Training technical report
Using Open Data Kit (ODK) in animal health surveys

26 & 27/7/2018
30 & 31/7/2018
December 2018 – January 2019
February – April 2019
November 2019

Funded By

The International Center for Agriculture Research in the Dry Area (ICARDA)

GENERAL OVERVIEW

Open Data Kit is useful tool for data mobile collection in animal health surveys. It's used by thousands of users through the world, also adopted by WHO (World Health Organization) and CDC (Centers for Disease Control and Prevention). ODK requires smartphone or tablet, and its big advantage is that it works in remote regions with no Internet connection.

COURSE OBJECTIVES

The main purpose of this course was to initiate veterinarians (epidemiologists, assistant professors, ….) and researchers to ODK application. The major topics that were addressed covered :

1. Preparing a questionnaire on XLSForm and conversion to .xlm format
2. Creation of Google sheets and downloading of .xlm in Google Drive
3. Downloading of ODK collect on smartphone/tablets and downloading of the form on it
4. Field data collection through ODK collect
5. Sending of forms to Google Drive
6. Collection of data and conversion to .xl

The course had covered theoretical and practical aspects of state of art knowledge and techniques. The specific objectives of the course were:

- To share experiences on animal health questionnaires and their difficulties through interactive discussion with colleagues
- To strengthen capacity in field data collection and applying it in animal health surveys;
- To encourage and strengthen ODK training by trainees in their institutions.

TARGET AUDIENCE

A total number of 34 participants (17 males and 17 females) from Tunisian and Algerian institutions participated to the training: National School of Veterinary Medicine of Sidi Thabet (NSVM), The Institute of Veterinary Sciences of Constantine (Algeria) (IVSC), The Higher School of Agriculture of Mograne, Tunisia (HAS), The General Direction of Veterinary Services (GDVS), The Institute of Veterinary Research of Tunisia (IVRT) and The National Centre for Zoosanitary Vigilance (NCZV).

Globally, the course targeted veterinary epidemiologists and agronomic engineers working in animal health field, specifically in designing and performing questionnaires to collect animal and herd data.

ORGANIZING COMMITTEE

Dr Médiha Khamassi Khbou, Assistant Professor, Animal infectious diseases department NSVM, Sidi Thabet, Tunisia

Dr Faten Bouaicha, DVM, Resident in veterinary medicine, Parasitology department, NSVM, Sidi Thabet Tunisia.

Dr Rihab Romdhane, DVM, Msc student, Parasitology department, NSVM, Sidi Thabet Tunisia.

COURSE STRUCTURE

The course accounted for a total of about 8 theoretical and practical hours during two days for each session. It was organized into 7 lectures, 4 the first day and 3 the second day:

1. Introduction to ODK (lecture)
2. The questionnaires in animal health (lecture)
3. Initiation to ODK on tablets and smartphones (lecture + practical)
4. Designing the questionnaire XLSForm on Microsoft Excel (lecture + practical)
5. Creation of new Google sheet and link with the questionnaire (lecture + practical)
6. Conversion of the questionnaire from .xl to .xml online (lecture + practical)
7. Data recuperation from Google Sheet for analyze (lecture + practical)

Two demonstrative surveys were prepared and shared with trainees. The first one was tested on ODK immediately by the trainees to show them the different functionalities on tablets.
The second survey (questionnaire) was prepared on paper and the trainees were invited to repeat the whole steps until recuperating data on Google sheet.

COURSE IMPLEMENTATION

The course implementation and program is summarized in the course agenda (Annex 1). High level of commitment and presence was shown by all the trainees throughout the theoretical and the practical parts of the course.

GENERAL COURSE EVALUATION BY TRAINEES

At the end of the training, each participant provided feedback on their perception of the effectiveness of the training process, format and content.
Through training evaluation questionnaires, various evaluations were carried out during the course, including the meeting room, the documentation, organization...
Regarding the overall organization of the training course, all the participants qualified it as very good or excellent. Some participants expressed their interest in giving more time for the course and suggested three full days.

CONCLUSION

The course was successful in reaching its specific objectives and much appreciation was expressed by the participating trainees. The course was a forum for very fruitful and constructive discussions and was enriched by the different institutions (second session) which were presented by the participating trainees. In the post-course, it looks very clear that a network of knowledge sharing is already being established between the trainees with a support from NSVM scientists.

CONTINUATION IN 2019

Perception survey on ticks and tick-borne pathogens (December 2018 – January 2019)

A survey among sheep owners was performed in Tunisia, using ODK, to measure their knowledge and perception about ticks and tick-borne pathogens. Totally, 86 farmers from 6 districts in Tunisia, were interviewed, 73 among them using ODK on Samsung Tablets. The questionnaire comprised 60 questions and the mean duration of the total interview, was estimated to 16.23 ± 9.39 minutes. Collecting data on ODK, allowed quick and accurate management and analysis. Even the interviews made on paper, were entered using ODK on tablet after designing the questionnaire in XLS-form. It was easier than entering all data on Excel sheet. In sum, 558 and 165 questionnaires papers about perception on ticks and tick-borne pathogens of DVM students and veterinarians, respectively, were entered using ODK.

Training of DVM students to ODK use (February - April 2019)

One student was trained to use ODK for her DVM thesis: Ms Hajer Tanfous. She is working on perception's assessment of pet owners on self-using of drugs, particularly acaricides. Ms. Tanfous is supervised by Pr Mohamed A. Darghouth and performing her DVM thesis in the Laboratory of Parasitology at the National School of Veterinary Medicine, of Sidi Thabet. In a period of two months, 314 were interviewed using ODK, through smartphone. Ms Tanfous reported that, a lot of time was saved, when using ODK, in comparison with paper form (used for testing the reliability of the questionnaire) and this has allowed her to interview more pet owners.

Training of researchers in agronomy from INRAT (November 2019)

We participated with ICARDA to train 30 researchers from different institutes linked to agriculture and agronomy field on using ODK.
The training was achieved from 5th to 7th November 2019 in INRAT, and both theoretical and practical courses were realized. A template prepared by ICARDA staff was suggested to be tested and was successfully prepared by almost all the trainees.
Documentation (Paper and power point slides, in Annex IV), explaining the principles of ODK and the step-by-step questionnaire design was shared with all trainees.

Annex I: Course Program

Course N°	Title	Time
FIRST DAY		
	Registration	8:30-9:00
Course 1	Introduction to ODK	9:00-9:15
Course 2	Questionnaires in animal health	9:15-10:00
Course 3	Practical initiation to ODK on tablets	10:00-11:00
	Coffee-break	11:00-11:30
Course 4	Designing questionnaire in XLSForm	11:30-13:00
SECOND DAY		
Course 5	Creation of Google sheet (blank) on Google Drive	9:00-9:30
Practical course	Transforming a questionnaire from paper to ODK	9:30-13:00
	Coffee-break	11:00-11:30
Course 6	Conversion of the questionnaire to .xml	11:30-12:30
Course 7	Recuperation of data from Google sheet for analyzing process	12:30-13:00
	Certificates distribution	

Annex II: Trainers

Dr Médiha Khamassi Khbou, Assistant professor in the NSVM, Sidi Thabet, Tunisia

Annex III: Trainees

Annex IV. Power point presentation on the use of ODK tool in animal health surveys

Utilisation de l'application ODK dans les enquêtes

Dr. Médiha KHAMASSI KHBOU
Service de maladies contagieuses zoonoses, législation sanitaire- ECOLE NATIONALE DE MEDECINE VETERINAIRE DE SIDI THABET

creative commons

06/11/2019

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THANKS

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OPEN DATA KIT

- Fondé en 2008
- Google (projet) + Université de Washington
- Donation : communité d'utilisateurs
- But : Open source tools, easy to try, easy to use, easy to modify and easy to scale
- https://opendatakit.org/
- Utilisation mondiale

https://opendatakit.org/community/history/

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Noble objectif

Gaetano Borriello

Bill Schilit

Yaw Anokwa

Hélène Martin

…is to create technologies that improve the lives of the underserved. Our current focus is designing, building, deploying, and supporting mobile data collection systems that work well in challenging environments …

https://nafundi.com/about/

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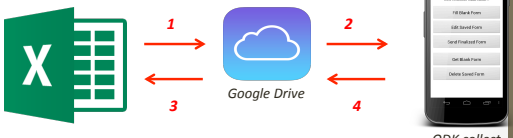
Questionnaires “papier”

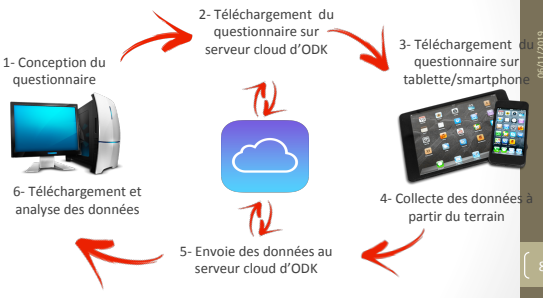
Erreurs de saisie

Et les autres ?

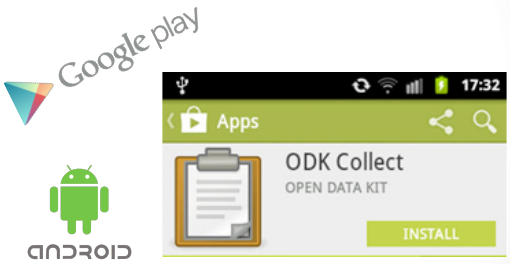
Principe



Comment çà marche ?



Installer **ODK collect** sur tablette/ smartphone



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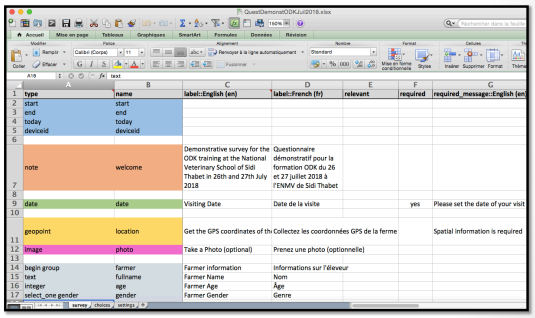
Faire le design du questionnaire sur Fichier excel ordinaire



	type	name	label::English (en)	label::French (fr)	relevant	required	required_message::English (en
2	start	start					
3	end	end					
4	today	today					
5	deviceid	deviceid					
6							
7	note	welcome	Demonstrative survey for the ODK training at the National Veterinary School of Sidi Thabet in 26th and 27th July 2018	Questionnaire démonstratif pour la formation ODK du 26 et 27 juillet 2018 à l'ENMV de Sidi Thabet			
8							
9	date	date	Visiting Date	Date de la visite		yes	Please set the date of your visit
10							
11	geopoint	location	Get the GPS coordinates of th	Collectez les coordonnées GPS de la ferme			Spatial information is required
12	image	photo	Take a Photo (optional)	Prenez une photo (optionnelle)			
13							
14	begin group	farmer	Farmer information	Informations sur l'éleveur			
15	text	fullname	Farmer Name	Nom			
16	integer	age	Farmer Age	Âge			
17	select_one gender	gender	Farmer Gender	Genre			

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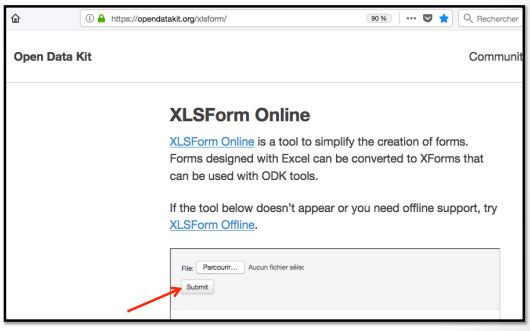
Convertir le fichier .xls ➔ .xml (https://opendatakit.org/xlsform/)



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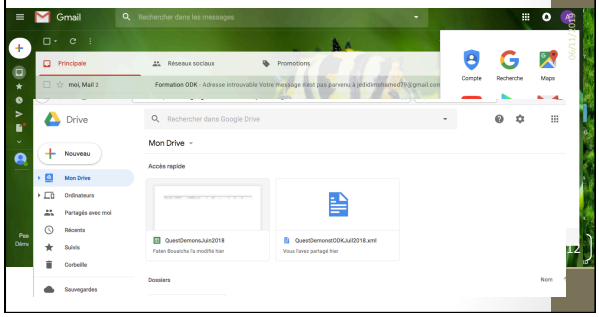
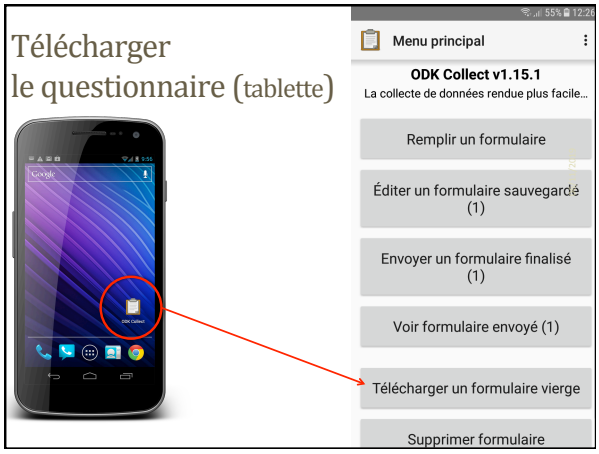
Placer le fichier .xml dans Google Drive




Télécharger
le questionnaire (tablette)
Menu principal
ODK Collect v1.15.1
La collecte de données rendue plus facile...
Remplir un formulaire
Éditer un formulaire sauvegardé (1)
Envoyer un formulaire finalisé (1)
Voir formulaire envoyé (1)
Télécharger un formulaire vierge
Supprimer formulaire

Sélectionnez votre questionnaire .xml
à partir de Google Drive/Partagé
Google Drive
Open Data Kit
Soit
Google Drive
QuestDemonstODKJuil2018.xml
VetSurvey3.xml
Retour
Partagé avec moi
Mon Drive

ODK Collect v1.15.1
La collecte de données rendue plus facile...
Remplir un formulaire
Éditer un formulaire sauvegardé (1)
Envoyer un formulaire finalisé (1)
Voir formulaire envoyé (1)
Télécharger un formulaire vierge
Supprimer formulaire
06/11/2019
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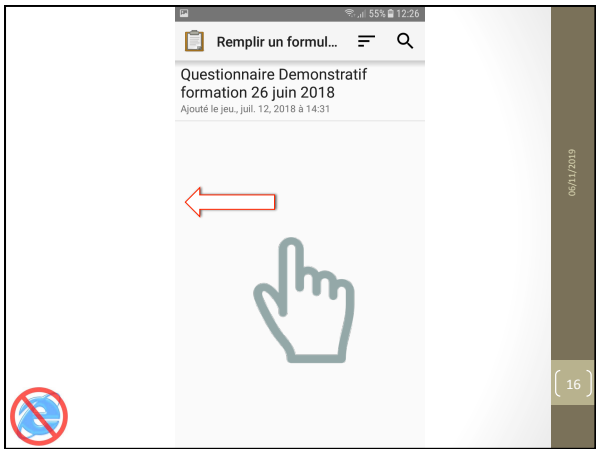
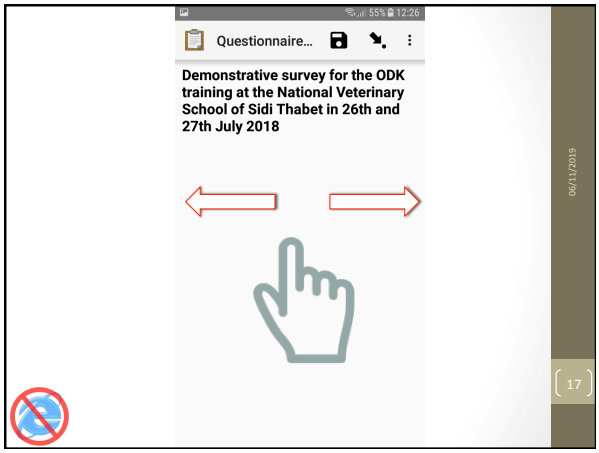
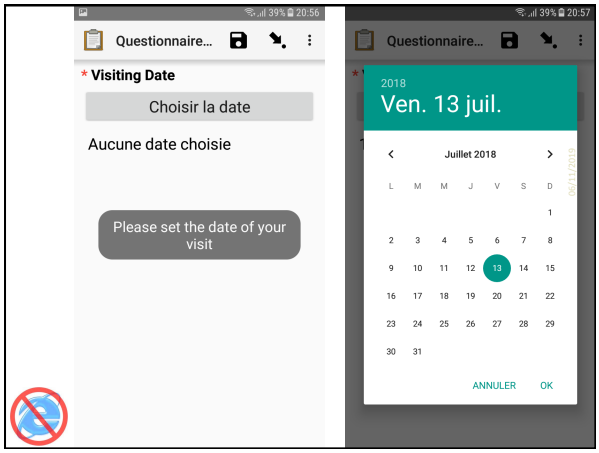
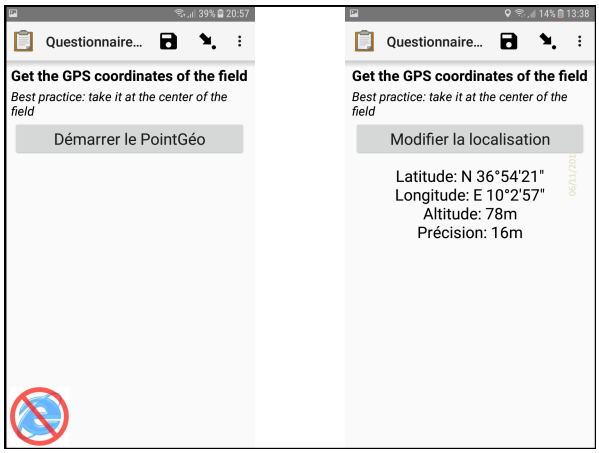
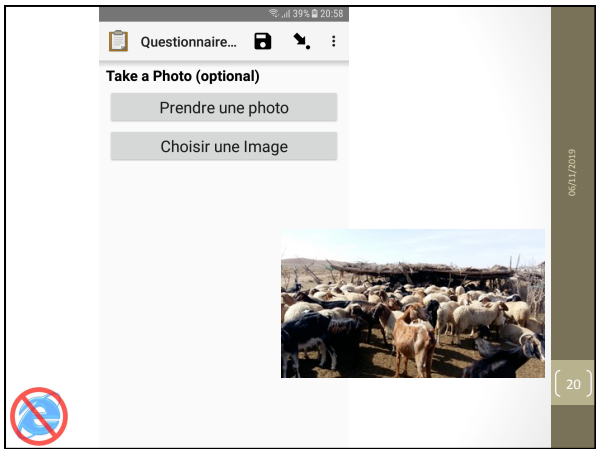
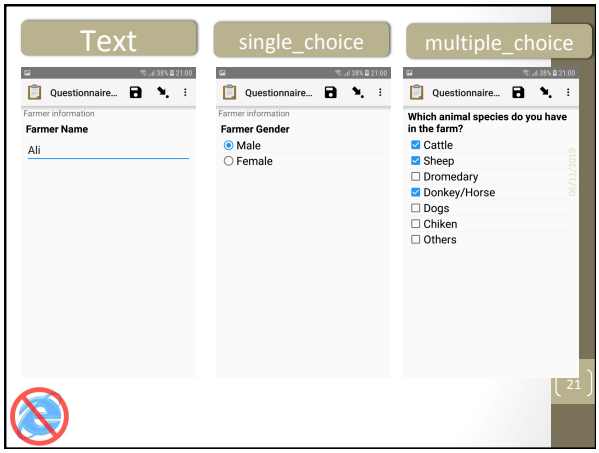

Remplir un formul...
Questionnaire Demonstratif formation 26 juin 2018
Ajouté le jeu., juil. 12, 2018 à 14:31
06/11/2019
16


Questionnaire...
Demonstrative survey for the ODK training at the National Veterinary School of Sidi Thabet in 26th and 27th July 2018
06/11/2019
17


Questionnaire...
* Visiting Date
Choisir la date
Aucune date choisie
Please set the date of your visit
2018
Ven. 13 juil.
Juillet 2018
ANNULER
OK


Questionnaire...
Get the GPS coordinates of the field
Best practice: take it at the center of the field
Démarrer le PointGéo
Questionnaire...
Get the GPS coordinates of the field
Best practice: take it at the center of the field
Modifier la localisation
Latitude: N 36°54'21"
Longitude: E 10°2'57"
Altitude: 78m
Précision: 16m


Questionnaire...
Take a Photo (optional)
Prendre une photo
Choisir une Image
06/11/2019
20


Text
single_choice
multiple_choice
Questionnaire...
Farmer information
Farmer Name
Ali
Farmer Gender
Male
Female
Which animal species do you have in the farm?
Cattle
Sheep
Dromedary
Donkey/Horse
Dogs
Chiken
Others
06/11/2019
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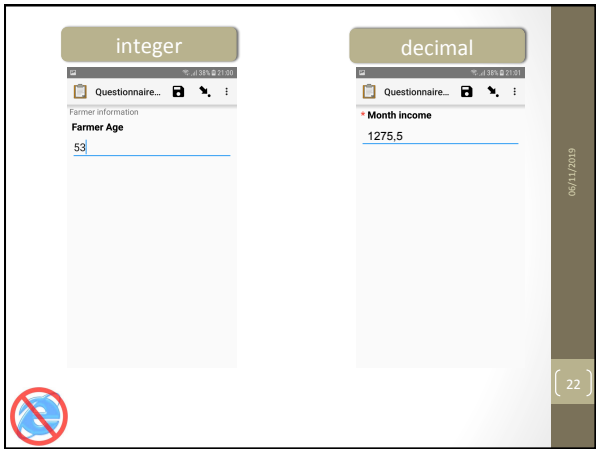
integer
decimal
Questionnaire...
Farmer information
Farmer Age
53
Month income
1275,5
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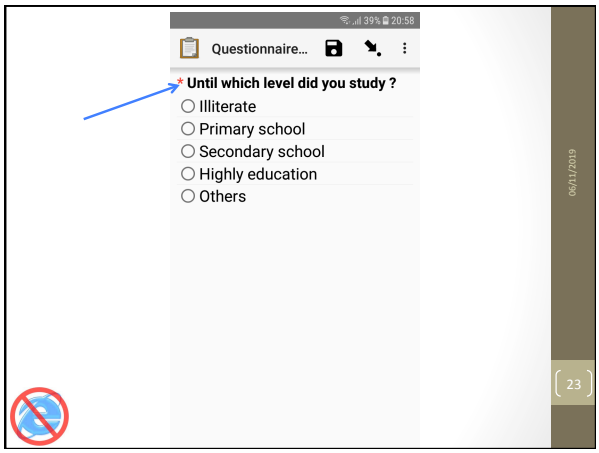
Questionnaire...
* Until which level did you study ?
Illiterate
Primary school
Secondary school
Highly education
Others
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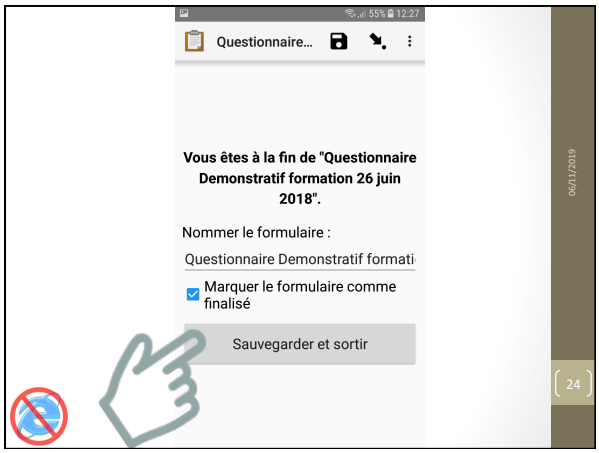
Questionnaire...
Vous êtes à la fin de "Questionnaire Demonstratif formation 26 juin 2018".
Nommer le formulaire :
Questionnaire Demonstratif formati
Marquer le formulaire comme finalisé
Sauvegarder et sortir
06/11/2019
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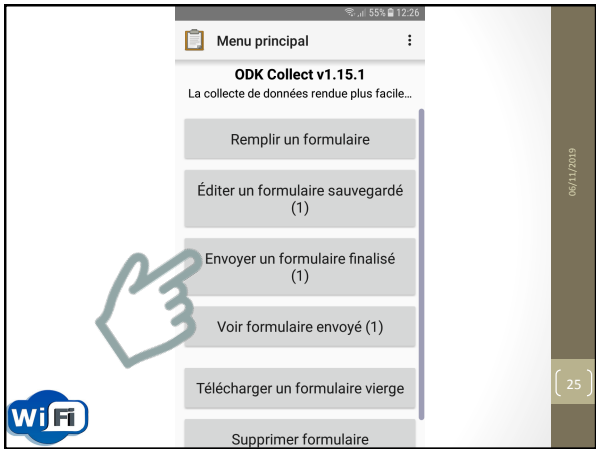

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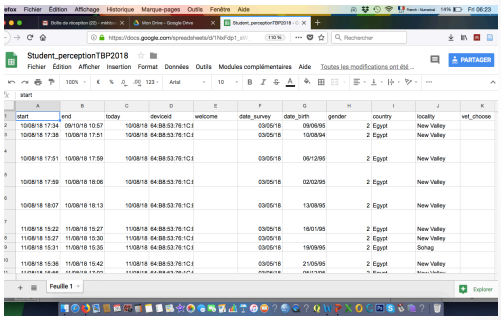
Fichier google sheet



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Data analysis

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Avantages	Inconvénients
Facile, rapide	Incompatible avec iOS et autres
Sans internet	Impossible de faire marche-arrière
Nombre illimités de questions et formulaires	
Plusieurs langues	
Plusieurs utilisateurs	
Utilisation dans plusieurs domaines/façons	

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Contactez-moi

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