KIAT Guru

TRAINING AND IMPLEMENTATION MANUAL

Tes Cepat

Teachers' Performance & Accountability (KIAT Guru)

MARCH 2021

Australian Government

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Introduction

KIAT Guru developed *Tes Cepat*, a low-stake diagnostic test on primary grade reading and math administered by community members on a semester basis. *Tes Cepat* was developed in the spirit of citizen-led assessment movements that aim to increase parental involvement in education by providing them access to learning information that is easily understood and can be monitored regularly. For more information on the test, see **BRIEF *Tes Cepat*: Diagnostic test to increase community participation in improving learning outcomes in Indonesia' remote primary schools.** *Tes Cepat* was initially developed as a paper-based assessment in 2016. Starting in 2019, the test was digitized into a mobile phone application to enable local administration, automated scoring and interpretation of test results, and data storage. This manual document provides details on the principal and technical implementation of the *Tes Cepat* for both the paper-based and android-based mobile phone app, including the differing prerequisites to each format. For more details on implementation of the paper-based test, see ***Tes Cepat* Paper Manual Booklet**. Details on operating the test *Tes Cepat* android-based mobile app can be found in the ***Tes Cepat* Digital Manual**.
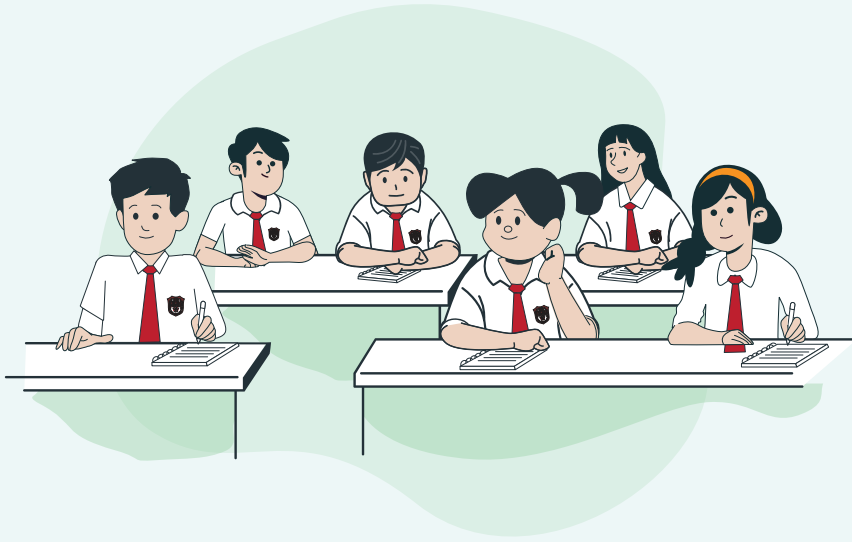
General Guideline for Administration of Both Paper and Digital *Tes Cepat*

Testing Principles

1 The test is administered to a total sample of 30 students from grade 1 through 6 per school. Sample students are selected randomly, with six students from each grade. Other students in the school may also be tested given all 30 sample students have completed the test.

2 Primary grade basic reading and math reading skills are assessed. Standards adhere to the national curriculum (KTSP 2006).

3 The test can be administered by representatives of the community, e.g. parents, community leaders, etc. Teachers can assist community members with coordinating logistics of the test and in disseminating the test results to broader stakeholders.

4 Each student is assessed by one administrator.

5
- Location of the test should be conducive and comfortable for students. This includes minimized background noise, sufficient lighting, and appropriate surface for student to sit and work on the test problems.
- Time of the test should not interfere with school hours.
- Parents and teachers should be informed on the location and time of the test.
- If conducted by multiple administrators, location and time of the test should be done in parallel to ensure efficiency and objectivity of the testing process.
- The test should last up to 15 minutes per subject.
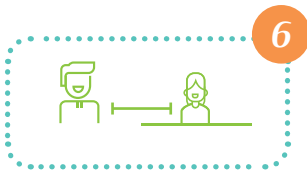
6 Teachers and/ or parents of the child tested should not disturb the testing process. If possible, keep teachers and parents of the child tested at proximate distance from the testing location.

7 Test administrator should not give students any instruction and/ or assistance in answering the test items.

8 Test administrator should not test their own children/ family member to ensure the test's objectivity.

Protocol

Before, during, and after the test, administrators must be cognizant and respectful of the school environment whilst maintaining integrity of the test by following this protocol:
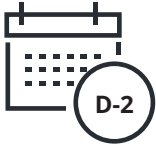
TWO DAY
BEFORE THE TEST

- **Inform both community and school** on the purpose and plan to conduct *Tes Cepat*.

- **Identify and train community members** who have volunteered to become train administrators. They must be able to read, write, and count. They also must be able to operate mobile phone.

- **Schedule the location and time of the test** that are agreeable to both parents and teachers.

- **Obtain a copy of student roster from the school**. This roster will be used to select sample students.

- **Inform and obtain consent** from selected sample students' parents.

ON THE DAY
OF THE TEST

BEFORE THE TEST

- **Prepare supplies**: test booklets, test administration manual, and stationeries.

- **Arrange room and desk**: Ensure student and administrator are positioned comfortably in the test location.

- **Inform student on the purpose of the test and obtain their consent** prior to the test. Inform students that the test will begin with reading and followed by mathematics.

- **Fill in testing data**: student data, administrator data, and date and location of the test.

- **Inform student on instructions to mark their answers during the test.** For paper-and-pencil *Tes Cepat*, student may indicate their answer verbally, or in writing, or by pointing to the selected option in the test booklet. For digital Tes Cepat, student may select on the screen the answer option of their choice.

DURING THE TEST

- **Instruct students to read thoroughly and work on the test items** presented to them. For paper-and-pencil *Tes Cepat*, provide instructions for dictation test items.

- **Administrators may not at any time read aloud** the content of the test items and/ or answer options.

- **Ensure the same test items are not given to students more than once.** For paper-and-pencil *Tes Cepat*, follow the adaptive flow guideline. For digital *Tes Cepat*, monitor that the app presents each test item once.

- **Maintain integrity and confidentiality of the test.** For paper-and-pencil *Tes Cepat*, ensure answer key and administrator note are not visible to students. For digital *Tes Cepat*, administrator may not operate the screen at any time during testing session.

AFTER THE TEST

- **Ensure student test results are recorded.** For paper-and-pencil *Tes Cepat*, record the last test item that students were able to answer correctly. For digital *Tes Cepat*, check student's record in the "*Riwayat*" feature.

- **Thank the student and conclude the test activity.** Continue with the next sample student.
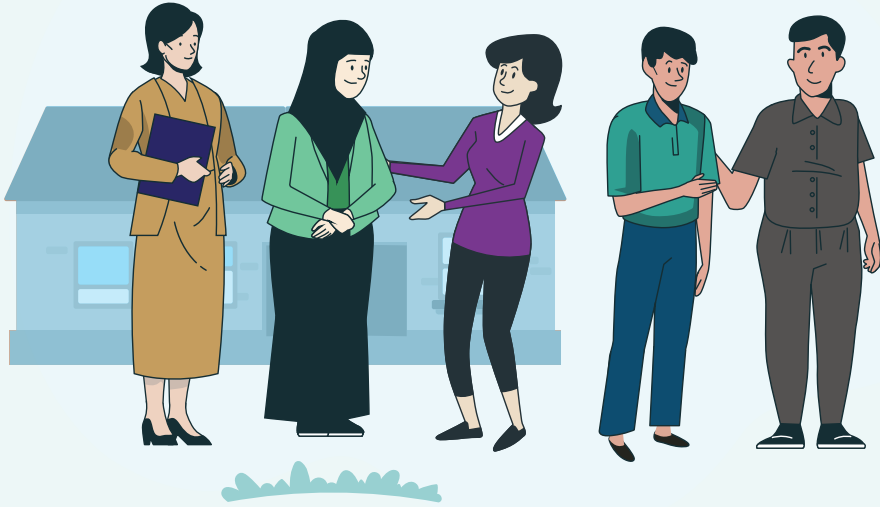
Adaptive Testing Guideline for Paper *Tes Cepat*

The test adaptivity is core to *Tes Cepat*'s quality. All administrators should be trained to conduct paper *Tes Cepat* adaptively. The following are general steps to conduct adaptive testing with paper *Tes Cepat*, which are summarized in Figure 1:

Figure 1. *Tes Cepat* **Adaptive Testing**
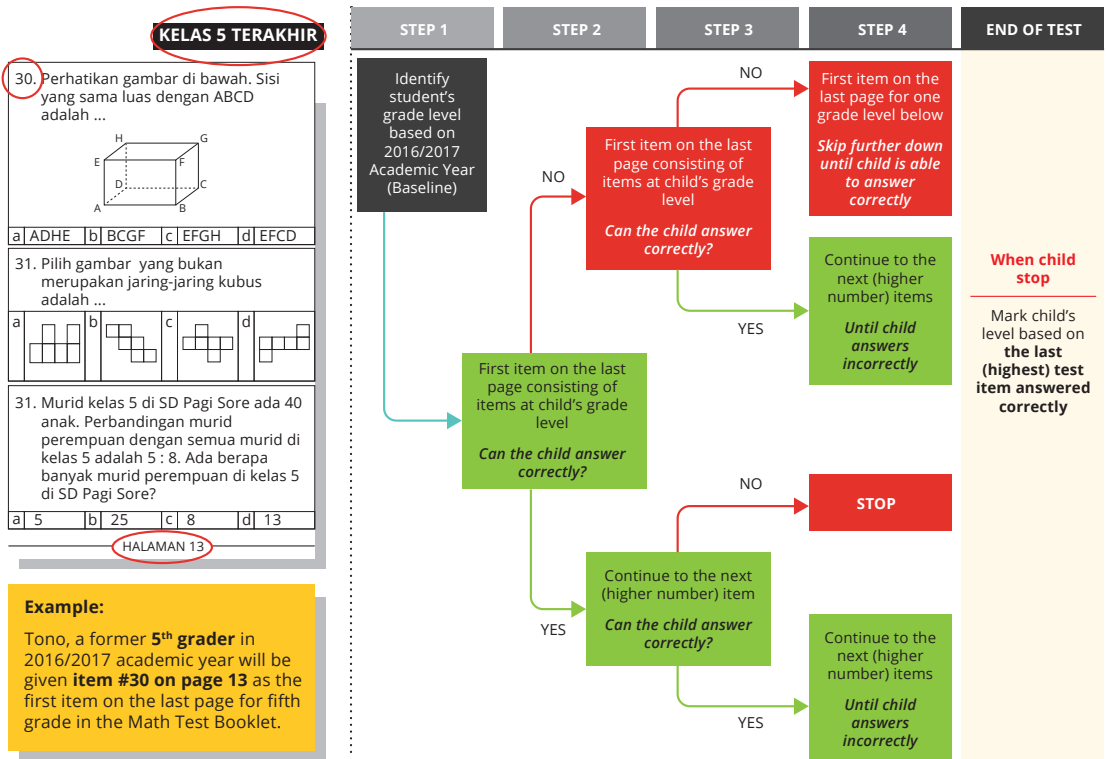
1 **STEP 1: Identify student's current grade level.** This will determine the first test item for the student to work on. In the test booklet, it would be the first test item on the last page of the student's current grade level.

2 **STEP 2: If the student can answer their first test item correctly, proceed to a higher number item.** However, if the student did not answer the first item correctly, proceed to a lower number item, i.e. the first item on the first page of the student's current grade level.

Example

If a student is currently in second grade, number 13 would be their first reading item. If they answered the first item correctly, they would continue to number 14. However, if they answered the first item incorrectly, they would go back to number 9.

KELAS 2 TERAKHIR ← Last Page of Grade 2

Perhatikan kalimat berikut!

nia pergi ke jakarta hari senin

← First reading item

13	Tulisan yang tepat untuk kalimat di atas adalah …
a	Nia pergi ke Jakarta hari Senin
b	Nia pergi ke jakarta Hari Senin
c	nia pergi ke Jakarta Hari Senin
d	Nia pergi ke jakarta hari Senin

Perhatikan percakapan berikut!

Tanya	: … yang memimpin senam pagi?
Jawab	: Guru olahraga

Second reading item if previous item was answered correctly

14	Kata yang tepat untuk kalimat tanya di atas
a	Siapa
b	Apa
c	Mengapa
d	Bagaimana

HALAMAN 8

First Page of Grade 2

KELAS 2 PERTAMA

Berlibur ke Kota

Pada hari Minggu, aku pergi.
Bersama Bapak dan Ibu.
Kami naik mobil ke kota.
Hatiku sangat gembira.

Ibu membawa bekal makanan sehat.
Bapak menjaga kami agar selamat.

Di tengah kota, ada tanaman..
Tanaman bunga yang beraneka rupa.
Bangku-bangku di sekitarnya ditata rapi.
Di sana, tidak boleh membuang sampah sembarangan.
Kita harus menjaga kebersihannya.

Aku, Bapak dan Ibu duduk di bangku.
Kami duduk memakan bekal.
Kami juga menikmati pemandangan kota.

Second reading item if previous item was answered incorrectly

9	Kapan mereka berlibur ke kota?
a	di hari Minggu
b	di tengah kota
c	di mobil
d	di minggu depan

10	Apa yang tidak mereka lakukan di kota?
a	Memakan bekal
b	Duduk di bangku
c	Membuang sampah sembarangan
d	Menikmati pemandangan

HALAMAN 6

3 **STEP 3: If the student continues to answer the second test item correctly, proceed with a higher number item.** Conversely, if the student did not answer the second item correctly, move back to lower number or easier item.

4 **STEP 4: Repeat STEP 2 and 3 until the highest number item that the student can answer correctly is identified.** This item will be used to mark the student's competency.

5 **STEP 5: Mark student's competency based on the last (highest number) item answered correctly.** Plot student's results into a visual map (Figure 2) to indicate where they are in the learning continuum. If a student is marked as having their grade-level competency, they will be plotted in the green box of their respective grade row. Students who are marked as having competencies below their grade level will be plotted to the left of the green box, specifically in the box of the respective grade-level competency they are marked in. Students who are marked as being illiterate or innumerate will be plotted in the red boxes.

Figure 2. Visual Map of Student's Competencies

MANUAL RESULT RECAPITULATION FORM (IF THERE IS NO COMPUTER TO RECAP)									
BASIC COMPENTENCIES DISTRIBUTION BASED ON STUDENT'S AMOUNT									
GRADE	AMOUNT NUMBER OF SAMPLE STUDENT	READING							
		BMH (0-1)	BMKD (2-7)	KD1 (8-11)	KD2 (12-17)	KD3 (18-23)	KD4 (24-29)	KD5 (30-35)	KD6 (36-38)
1		🟥		🟩					
2		🟥			🟩				
3		🟥				🟩			
4		🟥					🟩		
5		🟥						🟩	

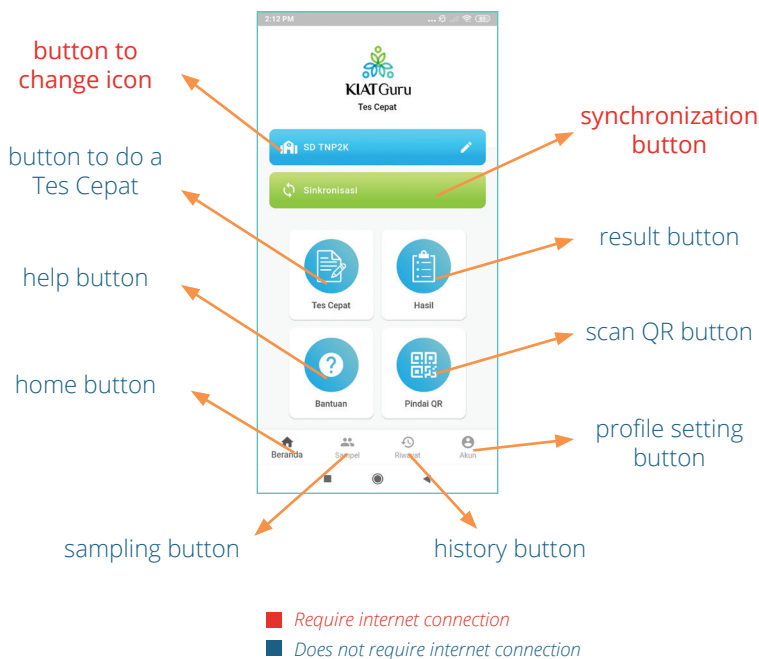| MANUAL RESULT RECAPITULATION FORM (IF THERE IS NO COMPUTER TO RECAP)									
BASIC COMPENTENCIES DISTRIBUTION BASED ON STUDENT'S AMOUNT									
GRADE	AMOUNT NUMBER OF SAMPLE STUDENT	MATH							
		BMH (0-1)	BMKD (2-7)	KD1 (8-11)	KD2 (12-17)	KD3 (18-23)	KD4 (24-29)	KD5 (30-35)	KD6 (36-38)
1		🟥		🟩					
2		🟥			🟩				
3		🟥				🟩			
4		🟥					🟩		
5		🟥						🟩	

Digital *Tes Cepat* Mobile App Administration Manual

The digital *Tes Cepat* is administered through an android-based mobile application. There are 11 features to the digital mobile app *Tes Cepat*, with each catered to be used online/ offline and operated by a set of specific users (Figure 3).

Figure 3. Digital *Tes Cepat* Mobile App Features and Users

FEATURES	NETWORK	SCHOOL OPERATOR	ADMINISTRATOR (USER COMMITTEES, COMMUNITY, PARENTS)	STUDENT	TEACHER/ PRINCIPAL
Enter Home Page	Online	✓	✓		
Data Synchronization of Questions and Answers	Online	✓	✓		
Help	Offline		✓		
Sample	Offline		✓		
Input Administrator Data	Offline		✓		
Input Student Data	Offline		✓		
Tes Cepat	Offline			✓	
Check Student History	Offline		✓		
Merge Test Result	Offline		✓		
See Test Result	Offline		✓		✓
Send Test Result	Online & Offline	✓			

Figure 4. Digital *Tes Cepat* Mobile App Home Page

- button to change icon
- button to do a Tes Cepat
- help button
- home button
- sampling button
- synchronization button
- result button
- scan QR button
- profile setting button
- history button

■ *Require internet connection*
■ *Does not require internet connection*

1 **STEP 1: Prepare the Mobile Application.** Download the *Tes Cepat* app through Google Play Store. Open the *Tes Cepat* app on Android mobile phone, then log in to the app and select the corresponding school's name of test subject.

2 **STEP 2: Synchronize Test Item Bank.** Perform this step in locations with stable internet connection. This step is done before each test period is conducted, as the item bank will differ across test periods. Remove item banks that are no longer active. In doing so, student data on these inactive items will also be automatically deleted. Ensure all recorded student data are synchronized to cloud storage before removing any old item banks from the app.

3 **STEP 3: Read the Help Feature.** This step can be done without internet connection. In the beginning of every training for test administrators, participants should read the list of frequently asked questions and answers (FAQs) in the Help feature before proceeding to other features in the app.

4 **STEP 4: Select Sample Students.** This process will be done per grade, or six times. The school will provide test administrators with student roster to identify the number of students in each grade. To identify sample students, go to "Sample" (Sampel) feature on the bottom of the home page, input the number of students in each grade, then click "Acak" (Randomize). The app will generate a list of numbers that will be used to indicate selected students from the roster. The app also generates alternative sample lists to replace initial sample students who are not available to take the test.

5 **STEP 5: Perform the Test.** The test should begin with reading, and continued with math. Click the "*Tes Cepat*" menu on the home page, then select subject. Fill in the names of both student and administrator. Make sure audio of the mobile phone can be heard clearly. Before working on the test, students will be given a trial mode for them to get used to operating the app. Administrator should inform students on the functions of the available buttons, including on how to click on the answer option of their choice. Whenever student is ready, begin the test.

6 **STEP 6: Check history.** Following student's completion of the test, check their history in the "Riwayat" feature on the home page. Make sure their name is listed as it indicates a successful record of their data.

7 **STEP 7: Compile Test Results.** If the test is conducted in more than one device, results from every phone should be compiled. Pick a main device to collect results from the other phones. Through the "Hasil" feature, pull up QR codes of both reading and math test results from the other phones. The main device will scan these codes using the "Pindai QR" feature. When scanning, make sure the camera captures the codes completely, and that there is sufficient lighting. Check the completeness of the compiled result. This feature can only be done with devices that are registered under the same school.

8 **STEP 8: Check Test Results.** Check the visual map of test results by accessing the "Hasil" menu and clicking the subject of interest. Test results from different subjects or time periods can be compared by clicking the "Bandingkan" option on the bottom of the screen.

9 **STEP 9: Download Test Data.** To download the result in CSV & PDF format, go to the "Hasil" menu, select the subject to be downloaded, then select PDF/ CSV format to download

10 **STEP 10: Report Test Results.** The reporting process can be done with or without internet connection. If internet connection is available, synchronize the test results into a cloud storage through the "Sinkronisasi" (Synchronize) feature. If internet connection is not available, transfer CSV test results into a laptop using a USB cable.

Digital *Tes Cepat* Web App Operating Manual

The digital *Tes Cepat* web application controls and stores overall activity and data from the digital *Tes Cepat* mobile app. This app can only be used online. There are 15 features in the digital *Tes Cepat* web app, with each operated by a specific user (Figure 5).

**Figure 5. Digital *Tes Cepat* Web App Features and Users**

FEATURES	LOCAL OPERATOR	AUTHOR	CENTRAL ADMIN
See test result	✓		
Compare test result	✓		
Upload answer data	✓		
See and add test items		✓	
View exam reports		✓	
Download CSV data		✓	
Download test reports		✓	
Compare test result		✓	
See Upload history		✓	
Add subject and domain		✓	
Generate or add school data			✓
See students' data			✓
Generate, add, and remove the stakeholder accounts			✓
Generate, add, and remove the author accounts			✓
Generate, add, and remove the operator accounts			✓

Figure 6 maps out specific roles of each user, along with guideline to access and operate features of the Digital *Tes Cepat* web app.

Figure 6. Digital *Tes Cepat* Web App Users' Roles and Guideline

	LOCAL OPERATOR	AUTHOR	CENTRAL ADMIN
Level	Local	National	National
Role	Ensure all school-level data is reported to the web app. Check and manage compiled results from all schools.	Create and manage test items and test booklets. Manage compiled results.	Control the overall account to operate the Web App system
On accessing the web app	Go to http://kiatguru. kemdikbud.go.id , then log in using the assigned operator account.	Go to http://kiatguru. kemdikbud.go.id , then log in using the assigned author account.	Go to http://kiatguru. kemdikbud.go.id , then log in using the assigned central admin account. There is only one central admin account.
On using the web app features	**To check and compare test results** from all districts, select "Laporan Ujian" menu on the left bar. **To upload results from school**, select "Unggah Jawaban" menu on the left bar, then select the file that want to be uploaded.	**To add/ edit/ remove test items,** select menu "Bank Soal" then the page will display list of test booklets stored in the system. This includes date of test booklet creation, date of test booklet modification, subject of the test booklet, title of the test booklet, author of the test booklet, and status of the test booklet. The "Aktif" status indicates the test booklet's availability to be downloaded to the mobile app. **To add Subject and domains** go to menu "Metadata". **To view reports on the test booklets**, download CSV data, download test reports, and compare test result. Select menu "Laporan Ujian". **To check history on uploaded test results**, go to "Catatan Unggah". This page is used to view test results that have been uploaded by local operators.	**To generate or add school data,** select menu "School". The school data needs to be uploaded before all other settings in the app. **To check sampled student data**, select menu "Murid". This account has the authority to remove any student data. **To generate, add, and remove local operator accounts**, select menu "Operator" **To generate, add, and remove author accounts**, select menu "Author" **To generate, add, and remove other stakeholder accounts,** select menu "Stakeholders"
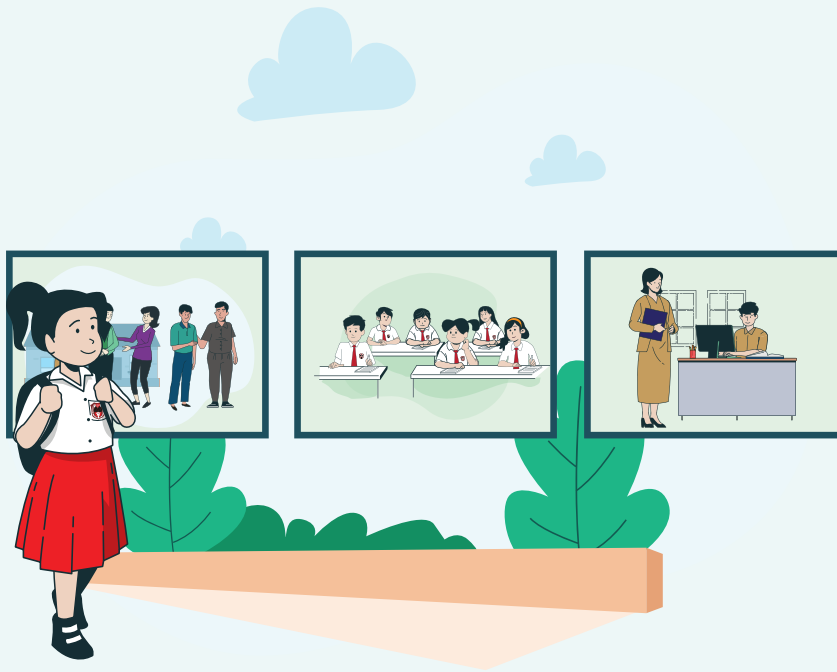
Photo Story: Training Digital *Tes Cepat* to Community Members

STEP 1:

Gather a group of community members and teachers to be trained on the app. Explain the objective of the test, including the role of community members as administrators.

STEP 2:

In a smaller group, have community members sit around a table. Each person should have a mobile device in front of them. They will be responsible to administer the test following the training. Teachers and the remaining participants may observe from the back of the room.

STEP 3:

Have them open the Tes Cepat app. Introduce each of the app features. Provide each person with a scrap paper for them to write their notes on throughout the training.

STEP 4:
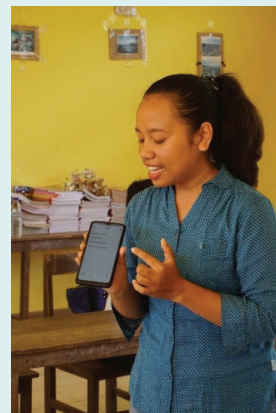
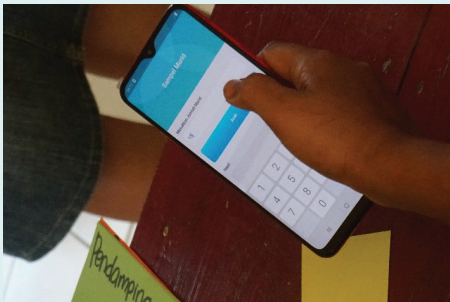Direct them to the HELP feature.

STEP 5:

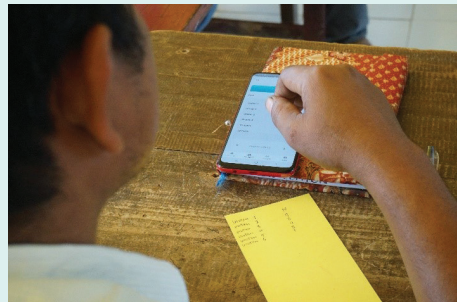Have them read through the content of the HELP feature.

STEP 6:

Direct them to the SAMPLE feature.

STEP 7:

Have them input a dummy number of students in the SAMPLE feature.

STEP 8:

Have them look through the list of sampled students. Make sure they understand how to identify sample students, both from the main and alternative lists, by the generated numbers. Have them write down these steps in the scrap paper, which will serve as their personal handbook during the test administration.

STEP 9:

Direct them to the TEST feature. Again, ensure they take notes on steps required to go through this feature.

STEP 10:

Have them fill name and gender of tested student, and the constituency of the administrator (themselves). Have them write this information on their note.

STEP 11:

Before proceeding to the test, demonstrate how to operate the preliminary "trial" mode or test items. Explain where the test problem is, where the answer options are, how to select an answer, and how to pause, resume, and quit the test.

STEP 12:

Have them go through the "Trial" mode and experiment with the different buttons. Ensure they write these steps on their notes.
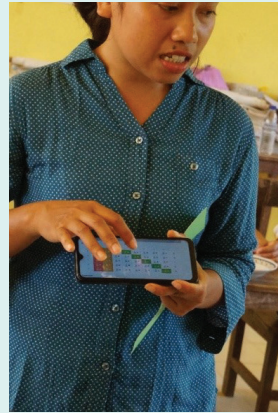
STEP 13:

Whenever they are ready, proceed to the actual test mode. Have them go through the test as best as they can

STEP 14:

When everyone has gone through the test, demonstrate how to access and read the results map.
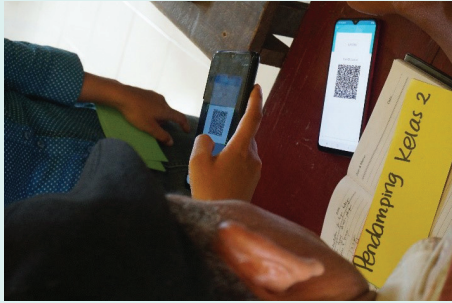
STEP 15:

Have them access and read through the results map. Ensure they write the required steps and information on their notes.

STEP 16:

Take the time to make sure they have a thorough understanding of the map, and how to interpret it.

STEP 17:

Demonstrate how to access and scan QR code of the results. Explain the function of the code, and how to use it in merging results from all available devices.

STEP 18:

Present the merged results from their devices.

STEP 19:

Regroup community members with teachers. Inform them that they will be assigned into pairs to go through rounds of test simulation.

STEP 20:

In pairs of 2-3 people, have a community member assumes the administrator role, while a teacher/ other community member plays the role of a student. Have them do the simulation for reading and math tests. In the end of the test, instruct them to pull up the results.

STEP 21:

Throughout the simulation rounds, ensure that each pair is monitored. Without disturbing the simulation process, record any mistakes that the administrator makes. These notes should be shared during the discussion part or the end of the training.

STEP 22:

Following the simulation, discuss and reflect on the training. Have community members and teachers to agree on the testing schedule for their school.