



## **IEA International Computer and Information Literacy Study**

### *Teacher Questionnaire for the 2018 Main Study*

*Confidential to ICILS 2018  
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*OMB No. 1850-0929, Approval Expires 12/31/2020.*



The Australian Council for Educational Research

## *Introduction to the Questionnaire for Teachers*

Your school has agreed to participate in the 2018 Main Study for the International Computer and Information Literacy Study (ICILS). ICILS is an educational research project sponsored by the International Association for the Evaluation of Educational Achievement (IEA). The purpose of ICILS is to examine across different countries the extent to which young people in eighth grade have developed computer and information literacy, which is defined as the ability to use Information and Communication 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 (e.g., 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 collect information from this questionnaire by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §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. All of the information you provide 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.C. §9573 and 6 U.S.C. §151). Your responses will be combined with those from other participants to produce summary statistics and reports.

Thank you.

## About You

### Q1 Are you a female or male?

<sub>1</sub> Female

<sub>2</sub> Male

### Q2 How old are you?

*(Please mark only one choice)*

<sub>1</sub> Less than 25

<sub>2</sub> 25–29

<sub>3</sub> 30–39

<sub>4</sub> 40–49

<sub>5</sub> 50–59

<sub>6</sub> 60 or over

### Q3 What year did you start teaching?

*(Please write in a year)*

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### Q4 What are the main subjects that you teach in this school in the current school year?

*(Please indicate the subjects that you teach in this school, indicating only those that individually account for at least four classes or two classes if block scheduling is used each week in this school. The exact name of one or more of the subjects may not appear in the list for each category. If it does not, please mark the category you think best fits the subject.)*

<sub>1</sub> English Language Arts

<sub>1</sub> Spanish, or other foreign language

<sub>1</sub> Mathematics

<sub>1</sub> Sciences (e.g., general science and/or physics, chemistry, biology, geology, earth sciences, technical science)

<sub>1</sub> Human sciences/Humanities/Social studies (e.g., history, geography, civics, law, economics)

<sub>1</sub> Creative arts (e.g., visual arts, music, dance, drama)

<sub>1</sub> Information technology, Computer science, or a similar subject

<sub>1</sub> Practical and vocational subjects (e.g., mechanics and repair, healthcare occupations, construction trades)

<sub>1</sub> Other (e.g., moral education/ethics, physical education, personal and social development)

**Q5 In the current school year, at how many schools do you teach eighth-grade students?**

*(Please mark only one choice)*

- <sub>1</sub> Only in this school
- <sub>2</sub> In this and another school
- <sub>3</sub> In this and in two other schools
- <sub>4</sub> In this and in three or more other schools

**Q6 Approximately how long have you been using ICT for *teaching* purposes?**

*(Please mark only one choice in each row)*

	<i>Never</i>	<i>Less than two years</i>	<i>Between two and five years</i>	<i>More than five years</i>
a) During lessons .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
b) Preparing lessons .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>

**Q7 How often do you use ICT in these settings?**

*(Please mark one choice in each row)*

	<i>Never</i>	<i>Less than once a month</i>	<i>At least once a month but not every week</i>	<i>At least once a week but not every day</i>	<i>Every day</i>
a) At school when teaching .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
b) At school for other work-related purposes .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
c) Outside of school for work-related purposes .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
d) Outside of school for non-work-related purposes .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>

**Q8 How well can you do these tasks using ICT?**

*(Please mark one choice in each row)*

	<i>I know how to do this</i>	<i>I haven't done this but I could find out how</i>	<i>I do not think I could do this</i>
a) Find useful teaching resources on the Internet .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
b) Contribute to a discussion forum/user group on the Internet (e.g., a wiki or blog) .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
c) Produce presentations (e.g., Microsoft PowerPoint or a similar program) with simple animation functions .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
d) Use the Internet for online purchases and payments .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
e) Prepare lessons that involve the use of ICT by students .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
f) Use a spreadsheet program (e.g., Microsoft Excel) for keeping records or analyzing data .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
g) Assess student learning .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
h) Collaborate with others using shared resources (e.g., Google Docs, OneNote, Padlet) .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
i) Use a learning management system (e.g., Blackboard, Edmodo, Moodle) .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>

## Your Use of ICT in Teaching

*In this section of the questionnaire please focus your responses on your teaching practices in the 'reference' class.*

*This is the first eighth-grade class that you teach for a regular subject (i.e. other than home room, assembly) on or after Tuesday following the last weekend before you first accessed this questionnaire. You may, of course, teach the class at other times during the week as well. If you did not teach an eighth-grade class on that Tuesday, please use the eighth-grade class that you taught on the first day after that Tuesday.*

### **Q9 Which of the following best describes the subject for this reference class?**

*(Please mark only one choice)*

- <sub>1</sub> English Language Arts
- <sub>2</sub> Spanish, or other foreign language
- <sub>3</sub> Mathematics
- <sub>4</sub> Sciences (e.g., general science and/or physics, chemistry, biology, geology, earth sciences, technical science)
- <sub>5</sub> Human sciences/Humanities/Social studies (e.g., history, geography, civics, law, economics)
- <sub>6</sub> Creative arts (e.g., visual arts, music, dance, drama)
- <sub>7</sub> Information technology, Computer science, or a similar subject
- <sub>8</sub> Practical and vocational subjects (e.g., mechanics and repair, healthcare occupations, construction trades)
- <sub>9</sub> Other (e.g., moral education/ethics, physical education, personal and social development)

**Q10 In your teaching of the reference class in this school year, how much emphasis have you given to developing the following ICT-based capabilities in your students?**

*(Please mark one choice in each row)*

	<i>Strong emphasis</i>	<i>Some emphasis</i>	<i>Little emphasis</i>	<i>No emphasis</i>
a) Accessing information efficiently .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
b) Displaying information for a given audience/purpose .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
c) Evaluating the credibility of digital information .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
d) Sharing digital information with others .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
e) Using computer software to construct digital work products (e.g., presentations, documents, images, and diagrams) ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
f) Providing digital feedback on the work of others (such as classmates) .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
g) Exploring a range of digital resources when searching for information .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
h) Providing references for digital information sources .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
i) Understanding the consequences of making information publicly available online .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>

**Q11 How often do students in your reference class use ICT for the following activities?**

*(Please mark one choice in each row)*

	<i>They do <b>not</b> engage in this activity</i>	<i>They never use ICT in this activity</i>	<i>They some- times use ICT in this activity</i>	<i>They often use ICT in this activity</i>	<i>They always use ICT in this activity</i>
a) Working on extended projects (i.e., lasting over a week) .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
b) Working on short assignments (i.e., within one week) .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
c) Explaining and discussing ideas with other students .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
d) Submitting completed work for assessment .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
e) Working individually on learning materials at their own pace .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
f) Undertaking open-ended investigations or field work .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
g) Reflecting on their learning experiences (e.g., by using a learning log) .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
h) Communicating with other students on projects ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
i) Planning a sequence of learning activities for themselves .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
j) Analyzing data .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
k) Evaluating information resulting from a search .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
l) Collecting data for a project .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
m) Creating visual products or videos .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
n) Sharing products with other students .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>

**Q12 How often do you use ICT with the following practices when teaching your reference class?**

*(Please mark one choice in each row)*

	<i>I do <b>not</b> use this practice with the reference class</i>	<i>I never use ICT with this practice</i>	<i>I sometimes use ICT with this practice</i>	<i>I often use ICT with this practice</i>	<i>I always use ICT with this practice</i>
a) The presentation of information through direct class instruction .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
b) The provision of remedial or enrichment support to individual students or small groups of students .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
c) The support of student-led whole-class discussions and presentations .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
d) The assessment of students' learning through tests .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
e) The provision of feedback to students on their work .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
f) The reinforcement of learning of skills through repetition of examples .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
g) The support of collaboration among students .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
h) The mediation of communication between students and experts or external mentors .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
i) The communication with parents or guardians about students' learning .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>
j) The support of inquiry learning .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>	<input type="checkbox"/> <sub>5</sub>

**Q13 How often did you use the following tools in your teaching of the reference class this school year?**

*(Please mark one choice in each row)*

	<i>Never</i>	<i>In some lessons</i>	<i>In most lessons</i>	<i>In every or almost every lesson</i>
a) Practice programs or apps where you ask students questions (e.g., Quizlet, Kahoot) .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
b) Digital learning games .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
c) Word-processor software (e.g., Microsoft Word) .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
d) Presentation software (e.g., Microsoft PowerPoint) .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
e) Spreadsheets (e.g., Microsoft Excel) .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
f) Video and photo software for capture and editing (e.g., Windows Movie Maker, iMovie, Adobe Photoshop) .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
g) Concept mapping software (e.g., Inspiration, Webspiration) .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
h) Simulations and modelling software (e.g., NetLogo) .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
i) A learning management system (e.g., Blackboard, Edmodo, Moodle) .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
j) Communication software (e.g., email, direct messaging, Skype) .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
k) Collaborative software (e.g., Google Docs, OneNote, Padlet) .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
l) Computer-based information resources (e.g., topic-related websites, wikis, encyclopaedia) .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
m) Interactive digital learning resources (e.g., learning objects) .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
n) Graphing or drawing software .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
o) e-portfolios (e.g., VoiceThread) .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
p) Digital contents linked with textbooks .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
q) Social media (e.g., Facebook, Twitter) .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>

**Q14 In your teaching of the reference class this school year, how much emphasis have you given to teaching the following skills?**

*(Please mark one choice in each row)*

	<i>Strong emphasis</i>	<i>Some emphasis</i>	<i>Little emphasis</i>	<i>No emphasis</i>
a) Displaying information in different ways .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
b) Breaking a complex process into smaller parts .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
c) Understanding diagrams that describe or show real-world problems .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
d) Planning tasks by setting out the steps needed to complete them .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
e) Using tools to make diagrams that help solve problems .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
f) Using simulations to help understand or solve real-world problems .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
g) Making flow diagrams to show the different parts of a process .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
h) Recording and evaluating data to understand and solve a problem .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
i) Using real-world data to review and revise solutions to problems .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>

**Q15 To what extent do you agree or disagree with the following statements about the use of ICT in teaching at your school?**

*(Please mark one choice in each row)*

	<i>Strongly agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly disagree</i>
a) ICT is considered a priority for use in teaching. ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
b) My school has sufficient ICT equipment (e.g., computers). ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
c) The computer equipment in my school is up-to-date. ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
d) My school has access to sufficient digital learning resources (e.g., learning software or apps). ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
e) My school has good connectivity (e.g., fast speed and stable) to the Internet. ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
f) There is enough time to prepare lessons that incorporate ICT. ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
g) There is sufficient opportunity for me to develop expertise in ICT. ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
h) There is sufficient technical support to maintain ICT resources. ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>

**Q16 To what extent do you agree or disagree with the following statements about your use of ICT in teaching and learning at your school?**

*(Please mark one choice in each row)*

	<i>Strongly agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly disagree</i>
a) I work together with other teachers on improving the use of ICT in classroom teaching. ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
b) I collaborate with colleagues to develop ICT-based lessons. ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
c) I observe how other teachers use ICT in teaching. ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
d) I discuss with other teachers how to use ICT in teaching topics. ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
e) I share ICT-based resources with other teachers in my school. ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>

**Q17 Did your initial teacher education include the following elements?**

*(Please mark one choice in each row)*

	<i>Yes</i>	<i>No</i>
a) Learning how to use ICT .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>
b) Learning how to use ICT in teaching .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>

**Q18 How often have you participated in any of the following professional learning activities in the past two years?**

*(Please mark one choice in each row)*

	<i>Not at all</i>	<i>Once only</i>	<i>More than once</i>
a) A course on ICT applications (e.g., word processing, presentations, Internet use, spreadsheets, databases) .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
b) A course or webinar on integrating ICT into teaching and learning ...	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
c) Training on subject-specific digital teaching and learning resources ..	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
d) Observations of other teachers using ICT in teaching .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
e) An ICT-mediated discussion or forum on teaching and learning .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
f) The sharing of digital teaching and learning resources with others through a collaborative workspace .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
g) Use of a collaborative workspace to jointly evaluate student work ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
h) A course on use of ICT for students with special needs or specific learning difficulties .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>
i) A course on how to use ICT to support personalized learning by students .....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>

**Q19 To what extent do you agree or disagree with the following statements about using ICT in teaching and learning at school?**

*(Please mark one choice in each row)*

**Using ICT at school ...**

	<i>Strongly agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly disagree</i>
a) impedes concept formation by students. ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
b) helps students develop greater interest in learning. ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
c) helps students to work at a level appropriate to their learning needs. ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
d) results in students copying material from Internet sources. .	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
e) helps students develop problem solving skills. ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
f) distracts students from learning. ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
g) results in poorer written expression among students. ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
h) results in poorer calculation and estimation skills among students. ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
i) limits the amount of personal communication among students. ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
j) enables students to collaborate more effectively. ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
k) helps students develop skills in planning and self-regulation of their work. ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
l) improves academic performance of students. ....	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>
m) enables students to access better sources of information. ...	<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>	<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>

**THANK YOU FOR YOUR TIME AND EFFORT IN COMPLETING THE QUESTIONNAIRE**