



Photo credit: Doima Huta WorldFish

End user guidelines:

How to sign up and access the fish sampling microlearning curriculum on Learn.ink

Authors

Laura Khor, Jerome Delamare-Deboutteville and Chadag Vishnumurthy Mohan

Citation

This publication should be cited as: Khor L, Delamare-Deboutteville J and Mohan CV. 2021 End user guidelines: How to sign up and access the fish sampling microlearning curriculum on Learn.ink. Penang, Malaysia: WorldFish. Guidelines.

About WorldFish

WorldFish is a nonprofit research and innovation institution that creates, advances and translates scientific research on aquatic food systems into scalable solutions with transformational impact on human well-being and the environment. Our research data, evidence and insights shape better practices, policies and investment decisions for sustainable development in low- and middle-income countries.

We have a global presence across 20 countries in Asia, Africa and the Pacific with 460 staff of 30 nationalities deployed where the greatest sustainable development challenges can be addressed through holistic aquatic food systems solutions.

Our research and innovation work spans climate change, food security and nutrition, sustainable fisheries and aquaculture, the blue economy and ocean governance, One Health, genetics and AgriTech, and it integrates evidence and perspectives on gender, youth and social inclusion. Our approach empowers people for change over the long term: research excellence and engagement with national and international partners are at the heart of our efforts to set new agendas, build capacities and support better decision-making on the critical issues of our times.

WorldFish is part of One CGIAR, the world's largest agricultural innovation network.

Acknowledgments

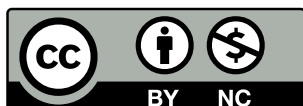
This work was undertaken as part of the CGIAR Research Program on Fish Agri-Food Systems (FISH) led by WorldFish, the project "*Increased Sustainability in the Aquaculture Sector in sub-Saharan Africa, through Improved Aquatic Animal Health Management*" implemented by WorldFish and the Norwegian Veterinary Institute, and the Feed the Future Innovation Lab for Fish project "*Improving Biosecurity: A Science-Based Approach to Manage Fish Disease Risks and Increase the Socioeconomic Contribution of the Nigerian Catfish and Tilapia Industries*" implemented by WorldFish and partners.

The programs are supported by contributors to the CGIAR Trust Fund, the Norwegian Agency for Development Cooperation (Norad), and the United States Agency for International Development (USAID) funded Feed the Future Innovation Lab for Fish.

Contact

WorldFish Communications and Marketing Department, Jalan Batu Maung, Batu Maung, 11960 Bayan Lepas, Penang, Malaysia. Email: worldfishcenter@cgiar.org

Creative Commons License



Content in this publication is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0), which permits non-commercial use, including reproduction, adaptation and distribution of the publication provided the original work is properly cited.

© 2021 WorldFish.

Photo credits

Front cover, Doina Huso/WorldFish.

Table of contents

| | |
|--|---|
| 1. Introduction..... | 1 |
| 2. How to access the fish sampling microlearning curriculum on Learn.ink using a shared link | 2 |
| 3. How to sign up on Learn.ink..... | 3 |
| 4. How to start using the fish sampling training microcourses | 4 |
| 5. How to sign out | 6 |
| 6. Fish sampling microlearning curriculum content..... | 7 |

1. Introduction

Learn.ink is an online platform for digitized learning and training. Sharing digital content on mobile devices is important for efficient knowledge sharing and training to work with target community groups on a range of topics, such as fish epidemiological surveys, disease surveillance, fish sampling for disease diagnostics and better management practices for biosecurity. Using the Learn.ink platform, we aim to provide a more engaging digital learning experience for end users in situations where remote virtual training is necessary.

The lessons and quizzes for these introductory fish sampling microcourses were developed on Learn.ink. The lessons aim to provide end users with step-by-step guidance to learn the necessary skills to collect biological samples for different diagnostic techniques, including wet mount preparation, microbiome, blood, bacteriology, molecular biology, virology and histology. The quizzes aim to test the knowledge of end users after completing the lessons.

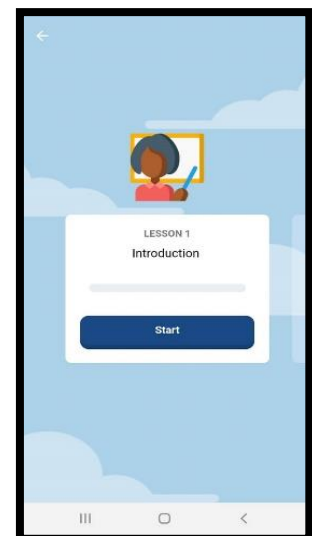
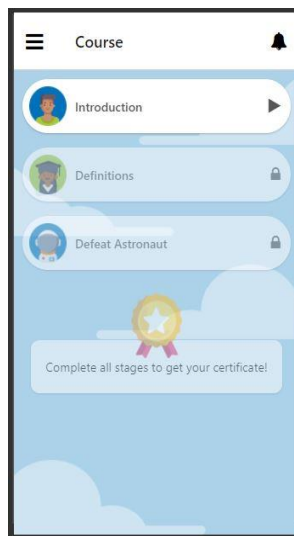
End users include but are not limited to field enumerators, post-graduate students, extension workers, service providers and lead farmers. After completing the fish sampling course, end users can put into practice the fish sampling techniques they learned for (1) a disease outbreak investigation, (2) follow-up routine sampling visits among catfish and tilapia farmers, (3) a research project, or (4) part of a regional or national disease surveillance program.

These guidelines provide the links for end users to access the fish sampling microlearning curriculum on Learn.ink. The microlearning curriculum consists of introduction and foundation microcourses that should be completed by end users before taking any of the microcourses on the six sampling protocols, that cover sampling for wet mount, microbiome, blood, bacteriology, molecular diagnostics and virology, as well as histology.

Note: *All images shown in these guidelines are indicative and may not reflect the latest version.*

2. How to access the fish sampling microlearning curriculum on Learn.ink using a shared link

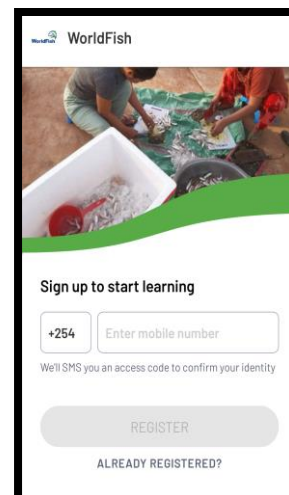
<https://bit.ly/39Rfh00>



1. Press the link you received via email to access the fish sampling course.
2. The course modules will appear. Press the first module button to continue.
3. Press 'Start' to begin the module.

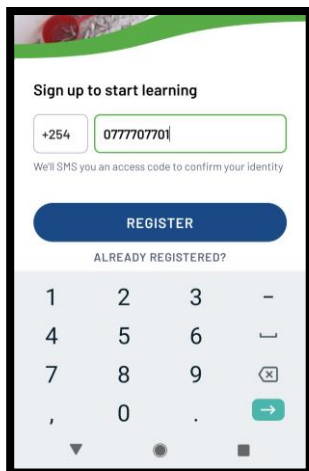


3. Press 'Sign in' to continue or 'Register' to sign up.

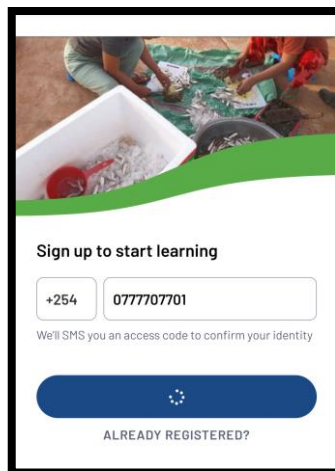


4. Add your mobile phone number. Please make sure the country code is correct. For example, +254 is for Kenya.

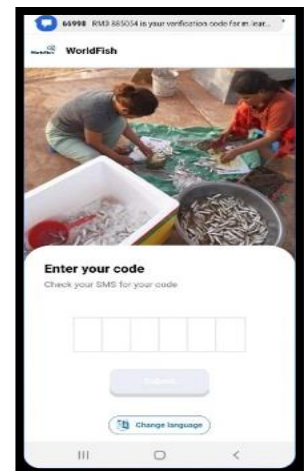
3. How to sign up on Learn.ink



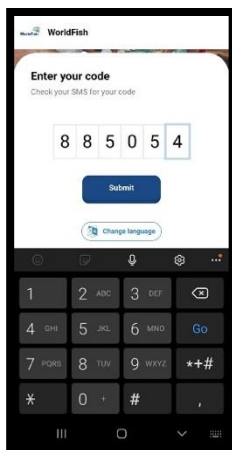
1. Add your mobile phone number.



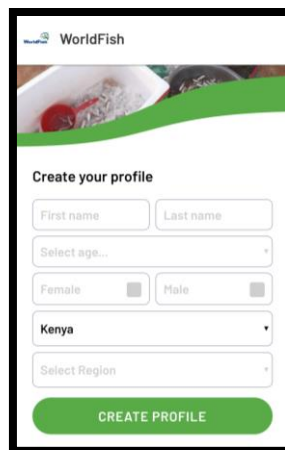
2. Once you have entered your phone number, press 'Register.'



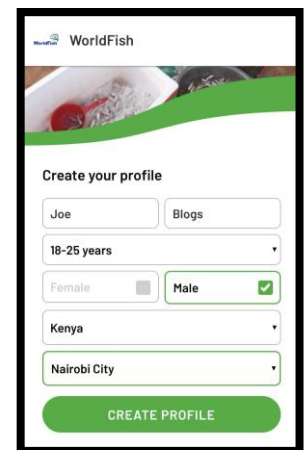
3. You will receive a six-digit code via SMS to the phone number you entered in the previous step.



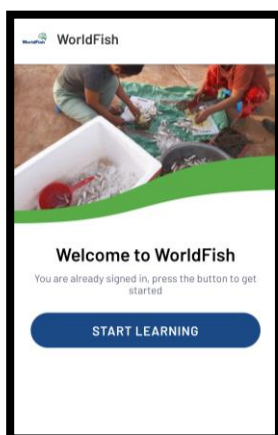
4. Enter the code you received and press 'Submit.'



5. If you are using the app for the first time, you will be asked to enter basic registration information.

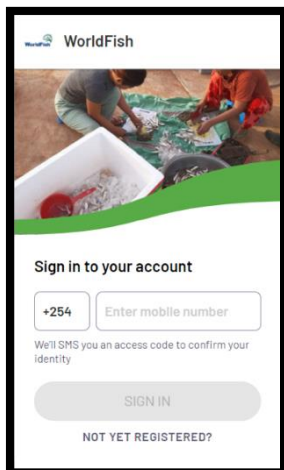


6. Once complete, press 'Create Profile.'



7. Once your registration is finished, you will be shown the WorldFish intro screen.

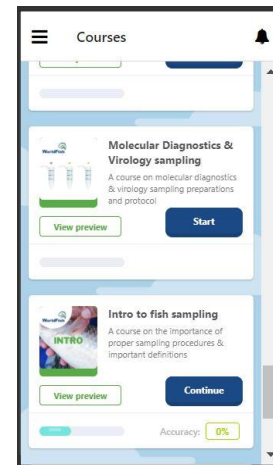
4. How to start using the fish sampling training microcourses



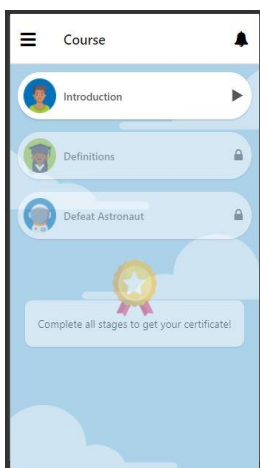
1. For existing users, enter your mobile phone number in the box provided, then click 'Sign In.'



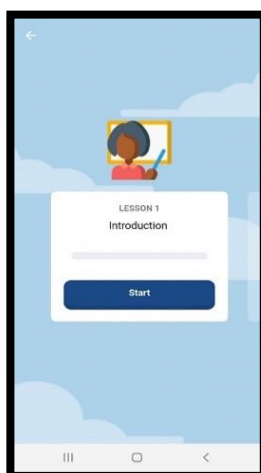
2. After signing in, you will see the main WorldFish welcome page. Press 'Start Learning' to access the microcourses available.



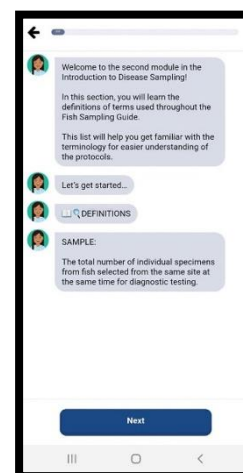
3. Press the card for the Intro to fish sampling microcourse.



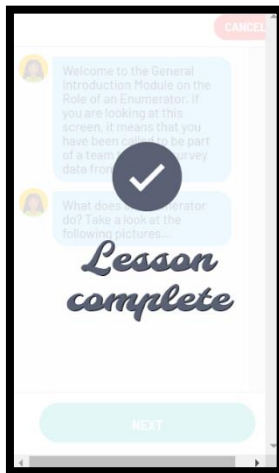
4. Press the module button to continue.



5. Press 'Start' to begin.



6. To continue the lesson, press the 'Next' button until the end of the lesson.



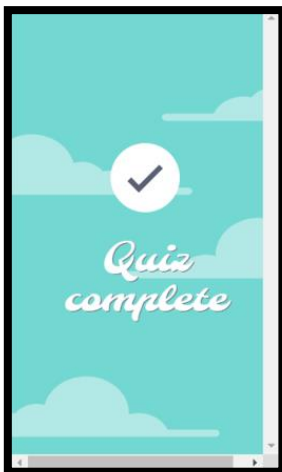
7. Once you have finished the lesson stage, 'Lesson complete' will be displayed on the screen. You may also leave at any time during the lesson and come back to the module by repeating the previous steps.



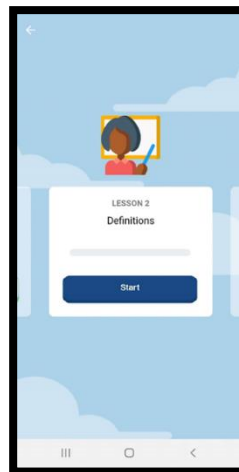
8. A quiz will be generated after the lesson stage.



9. Answer all the questions in the quiz based on what you learned in the lesson module.

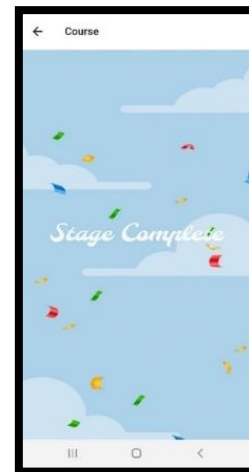


10. Once you finish the quiz, you will have completed one stage of the module.

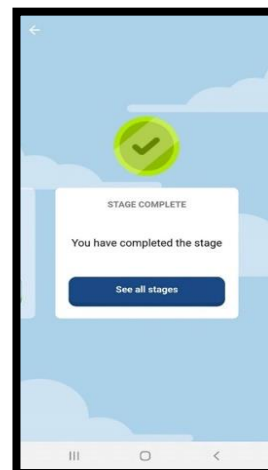
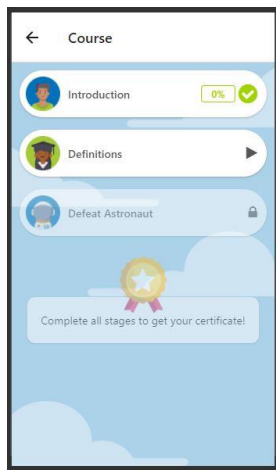


11. You will then be shown the next stage of the module.

Press 'Start' to continue with the lesson or press the back arrow in the top left corner to go back to the main screen.



12. At the end of the last stage's quiz, 'Stage Complete' will appear, and you will be brought back to the main course module list to continue with the remaining lessons.

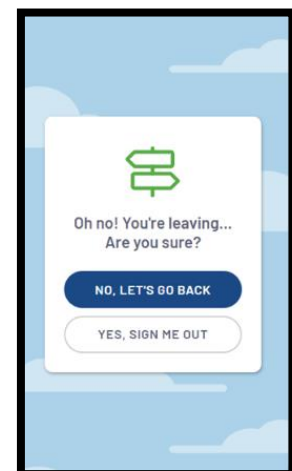
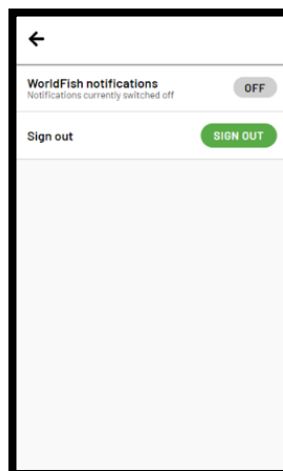
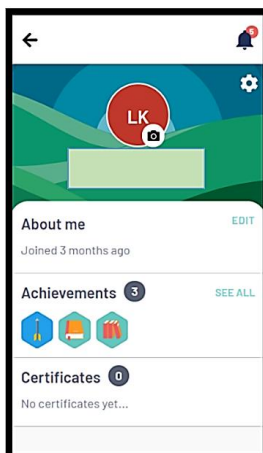


- To continue with the next lesson in the course, select the next available module title. Repeat steps 5–12.

- For completed modules, swipe left or right to get to a specific stage that you would like to review.

However, if you would like to review the previous module's lessons, select the previous module's title.

5. How to sign out



- To sign out at any time, go to your profile at <https://m.learn.ink/profile>.
- Select 'Sign out.'

- Press 'Yes, Sign Me Out' to reconfirm or 'No, Let's Go Back' to go back to the course.

**You do not need to sign out unless you are using someone else's phone or computer.*

6. Fish sampling microlearning curriculum content

The fish sampling microlearning curriculum on Learn.ink consists of eight microcourses that can be accessed via the following links:

Microcourse 1: Intro to fish sampling for disease diagnostics

This microcourse provides an introduction to the importance of proper fish sampling (part 1) and the definitions used in the sampling protocols (part 2). <https://bit.ly/39Rfh00>

Microcourse 2: Foundations in fish disease sampling

This microcourse details sampling considerations when planning the sampling design (part 1) and lists the materials needed before sampling (part 2). <https://bit.ly/3kVQm1W>

Microcourse 3: Wet mount sampling

This microcourse details materials preparation before sampling (part 1) and the step-by-step protocol for wet mount sampling (part 2). <https://bit.ly/3ojMTfT>

Microcourse 4: Microbiome sampling

This microcourse details materials preparation before sampling (part 1) and the step-by-step protocol for microbiome sampling (part 2). <https://bit.ly/2XZ5931>

Microcourses 5: Blood sampling

This microcourse details materials preparation before sampling (part 1) and the step-by-step protocol for blood sampling (part 2). <https://bit.ly/3F82nd4>

Microcourse 6: Bacteriology sampling

This microcourse details materials preparation before sampling (part 1) and the step-by-step protocol for bacteriology sampling (part 2). <https://bit.ly/3oljnX2>

Microcourse 7: Molecular and virology sampling

This microcourse details materials preparation before sampling (part 1) and the step-by-step protocol for molecular and virology sampling (part 2). <https://bit.ly/39VaGdu>

Microcourse 8: Histology sampling

This microcourse details materials preparation before sampling (part 1) and the step-by-step protocol for histology sampling (part 2). <https://bit.ly/3zUCKs4>

These microcourses were developed based on the quick fish sampling guides for disease diagnostics. These quick guides can be found at:

<https://hdl.handle.net/20.500.12348/4898>

About WorldFish

WorldFish is a nonprofit research and innovation institution that creates, advances and translates scientific research on aquatic food systems into scalable solutions with transformational impact on human well-being and the environment. Our research data, evidence and insights shape better practices, policies and investment decisions for sustainable development in low- and middle-income countries.

We have a global presence across 20 countries in Asia, Africa and the Pacific with 460 staff of 30 nationalities deployed where the greatest sustainable development challenges can be addressed through holistic aquatic food systems solutions.

Our research and innovation work spans climate change, food security and nutrition, sustainable fisheries and aquaculture, the blue economy and ocean governance, One Health, genetics and AgriTech, and it integrates evidence and perspectives on gender, youth and social inclusion. Our approach empowers people for change over the long term: research excellence and engagement with national and international partners are at the heart of our efforts to set new agendas, build capacities and support better decision-making on the critical issues of our times.

WorldFish is part of One CGIAR, the world's largest agricultural innovation network.

For more information, please visit www.worldfishcenter.org