshop | TQ12g |
| Concept mapping software (e.g. [Inspiration ®], [Webspiration ®]) | e.g. Inspiration Map ®, Webspiration ® | TQ12h |
| Data logging and monitoring tools (e.g. [Logger Pro]) | Logger Pro | TQ12i |
| Simulations and modelling software (e.g. [NetLogo]) | NetLogo | TQ12j |
| A learning management system (e.g. [Edmodo], [Blackboard]) | e.g. Edmodo, Blackboard, Moodle | TQ12k |
| Collaborative software (e.g. [Google Docs ®], [Onenote]) [Padlet] | e.g. Google Docs ®, Onenote ®, Padlet | TQ12m |
| e-portfolios (e.g. [VoiceThread]) | e.g. VoiceThread | TQ12q |
| Social media (e.g. [Facebook, Twitter]) | e.g. Facebook, Twitter | TQ12s |
| **To what extent do you agree or disagree with the following statements about the use of ICT in teaching at your school?**  My school has access to sufficient digital learning resources (e.g. learning software or [apps]). | apps | TQ15c |
| **Did your [initial teacher education] include the following elements?** | Bachelor’s degree | TQ17 |
| **How often have you participated in any of the following professional learning activities in the past two years?**  A course on use of ICT for [students with special needs or specific learning difficulties] | students with disabilities | TQ18h |

2. New Items

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| Item Number | Added Text/Item |
| TQ17 | LEARNING TO USE ICT IN TEACHING  Did your [initial teacher education] include the following elements?  *(Please mark one choice in each row)*   * *Yes* * *No*  1. Learning how to use ICT 2. Learning how to use ICT in teaching |

3. Deleted Text/Items

|  |  |
| --- | --- |
| Item Number | Deleted Text/Item |
| TQ10 | Do you ever use ICT in the teaching and learning activities of the reference class?  *Yes No* |
| TQ19 | Do you teach a class at Grade 8 in [Information technology, computer studies or similar] in the current school year?  Yes Please continue with question 20  No Please go to the end of the questionnaire |

4. Revised Items

| 2018 FT Draft International Version | | 2018 FT Final International Version | |
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| Item Number | Item | Item Number | Revised Item |
| Intro | In this questionnaire you will find questions about:   * Your background and familiarity with ICT * Your use of ICT in teaching a reference [target grade] class * The use of ICT in the school * Learning to use ICT in teaching.   In this questionnaire a computer can refer to a:   * desktop computer, * notebook or laptop computer, * netbook computer, * tablet device such as an [iPad]   In this questionnaire a number of questions refer to the use of Information and Communications Technology (ICT). ICT refers to a wider range of digital technologies including, but not limited to, computers as defined above. | Intro | *Note: Changed order of paragraphs, added one bullet, and removed one paragraph.*  In this questionnaire, ICT can refer to:   * desktop computers * notebook or laptop computers * netbook computers * tablet devices * [smartphones], except when being used for talk and text.   In this questionnaire you will find questions about:   * Your background and familiarity with ICT * Your use of ICT in teaching a reference [target grade] class * The use of ICT in the school * Learning to use ICT in teaching. |
| TQ7  TQ8  TQ9  TQ11  TQ12  TQ13  TQ14  TQ17  TQ18  TQ20  TQ21 |  | TQ19  TQ7  TQ8  TQ12  TQ9  TQ10  TQ11  TQ18  TQ20  TQ13  TQ14 | *Note: Renumbered items* |
| TQ3 | Sciences (general science and/or physics, chemistry, biology, geology, earth sciences)  Human sciences/Humanities (history, geography, civic and citizenship education, law, economics etc.)  Practical and vocational subjects (preparation for a specific occupation) | TQ3 | *Note: Modified answer dimensions*  Sciences (general science and/or physics, chemistry, biology, geology, earth sciences, technical science)  Human sciences/Humanities/Social Studies (history, geography, civics, education, law, economics etc.)  Practical and vocational subjects |
| TQ4 | In the current school year, how many schools are you teaching in at [target grade]? | TQ4 | *Note: Modified question*  In the current school year, at how many schools do you teach [target grade] students? |
| Section Header | YOUR USE OF COMPUTERS AND OTHER ICT | Section Header | *Note: Modified section title*  YOUR USE OF ICT |
| TQ5 | Approximately how long have you been using computers for teaching purposes? | TQ5 | *Note: Modified question*  Approximately how long have you been using ICT for teaching purposes? |
| TQ6 | How often do you use a computer in these settings? | TQ6 | *Note: Modified question*  How often do you use ICT in these settings? |
| TQ8 | How well can you do these tasks on a computer by yourself?   1. Producing a letter using a word-processing program 2. E-mailing a file as an attachment 3. Storing your digital photos 4. Filing digital documents in folders and sub-folders 5. Monitoring students' progress 6. Using a spreadsheet program (e.g. [Lotus 1 2 3 ®, Microsoft Excel ®]) for keeping records or analysing data 7. Contributing to a discussion forum/user group on the Internet (eg. a wiki or blog) 8. Producing presentations (e.g. [Microsoft PowerPoint®] or a similar program), with simple animation functions 9. Using the Internet for online purchases and payments 10. Preparing lessons that involve the use of ICT by students 11. Finding useful teaching resources on the Internet 12. Assessing student learning 13. Collaborating with others using shared resources such as [Google Docs®] 14. Installing software 15. Using a mobile computer device (e.g. tablet or smartphone) for email or messaging 16. Using a learning management system (e.g. [moodle], [blackboard], [Edmodo]) | TQ7 | *Note: Changed question, tense of verb in each answer dimension and removed one answer dimension*  How well can you do these tasks on ICT?   1. Produce a letter using a word-processing program 2. E-mail a file as an attachment 3. Store your digital photos 4. File digital documents in folders and sub-folders 5. Monitor students' progress 6. Use a spreadsheet program (e.g. [Lotus 1 2 3 ®, Microsoft Excel ®]) for keeping records or analyzing data 7. Contribute to a discussion forum / user group on the Internet (e.g. a wiki or blog) 8. Produce presentations (e.g. [Microsoft PowerPoint®] or a similar program) with simple animation functions 9. Use the Internet for online purchases and payments 10. Prepare lessons that involve the use of ICT by students 11. Find useful teaching resources on the Internet 12. Assess student learning 13. Collaborate with others using shared resources such as [Google Docs ®] [Padlet] 14. Install software 15. Use a learning management system (e.g. [Moodle], [Blackboard], [Edmodo]) |
| TQ9 | Sciences (general science and/or physics, chemistry, biology, geology, earth sciences)  Human sciences/Humanities/Social Studies (history, geography, civics and citizenship, education, law, economics etc.)  Practical and vocational subjects (preparation for a specific occupation) | TQ8 | *Note: Modified wording of answer dimensions*  Sciences (general science and/or physics, chemistry, biology, geology, earth sciences, technical sciences)  Human sciences/Humanities/Social Studies (history, geography, civics, education, law, economics etc.)  Practical and vocational subjects |
| TQ11 | 1. Word-processors or presentation software (e.g. [Microsoft Word ®], [Microsoft PowerPoint ®]) 2. Video and photo software for (e.g. [Windows Movie Maker, iMovie]) capture and editing | TQ12 | *Note: Changed wording of answer dimensions and split an answer dimension into two; also reordered most answer dimensions*   1. Word-processor software (e.g. [Microsoft Word ®] 2. Presentation software (e.g. [Microsoft PowerPoint ®]) 3. Video and photo software for capture and editing (e.g. [Windows Movie Maker, iMovie, Adobe Photoshop]) 4. Digital contents linked with textbooks 5. Social media (e.g. [Facebook, Twitter]) |
| TQ12 | 1. Accessing information efficiently 2. Evaluating the relevance of digital information 3. Displaying information for a given audience/purpose 4. Evaluating the credibility of digital information 5. Validating the accuracy of digital information 6. Sharing digital information with others 7. Using computer software to construct digital work products (e.g. presentations, documents, images and diagrams) 8. Evaluating their approach to information searches 9. Providing digital feedback on the work of others (such as classmates) 10. Exploring a range of digital resources when searching for information 11. Providing references for digital information sources 12. Understanding the consequences of making information publically available online | TQ9 | *Note: Changed verb tense of answer dimensions and removed one answer dimension*   1. To access information efficiently 2. To evaluate the relevance of digital information 3. To display information for a given audience/purpose 4. To evaluate the credibility of digital information 5. To share digital information with others 6. To use computer software to construct digital work products (e.g. presentations, documents, images and diagrams) 7. To systematically evaluate the students’ own approaches to information searches 8. To provide digital feedback on the work of others (such as classmates) 9. To explore a range of digital resources when searching for information 10. To provide references for digital information sources 11. To understand the consequences of making information publically available online |
| TQ13 | How often does your reference class use ICT in the following activities?  *(Please mark one choice in each row)*   * *Does not engage in this activity* * *Never uses ICT in this activity* * *Sometimes uses ICT in this activity* * *Often uses ICT in this activity*  1. Working on a project over several weeks. 2. Working on short assignments (i.e. within one week) 3. Explaining and discussing ideas with other students 4. Submitting completed work for assessment 5. Working individually on learning materials at their own pace 6. Undertaking open-ended investigations or field work 7. Reflecting on their learning experiences (e.g. by using a learning log) 8. Communicating with students in other schools on projects 9. Seeking information from experts outside the school 10. Planning a sequence of learning activities for themselves 11. Analysing data 12. Searching for information on a topic using outside resources 13. Evaluating information resulting from a search 14. Collecting data for a project 15. Creating visual products or videos 16. Creating music 17. Sharing products with other students 18. Producing animations 19. Using a learning management system 20. Engaging in role playing or simulations | TQ10 | *Note: Changed question wording, added pronoun to response categories, changed verb tense of response categories and answer dimensions, and added/removed answer dimensions.*  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*  1. Work on extended projects (i.e. lasting over a week) 2. Work on short assignments (i.e. within one week) 3. Explain and discuss ideas with other students 4. Submit completed work for assessment 5. Work individually on learning materials at their own pace 6. Undertake open-ended investigations or field work 7. Reflect on their learning experiences (e.g. by using a learning log) 8. Communicate with students in other schools on projects 9. Seek information from experts outside the school 10. Plan a sequence of learning activities for themselves 11. Analyze data 12. Search for information on a topic using outside resources 13. Evaluate information resulting from a search 14. Collect data for a project 15. Create visual products or videos 16. Produce or edit music 17. Share products with other students 18. Produce animations |
| TQ14 | 1. Presenting information through direct class instruction 2. Providing remedial or enrichment support to individual students or small groups of students 3. Enabling student-led whole-class discussions and presentations 4. Assessing students' learning through tests 5. Providing feedback to students on their work 6. Reinforcing learning of skills through repetition of examples 7. Organizing collaboration among students 8. Mediating communication between students and experts or external mentors 9. Enabling students to collaborate with other students (within or outside school) 10. Communicating with parents or guardians about students’ learning 11. Supporting inquiry learning | TQ11 | *Note: Changed verb tense of answer dimensions*   1. The presentation of information through direct class instruction 2. The provision of remedial or enrichment support to individual students or small groups of students 3. The support of student-led whole-class discussions and presentations 4. The assessment of students' learning through tests 5. The provision of feedback to students on their work 6. The reinforcement of learning of skills through repetition of examples 7. The support of collaboration among students 8. The mediation of communication between students and experts or external mentors 9. The support of student collaboration with other students (within or outside school) 10. The communication with parents or [guardians] about students’ learning 11. The support of inquiry learning |
| TQ15 | 1. My school does not have access to digital learning resources. 2. My school has limited connectivity (e.g. slow or unstable speed) to the Internet. 3. There is not sufficient provision for me to develop expertise in ICT. 4. There is not sufficient technical support to maintain ICT resources. 5. There is not enough support for pedagogical applications of ICT | TQ15 | *Note: Changed wording of answer dimensions and added new answer dimensions*   1. My school has access to sufficient digital learning resources (e.g. learning software or [apps]). 2. My school has good connectivity (e.g. fast speed and stable) to the Internet. 3. There is sufficient opportunity for me to develop expertise in ICT. 4. There is sufficient technical support to maintain ICT resources. 5. There is sufficient technical support to solve issues promptly when problems arise. 6. There is enough support for the use of ICT in teaching and learning. |
| TQ16 | To what extent do you agree or disagree with the following statements about practices and principles regarding the use of ICT in teaching and learning by you and in general at your school?   1. There is a common set of rules in the school about how ICT should be used in classrooms. 2. I systematically collaborate with colleagues to develop ICT based lessons based on the curriculum. 3. I observe how other teachers use ICT in teaching. 4. There is a common set of expectations in the school about what students will learn about ICT. | TQ16 | *Note: Changed wording of question and answer dimensions; also added new answer dimension.*  To what extent do you agree or disagree with the following statements about your use of ICT in teaching and learning at your school?   1. I follow a common set of rules about how ICT should be used in classrooms. 2. I collaborate with colleagues to develop ICT-based lessons. 3. I observe how other teachers use ICT in teaching. 4. I discuss with other teachers how to use ICT in teaching topics. 5. I share ICT-based resources with other teachers in my school. |
| TQ17 | How often have you participated in any of the following activities in the past two years?   1. Participated in a course on ICT applications (e.g. word processing, presentations, internet use, spreadsheets, databases) 2. Participated in a course on integrating ICT into teaching and learning 3. Participated in training on subject-specific ICT software 4. Observed other teachers using ICT in teaching 5. Participated in a course on subject-specific digital resources 6. Participated in an ICT-mediated discussion or forum on teaching and learning 7. Shared digital resources with others using a collaborative work space 8. Used a collaborative workspace | TQ18 | *Note: Changed wording of question, changed wording of answer dimensions, and added new answer dimensions.*  How often have you participated in any of the following professional learning activities in the past two years?   1. A course on ICT applications (e.g. word processing, presentations, internet use, spreadsheets, databases) 2. A course on integrating ICT into teaching and learning 3. Training on subject-specific digital teaching and learning resources 4. Observations of other teachers using ICT in teaching 5. An ICT-mediated discussion or forum on teaching and learning 6. The sharing of digital teaching and learning resources with others through a collaborative workspace 7. Use of a collaborative workspace to jointly evaluate student work 8. A course on use of ICT for [students with special needs or specific learning difficulties] 9. A webinar on ICT integration in teaching and learning 10. Use of a student data management system 11. Use of ICT to support personalized learning by students |
| TQ7 | 1. Enables students to access better sources of information 2. Results in poorer written expression among students 3. Helps students to consolidate and process information more effectively 4. Only creates organisational problems for schools 5. Helps students learn to collaborate with other students 6. Impedes concept formation better done with real objects than computer images 7. Enables students to communicate more effectively with others 8. Only encourages copying material from published Internet sources 9. Helps students develop greater interest in learning 10. Helps students work at a level appropriate to their learning needs 11. Limits the amount of personal communication among students 12. Helps students develop skills in planning and self-regulation of their work 13. Results in poorer calculation and estimation skills among students 14. Improves academic performance of students 15. Only distracts students from learning 16. Helps teachers | TQ19 | *Note: Changed answer dimensions, wording, order*   1. impedes concept formation by students. 2. helps students develop greater interest in learning. 3. helps students to work at a level appropriate to their learning needs. 4. encourages students to copy material from Internet sources. 5. helps students develop problem solving skills. 6. distracts students from learning. 7. results in poorer written expression among students. 8. results in poorer calculation and estimation skills among students. 9. helps students learn to collaborate with other students. 10. limits the amount of personal communication among students. 11. enables students to communicate more effectively with others. 12. introduces organizational problems for schools. 13. helps teachers communicate with students. 14. helps students develop skills in planning and self-regulation of their work. 15. improves academic performance of students. 16. enables students to access better sources of information. 17. helps students to consolidate and process information more effectively. |
| TQ18 | Teachers often choose the emphasis that they place on different approaches to teaching and learning. Which priority do you think is more important in each of the pairs below?   1. The main role of a teacher is to facilitate students’ own inquiry.   The main role of a teacher is to demonstrate the correct way to do things.   1. Instruction should be built around problems with clear, correct answers.   Instruction should focus on students finding solutions to open-ended problems.   1. It is better when students decide on the activities to be undertaken.   It is better when the teacher – not the student – decides what activities are to be done.   1. Knowledge of core content and principles is more important than thinking and reasoning processes.   Thinking and reasoning processes are more important than knowledge of specific curriculum content.   1. Students learn best by working through complex problems.   Teaching should be based on direct instruction on ideas that most students can grasp quickly. | TQ20 | *Note: Changed question wording, order of answer dimensions, answer dimensions wording, and added new answer dimension*  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?   1. Instruction should be built around problems with clear, correct answers.   Instruction should focus on students finding solutions to open-ended problems.   1. The main role of a teacher is to facilitate students’ own inquiry.   The main role of a teacher is to demonstrate the correct way to do things.   1. Students learn best by working through complex problems.   Students learn best by progressing through sequences of simple elements of problems.   1. Teaching should be based on direct instruction of ideas that most students can grasp quickly.   Teaching should be based on supporting student exploration of complex ideas.   1. Knowledge of content and principles in core subject areas.   Developing general inquiry processes that will support lifelong learning.   1. Students learn best when they decide on the activities to be undertaken in class.   Students learn best when the teacher – not the students – decides what activities are to be done in class. |
| TQ20 | In your teaching of [Information technology, computer studies or similar] in the current school year, how much emphasis have you given to developing the following capabilities in your students?   1. Developing algorithms 2. Designing information systems 3. Writing computer programs (in any language) 4. Using simulations to test problems 5. Evaluating computer programs 6. Developing applications 7. Refining computer programs to improve their efficiency 8. Debugging computer code 9. Designing flow diagrams 10. Interpreting flow diagrams 11. Understanding digital systems 12. Building electronic devices   n. Testing solutions to systems problems | TQ13 | In your teaching of the reference class this school year, how much emphasis have you given to student learning of the following skills?   1. To display information in different ways 2. To break a complex process into smaller parts 3. To understand diagrams that describe or show real-world problems 4. To plan tasks by setting out the steps needed to complete them 5. To identify the most efficient solution to a problem 6. To use tools making diagrams that help solve problems 7. To use simulations to help understand or solve real-world problems 8. To make flow diagrams to show the different parts of a process 9. To record and evaluate data to understand and solve a problem 10. To work with instructions to complete or describe tasks   k. To use real-world data to review and revise solutions to problems |
| TQ21 | How confident are you about teaching the following topics in [Information technology, computer studies or similar]?   1. Developing algorithms 2. Designing information systems 3. Writing computer programs (in any language) 4. Using simulations to test problems 5. Evaluating computer programs 6. Developing applications 7. Refining computer programs to improve their efficiency 8. Debugging computer code 9. Designing flow diagrams 10. Interpreting flow diagrams 11. Understanding digital systems 12. Building electronic devices 13. Testing solutions to systems problems | TQ14 | *Note: Changed question wording, order of answer dimensions, answer dimension wording, and removed answer dimensions.*  How confident do you feel about teaching the following skills to the reference class?   1. To display information in different ways 2. To break a complex process into smaller parts 3. To understand diagrams that describe or show real-world problems 4. To plan tasks by setting out the steps needed to complete them 5. To identify the most efficient solution to a problem 6. To use tools to make diagrams that help solve problems 7. To use simulations to help understand or solve real-world problems 8. To make flow diagrams to show the different parts of a process 9. To record and evaluate data to understand and solve a problem 10. To work with instructions to complete or describe tasks 11. To use real-world data to review and revise solutions to problems |

**D. Student Questionnaire**

1. **Adaptation of all items**

| **2018 Field Test** | | |
| --- | --- | --- |
| **International term** | **U.S. adaptation** | **Item(s)** |
| **Introduction for students to the Questionnaire** | **Student** Questionnaire |  |
| This questionnaire is about Information and Communication Technology (ICT). In this questionnaire ICT can refer to:   * desktop computers * notebook or laptop computers * netbook computers * tablet devices * [smartphones], except when being used for talk and text.   In this questionnaire you will find questions about:   * You, your home and your family * Where and how often you use ICT * What you use ICT for * Your views about the use of ICT.   Please read each question carefully and answer as accurately as you can. In this questionnaire, you will mostly answer by clicking on a button. You can change your responses at any time until you have clicked on ‘I’ve finished’ at the end of the questionnaire.  There are also a few questions where you will need to write a short response.  **In this questionnaire, there are no right or wrong answers. Your answers should be the ones that apply to you.**  You may ask for help if you do not understand something or if you are not sure how to answer a question.  **All your answers will be kept confidential.** | This questionnaire is about Information and Communication Technology (ICT). In this questionnaire ICT can refer to:   * desktop computers * notebook or laptop computers * netbook computers * tablet devices * smartphones, except when being used for talk and text.   In this questionnaire you will find questions about:   * You, your home and your family * Where and how often you use ICT * What you use ICT for * Your views about the use of ICT.   Please read each question carefully and answer as accurately as you can. In this questionnaire, you will mostly answer by clicking on a button. You can change your responses at any time until you have clicked on ‘I’ve finished’ at the end of the questionnaire.  There are also a few questions where you will need to write a short response.  **In this questionnaire, there are no right or wrong answers. Your answers should be the ones that apply to you.**  You may ask for help if you do not understand something or if you are not sure how to answer a question.  The National Center for Education Statistics (NCES) is authorized to collection information from the questionnaire under the Education Science Reform Act of 2002 (ESRA), 20 U.S. Code, § 9543. You do not have to provide the information requested. However, the information you provide will help the U.S. Department of Education’s ongoing efforts to understand better how the educational system in the United States compares to that in other countries. There are no penalties should you choose not to participate in this study. Your answers may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S. Code, § 9573). Your responses will be combined with those from other participants to produce summary statistics and reports.  Thank you. |  |
| [smartphones] | smartphones | Intro, SQ16d, SQ18c |
| What is the highest level of education you expect to complete?  What is the highest level of education completed by your [parent or guardian 1]?  What is the highest level of education completed by your [parent or guardian 2]?  [ISCED level 6, 7, or 8]  [ISCED level 4 or 5]  [ISCED level 3]  [ISCED level 2]  [ISCED level 1] | Master's degree or professional degree (MD, DDS, lawyer, minister) OR Doctorate (Ph.D., or EdD)  Associate's degree (2-year college program) OR Bachelor's degree (4-year college program)  High school graduate  Some high school  Less than high school | SQ3, SQ9, SQ13 |
| [parent or guardian 1] | Parent or guardian 1 | SQ4, SQ6, SQ7a, SQ7b, SQ8a, SQ8b, SQ9 |
| [parent or guardian 2] | Parent or guardian 2 | S4, S10, S11a, S11b, S12a, S12b, S13 |
| In what country were you and your parents born?  <Country of test> | United States | SQ4 |
| [Another country] | Another country | SQ4 |
| What language do you speak at home most of the time?  [Language of test] | English | SQ5 |
| [Other language 1] | Spanish | SQ5 |
| [Another language] | Another language | SQ5 |
| [job] | job | SQ7a, SQ7b, SQ8a, SQ8b, SQ11a, SQ11b, SQ12a, SQ12b |
| What is your [parent or guardian 1]’s main [job] (for example, high school teacher, kitchen-hand, sales manager)?  What is your [parent or guardian 2]’s main [job]? | (for example, school teacher, cook, sales manager) | SQ7a, SQ11a |
| What does your [parent or guardian 1] do in his/her main [job]?  (for example teaches high school students, helps the cook prepare meals in a restaurant, manages a sales team)  What does your [parent or guardian 2] do in his/her main [job]?  (for example teaches high school students, helps the cook prepare meals in a restaurant, manages a sales team) | (for example, teaches high school students, helps prepare meals in a restaurant, manages a sales team) | SQ7b, SQ11b |
| What was your [parent or guardian 1]’s last main [job]?  (for example high school teacher, kitchen-hand, sales manager)  What was your [parent or guardian 2]’s last main [job]?  (for example high school teacher, kitchen-hand, sales manager)  What did your [parent or guardian 2] do in his/her last main [job]?  (for example taught high school students, helped the cook prepare meals in a restaurant, managed a sales team) | (for example, school teacher, cook, sales manager) | SQ8a, SQ12a |
| What did your [parent or guardian 1] do in his/her last main [job]?  (for example taught high school students, helped the cook prepare meals in a restaurant, managed a sales team) | (for example, taught high school students, helped prepare meals in a restaurant, managed a sales team) | SQ8b, SQ12b |
| [test administrator] | test administrator | SQ9, SQ13 |
| How often do you use ICT to read [e-books] in your home? | e-books | SQ15 |
| How many of the following ICT are currently used in your home?  [iPad, Tablet PC, Kindle] | iPad, Surface Pro, Kindle | SQ16c |
| [Smartphones] | Smartphone | SQ16d |
| How often do you use ICT for each of the following activities?  [Microsoft Excel] | Microsoft Excel | SQ21b |
| [Microsoft PowerPoint] | Microsoft PowerPoint | SQ21c |
| [Logo, LUA, or Scratch] | Scratch, Logo, VBA, Java | SQ21e |
| [apps] | apps | SQ21f, SQ30i, SQ30n |
| How often do you use ICT to do each of the following communication activities?  Talk to friends, family, or other people using voice or video chat (e.g. [Skype, WhatsApp, Viber]) | Skype, FaceTime, WhatsApp, Viber | SQ22b |
| Ask questions on forums or [Q&A, question and answer] websites | Q&A, question and answer | SQ22e |
| Answer other peoples’ questions on forums or [Q&A, question and answer] websites | Q&A, question and answer | SQ22f |
| Write posts for your own blog (e.g. [WordPress, Tumblr, Blogger]) | (e.g. WordPress, Tumblr, Blogger) | SQ22g |
| Post images or video in social networks or online communities (e.g. [Facebook, Instagram or YouTube]) | e.g. Facebook, Instagram or YouTube) | SQ22h |
| How often do you use ICT for the following school-related purposes?  Complete [worksheets] or exercises | worksheets | SQ24e |
| Use coding software to complete assignments (e.g. [Scratch, Minecraft]) | e.g. Scratch, Minecraft | SQ24k |
| At school, how often do you use ICT during lessons in the following subjects or subject areas?  [Language arts: test language] | English | SQ25a |
| [Language arts: foreign or other national languages] | Spanish or other foreign language | SQ25b |
| [Information technology, computer studies or similar] | Information technology, computer studies or similar | SQ25g |
| When studying throughout this school year, how often did you use the following tools during class?  Tutorial software or [practice programs] | practice programs | SQ26a |
| Word-processing software (e.g. [Microsoft Word ®]) | e.g. Microsoft Word ® | SQ26b |
| Presentation software (e.g. [Microsoft  PowerPoint ®]) | e.g. Microsoft Powerpoint ® | SQ26c |
| Spreadsheets (e.g. [Microsoft  Excel®]) | e.g. Microsoft Excel ® | SQ26d |
| Concept mapping software (e.g. [Inspiration ®], [Webspiration ®]) | e.g. Inspiration Map ®, Webspiration ® | SQ26f |
| How well can you do each of these tasks when using ICT?  Create a database (e.g. using [Microsoft Access ®]) | e.g. using Microsoft Access ® | SQ30c |
| Create a computer program, macro, or [app] (e.g. in [Basic, Visual Basic]) | app  Scratch, Logo, VBA, Java | SQ30i |
| How much do you agree or disagree with the following statements about ICT?  I would like to study subjects related to ICT after [secondary school] | high school | SQ31a |
| STUDYING [INFORMATION TECHNOLOGY] | STUDYING INFORMATION TECHNOLOGY | SQ33 |
| Do you study [computing, computer science, information technology, informatics or similar] in the current school year? | computing, computer science, information technology, informatics or similar | SQ35 |

**2. New Items**

|  |  |
| --- | --- |
| **Item Number** | **Added Text/Item** |
| SQ29 | **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) |

**3. Revised Items**

| **2018 FT Draft International Version** | | **2018 FT Final International Version** | |
| --- | --- | --- | --- |
| **Item Number** | **Item** | **Item Number** | **Revised Item** |
| Intro | **[Introduction for students to the questionnaire]**  In this questionnaire you will find questions about:   * You, your home and your family * Where and how often you use digital devices * What you use digital devices for * Your views about the use of computers.   In this questionnaire a digital device can refer to a:   * desktop computer, * notebook or laptop computer, * netbook computer, * tablet device such as an iPad * [smartphone]. | Intro | *Note: Introduction order and wording changed*  **Introduction for students to the questionnaire**  This questionnaire is about Information and Communication Technology (ICT). In this questionnaire ICT can refer to:   * desktop computers * notebook or laptop computers * netbook computers * tablet devices * [smartphones], except when being used for talk and text.   In this questionnaire you will find questions about:   * You, your home and your family * Where and how often you use ICT * What you use ICT for * Your views about the use of ICT. |
| SQ7c  SQ7d  SQ8  SQ9  SQ10a  SQ10b  SQ10c  SQ10d  SQ11  SQ12  SQ13  SQ14  SQ15  SQ16  SQ17  SQ18  SQ19  SQ20  SQ21  SQ22  SQ23  SQ24  SQ25  SQ26  SQ27  SQ28  SQ29  SQ30  SQ31  SQ32 |  | SQ8a  SQ8b  SQ9  SQ10  SQ11a  SQ11b  SQ12a  SQ12b  SQ13  SQ14  SQ15  SQ16  SQ17  SQ18  SQ20  SQ21  SQ22  SQ23  SQ24  SQ25  SQ28  SQ19  SQ30  SQ31  SQ32  SQ26  SQ27  SQ35  SQ33  SQ34 | *Note: Renumbered items* |
| SQ3 | **Which of the following [levels of education] do you expect to**  **complete?** | SQ3 | *Note: Changed stem*  **What is the highest level of education you expect to complete?** |
| Section intro | Some of these questions will be about home and your mother and father or guardians who look after you — for example, step-parents or foster-parents.  If you share your time with more than one set of parents or guardians, please answer the following questions for those parents/guardians you spend the most time with. | Section intro | *Note: Changed instructions*  Some of these questions will be about home and your parents or guardians who look after you — for example, step-parents or foster-parents. Select one parent or guardian as [parent or guardian 1] and the other as [parent or guardian 2].  If you share your time with more than one set of parents or guardians, please answer the following questions for those parents/guardians with whom you spend the most time. If you share your time only with one parent, please answer only the following questions for this parent. |
| SQ4 | * You * Mother or [female guardian] * Father or [male guardian] | SQ4 | *Note: Changed wording of answer dimensions*   * You * [Parent or guardian 1] * [Parent or guardian 2] |
| SQ6 | Does your mother or [female guardian] work in a paid job? | SQ6 | *Note: Changed wording*  **Does your [parent or guardian 1] work in a paid job?** |
| SQ7a | **What is your mother’s or [female guardian’s] main [job]?** | SQ7A | *Note: Changed wording*  **What is your [parent or guardian 1]’s main [job]?** |
| SQ7b | **What does your mother or [female guardian] do in her main [job]?** | SQ7B | *Note: Changed wording*  **What does your [parent or guardian 1] do in his/her main [job]?** |
| SQ7c | **What was your mother’s or [female guardian’s] last main [job]?** | SQ8A | *Note: Changed wording*  **What was your [parent or guardian 1]’s last main [job]?** |
| SQ7d | **What did your mother or [female guardian] do in her last main [job]?** | SQ8b | *Note: Changed wording*  **What did your [parent or guardian 1] do in his/her last main [job]?** |
| SQ8 | **What is the highest level of education completed by your mother or**  **[female guardian]?** | SQ9 | *Note: Changed wording*  **What is the highest level of education completed by your [parent or guardian 1]?** |
| SQ9 | **Does your father or [male guardian] work in a paid job?** | SQ10 | *Note: Changed wording*  **Does your [parent or guardian 2] work in a paid job?** |
| SQ10a | **What is your father’s or [male guardian’s] main [job]?** | SQ11a | *Note: Changed wording*  **What is your [parent or guardian 2]’s main [job]?** |
| SQ10b | **What does your father or [male guardian] do in his main [job]?** | SQ11b | *Note: Changed wording*  **What does your [parent or guardian 2] do in his/her main [job]?** |
| SQ10c | **What was your father’s or [male guardian’s] last main [job]?** | SQ12a | *Note: Changed wording*  **What was your [parent or guardian 2]’s last main [job]?** |
| SQ10d | **What did your father or [male guardian] do in his last main [job]?** | SQ12b | *Note: Changed wording*  **What did your [parent or guardian 2] do in his/her last main [job]?** |
| SQ11 | **What is the highest level of education completed by your father or[male guardian]?** | SQ13 | *Note: Changed wording*  **What is the highest level of education completed by your [parent or guardian 2]?** |
| SQ12 | **About how many books are there in your home?**  *Do not count magazines, newspapers, comic books or your schoolbooks.* | SQ14 | *Note: Changed instructions*  **About how many books are there in your home?**  *There are usually about 40 books per metre of shelving. Do not count magazines, newspapers, comic books or your schoolbooks.* |
| SQ13 | **How often are digital devices used to read [e-books] in your home?**  *(Please mark only once choice)*   * Never or hardly ever * At least once a month but not every week * At least once a week | Q15 | *Note: Changed stem and response categories*  **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 |
| SQ14 | **How many of the following digital devices are currently used in your home?** | **SQ16** | *Note: Changed stem*  **How many of the following ICT are currently used in your home?** |
| Section Header | **YOUR USE OF COMPUTERS AND INTERNET** | Section Header | Your Use of ICT |
| SQ16 | **How long have you been using each of the following digital devices?**  a) Desktop or portable computers  b) Tablets (e.g. [iPad, Tablet PC])  c) [Smartphones] | SQ18 | *Note: Changed word of stem and answer dimensions*  **How long have you been using each of the following ICT?**  a) Desktop or portable computers  b) Tablet devices  c) [Smartphones] except for using text and calling |
| SQ17 | **How often do you use a computer or tablet device in these places?** | SQ20 | *Note: Modified stem and instructions*  **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.* |
| SQ18 | **How often do you do each of the following activities using a digital device?**  a) Writing or editing text  b) Using a spreadsheet to do calculations, store data or plot graphs (e.g. using [Microsoft EXCEL ®])  c) Creating a simple “slideshow” presentation (e.g. using [Microsoft PowerPoint ®])  d) Recording and editing videos  e) Writing computer programs, scripts or apps (e.g. using [Logo, LUA, or Scratch])  f) Using drawing, painting or graphics software  g) Producing and editing music  h) Fixing problems on computers  i) Building or editing a webpage | SQ21 | *Note: Changed verb tense of answer dimensions and removed an answer dimension; also modified stem.*  **How often do you use ICT for each of the following activities?**  a) Write or edit documents  b) Use a spreadsheet to do calculations, store data or plot graphs (e.g. using [Microsoft Excel ®])  c) Create a simple “slideshow” presentation (e.g. using [Microsoft PowerPoint ®])  d) Record or edit videos  e) Write computer programs, scripts or apps (e.g. using [Logo, LUA, or Scratch])  f) Use drawing, painting or graphics software or [apps]  g) Produce or edit music  h) Build or edit a webpage |
| SQ19 | **How often do you do each of the following communication activities?**  a) Publishing results from games, sports, or other events on social media  b) Talking to friends, family, or other people using voice chat (e.g. [Skype, WhatsApp, Viber])  c) Writing posts and updates about what happens in your life on social media  d) Asking questions on forums or [Q&A, question and answer] websites  e) Answering other peoples’ questions on forums or [Q&A, question and answer] websites  f) Writing posts for your own blog (e.g. [Wordpress, Tumblr, Blogger])  g) Posting images or video in social networks or online communities (e.g. [Facebook, Instagram or Youtube])  h) Watching videos or images that other people have posted online  i) Tagging others in posts or images | SQ22 | *Note: Changed wording of stem and answer dimensions; also added answers*  **How often do you use ICT to do each of the following communication activities?**  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, 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, 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 |
| SQ20 | **How often do you do each of the following leisure activities?**  a) Searching the Internet to find out about places to go or activities to do  b) Reading reviews on the Internet of things you might want to buy  c) Reading news stories on the Internet  d) Searching for online information about things you are interested in  e) Reading posts or websites about things you are interested in  f) Using websites, forums, or videos to find out how to do something  g) Sending information about events or activities to other people  h) Playing single-player games on a digital device  i) Playing multi-player games using separate devices to the other player(s)  j) Playing multi-player games using the same device as the other player(s)  k) Listening to downloaded or streamed music  l) Watching downloaded or streamed TV shows or movies | SQ23 | *Note: Changed wording of stem, verb tense of answer dimension, and added/removed an answer dimension*  **How often do you use ICT to do each of the following leisure activities?**  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 |
| SQ21 | **How often do you use digital devices for the following school-related purposes?**  a) Preparing reports or essays  b) Preparing presentations  c) Working online with other students from your own school  d) Working online with other students from other schools  e) Completing [worksheets] or exercises  f) Organising your time and work  g) Writing about your learning  h) Completing tests  i) Using education software (e.g. mathematics or language learning software)  j) Using the Internet to search for information | SQ24 | *Note: Changed verb tense of answer dimension and added answer*  **How often do you use ICT for the following school-related purposes?**    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  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. [Scratch, Minecraft]) |
| SQ22 | **At school, how often do you use digital devices during lessons in the following subjects or subject areas?**  e) Human sciences/Humanities (history, geography, civics, law, economics etc.)  h) Other (practical or vocational subjects, moral/ethics, physical education, home economics, personal and social development) | SQ25 | *Note: Changed wording of stem and answer dimension; split an answer into two*    **At school, how often do you use ICT during lessons in the following subjects or subject areas?**  e) Human sciences /Humanities / Social studies (history, geography, civics, law, economics, etc.)  h) Practical or vocational subjects  i) Other (moral/ethics, physical education, home economics, personal and social development) |
| SQ23 | a) Providing references to Internet sources  b) Searching for information using a digital device  c) Presenting information for a given audience or purpose using a computer  d) Working out whether to trust information from the Internet  e) Deciding what information is relevant to include in school work  f) Organising information obtained from Internet sources  g) Deciding where to look for information about an unfamiliar topic  h) Looking for different types of digital information on a topic  i) Writing a computer program or app  j) Setting up or editing a website | SQ28 | *Note: Changed verb tense of answer dimensions and deleted an answer*    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 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 |
| SQ24 | **Who mainly taught you the following things?**  a) Communicating over the Internet  b) Creating documents for school work  c) Changing computer settings  e) Working in a computer network | SQ19 | *Note: Changed wording of stem and answer dimensions; also added/deleted answers*  **Who mainly taught you how to do the following activities?**  a) Communicate over the Internet  b) Create or edit documents  c) Create or edit presentations  d) Change settings on an ICT device  f) Use programs and files in a computer network |
| Section Header | YOUR THOUGHTS ABOUT USING DIGITAL DEVICES | Section Header | YOUR THOUGHTS ABOUT USING ICT |
| SQ25 | **How well can you do each of these tasks on a digital device?**  f) Build or edit a website  g) Change the settings on your device to improve the way it operates or to fix problems  i) Create a computer program or macro (e.g. in [Basic, Visual Basic])  j) Set up a local computer network  n) Add content to a webpage | SQ30 | *Note: Changed wording of stem and answer dimension; also added answer dimension*  **How well can you do each of these tasks when using ICT?**  f) Build or edit a webpage  g) Change the settings on your device to improve the way it operates  i) Create a computer program, macro, or [app] (e.g. in [Basic, Visual Basic])  j) Set up a local area network of computers or other ICT  n) Install a program or [app]  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 |
| SQ26 | **Thinking about [information and computer technology]: How much do you agree or disagree with the following statements?**  a) I would like to study subjects related to [information and computer technology] after [secondary school]  b) I hope to find a job that involves advanced [information and computer technology]  c) Learning how to use computer applications will help to improve my career [prospects, chances]  d) Knowing as much as possible about [information and computer technology] will help me get a job  e) It is no longer possible to find work without knowing how to use [information and computer technology] | SQ31 | *Note: Changed wording of item and answer dimension*  **How much do you agree or disagree with the following statements about ICT?**    a) I would like to study subjects related to ICT after [secondary 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 |
| SQ27 | **How much do you agree or disagree with the following statements about [information and computer technology]?**  a) Advances in [information and computer technology] usually improve people’s living conditions.  b) [Information and computer technology] helps us to better understand the world.  c) Using [information and computer technology] makes people more isolated in society.  d) Using [Information and computer technology] helps me to better relate to other people.  e) With more [information and computer technology] there will be fewer jobs.  f) People waste far too much time using [Information and computer technology]  g) [Information and computer technology] is valuable to society.  h) Advances in [information and computer technology] bring many social benefits.  i) Using [information and computer technology] may be dangerous for people's health. | SQ32 | *Note: Changed wording in stem and changed answer dimension*  **How much do you agree or disagree with the following statements about the use of ICT in society?**  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. |
| SQ28 | **When studying this school year: How often did you use the following tools during class?**  a) Tutorial software or [practice programs]  b) Digital learning games  c) Word-processors or presentation software (e.g. [Microsoft Word ®], [Microsoft PowerPoint ®])  d) Spreadsheets (e.g. [Microsoft Excel®])  e) Multimedia production tools (e.g. media capture and editing, web production)  f) Concept mapping software (e.g. [Inspiration ®], [Webspiration ®])  g) Data logging and monitoring tools  h) Simulations and modelling software  i) Social media (e.g. Facebook, Twitter, Instagram)  j) Communication software (e.g. email, instant messaging)  k) Computer-based information resources (e.g. websites, wikis, encyclopaedia)  l) Interactive digital learning resources (e.g. learning objects)  m) Graphing or drawing software  n) e-portfolios | SQ26 | *Note: Changed wording in stem changed answer dimensions, and removed answer dimension*  **When studying throughout this school year, how often did you use the following tools during class?**  a) Tutorial software or [practice programs]  b) Word-processing software (e.g. [Microsoft Word ®])  c) Presentation software (e.g. [Microsoft PowerPoint ®])  d) Spreadsheets (e.g. [Microsoft Excel®])  e) Multimedia production tools (e.g. media capture and  editing, web production)  f) Concept mapping software (e.g. [Inspiration ®], [Webspiration ®])  g) Tools that capture real-world data (e.g. speed, temperature) digitally for analysis  h) Simulations and modelling software  i) Computer-based information resources (e.g. websites, wikis, encyclopaedia)  j) Interactive digital learning resources (e.g. learning games or applications)  k) Graphing or drawing software |
| SQ29 | a) Teachers present information using a digital device or the Internet  b) Students do tests on a digital device  c) Teachers provide students with feedback on what they have learn d  d) Students work on projects using computers and/or the Internet to share resources and ideas  e) Students use the Internet for research  f) Students use the Internet to contact external experts | SQ27 | *Note: Answer dimensions have changed and been added/deleted*  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 |
| SQ30 | **Do you study [computing, computer science, information technology, informatics or similar] in the current school year?**   * Yes Please continue with question 31 * No Please go to the end of the questionnaire | SQ35 | *Note: Modified answer dimensions*  **Do you study [computing, computer science, information technology, informatics or similar] in the current school year?**     * Yes * No |
| SQ31 | **When studying [computing, computer science, information technology, informatics or similar] 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) Developing algorithms  b) Designing information systems  c) Writing computer programs (in any language)  d) Using simulations to test problems  e) Evaluating computer programs  f) Developing applications  g) Refining computer programs to improve their efficiency  h) Debugging computer code  i) Designing flow diagrams  j) Interpreting flow diagrams  k) Understanding digital systems  l) Build electronic devices  m) Testing solutions to systems problems | SQ33 | *Note: Modified stem and all answer dimensions.*  **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*      1. Display information in different ways 2. Break a complex process into smaller parts 3. Understand diagrams that describe or show real-world problems 4. Plan tasks by setting out the steps needed to complete them 5. Identify the most efficient solution to a problem 6. Use tools to make diagrams that help solve problems 7. Use simulations to help understand or solve real world problems 8. Make flow diagrams to show the different parts of a process 9. Record and evaluate data to understand and solve a problem 10. Work with instructions to complete or describe tasks 11. Use real-world data to review and revise solutions to problems |
| SQ32 | **How well do you think you would do the following tasks?**  a) Developing algorithms  b) Designing information systems  c) Writing computer programs (in any language)  d) Using simulations to test problems  e) Evaluating computer programs  f) Developing applications  g) Refining computer programs to improve their efficiency  h) Debugging computer code  i) Designing flow diagrams  j) Interpreting flow diagrams  k) Understanding digital systems  l) Build electronic devices  m) Testing solutions to systems problems | SQ34 | *Note: Changed wording in stem and all answer dimensions*  **How well do you think you can do the following tasks?**  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 |