

# Monitoring and Evaluation Report 2020





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## **Executive Summary**

Our monitoring and evaluation for 2020 was understandably limited compared to normal due to the pandemic. Schools in Malawi were shut on 23rd March 2020 because of COVID-19. There was a phased re-opening of schools from September 7th with priority being given to classes taking examinations. Other classes re-started on October 12th, 2020.

Although data was collected on university admissions, the system for the allocation of university places changed in May 2020, when the government abolished the previous quota system that had been based on students' district of origin rather than merit. As a result, any comparison with previous years to try and establish whether having computers at school had an impact is not valid and so data on university admissions is not included in this report.

Likewise, due to the impact of the pandemic, data from this survey has been presented without comparison to previous years, as such comparison would not be helpful.

- 7 schools who had received computers from The Turing Trust (TT) / Centre for Youth and Development (CYD) were visited in November and December 2020.
- None of these schools had been involved in previous surveys.
- Schools had had computers for an average of 18 months (range 1-36 months).
- 4 of the schools had Kolibri (our offline learning management system) installed, but 2 reported problems with their Kolibri router or software.
- Questionnaires administered to headteachers, teachers and students using KoboCollect with data recorded on tablets in real time and uploaded automatically on return to base.
- Questionnaires were completed by 7 headteachers or their deputies, 3 teachers (all taught ICT as an extra-curricular activity) and 18 students from Forms 1-4.
- 5 of the schools were in rural areas and 2 were in semi / peri-urban areas.
- 3 of the schools were Community Day secondary Schools, 1 was a Government Secondary School, 1 was a Grant-Aided Secondary School and 2 were Private secondary Schools.
- On average there were 2 students with a disability per school (total 13 students). Of these, only 2 students in 1 school were not using the computer laboratory.
- 6 schools had a budget for ICT, but 1 school did not.



### **Executive Summary**

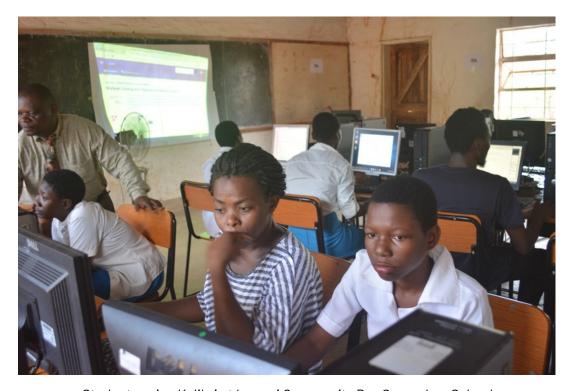
- 1 school was only using the computers to teach ICT. 6 of the schools also used the computers for teaching other subjects as well as ICT.
- Only 1 school offers Computer Studies as a subject for MSCE and 1 offers Computer Studies as a subject for the Junior Certificate of Education (JCE), which is taken at the end of Form 2 and which is being re-introduced in 2021.
- All schools allowed teachers and students access to the computers out of hours; only 2 schools allowed members of the community access to the computers.
- Headteachers' views on the impact of computers in the school were very positive overall with positive effects on:
  - Students' motivation (100%)
  - Teachers' motivation (86%)
  - Ability of students to learn the curriculum (86%)
  - Ability of teachers to teach the curriculum (100%)
- Teachers' views on the impact of computers were also very positive.
- Students were more confident using computers after using them at school (average confidence level on a scale of 1–10 increased from 2.6 5.6.
- Students' views on the impact of computers were also positive. Overall there was agreement that computers:
  - Make learning more enjoyable (100%)
  - Make learning easier (94%)
  - Make learning science easier (88%)
  - Make learning ICT easier (100%)
- Free text responses also gave us positive feedback on the project, but did identify several areas where room for improvement:
  - Schools need more computers so that students do not have to share / have only limited access
  - More teacher training is needed
  - Some schools need a qualified ICT teacher
  - Some schools requested a printer / projector to facilitate their teaching
  - Some schools do not yet have a network or Kolibri
  - Schools would like access to the internet



#### Recommendations

The recommendations made here build upon those made in previous report, but seek to clarify our priorities in light of the ongoing pandemic and the increasing numbers of schools that we are working with.

- Continue to build up our teacher training, including training on basic maintenance and repair, and networking for ICT teachers, and the use of Kolibri and the pedagogy around using technology in the classroom for teachers of all subjects.
- Establish networks and the use of Kolibri in all schools.
- Consolidate our maintenance and repair service so that all schools we are working with have fully functional computer laboratories at all times.
- Work to develop regional networks of ICT teachers to share their experience and set up mentoring schemes for inexperienced and unqualified ICT teachers.
- Continue work on curriculum alignment within Kolibri and ensure mechanisms for updating channels locally are robust.
- Continue to promote use of the computer laboratory by teachers and students both during the school day, but also out of hours.



Students using Kolibri at Luwazi Community Day Secondary School



### **Background Information**

The Turing Trust (TT) is working in partnership with Centre for Youth and Development (CYD), based in Mzuzu, Malawi, to equip secondary schools in the Northern and Central Regions of Malawi with computers and other ICT resources.

Our aim is to improve the ICT skills of students, enabling them to take computer studies as one of their Malawi School Certificate of Education (MSCE) subjects and preparing them to use computers in their future studies and careers. The project started in April 2016 and our first shipment of PCs arrived in Mzuzu in December 2016. By the end of 2020, we had set computer laboratories in a total of 103 secondary schools in the Northern and Central Regions in Malawi.

### **Methodology**

We used KoboToolbox for our researchers to collect data. The questionnaires used were based on those used in previous years, but with additional questions relating to disabled students and their ability to use the computers.

The questionnaires were designed to be administered to the headteacher, the ICT teacher and students in each school. All interviewees confirmed their informed consent to participating in the survey with an electronic signature.

All questionnaires included skip logic, so interviewees were only asked the questions that were relevant to them. Each interview was designed to last 10-15 minutes and to give each interviewee the opportunity to make any additional comments at the end of the questionnaire. These were recorded by the enumerators electronically.

All questionnaires used are available in the appendices to this report.

#### **Data Recording**

All enumerators were provided with tablets and their own log in details to KoboToolbox. Training for new enumerators was provided by the CYD project manager and they visited the schools with an experienced member of the team to ensure adequate support and consistency in administering the questionnaires.

## **Data Analysis**

All data was uploaded from the tablets as soon as the enumerators were able to connect to the internet. Data was downloaded as an Excel spreadsheet and analysed in Excel. Data was reviewed as soon as it had been uploaded and any discrepancies queried with the data collection team in Malawi.



#### **Results**

A total of 7 schools who had received computers from The Turing Trust (TT) / Centre for Youth and Development (CYD) were visited in November and December 2020. The schools were in the Karonga, Likoma and Salima Districts.

These schools had had computers for an average of 18 months (range 1-36 months) and 4 had had networks with Kolibri software installed. On the day of the survey, 2 of the schools with Kolibri reported problems with the router or software. None of these schools had been involved in previous surveys.

The headteachers' questionnaire was answered by 6 headteachers and 1 deputy headteachers. The teachers' questionnaire was answered by 3 teachers . All 3 teachers taught ICT as a non-exam subject, but their main areas of expertise were mathematics (1) and humanities (2). The students' questionnaire was answered by 18 students with an average age of 16 (range 12-18) years.

## **Map of Schools Visited**





## **Background Information on the Schools**

#### **School location**

Urban 0

Semi / peri-urban 2

Rural 5

#### Day or boarding school

Day school 5

Boarding school 2

#### Type of school

Community 3

Government 1

Grant-aided 1

Private 2

#### Number of pupils (average (range))

Male 130 (0-236)

Female 152 (0-337)

Note: there was 1 all-girls schools and 1 all-

boys school

#### Number of teachers (average (range))

Male 11 (6-16)

Female 3 (1-5)

#### Pupil / teacher ratio (average (range))

21(12-28)



St Peter's Anglican Secondary School, Likoma, Malawi



#### Information from the Headteachers interviewed

All headteachers interviewed were male and had been in their current roles an average of 9 years (range 2-16 years).

This year we were interested in whether any disabled students attended the schools and whether their disabilities had any impact on their ability to use computers.

- There were a total of 13 students with disabilities in the 7 schools (4 male, 9 female).
- The types of disability were varied (some students had more than one type of disability)
  - Vision disability (4)
  - Brain disability / head injuries (2)
  - Mobility and physical impairments (3)
  - Cognitive or learning disabilities (2)
- 2 of the 13 students did not use the computer laboratory
- Challenges in using the computers included:
  - Difficulty seeing the screen, particularly without spectacles
  - Difficulty understanding the lessons

We also asked for clarification on the numbers of students achieving places at university as it had been clear in previous surveys that not all schools collected the same data. In addition, the quota system for allocating places was abolished in May 2020 and so no attempt has been made to compare numbers to previous years to try and establish whether access to computers has impacted this outcome measure.

- 2 schools quoted numbers of those with places at public universities and 5 those with places at public and private universities
- For all schools able to provide data the average number of students with places to go to university was 16% (range 7-23%)

Headteachers in 6 of the 7 schools identified problems with their computer laboratory. These included issues with the Kolibri software or router, lack of computer protective equipment, non-functioning PCs and absent Office software. These had not been notified to the CYD team previously.



#### Information from the Teachers Interviewed

Note: only 3 teachers were interviewed for this Monitoring and Evaluation round

• Length of teaching experience: 2,10 and 11 years

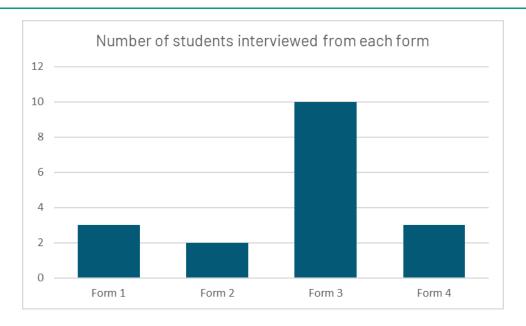
Age: 26-35: 2; 36-45: 1

Male: 2, female: 1

- All 3 taught ICT as a non-exam subject
- Other subjects taught: Mathematics, English, Chichewa, Geography
- All 3 teachers had only ever used Windows as an operating system
- Training:
  - All 3 had received training from CYD on using technology in their lessons
  - All 3 had received training from CYD on basic maintenance and repair of computers
  - None had received any training on networking
- Only 1 of the 3 teachers thought that the PCs had been reliable
- None of the 3 teachers thought that the PCs were easy to maintain. One commented
  that this needed somebody with experience and another, based on one of the islands,
  commented that there were transport difficulties in getting PCs back to CYD base for
  repair.
- All 3 teachers agreed that:
  - The ICT equipment and software have been easy to use.
  - The computer laboratory makes my job as a teacher easier.
  - Using the computer laboratory has made it easier to deliver the curriculum.



#### Information from the Students Interviewed

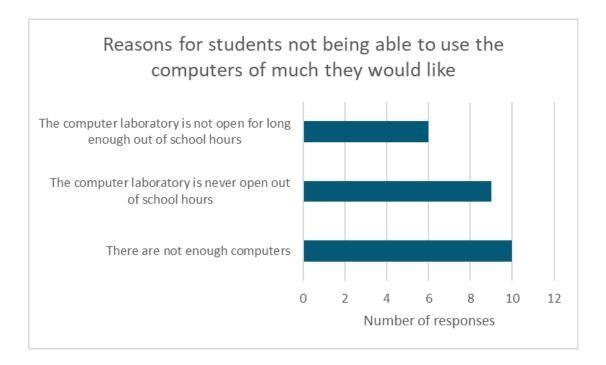


- 18 students were interviewed.
- 15 were from rural schools, and 3 from semi / peri-urban schools.
- 13 were from a day school and 5 were from a boarding school.
- 10 were female and 8 were male.
- 9 were day pupils and 9 were boarders.
- None of the students interviewed had a disability.
- All students had used a computer in the last month, 7 at school, but only 3 at home.
- Only 1 of the students was studying Computer Studies for MSCE.
- Only 8 of the students had an ICT class, but all used computers in this class on a regular basis.
- 7 students had an ICT class 2-3 times per week, 1 student 4-5 times per week.
- 5 students had classes lasting 30-45 minutes, 3 had classes that were longer than this, with the longest being 76-90 minutes.
- Only 8 students used computers during lessons in subjects other than ICT.
- However, 14 students said that they did have regular access to the computers and IT resources at school.



### Information from the Students Interviewed (2)

- 16 students said that girls were encouraged to use the computers at their school (the 2 who didn't were from a boys only school).
- Only 5 students were able to use the computers out of hours the most common activities were:
  - Practising computer skills
  - Typing / word processing
  - Reading books / course notes
  - Learning other subjects
- Only 3 of the students said they were able to use the computers as often as they would like. Of these, 2 had access to a computer at home.

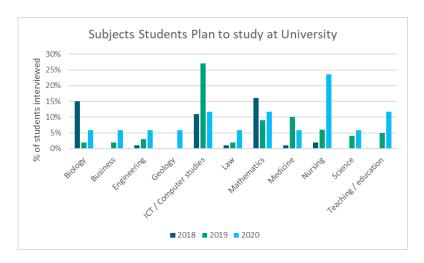


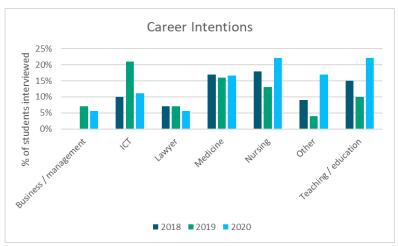
- In previous surveys students had reported problems with the computers not working as a reason they weren't able to use the computers as much as they would like, but this was not the case in the schools visited in this survey.
- Only 2 students were able to access the internet, 1 on a computer at home and 1 on a mobile phone.



### Information from the Students Interviewed (3)

- Students were also asked about their plans for the future, including whether they were planning to go to university, what subjects they planned to study at university and their intended career.
- This information is presented as a comparison with previous surveys. However, it should be noted that the number of students interviewed in 2020 (18) was much less than in previous surveys (2019: 107, 2018: 307) and so the data for 2020 may not be representative.
- It is also worth noting that although 17 of 18 students interviewed were planning to go to university, overall the numbers who succeed in obtaining a place at university in Malawi each year remains very low with less than 1% of college age Malawians attending university in 2018. For the year 2020-21 only 27.4% of the applications for a place at one of the public universities were successful.



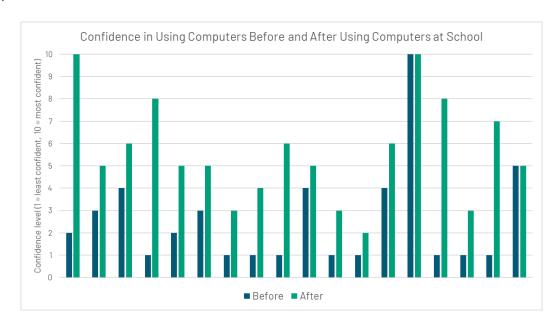




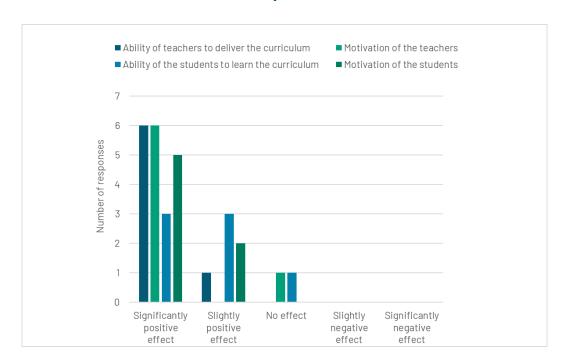
## **Impact of Computers**

#### Students' Confidence Using Computers (n=18)

Students' confidence in using computers on a scale of 1 (least confident) to 10 (most confident) increased from an average of 2.6 to 5.6 after students were able to use computers at school. The 2 students whose confidence levels didn't increase both used computers at home.



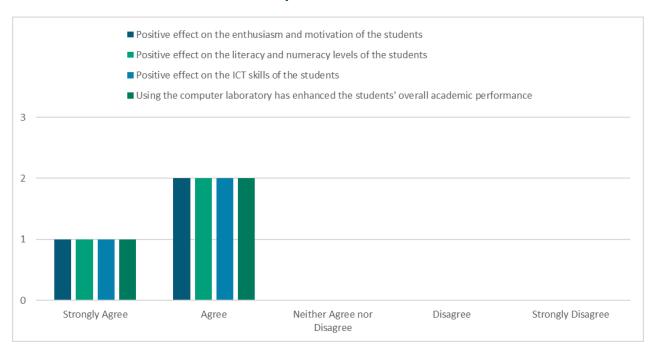
### Headteachers' Views on the Effects of Computers (n=7)



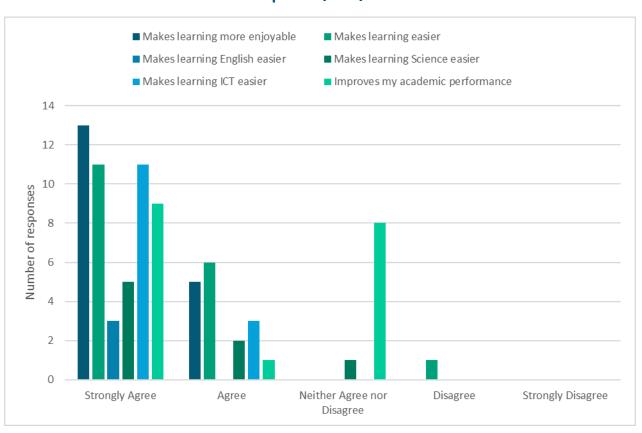


## Impact of Computers (2)

#### Teachers' Views on the Effects of Computers (n=3)



#### Students' Views on the Effects of Computers (n=18)





#### **Free Text Comments**

At the end of the questionnaire all interviewees were asked open questions that allowed free text responses that were recorded verbatim by the enumerators.

#### Additional questions for headteachers:

- What has been the most significant change in the school as a result of the ICT equipment?
- What further improvements in the ICT equipment, resources or training would you like to see?
- Do you have any other comments?

#### **Additional questions for teachers:**

- Has anything changed in the way that you teach the students since the set-up of the computer laboratory? If yes, what has changed.
- What are the main challenges you have encountered to integrating ICT into the classroom?
- What further improvements in the ICT equipment, resources or training would you like to see?
- Do you have any other comments?

#### Additional question for students:

• Do you have any other comments about the use of computers or about this survey?



## Free Text Comments (Analysis)

#### **General Approval**

General approval for the project was expressed by 64% of those interviewed.

#### **General Comments (including changes)**

These reflected the answers to the specific questions and included comments about:

- Student motivation
- Helping students to learn
- Improvements in computer literacy
- Helping teachers to prepare lessons and to teach
- Enjoyment using computers
- Using the e-library and resources in Kolibri

#### **Further Support Required**

	Head Teacher	Teacher	Student
More computers	1	4	6
Teacher training	2	4	0
ICT teacher needed	1	0	2
Printer	2	1	0
Projector	1	0	0
Network	2	0	0
Internet	2	0	0

As in previous surveys, the most significant need was for more computers in each school. There are still many secondary schools in Malawi that do not have a qualified ICT teacher and a desire for more training of all teachers on computer maintenance and repair and using ICT generally.



#### **Discussion**

KoboCollect continues to be a reliable way of collecting the data and allows us to ensure consistency with the surveys from previous years. Once again, views on the project were very positive. However, there continue to be several areas where more work is needed. These will be discussed according to the issues identified and recommendations from the 2019 survey.

### **Teacher Training**

This continues to be an ongoing requirement— both in terms of computer maintenance and repair, but also in supporting teachers without much experience in ICT to acquire confidence in their digital skills and to use technology to enhance their teaching. Training is provided at the time that the computer laboratories are set up, with further training offered regionally. In 2020, 4 additional training courses were provided in Lilongwe, Karonaga and Chitipa. In response to previous feedback on the training provided, each course was longer and the number of modules covered each day was reduced to allow more time for each topic.

Our Kolibri channel also includes Teacher Training resources that cover basic computer maintenance and repair, the pedagogy related to using technology in education and how to use all aspects of Kolibri as a learning management system.

#### Kolibri

We have extended the use of Kolibri as our Learning Management System and have now completed the work to provide resources that are aligned to the Malawi curriculum for Computer Studies. Work continues to align content to the Malawi curriculum in other subjects, with a current focus on STEM subjects and Agriculture.

Kolibri has now been set up in 17 schools and work continues to provide networks and Kolibri servers in all the schools that we are working with. This survey has highlighted that 2 of the 4 schools with Kolibri had experienced problems with either the router or the Kolibri software. We already know that very few of the teachers we work with have any experience of networking and we need to establish robust backup systems to help resolve any problems that arise.

## **E-library & Typing Tutorials**

Schools that do not as yet have Kolibri have our elibrary delivered through <u>RACHEL</u> on individual machines. As the previous typing tutorial available on RACHEL depended on Flash which is no longer supported by most browsers, we are gradually replacing this with <u>RapidTyping</u>.

Teacher training when the computer laboratory is installed includes working with the e-library, but not all the teachers or students interviewed had used the e-library. From the comments and discussions with teachers and students, we do know that since schools re-opened many have decided to restrict the use of the computer laboratory to those learning ICT to minimise congestion and the risk of spreading Covid. This may explain why there is less use of the computers to search for information.



### Discussion (2)

### **Number of computers**

Since the last survey, we have increased the number of computers that it is possible for a school to have from 20 to anything up to 50. The responses to this survey suggest that an average of 2 students (range 1-3) were sharing a computer. This is less than in previous surveys, but as the sample size was smaller it is difficult to draw any robust conclusions as yet. We need to continue to monitor the number s of students who have to share a computer in class and work with the schools to ensure that all students are able to access a computer on their own.

## Use of computers for teaching

It is encouraging that 6 of the 7 schools said that they were using computers to teach other subjects as well as ICT. However, even in these schools the time the computer laboratory was used was a maximum of 16-20 hours per week, with 2 of the schools using it for only 0—5 hours per week. The main reason for this was a shortage of teachers to monitor the computer laboratory, but for one school it was because they were worried about the computers overheating.

### Use of computers out of hours

All the schools taking part in this survey allowed teachers and students to access the computer laboratory out of hours. This is a further improvement on the findings in 2019, but it is still very much the case that students are not able to access the computers as much as they would like. The reasons given for this are that the computer laboratory is not open as much as they would like.

### **Community Use of the Computers**

Only 2 of the schools allowed any community use of the computers. One school allowed primary school teachers to prepare lessons and the primary education advisor to prepare presentations and the other allowed school leavers and youth from the community to learn end user computing at weekends. The others all cited security concern relating to their students and to the computers as the reason they did not allow any community access.

This is a question we will continue to monitor as it may help us learn how some schools are allowing community use successfully so that we can then share this with other schools. However, our primary focus at present should remain on having the maximum impact on students' education.

## Maintenance and Repair

At the time of the survey 6 of the 7 headteachers said that there were problems with their computer laboratory. Schools are routinely contacted to ask about the condition of the computers and are encouraged to contact the team at CYD whenever problems arise. However, the fact that most of the schools in this survey identified problems that our team in Malawi had not been aware of prior to the survey suggests that schools are not always making us aware of problems. The schools also identified ongoing training needs in maintenance and repair to enable them to resolve the issues themselves without the need to return the computers to CYD or for a technician to visit the school.

On a positive note, none of the schools reported electricity problems preventing use of or causing problems with the computers, which may partly relate to our current policy of ensuring surge protectors are in place before computers are installed.



#### Recommendations

The recommendations made here build upon those made in previous report, but seek to clarify our priorities in light of the ongoing pandemic and the increasing numbers of schools that we are working with.

- Continue to build up our teacher training, including training on basic maintenance and repair and networking for ICT teachers and the use of Kolibri and the pedagogy around using technology in the classroom for all teachers.
- Establish networks and the use of Kolibri in all schools.
- Consolidate our maintenance and repair service so that all schools we are working with have fully functional computer laboratories at all times.
- Work to develop regional networks of ICT teachers to share their experience and set up mentoring schemes for inexperienced and unqualified ICT teachers.
- Continue work on curriculum alignment within Kolibri and ensure mechanisms for updating channels locally are robust.
- Continue to promote use of the computer laboratory by teachers and students both during the school day, but also out of hours.



Teacher training at Nkhata Bay Boys Secondary School, Malawi



#### References

Malawi Voice, 2020. Govt Re-Introduce JCE Exams. Available from: https://www.malawivoice.com/2020/02/27/govt-re-introduce-jce-exams/. Accessed 23/06/2021.

Kudzai Mashininga 2020. Government abolishes quota system for university selection, University World News. Available from: https://www.universityworldnews.com/post.php?story=20200531153434780. Accessed 23/06/2021.

Hon. Agnes Nyalonje, 2020. Statement by Minister of Education, Hon. Agnes Nyalonje, on Re-Opening of Schools, Colleges, Universities and International Schools on 27 August, 2020 in Lilongwe. Available from: https://malawi.un.org/en/89077-statement-minister-education-hon-agnes-nyalonje-re-opening-schools-colleges-universities-and. Accessed 23/06/2021.

The Turing Trust 2018. Monitoring and Evaluation Report, Malawi, April 2018. Available from: https://turingtrust.co.uk/wp-content/uploads/2020/09/TT-MandE-Report-2018\_v5\_compressed.pdf. Accessed 23/06/2021.

The Turing Trust 2019. Monitoring and Evaluation Report, Malawi, July 2019. Available from: https://turingtrust.co.uk/wp-content/uploads/2020/09/TT-MandE-Report-2019\_compressed.pdf. Accessed 23/06/2021.



Maganga Community Day secondary School, Malawi



## Appendix 1: Headteacher questionnaire used

Note: questions in lighter type are those dependent on skip logic, and so only appear if relevant according to previous responses.

## Malawi Head Teacher Questionnaire 2020

Name of interviewer	
O Doreen Luhanga	
○ Silvester Mtumbuka	
○ Vigilant Vigimbo	
Other	
If other, please give your name	_
Please enter the school code here Please give the school code from the tracker	_
Please give the school name	_
Please a dd your location Press record location, wait for your location to load and then press record location again	_
latitude (x.y °)	7
longitude (x.y °)	300
altitude (m)	
accuracy (m)	
Please take a photo of the school buildings, with school sign if possible	
Click here to upload file. (< 5MB)	
Please explain to the interviewee that this is a short questionnaire we are conducting in order to asso. The Turing Trust's work. This is very important for us to be able to continue and improve on the work will take less than 15 minutes of their time. All of the information they provide will be used only for the team, will be stored anonymously and securely. Once all the data has been collected and analysed, which have participated in the suppression of the provided in the suppression.	we have already done. It ne stated purpose by the



## Appendix 1: Headteacher questionnaire used (2)

Please confirm that the interviewee understands the explanation above and consents to participating in this survey  OK	
Signature of interviewee  Interviewee can sign on the phone / tablet	
Interviewee information	
Please give the first 2 letters of your first name and the first 2 letters of your surname	
If interviewee does not wish to give their initials, please leave as default	
XXXX	
Are you male or female?	
Male	
Female	
What is your age range? (Leave blank if he / she would prefer not to say)	
25 or below	
26-35	
36-45	
46 or more	
How many years have you been teaching? Please give the nearest whole number of years	



## Appendix 1: Headteacher questionnaire used (3)

What i	s your role in the school?
$\bigcirc$	Head teacher
$\bigcirc$	Other
If othe	r, please give your role in the school here
	nany years have you been working in your current role? Give nearest whole number of years in their current role
Scho	ol Information
What	listrict is the school in?
Pick fro. district	m drop down list of districts which is an alphabetical order for all districts in the Northern and Central regions. If you can't find the pick other at the bottom of the list and then type the dstict name in the text box.
$\bigcirc$	Chitipa
$\bigcirc$	Dedza
$\bigcirc$	Dowa
$\bigcirc$	Karonga
$\bigcirc$	Kasungu
$\bigcirc$	Likoma
$\bigcirc$	Lilongwe
$\bigcirc$	Lilongwe City
$\bigcirc$	Mchinji
$\bigcirc$	Mzimba
$\bigcirc$	Mzuzu City
$\bigcirc$	Nkhata Bay
$\bigcirc$	Nkhotakota
$\bigcirc$	Ntcheu
$\bigcirc$	Ntchisi
$\circ$	Rumphi
$\circ$	Salima
$\bigcirc$	Other
If othe	r, please give district here



## Appendix 1: Headteacher questionnaire used (4)

How would you describe the location of the school?
Urban
Semi / peri-urban
Rural
What type of school is this?
Community
Government
Grant-aided
Private
How many male students attend this school?
How many female students attend this school?
How many male teachers are in the school?
How many female teachers are in the school?
Disability questions
Do any students with a disability attend this school?
Yes
○ No
How many male students with a disability are in the school?



## Appendix 1: Headteacher questionnaire used (5)

What type of disabilities do your male students have? Please pick one or more of the options below. Pick other if need to give more details.	you
Note: disability is defined as "a physical or mental impairment that has a substantial and long-term adverse effect on a person's abili	ity to
carry out normal day-to-day activities"  Mobility and physical impariments (upper / lower limb disabilities, manual dexterity, and coordination disabilities	.)
Spinal cord disability	,
Brain disability / head injuries	
Vision disability	
Hearing disability	
Cognitive or learning disabilities	
Psychological disabilities	
Invisible disabilities (eg chronic illnesses such as diabetes, kidney failure, sleep disorders if they significantly impa normal activities of daily living)	ir
Other	
Please add any further details about the disabilities your male students have.	
How many female students with a disability are in the school?	
What type of disabilities do your female students have? Please pick one or more of the options below. Pick other need to give more details.  Note: disability is defined as "a physical or mental impairment that has a substantial and long-term adverse effect on a person's ability carry out normal day-to-day activities"	
Mobility and physical impariments (upper / lower limb disabilities, manual dexterity, and coordination disabilities	)
Spinal cord disability	
Brain disability / head injuries	
Vision disability	
Hearing disability	
Cognitive or learning disabilities	
Psychological disabilities	
Invisible disabilities (eg chronic illnesses such as diabetes, kidney failure, sleep disorders if they significantly impanormal activities of daily living)	ir
Other	
Please add any further details about the disabilities your female students have.	



## Appendix 1: Headteacher questionnaire used (6)

Please describe any challenges there are for disabled students in accessing the computer laboratory
Can we speak to yor disabled students today or get their contact details to follow up with them to see if this projectan support their particular needs better?
Yes, contact details given
Yes, speak to the student today
No
If "No" please ask why it isn't possible to have contact details or speak to the disabled students today
Students who go to university after attending this school
Do you have statistics on the number of students going to university from your school each year?
Yes - for public and private universities
Yes - for public universities only
○ No
Please note that the following questions all refer to students from this school who started university in the Autumn of the academic year stated
How many students from this school started at university in the academic year 2015-16?  Please leave blank if not known
How many of the students who started at university in 2015-16 were girls?  Please leave blank if not known
How many students from this school started at university in the academic year 2016-17?  Please leave blank if not known
How many of the students who started at university in 2016-17 were girls?  Please leave blank if not known
How many students from this school started at university in the academic year 2017-18?  Please leave blank if not known



## Appendix 1: Headteacher questionnaire used (7)

How many of the students who started at university in 2017-18 were girls?  Please leave blank if not known
How many students from this school started at university in the academic year 2018-19?  Please leave blank if not known
How many of the students who started at university in 2018-19 were girls?  Please leave blank if not known
How many students from this school started at university in the academic year 2019-20?  Please leave blank if not known
How many of the students who started at university in 2019-20 were girls?  Please leave blank if not known
Computer lab information
Are there any issues with your computer laboratory at present?  Yes  No
Please give details of any issues you are having with your computer laboratory at present
Does your school have an annual budget allocation for ICT resources?  Yes  No
Does your school provide access to the internet for students?  Yes, free access  Yes, limited access only  No
If your school provides access to the internet for students, approximately how much does this cost per year in MWK?  Please give the nearest approximate amount. If no information available at all please enter 0000



## Appendix 1: Headteacher questionnaire used (8)

Is the computer lab used for teaching other subjects as well as ICT?
Yes
○ No
Why isn't the computer lab used for teaching other subjects as well as ICT?
On average how many hours per week is the computer lab used IN TOTAL by ANYONE during term time?  Please give approximate number of hours per week. This question is asking for the sum of all useage by teachers, students and community members, both inside and outside of formal lessons.
0-5 hours
6-10 hours
11-15 hours
16-20 hours
21-30 hours
31-40 hours
41-50 hours
More than 50 hours
Why isn't the computer lab used more during term time?  Please explain any difficulties encountered in using the computer lab for more hours per week
Is the computer lab used by students / teachers after school?
This question is interested in any use of the computer lab in ANY context outside of formal MCSE lessons.
Yes
○ No
Why isn't the computer laboratory used by students / teachers after school?
Are girls / women included in these sessions?
Yes
○ No
What percentage are girls / women?
Why don't girls / women use the computer lab out of hours?



## Appendix 1: Headteacher questionnaire used (9)

What i	is the computer lab used for out of hours? Tick as many as apply.
	Doing assignments / homework
	Finding / searching for information using e-library
	Learning other subjects (ie not computer studies / ICT)
	Learning to code / programming
	Listening to music
	Playing games
	Practising computer skills
	Preparing lessons
	Printing documents
	Reading books / course notes
	Typing / word processing
	Watching movies
	Other
lf othe	er, please give details
s the	computer lab used by any community members who are NOT students / teachers?
0	Yes
Ō	No
Why is	n't the computer lab used by any community members who are NOT students / teachers?
Please	give details of who in the community are using the computer lab
	nany hours per week on average does the community use the computer lab? give approximate number of hours per week
	0-5 hours
	6-10 hours
	11-15 hours
	16-20 hours
	21-30 hours
	31-40 hours
	41-50 hours
	More than 50 hours



## Appendix 1: Headteacher questionnaire used (10)

	Doing assignments / homework
	Finding / searching for information using e-library
	Learning other subjects (ie not computer studies / ICT)
	Learning to code / programming
	Listening to music
	Playing games
	Practising computer skills
	Preparing lessons
	Printing documents
	Reading books / course notes
	Typing / word processing
	Watching movies
	Other
	r, please give details
Effect Please and p	et of ICT equipment in school  explain that the following section contains questions about the effect that the ICT equipment has had on the attitude erformance of the teachers and students. The options for each are: significantly positive effect, slightly positive effect, slightly negative effect and significantly negative effect.
Please and p no eff	ext of ICT equipment in school  explain that the following section contains questions about the effect that the ICT equipment has had on the attitude erformance of the teachers and students. The options for each are: significantly positive effect, slightly positive effect,
Please and p no eff	explain that the following section contains questions about the effect that the ICT equipment has had on the attitude erformance of the teachers and students. The options for each are: significantly positive effect, slightly positive effect, ect, slightly negative effect and significantly negative effect.
Please and p no eff	explain that the following section contains questions about the effect that the ICT equipment has had on the attitude erformance of the teachers and students. The options for each are: significantly positive effect, slightly positive effect, ect, slightly negative effect and significantly negative effect.  The options for each are: significantly positive effect, slightly negative effect, slightly negative effect and significantly negative effect.  The options for each are: significantly positive effect, slightly negative effect, slightly negative effect, slightly negative effect and significantly negative effect.  The options for each are: significantly positive effect, slightly positive effect, slightly negative effect, slightly negati
Please and p no eff	explain that the following section contains questions about the effect that the ICT equipment has had on the attitude erformance of the teachers and students. The options for each are: significantly positive effect, slightly negative effect and significantly negative effect.  Explain that the following section contains questions about the effect that the ICT equipment has had on the attitude erformance of the teachers and students. The options for each are: significantly positive effect, slightly negative effect, slightly negative effect and significantly negative effect.  Explain that the ICT equipment has had on the attitude effect.  Significantly positive effect  Slightly positive effect
Please and p no eff	explain that the following section contains questions about the effect that the ICT equipment has had on the attitude erformance of the teachers and students. The options for each are: significantly positive effect, slightly positive effect, etc., slightly negative effect and significantly negative effect.  The options for each are: significantly positive effect, slightly positive effect, slightly negative effect, slightly negative effect and significantly negative effect.  The options for each are: significantly positive effect, slightly positive effect ability of teachers to deliver their curriculum?  Significantly positive effect  Slightly positive effect  No effect
Effect Pleases and p no eff	explain that the following section contains questions about the effect that the ICT equipment has had on the attitude erformance of the teachers and students. The options for each are: significantly positive effect, slightly negative effect and significantly negative effect.  Explain that the following section contains questions about the effect that the ICT equipment has had on the attitude erformance of the teachers and students. The options for each are: significantly positive effect, slightly negative effect and significantly negative effect.  Explain that the ICT equipment has had on the attitude erformance of the teachers and students. The options for each are: significantly positive effect and significantly negative effect that the ICT equipment has had on the attitude erformance of the teachers and substitute effect.  Significantly positive effect  Significantly positive effect  Sightly negative effect
Effect Pleases and p no eff	explain that the following section contains questions about the effect that the ICT equipment has had on the attitude erformance of the teachers and students. The options for each are: significantly positive effect, slightly negative effect and significantly negative effect.  ELCT equipment affected the ability of teachers to deliver their curriculum?  Significantly positive effect  Slightly positive effect  No effect  Sightly negative effect  Sightly negative effect
Effect Pleases and p no eff	et of ICT equipment in school explain that the following section contains questions about the effect that the ICT equipment has had on the attitude erformance of the teachers and students. The options for each are: significantly positive effect, slightly positive effect, slightly negative effect and significantly negative effect.  The ICT equipment affected the ability of teachers to deliver their curriculum?  Significantly positive effect  Slightly positive effect  No effect  Significantly negative effect  Significantly negative effect  Significantly negative effect  Significantly negative effect
Effect Pleases and p no eff	ct of ICT equipment in school explain that the following section contains questions about the effect that the ICT equipment has had on the attitude efformance of the teachers and students. The options for each are: significantly positive effect, slightly positive effect, slightly negative effect and significantly negative effect.  Let, slightly negative effect and significantly negative effect.  Let equipment affected the ability of teachers to deliver their curriculum?  Significantly positive effect  Sightly positive effect  Sightly negative effect  Significantly negative effect  Let equipment affected the motivation of the teachers?  Significantly positive effect
Effect Pleases and p no eff	et of ICT equipment in school explain that the following section contains questions about the effect that the ICT equipment has had on the attitude erformance of the teachers and students. The options for each are: significantly positive effect, slightly positive effect, slightly negative effect and significantly negative effect.  et ICT equipment affected the ability of teachers to deliver their curriculum?  Significantly positive effect  Slightly positive effect  Sightly negative effect  Significantly negative effect  Significantly negative effect  EtCT equipment affected the motivation of the teachers?  Significantly positive effect  Slightly positive effect  Slightly positive effect
Effect Pleases and p no eff	explain that the following section contains questions about the effect that the ICT equipment has had on the attitude erformance of the teachers and students. The options for each are: significantly positive effect, slightly positive effect, slightly negative effect and significantly negative effect.  The ICT equipment affected the ability of teachers to deliver their curriculum?  Significantly positive effect  Slightly positive effect  No effect  Significantly negative effect  Significantly negative effect  Significantly positive effect



## **Appendix 1: Headteacher questionnaire used (11)**

has the fer equipment unected the ability of the students to learn the curriculum:
Significantly positive effect
Slightly positive effect
No effect
Sightly negative effect
Significantly negative effect
Has the ICT equipment affected the motivation of the students?
Significantly positive effect
Slightly positive effect
No effect
Sightly negative effect
Significantly negative effect
If any of the answers to the questions above were negative, please ask for more details to explain why the effect has been negative
Leave blank if not applicable
What has been the most significant change in the school as a result of the ICT equipment?
What further improvements in the ICT equipment, resources or training would you like to see?
Do you have any other comments?
Thank the interviewee for their time and explain that the results of the survey will help us to develop the IT resources we deliver to schools in Africa.



## **Appendix 2: Teacher questionnaire used (1)**

## Malawi Teacher Questionnaire 2020

THE THE OF THE CONTROL		
O Doreen Luhanga		
Silvester Mtumbuka		
Vigilant Vigimbo		
Other		
lf other, please give your name		
School Information		
Please give the school code from th School list is in alphabetical order. If the s of the school.	tracker chool has only recevied computers since March 2020, please pick other and then type the name	
Please give the school name		
Please add your location Press record location, wait for your location	n to load and then press record location again	
latitude (x.y °)		7
longitude (x.y °)		
altitude (m)		
accuracy (m)		
Please take a photo of the school bu	ildings, with school sign if possible	
Click here to upload file. (< 5MB)		



## **Appendix 2: Teacher questionnaire used (2)**

Vhat d	listrict is the school in?
$\bigcirc$	Chitipa
$\bigcirc$	Dedza
$\bigcirc$	Dowa
$\bigcirc$	Karonga
$\bigcirc$	Kasungu
$\bigcirc$	Likoma
$\bigcirc$	Lilongwe
$\bigcirc$	Lilongwe City
$\bigcirc$	Mchinji
$\bigcirc$	Mzimba
$\bigcirc$	Mzuzu City
$\bigcirc$	Nkhata Bay
$\bigcirc$	Nkhotakota
$\bigcirc$	Ntcheu
$\bigcirc$	Ntchisi
$\bigcirc$	Rumphi
$\bigcirc$	Salima
$\bigcirc$	Other
fothe	r, please give district here
low w	ould you describe the location of the school?
$\bigcirc$	Urban
$\bigcirc$	Rural
$\bigcirc$	Semi / peri-urban
Vhat t	ype of school is this?
$\bigcirc$	Community
$\bigcirc$	Government
$\bigcirc$	Grant-aided Grant-aided
$\bigcirc$	Private
The Tu will tak team, '	explain to the interviewee that this is a short questionnaire we are conducting in order to assess the impact of CYD / iring Trust's work. This is very important for us to be able to continue and improve on the work we have already done. It we less than 15 minutes of their time. All of the information they provide will be used only for the stated purpose by the will be stored anonymously and securely. Once all the data has been collected and analysed, we will share our findings ill schools who have participated in the survey and publish them in our annual report.



## Appendix 2: Teacher questionnaire used (3)

Please confirm that the interviewee understands the explanation above and consents to participating in this survey
Ок
Signature of interviewee
Interviewee can sign on the phone / tablet
Interviewee information
Please give the first 2 letters of your first name and the first 2 letters of your surname  If interviewee does not wish to give their initials, please leave as default
XXXX
Are you male or female?
Male
( ) Female
What is your age range? (Leave blank if he / she would prefer not to say)
25 or below
26-35
36-45
46 or more
Harrison and harrison have been been been been been been been be
How many years have you been teaching?  Please give nearest whole number of years the interviewee has been teaching



## Appendix 2: Teacher questionnaire used (4)

Do you	u teach ICT?
$\bigcirc$	Yes
$\bigcirc$	No
If you	are not an ICT teacher, what is your role in the school?
Do you	u hold any ICT qualifications?
$\bigcirc$	Yes
$\bigcirc$	No
What I	ICT qualifications do you hold?
	subjects do you teach?
Please genera	tick all that apply. Note there is a difference fo teaching computer studies for MCSE curriculum and exams or just teaching for I learning / computer literacy (not examined)
	Agriculture
	Bible Knowledge
	Biology
	Business studies
	Chemistry
	Chichewa
	Computer studies for MCSE exams
	Computer studies as an extra-curricular activity
	Craft, Design and Technology
	Creative Arts
	English
	Geography
	History
	Home Economics
	Life Skills Education
	Mathematics
	Performing Arts / Music and Dance
	Physical Education
	Physics
	Religious and Moral Education
	Social Studies



## Appendix 2: Teacher questionnaire used (5)

What is your average class size?  Please give the average number of students in the classes you teach	
Disability questions	
Do any students with disabilities attend this school?  Note: disability is defined as "a physical or mental impairment that has a substantial and long-term adverse effect on a person's ability to carry out normal day-to-day activities"  Yes  No	
How many male students with a disability are in the school?	
What type of disabilities do your male students have? Please pick one or more of the options below. Pick other if you need to give more details. Note: disability is defined as "a physical or mental impairment that has a substantial and long-term adverse effect on a person's ability to carry out normal day-to-day activities"	
Mobility and physical impariments (upper / lower limb disabilities, manual dexterity, and coordination disabilities)	
Spinal cord disability	
Brain disability / head injuries	
Vision disability	
Hearing disability	
Cognitive or learning disabilities	
Psychological disabilities	
Invisible disabilities (eg chronic illnesses such as diabetes, kidney failure, sleep disorders if they significantly impair normal activities of daily living)	
Other	
Plese add any further details about the disabilities your male students have	
How many female students with a disability are in the school?	



# Appendix 2: Teacher questionnaire used (6)

need (	to give more details. Note: disablity is defined as "a physical or mental impairment that has a substantial and erm adverse effect on a person's ability to carry out normal day-to-day activities"
	Mobility and physical impariments (upper / lower limb disabilities, manual dexterity, and coordination disabilities)
	Spinal cord disability
	Brain disability / head injuries
	Vision disability
	Hearing disability
	Cognitive or learning disabilities
	Psychological disabilities
	Invisible disabilities (eg chronic illnesses such as diabetes, kidney failure, sleep disorders if they significantly impair normal activities of daily living)
	Other
Plese	add any further details about the disabilities your female students have
	No e describe any challenges there are for disabled students in accessing the computer laboratory  of the computers for teaching
Are th	nere any issues with your computer laboratory at present?  Yes
	No
Please	e give details of any issues you are having with your computer laboratory at present
	confident on a scale of 1 to 10 were you in teaching Computer Studies before your school received computers this project?  t confident at all and 10 = extremely confident



# Appendix 2: Teacher questionnaire used (7)

software available on the computers?
This may have been at the time the computers were installed or on a teaching day
Yes
○ No
Why haven't you had any training by CYD on techniques or software?
We are keen to understand why some teachers are missing out on training.
Have you used the techniques taught during CYD training sessions in your lessons?
This includes how to use resources on the computer during your lessons and for those schools that have Kolibri how to use this to help with lesson plans, finding resources for students to use and monitoring students' progress.
Yes
○ No
Have you used the software introduced during CYD training sessions in your lessons?
This includes RACHEL, Kolibri, typing tutorials, media player, libre office
Yes
○ No
If you attended a CYD training session, but haven't used the techniques or software discussed in these sessions, pleasexplain why not.
Have the CYD training sessions helped you to teach Computer Studies better?
Yes
No
If the CYD training sessions have not helped you to teach Computer Studies better, please explain why not and what else we should include in the training sessions to better meet your needs.
Does your school have an annual budget allocation for ICT resources?
Yes
○ No
O Don't know
Does your school provide access to the internet for students?
Yes, free access
Yes, limited access only
○ No
If your school provides access to the internet for students, approximately how much does this cost per year in MWK? If not known, please enter 0000



# **Appendix 2: Teacher questionnaire used (8)**

Do you sometimes teach lessons in the computer laboratory?	
Yes	
○ No	
Why don't you use the computer laboratory for teaching?	
On average, how many lessons do you teach in the computer laboratory each week?	
Why don't you teach more lessons in the computer laboratory?	
On average, how long (in minutes) does a lesson in the computer laboratory last?	
Less than 30 minutes	
30-45 minutes	
46-60 minutes	
61-75 minutes	
76-90 minutes	
More than 90 minutes	
What ICT equipment do you use to help you teach? Please tick all that apply	
PCs	
Laptops	
Tablets	
Projector	
Printer	
None	



# Appendix 2: Teacher questionnaire used (9)

	tick all that apply. Please note that this question is specificlly about subjects that are being taught in the computer lab.
	Agriculture
	Bible Knowledge
	Biology
	Business studies
	Chemistry
	Chichewa
	Computer studies for MCSE exams
	Computer studies as an extra-curricular activity
	Craft, Design and Technology
	Creative Arts
	English
	Geography
	History
	Home Economics
	Life Skills Education
	Mathematics
	Performing Arts / Music and Dance
	Physical Education
	Physics
	Religious and Moral Education
	Social Studies
-	you used the e-library on the computers? Justion refers to using resources found in RACHEL or Kolibri to help you teach
0	Yes
$\circ$	No
∜hy h	aven't you used the e-library / educational software on the computers?
	ften do you use the e-library? give the closest answer (daily would be most days, weekly would be 1-2x per week, monthly would be 1-2x per month)
	Daily
	Weekly
	Monthly
	Less than once a month



# Appendix 2: Teacher questionnaire used (10)

What resource in the e-library do you use the most?
On average, how many students share a computer?
Do students have regular access to the computers and IT resources?
Yes
○ No
If students do not have regular access to the computers and IT resources, please explain why not
On average how many hours per week is the computer lab used IN TOTAL by ANYONE during term time?  Please give approximate number of hours per week. This question is asking for the sum of all usage by teachers, students and community members, both inside and outside of formal lessons.
0-5 hours
6-10 hours
11-15 hours
16-20 hours
21-30 hours
31-40 hours
41-50 hours
More than 50 hours
Why isn't the computer lab used more during term time?
Use of computers out of school hours
Is the computer lab used by students / teachers after school?
This question is interested in any use of the computer lab in any context outside of formal MCSE lessons.
Yes
○ No
On't know
Please explain why the computer lab isn't used by students or teachers after school
On average, how many days per week do the students / teachers have access to the computers out of school hours?



# **Appendix 2: Teacher questionnaire used (11)**

On average, how many hours per day do the students / teachers have access to the computers out of school hours?
Are girls / women included in these sessions?
Yes
○ No
What percentage are girls / women?
Why don't girls / women use the computer lab out of hours?
What is the computer lab used for out of hours? Tick as many as apply.
Doing assignments / homework
Finding / searching for information using e-library
Learning other subjects (ie not computer studies / ICT)
Learning to code / programming
Listening to music
Playing games
Practising computer skills
Preparing lessons
Printing documents
Reading books / course notes
Typing / word processing
Watching movies
Other
If other, please give details
Have you run some form of IT club at your school?  This question is interested in any activity outside normal school lessons that encourages students and teachers to use the computer labthis could be a code club, but includes anything that promotes the use oc computers outside of normal lessons.
Yes
○ No
Preparing to start an IT club in the near future
Do you have any activities to promote the use of computers by girls?
Yes
○ No



# Appendix 2: Teacher questionnaire used (12)

We are keen that schools are able to share good practice with each other	
What are the barriers to promoting the use of computers by girls?	
Is the computer lab used by any community members who are NOT students / teachers?	
Yes	
○ No	
Please explain why the computer lab is not used by any community members who are NOT students/ teachers	
Please give details of who in the community uses the computer lab  This question is not asking for names, but is interested in what types of people in the community are making use of the computers, and in	
This question is not asking for names, but is interested in what types of people in the community are making use of the computers, and in particular whether this includes women	
On average how many hours per week is the computer lab used by members of the community?	
Please give approximate number of hours per week. This question is asking about usage by community members who are NOT students of teachers at the school.	
0-5 hours	
6-10 hours	
11-15 hours	
16-20 hours	
21-30 hours	
31-40 hours	
41-50 hours	
More than 50 hours	



# Appendix 2: Teacher questionnaire used (13)

vvnat	is the computer lab used for by members of the community out of hours? Fick as many as apply.
	Doing assignments / homework
	Finding / searching for information using e-library
	Learning other subjects (ie not computer studies / ICT)
	Learning to code / programming
	Listening to music
	Playing games
	Practising computer skills
	Preparing lessons
	Printing documents
	Reading books / course notes
	Typing / word processing
	Watching movies
	Other
Have :	ning and experience  you had any training in the maintenance and repair of computers?
Please	tick as many as apply
	Yes, when the computers were installed
	Yes, lattended a CYD training course
	Yes, I attended another training course  Yes, during my education / teacher training
	No
	you had any training in networking computers?  tick as many as apply
	Yes, when the computers were installed
	Yes, I attended a CYD training course
	Yes, I attended another training course
	Yes, during my education / teacher training
	No



## Appendix 2: Teacher questionnaire used (14)

Please	operating systems do you have experience of using?
	ick as many as apply
	Windows
	Mac OS
	Linux
	Ubuntu
	ou had any training in using computers to help teach your lessons?  cick as many as apply
	Yes, when the computers were installed
	Yes, I attended a CYD training course
	Yes, I attended another training course
	Yes, internal training in this school
	Yes, during my education / teacher training
	No
The IC	Fequipment and software have been easy to use.
The IC	F equipment and software have been easy to use.  Strongly Agree
0	
0	Strongly Agree
0000	Strongly Agree Agree
0000	Strongly Agree Agree Neither Agree nor Disagree
0000	Strongly Agree Agree Neither Agree nor Disagree Disagree
000000	Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly disagree
000000	Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly disagree Not applicable
The co	Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly disagree Not applicable mputer laboratory makes my job as a teacher easier.
The co	Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly disagree Not applicable  mputer laboratory makes my job as a teacher easier. Strongly Agree
	Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly disagree Not applicable  mputer laboratory makes my job as a teacher easier. Strongly Agree Agree
	Strongly Agree Agree Neither Agree nor Disagree Disagree Strongly disagree Not applicable mputer laboratory makes my job as a teacher easier. Strongly Agree Agree Neither Agree nor Disagree



# Appendix 2: Teacher questionnaire used (15)

U3III6	the compact haboratory has made to easier to deriver the curriculum
$\bigcirc$	Strongly Agree
$\bigcirc$	Agree
$\circ$	Neither Agree nor Disagree
$\bigcirc$	Disagree
$\bigcirc$	Strongly disagree
$\bigcirc$	Not applicable
Using	the computer laboratory has had a positive effect on the enthusiasm and motivation of the students.
$\bigcirc$	Strongly Agree
$\bigcirc$	Agree
$\bigcirc$	Neither Agree nor Disagree
$\bigcirc$	Disagree
$\circ$	Strongly disagree
$\bigcirc$	Not applicable
Using	the computer laboratory has had a positive effect on the literacy and numeracy levels of the students.
$\circ$	Strongly Agree
$\bigcirc$	Agree
$\bigcirc$	Neither Agree nor Disagree
$\bigcirc$	
	Disagree
	Disagree Strongly disagree
Ö	
Using	Strongly disagree
Using	Strongly disagree  Not applicable
Using	Strongly disagree  Not applicable  the computer laboratory has had a positive effect on the ICT skills of the students.
Using O	Strongly disagree  Not applicable  the computer laboratory has had a positive effect on the ICT skills of the students.  Strongly Agree
Using (	Strongly disagree  Not applicable  the computer laboratory has had a positive effect on the ICT skills of the students.  Strongly Agree  Agree
Using O	Strongly disagree  Not applicable  the computer laboratory has had a positive effect on the ICT skills of the students.  Strongly Agree  Agree  Neither Agree nor Disagree



# Appendix 2: Teacher questionnaire used (16)

oung (	the compact laboratory has emanced the stadents overall academic performance.
$\bigcirc$	Strongly Agree
$\bigcirc$	Agree
$\bigcirc$	Neither Agree nor Disagree
$\bigcirc$	Disagree
$\bigcirc$	Strongly disagree
$\bigcirc$	Not applicable
explaiı	nterviewee disagreed with any of the statements above, please ask for more details about their answer to a why they said that.  terviewee did not disagree with any of the statements, please leave this question blank.
Mair	ntenance
The PC	s have been reliable.
$\bigcirc$	Strongly Agree
$\bigcirc$	Agree
$\bigcirc$	Neither Agree nor Disagree
$\bigcirc$	Disagree
$\bigcirc$	Strongly disagree
$\bigcirc$	Not applicable
The PC	s are easy to maintain.
$\bigcirc$	Strongly Agree
$\overline{\bigcirc}$	Agree
O	Neither Agree nor Disagree
$\overline{\bigcirc}$	Disagree
0	Strongly disagree
0	Not applicable
explaiı	nterviewee disagreed with any of the statements above, please ask for more details about their answer to a why they said that.  terviewee did not disagree with any of the statements, please leave this question blank.
Com	ments
Has an	ything changed in the way that you teach the students since the set up of the computer laboratory?
$\bigcirc$	Yes
$\bigcirc$	No



## **Appendix 2: Teacher questionnaire used (17)**

What has changed?	
What are the main challenges you have encountered to integrating ICT into the classroom?	
What further improvements in the ICT equipment, resources or training would you like to see?	
Do you have any other comments?	
Thank the interviewee for their time and explain that the results of the survey will help us to develop to deliver to schools in Africa.	he IT resources we



## **Appendix 3: Student questionnaire used (1)**

#### Malawi Student Questionnaire 2020 incl disability

nterviewer
O Doreen Luhanga
Silvester Mtumbuka
Vigilant Vigimbo
Other
other, please give your name
School information
lease give the school code from the tracker
lease give the school name
Vhat district is the school in?
Chitipa
O Dedza
Dowa
○ Karonga
Likoma
Lilongwe
Cilongwe City
Mchinji Mchinji
Mzimba
Mzuzu City
Nkhata Bay
Nkhotakota
Ntcheu
Ntchisi Ntchisi
Rumphi
Salima
Other
other, please give district here



## Appendix 3: Student questionnaire used (2)

Describe the location of the school
Urban
Rural
Semi / peri-urban
Is this a day school or a boarding school?
O Day school
O Boarding school
Please explain to the interviewee that this is a short questionnaire we are conducting in order to assess the impact of CYD / The Turing Trust's work. This is very important for us to be able to continue and improve on the work we have already done. It will take less than 15 minutes of their time. All of the information they provide will be used only for the stated purpose by the team and will be stored anonymously and securely. Once all the data has been collected and analysed, we will share our findings with all schools who have participated in the survey and publish them in our annual report.
Please confirm that the interviewee understands the explanation above and consents to participating in this survey
Оок
Signature of interviewee Interviewee can sign on the phone / tablet
Student information
Student code - please give the first 2 letters of the student's first name and then the first 2 letters of the student's surname  If student does not want to give their initials, please leave default
XXXX



## Appendix 3: Student questionnaire used (3)

What is your age? Please record the student's current age in years
Are you male or female?
Male
○ Female
What form are you in?
Form 1
Form 2
Form 3
O Form 4
Are you a day pupil or a boarder?
Oay pupil
Boarder
Do you have disability?
Note: disability is defined as "a physical or mental impairment that has a substantial and long-term adverse effect on a person's ability to carry out normal day-to-day activities"
Yes
○ No
Disability questions
The next questions ask about difficulties you may have doing certin activities because of a health problem. For each question you will need to pick from one of 4 responses: No - no difficulty, Yes - some difficulty, Yes - a lot of difficulty, Cannot do at all.
Do you have difficulty seeing, even if wearing glasses?
No - no difficulty
Yes – some difficulty
Yes – a lot of difficulty
Cannot do at all
Do you have difficulty hearing, even if using a hearing aid?
No- no difficulty
Yes – some difficulty
Yes – a lot of difficulty
Cannot do at all



## **Appendix 3: Student questionnaire used (4)**

o you	i have difficulty walking or climbing steps?
$\bigcirc$	No- no difficulty
$\bigcirc$	Yes – some difficulty
$\bigcirc$	Yes – a lot of difficulty
$\bigcirc$	Cannot do at all
o you	have difficulty remembering or concentrating?
$\bigcirc$	No – no difficulty
$\tilde{\bigcirc}$	Yes – some difficulty
$\tilde{\bigcirc}$	Yes – a lot of difficulty
Ö	Cannot do at all
o you	have difficulty (with self-care such as) washing all over or dressing?
$\bigcirc$	No – no difficulty
$\bigcirc$	Yes – some difficulty
$\bigcirc$	Yes – a lot of difficulty
$\bigcirc$	Cannot do at all
	your usual (customary) language, do you have difficulty communicating, for example understanding or being stood?
$\bigcirc$	No – no difficulty
$\bigcirc$	Yes – some difficulty
$\bigcirc$	Yes – a lot of difficulty
$\bigcirc$	Cannot do at all
	our disability make it more difficult to access or use the computers?  estion is asking whether it is more difficult for disabled students to access or use then computers compared to students without a by
	Yes
	No
lease	give details of the difficulties you have in accessing or using the computers
CT i	nformation
lave y	ou used a computer in any of the places listed below in the last month? (please tick all that apply)
	Home
	School
	Internet cafe
	Other



## **Appendix 3: Student questionnaire used (5)**

If other, please give details of where you access a computer
If you use a computer at home, please give further details  Who owns the computer, do you have to share the computer, how often are you able to use the computer?
How confident on a scale of 1 to 10 were you in using computers before you started using them in this computer laboratory?  Where 1 is not confident at all and 10 is extremely confident
How confident on a scale of 1 to 10 are you in using computers since you have had lessons in this computer laboratory?
Where 1 is not confident at all and 10 is extremely confident
Is computer studies one of your chosen subjects in your MCSE exams?  Yes  No
Do you have an Information and Communications Technology (ICT) / Computer Studies class?
○ Yes ○ No
Why aren't you doing computer studies as one of your MCSE exams?
Do you use computers during the ICT / Computer Studies class?
Always
Often
Occasionally
Rarely
○ Never
How many times per week do you have ICT / Computer Studies class?
Once per week
2-3 times per week
4-5 times per week
More than 5 times per week



# Appendix 3: Student questionnaire used (6)

on average, now long in minutes does the let / computer studies class last:		
	Less than 30 minutes	
	30-45 minutes	
	46-60 minutes	
	61-75 minutes	
	76-90 minutes	
	More than 90 minutes	
Do you	use the computers during classes other than the ICT / Computer Studies class?	
Do you	use the computers during classes other than the ICT / Computer Studies class? Yes	
0	Yes	
0	Yes No	
0	Yes  No  nany times per week do you use computers in other classes?	
0	Yes  No  lany times per week do you use computers in other classes?  Once	



# **Appendix 3: Student questionnaire used (7)**

Agriculture  Bible Knowledge  Biology  Business studies  Chemistry  Chichewa  Craft, Design and Technology  Creative Arts
Biology  Business studies  Chemistry  Chichewa  Craft, Design and Technology
Business studies Chemistry Chichewa Craft, Design and Technology
Chemistry Chichewa Craft, Design and Technology
Chichewa Craft, Design and Technology
Craft, Design and Technology
Creative Arts
English
Geography
History
Home Economics
Life Skills
Mathematics
Performing Arts / Music and Dance
Physical Education
Physics
Religious and Moral Education
Social Studies
Other
On average, how many students usually share a computer?
Do you have regular access to the computers and IT resources at your school?
Yes
○ No
Have you attended an IT club at your school?  An IT club includes any sessions that are organised outside of normal lessons - it may include learning to code, but also any other activities
using a computer.
○ Yes



# Appendix 3: Student questionnaire used (8)

,	and an age are and an parent at your concern
O Ye	s
O No	
O No	ot applicable
	any girls only sessions for using the computers?  girls only school, please pick that option
O Ye	us s
O No	
○ Th	nis is a girls only school
	any boys only sessions for using the computers?  boys only school, please pick that option  ss
O No	
○ Th	is is a boys only school
-	
On averaį	ge, how many days per week do you use the computer laboratory out of school hours?
On averaį	ge, how many hours per day do you use the computer laboratory out of school hours?



## Appendix 3: Student questionnaire used (9)

	many as apply
	Doing assignments / homework
	Finding / searching for information using e-library
	Learning other subjects (ie not computer studies / ICT)
	Learning to code / programming
	Listening to music
	Playing games
	Practising computer skills
	Printing documents
	Reading books / course notes
	Typing / word processing
	Watching movies
	Other (please specify)
What e	else have you used the computer laboratory for out of school hours?
Are yo	u able to use the computers as often as you would like?
$\bigcirc$	Yes
$\bigcirc$	No
-	are not able to use the computers as often as you would like, please give reasons
	There are not enough computers
	The computers are not always working
	There isn't always electricity
	The computer laboratory is never open out of school hours
	The computer laboratory is not open for long enough out of school hours
	I don't have free time to use the computers out of school hours
	Other (please specify)
What o	other reasons are there that prevent you from using the computers as often as you would like?
Inte	rnet access
-	ever access the internet?
Note th	at this is referring to the internet and not just to the intranet or local area network within the school
	Yes
	No



## Appendix 3: Student questionnaire used (10)

Where	lo you access the internet?
	At home
	At school
	At an internet café
	On a phone
	Other
Where	else / how else do you access the internet?
How m	nny hours in total do you spend on the internet each week?
	ve approximately how many hours you would usually spend on the internet to the nearest 15 minutes.
Stud	ent attitudes
	explain to the interviewee that the following section contains statements that they will either strongly agree, agree,
	agree nor disagree, disagree or strongly disagree with. If a student doesn't have any experience of using the compu
	pry, please use not applicable.
Using a	computer in school makes learning more enjoyable.
$\bigcirc$	Strongly agree
$\bigcirc$	Agree
$\bigcirc$	Neither agree nor disagree
$\bigcirc$	Disagree
$\bigcirc$	Strongly disagree
$\bigcirc$	Not applicable
Jsing a	computer in school makes learning easier.
$\bigcirc$	Strongly agree
0	
	Agree
	Agree Neither agree nor disagree
0	
000	Neither agree nor disagree
0000	Neither agree nor disagree Disagree



## Appendix 3: Student questionnaire used (11)

Using	a computer in school makes learning Maths easier.
	Strongly agree
	Agree
	Neither agree nor disagree
	Disagree
	Strongly disagree
	Not applicable
Using a	a computer in school makes learning English easier.
	Strongly agree
	Agree
	Neither agree nor disagree
	Disagree
	Strongly disagree
	Not applicable
Using a	a computer in school makes learning Science easier.
	Strongly agree
	Agree
	Disagree
	Neither agree nor disagree
	Strongly disagree
	Not applicable
Using a	a computer in school makes learning ICT easier.
$\bigcirc$	Strongly agree
$\circ$	Agree
$\bigcirc$	Neither agree nor disagree
$\circ$	Disagree
$\bigcirc$	Strongly disagree
	Not applicable



## Appendix 3: Student questionnaire used (12)

Using a computer in school improves my academic performance at school.
Strongly agree
Agree
Neither agree nor disagree
○ Disagree
Strongly disagree
○ Not applicable
If the interviewee disagreed of strongly disagreed with any of the statements above, please ask for more details about their answer to explain why they said that.
Student plans
Do you plan to study at university?
Yes
Maybe
○ No
What subject would you like to study after school?
What type of job / career do you plan to do?
Do you have any other comments about the use of computers or about this survey?
None
Thank the interviewee for their time and explain that the results of the survey will help us to develop the IT resources we deliver to schools in Africa.



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Chintheche Private Secondary School, Malawi

#### Front cover photo:

Beautiful Gate Academy, Salima District, Central Region, Malawi