

Appendix A: Introduction and approval letters

بسم الله الرحمن الرحيم

جامعة السودان للعلوم والتكنولوجيا

كلية التربية – قسم تكنولوجيا التعليم

مشروع تطبيق تكنولوجيا المعلومات والاتصالات في المدارس الثانوية ولاية الخرطوم: من
الإستراتيجية الى الممارسة

السيد مدير مدرسة/

المحترم،،،

السلام عليكم ورحمة الله تعالى وبركاته

يهدف هذا المشروع لتقصي ووصف الوضع الحالي لاستخدام وسائل الاتصالات والمعلومات (ICT) وكيفية تطبيقها في المدارس الثانوية بولاية الخرطوم مقارنة بدول أخرى (جنوب إفريقيا، شيلي، وسلفينيا). تساعد هذه الدراسة صناع القرار في الحكم على الوضع الراهن فيما يتعلق باستخدام وسائل الاتصالات والمعلومات وينعكس على معايير التطوير الذي يمكن أن يؤخذ بعين الاعتبار في المستقبل القريب.

أيضا يساعد هذا المشروع في وصف خبرات المدارس الثانوية في استخدام وسائل الاتصالات والمعلومات في التعليم والمقارنة فيما بينها كما يمكن مقارنة ذلك بمدارس ثانوية رائدة في هذا المجال من دول أخرى مثل جنوب إفريقيا للاستفادة من خبراتها التعليمية. لذا نرجو من سيادتكم التكرم بمساعدتنا بوصف الوضع الحالي لاستخدام تقانة الاتصالات والمعلومات وتطبيقها في مدرستكم العامة وذلك بملء الاستبيانات المرفقة.

نرجو ملء الاستبيانات وإرجاعها للعامل الميداني الذي سوف يزور مدرستكم، ونحن على علم بالجهد المضني والزمن الغالي الذي تبذله تجاه التعليم في هذه الأيام.

،،، وشكراً،،،

أ.د. محمد الدين محمد عثمان

راعي المشروع

بسم الله الرحمن الرحيم
ولاية الخرطوم
وزارة التربية والتعليم
الإدارة العامة للمرحلة الثانوية

التاريخ / ٢٠٠٨ / ١ / ٣ م

السيد / مدير المرحلة الثانوية محلية

السيد / مدير المرحلة الثانوية

نرجو شاكرين السماح للأخوة في جامعة السودان بقيادة الأستاذ/ عبد الرحمن محمد
احمد بإجراء الاستبانات الآتية :-

١ - استبانة لمدير المدرسة .

٢ - استبانة لإستاذ/ العلوم

٣ - استبانة لتقني الحاسوب .

وذلك في موضوع يخص تطبيق تكنولوجيا المعلومات والاتصالات في المدارس الثانوية
بالولاية من التخطيط للتطبيق .

وحتى تعم الفائدة وتأتي النتائج بما هو أصلح وأنفع ، نرجو مساعدتكم في هذا الأمر .

شكرا ،،،،،

بسم الله الرحمن الرحيم

السيد / مدير مدرسة

(أ) الكلاكلة الجديدة

(ب) الكيفية د. محمد عمر

(ج) القبة

أرجو فائدة الأخوة في جامعة السودان

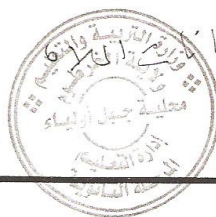
وتيسر فهمهم في الاستبانة

عبد الله محمد

مدير المرحلة

٢٠٠٨ / ١ / ٣

عبد الله محمد
عبد الله كرار محمد خليل
مدير الإدارة العامة للمرحلة الثانوية



بسم الله الرحمن الرحيم
ولاية الخرطوم
وزارة التربية والتعليم
الإدارة العامة للمرحلة الثانوية

التاريخ / ٢٠٠٨ / ١ / ٣ م

السيد / مدير المرحلة الثانوية محلية الأخوة
(العلل) خليل ورعمة (الشركاء)

نرجو شاكرين السماح للأخوة في جامعة السودان بقيادة الأستاذ/ عبد الرحمن محمد
احمد بإجراء الاستبانات الآتية :-

١ - استبانة لمدير المدرسة .

٢ - استبانة لإستاذ/ العلوم

٣ - استبانة لتقني الحاسوب .

وذلك في موضوع يخص تطبيق تكنولوجيا المعلومات والاتصالات في المدارس الثانوية
بالولاية من التخطيط للتطبيق .

وحتى تعم الفائدة وتأتي النتائج بما هو أصلح وأنفع ، نرجو مساعدتكم في هذا الأمر .

شكرا ،،،،،

عبد الله كرار محمد خليل*
مدير الإدارة العامة للمرحلة الثانوية

مدير الإدارة العامة للمرحلة الثانوية



السادة مدراء المدارس
١- الأستاذ العلي (م) مدير المرحلة
٢- الأستاذ الفاضل (م) مدير المرحلة
٣- السيد الأستاذ (م) مدير المرحلة
٤- الأستاذ الفاضل (م) مدير المرحلة
٥- الأستاذ الفاضل (م) مدير المرحلة
٦- الأستاذ الفاضل (م) مدير المرحلة
٧- الأستاذ الفاضل (م) مدير المرحلة
٨- الأستاذ الفاضل (م) مدير المرحلة
٩- الأستاذ الفاضل (م) مدير المرحلة
١٠- الأستاذ الفاضل (م) مدير المرحلة
١١- الأستاذ الفاضل (م) مدير المرحلة
١٢- الأستاذ الفاضل (م) مدير المرحلة
١٣- الأستاذ الفاضل (م) مدير المرحلة
١٤- الأستاذ الفاضل (م) مدير المرحلة
١٥- الأستاذ الفاضل (م) مدير المرحلة
١٦- الأستاذ الفاضل (م) مدير المرحلة
١٧- الأستاذ الفاضل (م) مدير المرحلة
١٨- الأستاذ الفاضل (م) مدير المرحلة
١٩- الأستاذ الفاضل (م) مدير المرحلة
٢٠- الأستاذ الفاضل (م) مدير المرحلة

بسم الله الرحمن الرحيم
ولاية الخرطوم
وزارة التربية والتعليم
الإدارة العامة للمرحلة الثانوية

التاريخ ٢٠٠٨/١/٣١م

السيد / مدير المرحلة الثانوية محلية

(السلام عليكم ورحمة الله وبركاته)

نرجو شاكرين السماح للأخوة في جامعة السودان بقيادة الأستاذ/ عبد الرحمن محمد

أحمد بإجراء الإستبيانات الآتية :-

١ - إستبانة لمدير المدرسة .

٢ - إستبانة لإستاذ/ العلوم

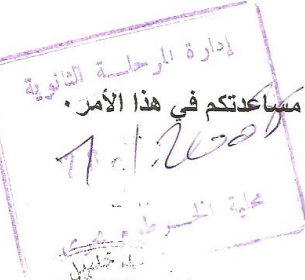
٣ - إستبانة لتقني الحاسوب .

وذلك في موضوع يخص تطبيق تكنولوجيا المعلومات والاتصالات في المدارس الثانوية

بالولاية من التخطيط للتطبيق .

وحتى تعم الفائدة وتأتي النتائج بما هو أصلح وأنفع ، نرجو مساعدتكم في هذا الأمر .

شكرا ،،،،،



عبد الله كزار محمد خليل *

مدير الإدارة العامة للمرحلة الثانوية

الأخوة مدير المدارس
المرحلة والحيثية بالكلية
المرفق - ترديد فصيل مهم
أبست الأستاذ عبد الله كزار
العلوم والكفاءة
وكلنا في

عبد الرحمن محمد خليل
مدير الإدارة العامة للمرحلة الثانوية

بسم الله الرحمن الرحيم
ولاية الخرطوم
وزارة التربية والتعليم
الإدارة العامة للمرحلة الثانوية

التاريخ / ٣ / ١ / ٢٠٠٨ م

السيد/ مدير المرحلة الثانوية محلية
السيد/ مدير المرحلة الثانوية محلية

نرجو شاكرين السماح للأخوة في جامعة السودان بقيادة الأستاذ/ عبد الرحمن محمد
احمد بإجراء الإستبانة الآتية :-

١ - إستبانة لمدير المدرسة •

٢ - إستبانة لإستاذ/ العلوم

٣ - إستبانة لتقني الحاسوب •

وذلك في موضوع يخص تطبيق تكنولوجيا المعلومات والاتصالات في المدارس الثانوية
بالولاية من التخطيط للتطبيق •

وحتى تعم الفائدة وتأتي النتائج بما هو أصلح وأنفع ، نرجو مساعدتكم في هذا الأمر •

شكرا

الإدارة العامة للمرحلة الثانوية
المدارس الثانوية العامة
١- مدير المرحلة الثانوية
٢- مدير المرحلة الثانوية
٣- مدير المرحلة الثانوية
٤- مدير المرحلة الثانوية
٥- مدير المرحلة الثانوية
٦- مدير المرحلة الثانوية
٧- مدير المرحلة الثانوية
٨- مدير المرحلة الثانوية
٩- مدير المرحلة الثانوية
١٠- مدير المرحلة الثانوية
١١- مدير المرحلة الثانوية
١٢- مدير المرحلة الثانوية
١٣- مدير المرحلة الثانوية
١٤- مدير المرحلة الثانوية
١٥- مدير المرحلة الثانوية
١٦- مدير المرحلة الثانوية
١٧- مدير المرحلة الثانوية
١٨- مدير المرحلة الثانوية
١٩- مدير المرحلة الثانوية
٢٠- مدير المرحلة الثانوية
٢١- مدير المرحلة الثانوية
٢٢- مدير المرحلة الثانوية
٢٣- مدير المرحلة الثانوية
٢٤- مدير المرحلة الثانوية
٢٥- مدير المرحلة الثانوية
٢٦- مدير المرحلة الثانوية
٢٧- مدير المرحلة الثانوية
٢٨- مدير المرحلة الثانوية
٢٩- مدير المرحلة الثانوية
٣٠- مدير المرحلة الثانوية
٣١- مدير المرحلة الثانوية
٣٢- مدير المرحلة الثانوية
٣٣- مدير المرحلة الثانوية
٣٤- مدير المرحلة الثانوية
٣٥- مدير المرحلة الثانوية
٣٦- مدير المرحلة الثانوية
٣٧- مدير المرحلة الثانوية
٣٨- مدير المرحلة الثانوية
٣٩- مدير المرحلة الثانوية
٤٠- مدير المرحلة الثانوية
٤١- مدير المرحلة الثانوية
٤٢- مدير المرحلة الثانوية
٤٣- مدير المرحلة الثانوية
٤٤- مدير المرحلة الثانوية
٤٥- مدير المرحلة الثانوية
٤٦- مدير المرحلة الثانوية
٤٧- مدير المرحلة الثانوية
٤٨- مدير المرحلة الثانوية
٤٩- مدير المرحلة الثانوية
٥٠- مدير المرحلة الثانوية
٥١- مدير المرحلة الثانوية
٥٢- مدير المرحلة الثانوية
٥٣- مدير المرحلة الثانوية
٥٤- مدير المرحلة الثانوية
٥٥- مدير المرحلة الثانوية
٥٦- مدير المرحلة الثانوية
٥٧- مدير المرحلة الثانوية
٥٨- مدير المرحلة الثانوية
٥٩- مدير المرحلة الثانوية
٦٠- مدير المرحلة الثانوية
٦١- مدير المرحلة الثانوية
٦٢- مدير المرحلة الثانوية
٦٣- مدير المرحلة الثانوية
٦٤- مدير المرحلة الثانوية
٦٥- مدير المرحلة الثانوية
٦٦- مدير المرحلة الثانوية
٦٧- مدير المرحلة الثانوية
٦٨- مدير المرحلة الثانوية
٦٩- مدير المرحلة الثانوية
٧٠- مدير المرحلة الثانوية
٧١- مدير المرحلة الثانوية
٧٢- مدير المرحلة الثانوية
٧٣- مدير المرحلة الثانوية
٧٤- مدير المرحلة الثانوية
٧٥- مدير المرحلة الثانوية
٧٦- مدير المرحلة الثانوية
٧٧- مدير المرحلة الثانوية
٧٨- مدير المرحلة الثانوية
٧٩- مدير المرحلة الثانوية
٨٠- مدير المرحلة الثانوية
٨١- مدير المرحلة الثانوية
٨٢- مدير المرحلة الثانوية
٨٣- مدير المرحلة الثانوية
٨٤- مدير المرحلة الثانوية
٨٥- مدير المرحلة الثانوية
٨٦- مدير المرحلة الثانوية
٨٧- مدير المرحلة الثانوية
٨٨- مدير المرحلة الثانوية
٨٩- مدير المرحلة الثانوية
٩٠- مدير المرحلة الثانوية
٩١- مدير المرحلة الثانوية
٩٢- مدير المرحلة الثانوية
٩٣- مدير المرحلة الثانوية
٩٤- مدير المرحلة الثانوية
٩٥- مدير المرحلة الثانوية
٩٦- مدير المرحلة الثانوية
٩٧- مدير المرحلة الثانوية
٩٨- مدير المرحلة الثانوية
٩٩- مدير المرحلة الثانوية
١٠٠- مدير المرحلة الثانوية

بسم الله الرحمن الرحيم
ولاية الخرطوم
وزارة التربية والتعليم
الإدارة العامة للمرحلة الثانوية

التاريخ / ٣ / ١ / ٢٠٠٨ م

السيد / مدير المرحلة الثانوية محلية أم ريكة

(الملك عليك ورحمة الله وبركاته)

نرجو شاكرين السماح للأخوة في جامعة السودان بقيادة الأستاذ/ عبد الرحمن محمد
احمد بإجراء الإمتحانات الآتية :-

١ - إمتحانة لمدير المدرسة •

٢ - إمتحانة لإستاذ/ العلوم

٣ - إمتحانة لتقني الحاسوب •

وذلك في موضوع يخص تطبيق تكنولوجيا المعلومات والاتصالات في المدارس الثانوية
بالولاية من التخطيط للتطبيق •

وحتى تعم الفائدة وتأتي النتائج بما هو أصلح وأنفع ، نرجو مساعدتكم في هذا الأمر •

شكرا ،،،،،،،

عبد الله كرار محمد خليل*
مدير الإدارة العامة للمرحلة الثانوية

السيد مدير المرحلة الثانوية
السيدة مديرة المرحلة الثانوية
نرجو مساعدة الأخ عليكم
في مهمة مهمة وشكر
السيد
مديرة المرحلة الثانوية
السيدة

بسم الله الرحمن الرحيم
ولاية الخرطوم
وزارة التربية والتعليم
الإدارة العامة للمرحلة الثانوية

التاريخ / ٣ / ١ / ٢٠٠٨ م

كرى

السيد / مدير المرحلة الثانوية محلية

(العلح) خليل ورمة (الله) وركاته

نرجو شاكرين السماح للأخوة في جامعة السودان بقيادة الأستاذ/ عبد الرحمن محمد

احمد بإجراء الإستبانات الآتية :-

١ - إستبانة لمدير المدرسة •

٢ - إستبانة لإستاذ/ العلوم

٣ - إستبانة لتقنى الحاسوب •

وذلك فى موضوع يخص تطبيق تكنولوجيا المعلومات والاتصالات فى المدارس الثانوية

بالولاية من التخطيط للتطبيق •

وحتى تعم الفائدة وتأتى النتائج بما هو أصلح وأنفع ، نرجو مساعدتكم فى هذا الأمر •

شكرا ،،،،،

عبد الله كرار محمد خليل*
مدير الإدارة العامة للمرحلة الثانوية

لصيانة مديرى المدارس بالمحلية
الرئيس مديرى مساعد لإتمام هذا المشروع
عبد الله كرار محمد خليل
مدير الإدارة العامة للمرحلة الثانوية
ولاية الخرطوم - الخرطوم

Appendix B: Principal Questionnaire

School Name:

School ID:.....

Project:

**The Implementation of ICTs in Sudanese Secondary Schools in
Khartoum: From policy to practice**

Principal Questionnaire

Sudan University of Science and Technology

Centre for Evaluation & Assessment, University of Pretoria

Introduction

The purpose of this study is to explore the current status of ICT in secondary schools and how is ICT implemented compared to other countries. This study is derived from the study of the Second Information Technology in Education Study (SITES). Second Information Technology in Education Study 'SITES' is a comparative study that may help national policy-makers to judge the current situation regarding the use of ICT and reflects upon measures for improvement that may be considered for the near future. 50 secondary schools from Khartoum will provide information on available facilities, use and obstacles regarding ICT in their schools, and pedagogical practices. This information will allow educational practitioners and policy makers to get a better understanding of the areas where intervention and additional support measures are needed. Also, it will give better insight into the current state of pedagogical approaches and of how technologies support them.

We are asking you for your help in order to describe the current state of ICT and the implementation of Information and Communication Technology (ICT) in our secondary schools. Please try to answer each question as accurately as you can.

Confidentiality

All information that is collected in this study will be treated confidentially. At no time will the name of any school or individual be identified. While results will be made available, you are guaranteed that neither your school nor any of its personnel will be identified in any report of the results of the study. Participating in this survey is voluntary and any individual may withdraw at any time.

About this questionnaire

- The questionnaire asks about information from schools about education and policy matters related to computers and pedagogical practices.
- Please note that some questions refer to the entire school, while other questions refer to Grades 1-2.
- Most questions can be answered by marking or checking the one most appropriate answer.
- If you are completing the paper version of this questionnaire, please use a writing ballpoint to write your answer.

- When you have completed this questionnaire, please return it to the fieldworker who is visiting your school and handed out the questionnaire to you.

Further information

When in doubt about any aspect of the questionnaire, please feel free to consult the fieldworker visiting your school, or if you would like more information about it or study, you can reach us by phone at the following number: Sudan University of Science and Technology – Faculty of Education – Department of Educational Technology: 0912262012.

Thank you very much for your cooperation!

Many items in this questionnaire have been taken from SITES Module 1 and 3 survey instruments. Permission to use these has been granted by International Association for the Evaluation of Educational Achievement (IEA).

General Information about Your School

1. How many classes are there in grades 1-2 in your school? How many students are there in grades 1, 2 respectively?

Grade	Total number of classes	Number of students
1	<input type="text"/>	<input type="text"/>
2	<input type="text"/>	<input type="text"/>
TOTAL in the school	<input type="text"/>	<input type="text"/>

2. Please tick one box which most describes the area in which the students in your school live.

- a. Suburban: Khartoum ☐ Omdurman ☐ Bahari ☐
- b. Localities: Khartoum ☐ Omdurman ☐ Bahari ☐

Curriculum and Pedagogy

3. How many years have computers been used by your school for teaching and/or learning activities/purposes for students in grades 1, 2?

☒ *Tick one.*

- a. ☐ 0-2 years
- b. ☐ 2-4 years
- c. ☐ 4-6 years
- d. ☐ More than 6 years
- e. ☐ Don't know

4. How important were each of the following goals in determining how computers are now used at your school?

☒ *Tick one answer for each goal.*

Goals	Not important	Important	Very important
a. To prepare students for future jobs <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. To improve student achievement..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. To promote active learning strategies..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. To individualized student learning experiences.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. To encourage more cooperative and project- based learning <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. To develop student independence and responsibility for own learning..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. To give students drill and practice experiences.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. To make the learning process more interesting... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. To satisfy parents and community expectations. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. According to your school's objectives, which of the following skills should your students acquired by the end of grades 1, 2?

☒ *Tick all that apply.*

- a. ☐ Operating a computer (saving files, printing, keyboarding)
- b. ☐ Writing documents with a word processor (typing, editing, layout)
- c. ☐ Making illustrations with graphical programs
- d. ☐ Calculating with spreadsheet programs (sheet creation, using formulas)
- e. ☐ Writing simple programs (in e.g. Pascal)
- f. ☐ Communicating via e-mail with teachers and other students
- g. ☐ Sending, searching for, and using electronic forms of information
- h. ☐ Other

☐ **Tick here if none of the above applies.**

-
6. To what extent do you agree or disagree that the school leadership (you and/or other school leaders) encourages Mathematics and Science teachers in grades 1, 2 to achieve the following goals?

☒ Please tick only one choice in each row.

	Strongly disagree	Disagree	Agree	Strongly agree
a. To cover the prescribed curriculum content..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. To improve learners' performance on assessments/examinations <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. To individualize learner learning experiences in order to address different learning needs <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. To increase learning motivation and make learning more interesting..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. To foster learners' ability and readiness to set their own learning goals and to plan, monitor and evaluate their own progress..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. To foster collaborative and organizational skills when working in teams..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. To provide activities which incorporate real- world examples/settings/applications for learner learning..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. To provide opportunities for learners to learn from experts and peers from others schools/organizations/states <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. To foster communication skills in face-to-face and/or online situations..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. To prepare learners for responsible Internet behavior (e.g., not to commit mail-bombing, such as spam, etc.) and/or cope with cyber- crime (e.g., Internet fraud, illegal access to secure information, etc.)..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. To what extent is each of the following aspects of teaching and learning present in your school and to what extent has ICT been used in realizing these practices in your school?

☒ Tick two answers per practice: one for presence and one for the realization via ICT.

Teaching and Learning practices	present			Realized via ICT		
	Not at all	To some extent	A lot	Not at all	Some	A lot
a. Students developing abilities to undertake independent learning..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Provide weaker students additional instruction..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Organizing teaching and learning so that differences in entrance level, learning pace, and learning route are taken into account..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Students learning to 'search for information', 'process data', and 'present information'..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. The emphasis in learning is on the development of skills..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Students working on the same learning materials at the same pace... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Teachers keeping track of all student activities and progress <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Students being largely responsible for controlling their own learning process <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Students learning and/or working during lessons at their own pace..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Students involved in cooperative and/or project-based learning <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Students determining for themselves when to take a test..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Students learning by doing <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Combining parts of school subjects with one another (multidisciplinary approach)..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Infrastructure

8. How much money did you invest from your school budget with regard to ICT for students in grades 1, 2 in the previous two school years?

What priority will you give to each of the budgetary items listed below, in obtaining further external financial support in the forthcoming years?

For each budgetary item:

Write expenditures, if none please write 'none' or '0'.

☒ *Tick one priority rating.*

Budgetary items	Expenditures in national currency in past two school years	Priority ratings for future		
		No need	Low	High
a. Hardware (including new hardware, internal network, expansions, replacement, etc.)	<input style="width: 100px; height: 20px;" type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Software (including upgrades, licenses, etc.)	<input style="width: 100px; height: 20px;" type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Staff development with regard to ICT (include courses, documentation, etc.)	<input style="width: 100px; height: 20px;" type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Maintenance (include repairs, insurance, etc.) and other costs (such as printer paper, toner, and Internet access)	<input style="width: 100px; height: 20px;" type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Staff salaries (for e.g. ICT coordinator, information specialist)	<input style="width: 100px; height: 20px;" type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Management and Organization

9. Does your school have a written policy or statement regard to the use of computers for educational purposes (teaching of and /or learning) by students in grades 1, 2?

☒ Tick 'no' or 'yes'.

☐ No, proceed with question 11

☐ Yes

9) a. which of the following does it includes?

☒ Tick all that apply.

- a. ☐ Use of computers in the current school year
- b. ☐ Use computers in the forthcoming school years
- c. ☐ Plans for hardware replacement or updating
- d. ☐ Plans for staff development with regard to ICT training
- e. ☐ Specifications for computer-related tasks and persons in charge
- f. ☐ Plans for software acquisition
- g. ☐ Equity of access
- h. ☐ Internet policy
- i. ☐ Other

Please attach a copy of the written policy to this questionnaire.

10. Indicate whether special measures have been set up in your school to ensure the following:

☒ Tick all that apply.

- a. ☐ Rewards (salary or other bonus) given to teachers who use ICT
- b. ☐ Incentives for teachers to take ICT courses or training
- c. ☐ Security measures to prevent unauthorized system access or entry
- d. ☐ The honoring of intellectual property rights, e.g. software copyrights
- e. ☐ Restricted game playing on school computers
- f. ☐ Specifications of compulsory students computer-related knowledge and skills
- g. ☐ Local community access to school computers or the Internet (parents and/or others)

☐ Tick here if none of the above applies.

11. Please indicate how strongly you agree or disagree with the following statements related to the role of computers and other ICTs.

Please indicate for each of the following statements your personal opinion.

☒ *Try to give a spontaneous reaction by ticking one answer for each item.*

Statements	Strongly disagree	Slightly disagree	uncertain	Slightly agree	Strongly agree
a. Students are more attentive when computers are used in class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. ICT improves the efficiency of the school administration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. ICT improves the effectiveness of school management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. ICT improves the evaluation of the functioning of the school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Every school should have access to the Internet/World Wide Web	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Every student should learn about e-mail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Internet/WWW offers excellent opportunities for educational applications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. ICT can effectively enhance problem-solving and critical thinking skills of students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. All teachers should have their own e-mail address	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Computers are valuable tools to improve the quality of a child's education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. ICT-based learning enables students to take more responsibility for their own learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. ICT can accommodate students' varied needs, preferences and learning strategies by providing new tools for knowledge manipulation, expression and creativity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. ICT can help teachers to attune to the learning level and pace of the individual student	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(Continue on next page)

Statements		Strongly disagree	Slightly disagree	uncertain	Slightly agree	Strongly agree
n.	ICT should be used more by teachers to create environments for students' independent learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o.	ICT improves the monitoring of students' learning progress	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p.	Computers help to teach more effectively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
q.	In-service training courses on computers should be made compulsory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
r.	The achievement of students can be increased when using computers for teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
s.	The use of e-mail increases the motivation of students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
t.	Teachers should initiate more cooperative and/or project based learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
u.	ICT is a valuable support in solving problems that our school is confronted with	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v.	All teachers should acquire ICT certification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
w.	Using computers in class lead to more productivity of students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. In relation to using ICT for teaching and learning, is any of the following practiced?

☒ *Tick all that apply.*

- a. ☐ Using drills and tutorials to improve learning in particular subject areas
- b. ☐ Use of special software or hardware for physically disabled students
- c. ☐ Use of special programs for gifted students, perhaps after regular school hours
- d. ☐ Use of remedial programs providing individualized learning experiences
- e. ☐ Cooperative projects with other schools using electronic networks

☐ **Tick here if none of the above applies.**

13. The following statements concern the use of ICT in deferent aspects.

☒ Please answer two questions for each aspect:

- 1) Is this a policy goal in your school?
- 2) To what extent has this been realizes in your school?

		Policy goal		Realized		
		no	yes	not or hardly	partially	almost or fully
Administration						
a.	Using computers to keep track of student data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Using computers for other school administrative matters.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Learning process						
c.	One or more computers available in every classroom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.	Teachers use computers in their instructional practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	Using software for students with learning problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f.	Encouraging students' learning on their own with the computer/ encouraging independent learning with the aid of computers.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g.	Students using computers as supportive learning aids (e.g. searching, analyzing, and presenting information).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communication/collaboration						
h.	Every teacher has an individual e-mail address at/via school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i.	Students use e-mail.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j.	Students access external databases via the Internet/WWW.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k.	Cooperation with other schools in the area of computers.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
others						
l.	Provision of training for all teachers in using ICT for educational purposes.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m.	Provision of training for one or a couple of teachers to become an ICT-specialist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n.	Development of a common vision on the use of computers within the school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o.	Assignment of non-teaching hours to teachers to support the use of computers in the school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p.	Attention to norms and values (e.g. language, violence, pornography) in using Internet/ WWW.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14. To what extent do you agree or disagree that the school leadership (you and/ or other school leaders) encourages teachers in grades 1, 2 to use ICT in each of the following activities?

☒ *Please tick only one choice in each row.*

		Strongly disagree	Disagree	Agree	Strongly agree
a.	Organize, monitor and support team-building and collaboration among learners <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Facilitate collaboration (with or outside school) on learner activities <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	Collaborate with parents/guardians/caretakers in supporting/monitoring learners' learning and/or in providing counseling <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.	Provide learners with experiences that show them certain activities are done in real life or by experts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

15. What priority level do you give to resource allocation in your school in order to enhance the use of ICT in teaching and learning for grades 1, 2 learners in your school?

☒ *Please tick only one choice in each row.*

		Not a priority	Low priority	Medium priority	High priority
a.	To decrease the number of learners per computer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	To increase the number of computers connected to the Internet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	To increase the range of digital learning resources related to the school curriculum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.	To establish/enhance an online learning support platform and its management so that teaching and learning can take place any time, anywhere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	To improve the technical skills of teachers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f.	To improve the ability of teachers to make good pedagogical use of ICT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g.	To broaden teachers' pedagogical repertoire and to widen their pedagogical competence to engage in new methods of teaching and learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h.	To improve learners' skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i.	To provide teachers with incentives (including salary adjustment, promotion, etc.) to integrate ICT use in their teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

16. Indicate whether or not you consider each of the following to be major obstacles seriously affecting the realization of your school's computer related goals for student in grades 1, 2?

☒ *Tick all that apply.*

Hardware

- a. Insufficient number of computers ☐

Software

- b. Not enough copies of software for instructional purposes ☐
c. Not enough types (variety) of software ☐

Instruction

- d. Insufficient time for teachers to prepare lessons in which computers are used ☐
e. Difficult to integrate computers in classroom instruction practices ☐
f. Not enough staff for supervising computer using students ☐
g. Problems in scheduling enough computer time for different classes ☐

Internet/WWW

- h. Difficult to use with low-achieving students ☐
i. No time in the school schedule for using the Internet/WWW ☐

Other

- j. Not enough space to locate computers appropriately ☐
k. Lack of interest/willingness of teachers to use computers ☐
l. Teachers lack knowledge of/skills in using computers for instructional purposes... ☐
m. Not enough training opportunities for teachers ☐
n. Insufficient plans and/or resources to prevent theft and vandalism of computers... ☐
o. Lack of support from schools' governing body or community..... ☐
p. Weak infrastructure (telecommunications, electricity, etc.)..... ☐

☐ **Tick here if none of the above applies.**

Innovative Pedagogical Practices

17. Can you provide a brief description of the most satisfying experience of a learning activity in your school in which students are using computer related technology?

The example should be the one that you feel gives students the most useful, effective, and advanced learning experiences with technology. It does not need to be focused on technology, but it could be a new didactic activity in which technology plays an important role.

- ☐ No, I cannot provide such an example, proceed with question 19.
☐ Yes, see below

Please describe your example by answering the following questions (use a maximum of 20 words to answer each question):

a. Give a brief description of the activity

b. What computer-related technology involved?

c. What subject domains are involved?

d. What student activities are involved?

e. What changes, if any, did take place for teachers?

f. What did students gain from it?

g. Any other comments you like to give on this activity

Staff Development

18. The following contains a number of questions about the ICT-related training for teachers of grades 1, 2.

☒ *Tick 'no' or 'yes' for each question.*

A)

Is it obligatory for?

- | | No | Yes |
|--|--------------------------|--------------------------|
| 1. All grades 1, 2 teachers to take at least some basic computer courses? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. All grades 1, 2 teachers to regularly take courses to update their ICT-knowledge? | <input type="checkbox"/> | <input type="checkbox"/> |

B)

Have a substantial number of teachers from grades 1, 2.

- | | No | Yes |
|---|--------------------------|--------------------------|
| 1. Attended at least some basic courses? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Regularly attended courses to update their ICT- knowledge? | <input type="checkbox"/> | <input type="checkbox"/> |

19. Are teachers of Mathematics and/or Science in grades 1, 2 required or encouraged to acquire knowledge and skills in each of the following?

Please mark only one choice in each row.

- | | No | Yes
Encouraged | Yes
Required |
|---|--------------------------|--------------------------|--------------------------|
| a. Using new ways of assessment (portfolios, peer reviews, etc.) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Developing real-life assignments for learners..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Using computer for monitoring learner progress | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Organizing form of team-teaching | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Collaborative with others teachers via ICT | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Communicating with parents via ICT | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Being knowledgeable about the pedagogical issues of integrating ICT into teaching and learning | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Using subject-specific learning software (e.g., tutorials, simulation) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

20. Who coordinates computer-related activities and/or provides leadership at your school relating to teachers' instructional use of computers and training of teachers?

☒ *Tick all that apply, and list the number of people that fit into that category.*

	Number
a. <input type="checkbox"/> No body coordinates	<input type="text"/>
b. <input type="checkbox"/> A full-time computer coordinator with possibly a small teaching load..	<input type="text"/>
c. <input type="checkbox"/> A classroom teachers	<input type="text"/>
d. <input type="checkbox"/> A person from the local district	<input type="text"/>
e. <input type="checkbox"/> The school principal or non-teaching administrator.....	<input type="text"/>
f. <input type="checkbox"/> Another person.....	<input type="text"/>
g. <input type="checkbox"/> There is a committee for the coordination of technology	
h. <input type="checkbox"/> There is only a coordinator at the <area/ province> level	

21. How frequently does each of the following people provide pedagogical support to those teachers in grades 1, 2 who want to use ICT for their teaching?

Note: pedagogical support may consist of giving advice and guidance on issues related to teaching and learning. Please do not consider support that is only technical.

Please mark only one choice in each row.

	Never	Few times a year	Monthly	Weekly	Not applicable
a. Experienced colleagues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. The school principal.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. The technology coordinator.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Other staff from the school.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Experts from outside the school....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

22. How much of a priority is it for your school leadership (you and/or other school leaders) to acquire competencies in the following areas?

Please mark only one choice in each row.

		Not considered	Low priority	Medium priority	High priority
a.	Developing a common pedagogical vision among teaching staff in the school..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Managing the innovation of pedagogical practices in the school..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	Explaining to teachers the relevance of encouraging learners to be responsible for their own learning process and outcomes..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.	Identify best practices that exist outside the school regarding the integration of ICT in learning..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	Promoting collaboration between teachers of different subjects..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f.	Managing the adoption of ICT-supported methods for assessing learner progress..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g.	Organizing cooperation with other schools regarding the development of teaching and learning materials <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h.	Organizing cooperation with other schools regarding the development of ICT-based teaching and learning..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i.	Promoting the integration of ICT in the teaching and learning of traditional subjects... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j.	Developing a strategic plan for integrating ICT use in teaching and learning..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Personal Background Information

23. Including this school year, how many years have you been:

Please give the number of years (rounded to whole numbers).

- | | Number of years |
|---|----------------------|
| a. Principal of this school? | <input type="text"/> |
| b. Working in any professional capacity at this school
(including years as principal)? | <input type="text"/> |
| c. Principal of any school
(including years as principal in this school)? | <input type="text"/> |

24. How often do you personally use a computer?

☒ *Tick one.*

- a. ☐ Never, (skip question 25 and proceed to the end of the questionnaire)
- b. ☐ A few times per year
- c. ☐ Almost monthly
- d. ☐ Weekly
- e. ☐ Daily

25. What do you use your computer for?

☒ *Tick all that apply.*

- a. ☐ Writing documents and letters
- b. ☐ Using spreadsheets
- c. ☐ For planning purposes
- d. ☐ For communication- the Internet, email
- e. ☐ For searching and using information on the World Wide Web and CD- ROM
- F. ☐ For teaching/instruction
- g. ☐ Other

This is the end of the questionnaire.

Thank you very much for your cooperation!

Please return this questionnaire to the fieldworker who is visiting your school.

Appendix C: Teacher Questionnaire

School ID:

Teacher:

Teacher ID:

Target class:

Project:

The Implementation of ICTs in Sudanese Secondary Schools in Khartoum: From policy to practice

Teacher Questionnaire

Sudan

Sudan University of Science and Technology

Centre for Evaluation & Assessment, University of Pretoria

Introduction

The purpose of this study is to explore the current status of ICT in secondary schools and how is ICT implemented compared to other countries. This study is derived from the study of the Second Information Technology in Education Study (SITES). 'SITES' is a comparative study that may help national policy-makers to judge the current situation regarding the use of ICT and reflects upon measures for improvement that may be considered for the near future. 50 secondary schools from Khartoum will provide information on available facilities, use and obstacles regarding ICT in their schools, and pedagogical practices. This information will allow educational practitioners and policy makers to get a better understanding of the areas where intervention and additional support measures are needed. Also, it will give better insight into the current state of pedagogical approaches and of how technologies support them.

We are asking you for your help in order to describe the current state of ICT and the implementation of Information and Communication Technology (ICT) in our secondary schools. Please try to answer each question as accurately as you can.

Confidentiality

All information that is collected in this study will be treated confidentially. At no time will the name of any school or individual be identified. While results will be made available, you are guaranteed that neither your school nor any of its personnel will be identified in any report of the results of the study. Participating in this survey is voluntary and any individual may withdraw at any time.

About this questionnaire

- The questionnaire asks about information from schools about education and policy matters related to computers and pedagogical practices.
- Please note that some questions refer to the entire school, while other questions refer to Grades 1-2.
- Most questions can be answered by marking or checking the one most appropriate answer.
- If you are completing the paper version of this questionnaire, please use a writing ballpoint to write your answer.

- When you have completed this questionnaire, please return it to the fieldworker who is visiting your school and handed out the questionnaire to you.

Further information

When in doubt about any aspect of the questionnaire, please feel free to consult the fieldworker visiting your school, or if you would like more information about it or study, you can reach us by phone at the following number: Sudan University of Science and Technology – Faculty of Education – Department of Educational Technology: 0912262012.

Thank you very much for your cooperation!

Many items in this questionnaire have been taken from SITES Module 1 and 3 survey instruments. Permission to use these has been granted by International Association for the Evaluation of Educational Achievement (IEA).

ICT integration

26. In your teaching of the target class in this school year,

- a) How often is the scheduled learning time of the class used for the following activities?
- b) Has ICT been used when these activities took place?

Please mark only one choice for each of the two parts in each row.

	(a) How often is the scheduled learning time of the class used for the following activities?				(b) ICT use?	
	Never	Sometimes	Often	Nearly always	No	yes
a. Extensive courses (2 weeks or longer).	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Short-term projects.....	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Producing creative works (e.g., making model).....	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Self-accessed courses and/or learning activities <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Scientific research (open-ended).	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Teachers' lectures.....	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Exercises to practice skills and lesson procedures <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Laboratory experiments with clear instructions and well-defended outcomes.....	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Discovering mathematics principles and concepts.....	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Studying natural phenomena through simulations.....	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Processing and analyzing data.....	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

27. When the learners in the targeted class (grade 1 or 2) participate in planned learning activities, they are:

☒ *Please tick only one choice.*

Always in the same place
with me

☐

Sometimes in places
away from me

☐

Often in place away from
me

☐

Always in places away
from me

☐

28. The learning activities for learners in the targeted class are planned so that these take place:

☒ *Please tick only one choice.*

Always during scheduled
school hours

☐

Sometimes outside
scheduled school hours

☐

Often outside scheduled
school hours

☐

At any time(no schedule
school hours)

☐

29. In your teaching of the target class (grade 1 or 2) in this school year:

- a) How often do you conduct the following?
b) Do you use ICT for these activities?

Please mark only one choice for each of the two parts in each row.

	(a) How often do you conduct the following?					(b) ICT use?	
	Never	Sometimes	Often	Nearly always		No	yes
a. Present information/visual aid and/or give class instructions.....	... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
b. Provide remedial or enrichment instruction to individual learners and/or small groups of learners.....	... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
c. Help/advice learners in exploratory and inquiry activities.....	... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
d. Organize, observe or monitor learner-led whole-class discussions, <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
e. Access learners' learning through test/quizzes.....	... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
f. Provide feedback to individuals and/or small groups of learners.....	... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
g. Organize, monitor and support team-building and collaboration among learners.....	... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
h. Organize and/or mediate communication between learners and experts/external mentors.....	... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
i. Provide counseling to individual learners.....	... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
j. Collaborate with parents/guardians/supervisors in supporting/monitoring learners' learning and/or in providing counseling.....	... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

30. In your teaching of the target class (grade 1 or 2) in this school year:

- a) Do you use the following methods of assessing learner performance?
b) Do you use ICT to carry these assessments?

Please mark only one choice for each of the two parts in each row.

	(a) Assessment method used?		(b) ICT used?	
	No	Yes	No	Yes
a. Written test/examination.....	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Written task/exercise.....	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Individual oral presentation.....	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Group presentation (oral/written).....	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Project report and/or (multimedia) product.....	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Learners' peer evaluations.....	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Assessment of group performance on collaborative tasks.....	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

31. How often do you incorporate the following in your teaching of the target class (grade 1 or 2) in this school year?

Please mark only one choice in each row.

	Never	Sometimes	Often	Nearly always
a. Equipment and hands-on materials (e.g., laboratory equipment, musical instruments, art materials, overhead projectors, slide projectors, electronic calculators).....	... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Tutorial/exercises software.....	... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. General office suite (e.g., word-processing, database, spreadsheet, presentation software).....	... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Multimedia production tools (e.g., media capture and editing equipment, drawing programs, webpage/multimedia production tools).....	... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Simulations/modeling software/digital learning games...	... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Communication software (e.g., e-mail, chat, discussion form).....	... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Digital resources (e.g., portal, dictionaries, encyclopedia).....	... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Mobile devices (e.g., Personal Digital Assistant (PDA), cell-phone).....	... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Smart board/interactive whiteboard.....	... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Learning management system (e.g., web-based learning environments) <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

32. In your teaching of the target class (grade 1 or 2) in this school year:

a) How often do your learners engage in the following activities?

b) Do your learners use ICT for these activities?

Please mark only one choice for each of the two parts in each row.

	(a) How often do your learners engage in the following?				(b) ICT use?	
	Never	Sometimes	Often	Nearly always	No	yes
a. Learners working on the same learning materials at the same pace and/or sequence.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Learners learning and/or working during lessons at their own pace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Complete worksheets, exercises.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Give presentations.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Determine content goals for learning (e.g., themes/topic for project)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Explain and discuss ideas with teacher and peers.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Collaborate with peers from other schools within and/or outside the state.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Answer test or respond to evaluations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Self and/or peer evaluation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Communicate with outside parties (e.g., with experts).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Contribute to the community through their on learning activities (e.g., by conducting an environmental protection project)...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

33. To what extent has the use of ICT influenced your learners in the target class (grade 1 or 2) in the following areas?

Please mark only one choice in each row.

	Decreased a lot	Decreased a little	No impact	Increased a little	Increased a lot
a. Learning motivation <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Information-handling skills <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Problem-solving skills <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Self-directed learning skills <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Collaborative skills <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Communication skills <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. ICT skills <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Ability to learn at their own pace.... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Self-estimation..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Achievement gap among learners... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Time spend on learning..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. School attendance..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Assessment results..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. Digital divide (i.e., inequity between learners from different socioeconomic backgrounds)..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Curriculum and Pedagogy

34. In your teaching of the target class (grade 1 or 2) in this school year, how important is it for you to achieve the following goals?

Please mark only one choice in each row.

	Not at all	A little	somewhat	Very much
a. To prepare learners for the world of work.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. To prepare learners for high education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. To provide opportunities for learners to learn from experts and peer from others schools/ states	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. To provide activities which incorporate real-world examples/settings/applications for learner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. To improve learners' performance in assessments/examinations.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. To increase learning motivation and make learning more interesting.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. To individualize learner learning experiences in order to address different learning needs.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. To foster learners' ability and readiness to set their own learning goals and to plan, monitor and evaluate their own progress.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. To foster learners' collaborative and organizational skills for working in teams.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. To foster learners' communication skills in face-to-face and/or online situations.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. To satisfy parents' and the community's expectations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. To prepare learners for competent ICT use.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. To prepare learners for responsible Internet behavior (e.g., not to commit mail-bombing, etc.) and/or cope with cyber-crime (e.g., Internet fraud, illegal access to secure information, etc.).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Innovative Pedagogical Practices

35. Please describe the one most satisfying pedagogical practice (that you applied in the target class) in this school year, in which you and/or your learners used ICT extensively with specific content related to Mathematics/Science?

Please describe the pedagogical practice (e.g. a research project or multimedia production), the ICT used (e.g. databases, spreadsheets or web search) and its content (e.g., curricula goals; topic) in a maximum of 20 words.

Information about the Teacher and the School

36. To what extent are you confident in accomplishing the following?

Please mark only one choice in each row.

	Not at all	A little	somewhat	A lot
General use of ICT				
a. I can produce a letter using a word-processing program <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. I can e-mail a file (e.g., the notes of a meeting) to colleague <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. I can take photos and show them on the computer ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. I can file electronic documents in folders and sub-folders on the computer <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. I can use spreadsheet program for budgeting or learner administration <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. I can share knowledge and experiences with other in a discussion form/user group on the Internet <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. I can produce presentations with simple animation functions <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 Pedagogical use of ICT				
h. I can prepare lessons that involve the use of ICT by learners <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. I know which teaching/learning situations are suitable for ICT use <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. I can find useful curriculum resources on the Internet <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. I can use ICT for monitoring learners' progress and evaluating learning outcomes <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. I can use ICT to give effectively presentations/ explanations <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. I can use ICT for collaboration with others <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. I can install educational software on my computer <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o. I can use the Internet (e.g., select suitable websites, user groups/discussion forums) to support learner learning <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

37. Do you experience the following obstacles in using ICT in your teaching?

Please mark only one choice in each row.

	No	Yes
a. ICT is not considered to be useful in my school.....	<input type="checkbox"/>	<input type="checkbox"/>
b. My school does not have the required ICT infrastructure.....	<input type="checkbox"/>	<input type="checkbox"/>
c. I do not have the required ICT-required skills.....	<input type="checkbox"/>	<input type="checkbox"/>
d. I do not have necessary ICT-related skills.....	<input type="checkbox"/>	<input type="checkbox"/>
e. I do not have sufficient confidence to try new approaches alone.....	<input type="checkbox"/>	<input type="checkbox"/>
f. My learners do not possess the required ICT skills.....	<input type="checkbox"/>	<input type="checkbox"/>
g. My learners do not have access to the required ICT- tools outside the school premises	<input type="checkbox"/>	<input type="checkbox"/>
h. I do not have time necessary to develop and implement the activities.....	<input type="checkbox"/>	<input type="checkbox"/>
i. I do not know how to identify which ICT tools will be useful.....	<input type="checkbox"/>	<input type="checkbox"/>
j. My school lacks digital learning resources	<input type="checkbox"/>	<input type="checkbox"/>
k. I do not have the flexibility to make my own decisions when planning lessons with ICT.....	<input type="checkbox"/>	<input type="checkbox"/>
l. I do not have access to ICT outside the school.....	<input type="checkbox"/>	<input type="checkbox"/>

38. Have you participated in any of the following professional development activities? If no, would you wish to attend?

Please mark only one choice in each row.

	No I do not wish to attend	No, I would like to attend if available	Yes, I have
a. Introductory courses for Internet use and general applications (e.g., basic word-processing, spreadsheets, databases, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Technical course for operating and maintaining computer systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Advanced course for applications/standard tools (e.g., advanced word-processing, complex relational databases)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Advanced course for Internet use (e.g., creating websites/developing a home page, advanced use of the Internet, video conferencing)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Course in pedagogical issues related to integrating ICT into teaching and learning.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Subject-specific training with learning software for specific content goals (e.g., tutorials, simulations, etc.).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Course on multimedia operations (e.g., using digital video and/or audio equipment).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

39. To what extent do the following statements about school vision apply to the staff in your school?

Please mark only one choice in each row.

	Not at all	A little	Somewhat	A lot
a. We discuss what we want to achieved through our lessons	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Teachers are constantly motivated to critically assess their own educational practices <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Teachers are expected to think about the school's vision and strategies with regard to educational practices.....	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

40. To what extent do the following statements about teachers' participation in decision-making apply to you?

Please mark only one choice in each row.

	Not at all	A little	Somewhat	A lot
a. I can influence the development of the school's innovation implementation plans.....	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. When implementing innovations, our school considers teachers' opinions and adjusts its action plan as needed...	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. I am able to implement innovations in my classroom according to my judgment and insights.....	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

41. To what extent do the following statements about support to teachers apply to you?

Please mark only one choice in each row.

	Not at all	A little	Somewhat	A lot
a. When necessary, I received sufficient technical support from my school/region/province (e.g., by having a technical in my classes) to support my teaching.....	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. My learners can access computers easily outside scheduled class time without my help.....	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. The administrative work arising from the use of ICT in my teaching (e.g., booking computer laboratories, changing class schedules) is easy to do in my school.....	.. <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

42. Do you have access to a computer at home?

Please mark only one choice in each row.

- ☐ No please go to question 19.
☐ Yes please continue.
-

43. Do you use this computer for the following activities?

Please mark only one choice in each row.

- | | No | Yes |
|--------------------------------------|--------------------------|--------------------------|
| 1. Teaching-related activities | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Connecting to the Internet | <input type="checkbox"/> | <input type="checkbox"/> |
-

44. To what group age do you belong?

- | Bellow 25 years | 25-29 years | 30-39 years | 40-49 years | 50-59 years | 60 or above years |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
-

45. What is your gender?

- | Male | Female |
|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> |
-

46. What is your highest level of education?

a. Please tick only one choice.

- | Secondary or high school | Teaching Diploma | Bachelor's degree | Honours degree | Master's degree or above |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
-

47. Do you have a Bachelor's degree in Science or Mathematics?

a. Please tick only one choice.

No	Degree in Mathematics only	Degree in Science only	Degree in both Mathematics and Science
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

48. How many years of experience do you have in teaching Mathematics or science?

	Less than 2 years	2-4 years	5-9 years	10-19 years	20 years or more
Maths	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Science	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

This is the end of the questionnaire.

Thank you very much for your cooperation!

**Please return this questionnaire to the fieldworker who is visiting your
school.**

Appendix D: Coordinator Questionnaire

School ID:

Technical Coordinator:

Project:

**The Implementation of ICTs in Sudanese Secondary Schools in
Khartoum: From policy to practice**

Coordinator Questionnaire

Sudan

Sudan University of Science and Technology

Centre for Evaluation & Assessment, University of Pretoria

Introduction

The purpose of this study is to explore the current status of ICT in secondary schools and how is ICT implemented compared to other countries. This study is derived from the study of the Second Information Technology in Education Study (SITES). 'SITES' is a comparative study that may help national policy-makers to judge the current situation regarding the use of ICT and reflects upon measures for improvement that may be considered for the near future. 50 secondary schools from Khartoum will provide information on available facilities, use and obstacles regarding ICT in their schools, and pedagogical practices. This information will allow educational practitioners and policy makers to get a better understanding of the areas where intervention and additional support measures are needed. Also, it will give better insight into the current state of pedagogical approaches and of how technologies support them.

We are asking you for your help in order to describe the current state of ICT and the implementation of Information and Communication Technology (ICT) in our secondary schools. Please try to answer each question as accurately as you can.

Confidentiality

All information that is collected in this study will be treated confidentially. At no time will the name of any school or individual be identified. While results will be made available, you are guaranteed that neither your school nor any of its personnel will be identified in any report of the results of the study. Participating in this survey is voluntary and any individual may withdraw at any time.

About this questionnaire

- The questionnaire asks about information from schools about education and policy matters related to computers and pedagogical practices.
- Please note that some questions refer to the entire school, while other questions refer to Grades 1-2.
- Most questions can be answered by marking or checking the one most appropriate answer.
- If you are completing the paper version of this questionnaire, please use a writing ballpoint to write your answer.

- When you have completed this questionnaire, please return it to the fieldworker who is visiting your school and handed out the questionnaire to you.

Further information

When in doubt about any aspect of the questionnaire, please feel free to consult the fieldworker visiting your school, or if you would like more information about it or study, you can reach us by phone at the following number: Sudan University of Science and Technology – Faculty of Education – Department of Educational Technology: 0912262012.

Thank you very much for your cooperation!

Many items in this questionnaire have been taken from SITES Module 1 and 3 survey instruments. Permission to use these has been granted by International Association for the Evaluation of Educational Achievement (IEA).

Background Information

49. Which of the following duties do you have?

Please mark only one choice in each row.

	No	Yes
a. I teach ICT courses to learners.	<input type="checkbox"/>	<input type="checkbox"/>
b. I teach ICT courses to teachers and other school staff.	<input type="checkbox"/>	<input type="checkbox"/>
c. I teach Mathematics and/or Science.	<input type="checkbox"/>	<input type="checkbox"/>
d. I teach other subjects.	<input type="checkbox"/>	<input type="checkbox"/>
e. I formally serve as ICT coordinator.	<input type="checkbox"/>	<input type="checkbox"/>
f. I informally serve as ICT coordinator.	<input type="checkbox"/>	<input type="checkbox"/>

50. Including this year, for how many years have you been?

Please give the number of years, if none, write 'none' or '0'. Please round to whole years.

	Number of years
a. Computer coordinator of this school?	<input style="width: 100px; height: 20px;" type="text"/>
b. Working in any professional capacity at this school (including years as computer coordinator)?	<input style="width: 100px; height: 20px;" type="text"/>
c. Computer coordinator of any school (including years as computer coordinator in this school)?	<input style="width: 100px; height: 20px;" type="text"/>

Infrastructure

51. How many computers are available for use by students in grades 1, 2 for educational use in different location?

If none, write 'none' or '0'.

Location of computers

Total number of computers

Fixed location

- | | |
|--|--|
| a. In computer rooms (computer labs) | |
| b. In classrooms | |
| c. In other instructional rooms (language lab, reading lab, library, etc.).... | |
| d. In other rooms (for students or teachers)..... | |

Not fixed location

- | | |
|---|--|
| e. Laptops, Notebooks and other portable computers (e.g. on trolleys).... | |
| TOTAL number of computers..... | |

52. What is the total number of students in the *entire* school?

TOTAL number of students

53. How many students from the grades 1, 2 are using the computers listed in question 3?

Number of students from grades 1, 2

54. How many computers are available in the *entire* school for administration and teachers **only**?

TOTAL number of computers available for administration **only**

TOTAL number of computers available for teachers **only**

55. With respect to the total number of computers from question 3: how many of these are fit for Multimedia (equipped with a CD-ROM and sound card)?

Number of multimedia computers

56. Which of the following peripherals are available at your school (for educational use in grades 1, 2)?

☒ Tick all that apply (that is, at least one of the listed devices is available for educational use).

- | | |
|--|---|
| a. <input type="checkbox"/> Laser printer | f. <input type="checkbox"/> CD-Writer (CD-R, DVD) |
| b. <input type="checkbox"/> CD-ROM drive | g. <input type="checkbox"/> Video-projector |
| c. <input type="checkbox"/> Devices for mentally and/or physically disabled students | h. <input type="checkbox"/> Scanner |
| d. <input type="checkbox"/> Devices for digital image or video processing | i. <input type="checkbox"/> LCD=panel |
| e. <input type="checkbox"/> Color printer | |
-

57. How many of the available computers for all students (as listed in question 3) belong to each of the following performance groups?

If none, write 'none' or '0'.

Performance groups with typical examples of reference processors

Number of computers

- | | |
|---|----------------------|
| a. Equivalent to Pentium, Mac 603 and higher, SUN, Alpha, etc. | <input type="text"/> |
| b. 386/486 SX/DX, Macintosh SE, Mac II up to 68030, Atari ST, Amiga, etc..... | <input type="text"/> |
| c. 16-bit computers, such as AT/XT 80286 | <input type="text"/> |
| d. 8-bit computers, Apple II/Ile, Apple II clones, C64, and other old 8-bit | <input type="text"/> |
| TOTAL number of computers (same as in question 3) | <input type="text"/> |
-

58. How many computers in your school that are available to all students (as listed in question 3) use the following operating system (s)?

If none, write 'none' or '0'.

System/ operating system	Number of computers
a. Windows 98/2000, Win NT, or MacOs 7.5 and higher	<input type="text"/>
b. Windows 3.0/3.1 or OS/2 or MacOs lower than 7.5	<input type="text"/>
c. MS DOS (from 3.1 to 7.0) without Windows / no graphical system	<input type="text"/>
d. Other systems	<input type="text"/>

59. Does your school have access to electricity?

☐ No.

☐ Yes.

60. How many of the total number of computers from question 3 are linked to a local network?

Number of computers in local network

61. Do your students or teachers (in grades 1, 2) use e-mail or the World Wide Web (WWW) for instructional purpose?

	No	Yes
Grade 1	<input type="checkbox"/>	<input type="checkbox"/>
Grade 2	<input type="checkbox"/>	<input type="checkbox"/>

62. Does your school have its own home page on World Wide Web?

☐ No, proceed to *question 16*

☐ Yes, proceed to *question 15*

63. What has your school put onto the web in terms of the type of information?

☒ *Tick each type of available information below.*

General information

- a. ☐ General information about the school
- b. ☐ Special information for parents (e.g. parent meetings, parent teacher conferences)
- c. ☐ Information about changes in the time schedule

Information for teachers

- d. ☐ Information on staff development activities
- e. ☐ Lesson plans
- f. ☐ Curriculum guidelines and frameworks
- g. ☐ Clickable links to resources for teachers

Information for students

- h. ☐ Results of students projects (essays, art, videos)
 - i. ☐ Tests
 - j. ☐ Assignments
 - k. ☐ Clickable links to resources for students
 - l. ☐ Curriculum material
 - m. ☐ Announcements about events
 - n. ☐ Other
-

64. Does your school subscribe to broadband access?

☐ No.

☐ Yes.

65. Does your school subscribe to wireless access?

☐ No.

☐ Yes.

66. In your school, which of the following types of software are available for teaching and learning
(in grades 1, 2) on at least one computer?

☒ *Tick all that are available.*

- a. ☐ Word processing, desktop publishing
- b. ☐ Spreadsheets
- c. ☐ Databases
- d. ☐ Graphics: presentation, no professional drawing
- e. ☐ Statistical/mathematical programs
- f. ☐ Programming languages
- g. ☐ Accounting, book keeping, financial software
- h. ☐ Drill and practice programs
- i. ☐ Tutorial programs (for self learning)
- j. ☐ Simulations (e.g. real world simulations)
- k. ☐ Educational games
- l. ☐ Recreational games/ other games
- m. ☐ For exams/tests/constructing tests/administrating tests
- n. ☐ Internet browser
- o. ☐ Email software
- p. ☐ Encyclopedia on CD-ROM
- q. ☐ Multimedia, Video/audio, authorware
- r. ☐ Music composition
- s. ☐ Presentation software (e.g. PowerPoint)

☐ **Tick here if none of the above is available.**

67. For which of the following subjects is educational software available in your school for use in grades 1, 2?

Exclude programming languages or office programs (like word processing and spreadsheet programs) as educational software.

☒ *Tick all subjects for which software is available (including software for multidisciplinary approaches)*

- a. ☐ Mathematics
- b. ☐ Physics
- c. ☐ Chemistry
- d. ☐ Biology
- e. ☐ Language/mother tongue
- f. ☐ Foreign language(s)
- g. ☐ Arts and design
- h. ☐ History and social sciences
- i. ☐ Geography
- j. ☐ Environmental studies
- k. ☐ Engineering, agriculture and animal
- l. ☐ Religion
- m. ☐ Commerce
- n. ☐ Family education
- o. ☐ Military education
- p. ☐ Computers science
- q. ☐ Principles of economy
- r. ☐ Accounting
- s. ☐ Administration
- t. ☐ Industry
- ☐

☐ **Tick here if none of the above is available.**

68. Which of the following do you consider as major obstacles seriously affecting the realization of your school's computer related goals for students in grades 1, 2?

☒ *Tick all that apply.*

Hardware

- a. Insufficient number of computers ☐
- b. Insufficient peripherals (printers, scanners) ☐
- c. Outdated or lack of school network or LAN ☐

Software

- d. Not enough copies of software for instructional purposes ☐
- e. Software too complicated for teachers and/or students to use..... ☐
- f. Software not specific enough and/or not adaptable for use in subjects..... ☐
- g. Lack of information about software or its quality prior to purchasing..... ☐
- h. Most of the software is not in the language of instruction..... ☐
- i. Cultural incompatibility of imported instructional software ☐
- j. Curriculum incompatibility of imported instructional software ☐

Internet/WWW

- k. Insufficient computers with simultaneous access to the Internet/WWW..... ☐
- l. Slow or unreliable network performance ☐
- m. Too complicated to connect to the network ☐
- n. Generally the material found on the network is of poor quality ☐
- o. Not enough technical support available ☐
- p. Difficulty that teachers and/or students have to find the specific information they are seeking ☐
- q. Information overload –too much to know what to do with ☐
- r. Not enough connections can be made at the same time for a class to use ☐

Others

- s. Not enough technical assistance for operating and maintaining computers and/or insufficient help for solving technical problems with ICT ☐
- t. Inadequate administrative support or initiative at the school level ☐
- u. Teachers feel uncomfortable because some students are more competent with ICT than they are ☐
- v. The quality of available teachers training courses is insufficient ☐
- w. Weak infrastructure (telecommunications, electricity, available room space, etc.)..... ☐

☐ **Tick here if none of the above applies.**

Curriculum and Pedagogy

69. Please indicate whether a typical student will have used any of the following technology applications at school by the end of grades 1, 2?

☒ *Tick all that apply.*

Technology applications	Used
a. Simulations of natural or made systems (e.g., work environments, human and animal populations, etc.)	<input type="checkbox"/>
b. Dynamic modeling and graphical modeling of mathematical functions.....	<input type="checkbox"/>
c. Software for simple data manipulation and statistical analysis	<input type="checkbox"/>
d. Word processing /desk top publishing	<input type="checkbox"/>
e. Spreadsheets packages	<input type="checkbox"/>
f. Software supporting creative works (music/arts)	<input type="checkbox"/>
g. An interactive multimedia encyclopedia on CD ROM.....	<input type="checkbox"/>
h. Software for learning programming skills	<input type="checkbox"/>

☐ **Tick here if none of the above applies.**

70. In what year were e-mail and World Wide Web (WWW) first used by your school for teaching and/or learning purposes in grades 1, 2?

E-mail use started in:

WWW use started in:

71. What percentage of students has been involved in the direct use of e-mail and/or (WWW) by the end of grade 1?

☒ *Tick one.*

- a. ☐ None
 - b. ☐ Under 10%
 - c. ☐ 11-25%
 - d. ☐ 26-50%
 - e. ☐ 51-75%
 - f. ☐ 76-100%
-

72. What percentage of teachers (who teach grades 1, 2) use e-mail and/or World Wide Web (WWW) in their teaching in some way?

☒ *Tick one.*

- a. ☐ None
 - b. ☐ Under 10%
 - c. ☐ 11-25%
 - d. ☐ 26-50%
 - e. ☐ 51-75%
 - f. ☐ 76-100%
-

Management and Organization

73. To what extent is technical support available in your school if teachers want to use ICT for the following activities?

Please mark only one choice in each row.

	No support	Some support	Extensive support	Not applicable
a. Assigning extended projects (2 weeks or longer) ..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Assigning short-task projects.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Assigning production projects (e.g., making models or reports).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Involving learners in self-accessed courses and/or learning activities.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Involving learners in scientific investigations (open-ended).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Undertaking field study activities.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Using virtual laboratories, simulations.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Applying exercises skills and procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Involving learners in laboratory experiments with clear instructions and well-defined outcomes.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Involving learners in studying natural phenomena through simulations.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Involving learners in processing and analyzing data.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

74. Who is involved in the maintenance of computers in your school?

Please mark only one choice in each row.

	No	Yes
a. The school's own staff	<input type="checkbox"/>	<input type="checkbox"/>
b. Staff from other schools.....	<input type="checkbox"/>	<input type="checkbox"/>
c. An external company hired by the schools.....	<input type="checkbox"/>	<input type="checkbox"/>
d. An external unit arranged by the provincial department of eructation	<input type="checkbox"/>	<input type="checkbox"/>

75. Please indicate the extent to which your school considers each of the following a priority for further external support?

☒ *For each area tick one answer.*

External support areas		Don't need	Low priority	High priority
a.	Availability of software <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Quality of software or materials <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	Availability of In Service Training courses..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.	Other..... <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Staff Development

76. For each of the following ICT-related courses, please indicate whether it is available to teachers in your school and who provides the course (inside or outside the school).

Please mark all that apply in each row.

	Not available	Available provider is school- based	Available provider is an external organization
a. Introductory course for Internet use and general applications (basic word-processing, spreadsheet, databases, etc.) <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Technical course for operating and maintaining computer systems <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Advanced course for applications/standard tools (e.g., advanced word-processing, complex relational databases) <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Advanced course for Internet use (e.g., creating websites/developing a home page, advanced use of Internet, video conferencing) <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Course on pedagogical issues related to integrating ICT into teaching and learning <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Subject-specific training with learning software for specific content goals (e.g., tutorials, simulation, etc.) <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Course on multimedia use (e.g., digital video and/or audio equipment) <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

77. Do you consider your self adequately prepared in each of the following areas for your work in supporting ICT in your school?

☒ Tick 'Yes' or 'No'. Tick 'Not applicable' if the area is not relevant for your work.

	Yes	No	Not applicable
General			
a. MS-Windows	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. MacOS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. MS-DOS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Word processing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Databases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Spreadsheets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Instructional processes			
g. Subject specific applications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Application of student progress tracking software	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Didactical and organizational integration of computers in subjects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. The use of specific programs for subjects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Evaluation and selection of instructional software	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Use of computers for individualized learning programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. The use of multimedia application	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. Adaptation of software to fit school purposes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E-mail, Internet, WWW			
o. The use of e-mail for educational purposes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p. The use of the Internet/WWW for educational purposes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Presentation			
q. The use of software for making presentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

This is the end of the questionnaire.

Thank you very much for your cooperation!

Please return this questionnaire to the fieldworker who is visiting your school.

Appendix E: Interview schedule

The project of:

The Implementation of ICTs in Sudanese Secondary Schools in Khartoum: From policy to practice

♣ Interview questions for the administrators

1. What are the e-learning strategic objectives for the Ministry of Education?

2. What is your policy intention?

3. What is your strategy for providing infrastructure to schools?

4. Which support that is available for schools to use ICT?

5. What is the ICT-related vision of education in the school and how does this translate into policies and practices?

6. What is your plan to encourage secondary schools teachers to make use of available ICT resources in their schools?

7. What is the educational purpose of using ICT tools in schools?

8. Is there any plan to incorporate ICT tools into the national policy of education?

9. Is there any cooperation between the Ministry of Education and the private software developers?

10. Is there any cooperation with government and private organizations (especially those in charge of implementing national policies of ICT and telecommunication)?

♣ **Interview questions for the teachers**

1. What change (pedagogical, methodological, motivation,) did you observe during your use of ICT in teaching and learning?

2. What motivate you to use ICT tools in your teaching and learning?

3. What are the best experiences of using ICT?

♣ **Interview questions for the computer coordinators**

1. How did you come to be a technical coordinator and why?

2. Where did you receive training?

3. What changes (pedagogical, methodological, motivation,) did you observe during your use of ICT?

4. What motivate you to use ICT?

Appendix F: Scales/ indices

1. Electricity
2. Radio
3. Television
4. Computer at home
5. Internet access
6. Mobile phone
7. Car
8. Bike
9. Satellite
10. New House's roof
11. Running Water
12. Fresh Toilet
13. flushing
14. toilet in house

Appendix G: The data of Sudan compared to the other countries (Chile, Slovenia and South Africa)¹

Country	Area	Population & Population growth rate	GDP-per capita (PPP)	No. of schools	No. of student	ICT	Literacy rate
Sudan	2,506,813 sq km	39,544,900 (2008 est.) 2.5% (2008 est.)	\$2,200 (2008 est.)	43324	7 580 484	Internet hosts: 33 (2008) Internet users: 1.5 million (2007) Telephones - main lines in use: 356,100 (2008) Telephones - mobile cellular: 11.186 million (2008) Radio broadcast stations: AM 12, FM 1, shortwave 1 (1998) Television broadcast stations: 3 (1997)	total population: 61.1% male: 71.8% female: 50.5% (2003 est.)
Khartoum	22.736 sq km	5,744,321 (2008 est.)	\$2,200 (2008 est.)	2336	862170	Internet hosts: 33 (2008) Internet users: 1.5 million (2007) Radio broadcast stations: AM 12, FM 1, shortwave 1 (1998) Television broadcast stations: 3 (1997)	-
South Africa	1,219,090 sq km	49,052,489 0.281% (2009 est.)	\$10,100 (2008 est.)	26,292	12,302,236	Internet hosts: 1.297 million (2008) Internet users: 5.1 million (2005) Telephones - main lines in use: 4.425 million (2008) Telephones - mobile cellular: 45 million (2008) Radio broadcast stations : AM 14, FM 347 (plus 243 repeaters), shortwave 1 (1998) Television broadcast stations: 556 (plus 144 network repeaters)(1997)	total population: 86.4% male: 87% female: 85.7% (2003 est.)
Chile	756,102 sq km	16,601,707 (July 2009 est.) 0.881% (2009 est.)	\$14,900 (2008 est.)		3,257,143	Internet hosts: 847,215 (2008) Internet users: 5.57 million (2007) Telephones - main lines in use: 3.526 million (2008) Telephones - mobile cellular: 14.797 million (2008) Radio broadcast stations : AM 180, FM 64, shortwave 17 (1998) Television broadcast stations: 63 (plus 121 repeaters) (1997)	total population: 95.7% male: 95.8% female: 95.6% (2002 census)
Slovenia	20,273 sq km	2,005,692 (July 2009 est.) 0.113% (2009 est.)	\$29,600 (2008 est.)		346,352 (2006)	Internet hosts: 75,984 (2008) Internet users: 1.3 million (2007) Telephones - main lines in use: 1.01 million (2008) Telephones - mobile cellular: 2.055 million (2008) Radio broadcast stations : AM 10, FM 230, shortwave 0 (2006) Television broadcast stations: 31 (2006)	total population: 99.7% male: 99.7% female: 99.6%

¹ Source: The Central Intelligence Agency (CIA). THE WORLD FACTBOOK (2009). Available on: <https://www.cia.gov/library/publications/the-world-factbook/geos/su.html>
Ministry of Education Report 2008/2009

Appendix H: Research timelines

Activity	Date
Activity 1: Research Proposal	January to August 2007
Activity 2: Literature Review	August 2007 to November 2007
Activity 3: Context of Sudan, education, and ICT policy	September 2007
Activity 4:	
* Research design and methods	September to November 2007
* Translation of instruments	November 2007 to December 2007
* Pilot testing and reviewing the instruments	December 2007 to January 2008
* Data collection	January to the end of March 2008
Activity 5:	
* Data processing	2 weeks (from 1 to 15 April 2008)
* Data capture	[15 April to the end of August 2008]
* Data analysis and discussions	
Activity 6:	
* Final literature review	January 2009
* Conclusions	September to December 2008
* Recommendations	January to the end of March 2009
* 1 st complete draft	April 2009
* 2 nd complete draft	June 2009
* Final submission	September 2009

Appendix I: Research Budget

N	Issue	Analysis	Cost / \$
1.	Cover letter and questionnaire typing	3 questionnaires x 30 \$	90 \$
2.	Translation of the questionnaires	3 questionnaires x 50 \$	150 \$
3.	Questionnaires printing and copying costs	Pilot study (30 ques.) + actual study (260 ques.) = 290 x 1\$	290 \$
4.	Envelope costs	(6 pilot + 52 actual study) = 58 envelopes x 0.5 \$	29 \$
5.	Distribution of the questionnaires	(5 pilot + 50 actual study) = 55 schools x 3 \$	165 \$
6.	Collection of the questionnaires	50 schools x 10 \$	500 \$
7.	Following up on non-respondents costs	50 schools x 3 \$	150 \$
8.	Data entry and verification costs	148 questionnaires x 3 \$	444 \$
9.	Statistical analysis programmer costs	148 questionnaires x 4 \$	592 \$
10.	Travel costs for analyzing and discussing the data	2,000 \$	2000 \$
11.	Language editing of the final report	164 papers x 5 \$	820 \$
12.	The copying of the initial theses for discussion	3 copies x 13 \$	39 \$
13.	The copying of the final theses	7 copies x 25 \$	175 \$
Total			5444 \$