T3connect

How to design and deliver pathogen genomics training for health and research professionals

Module 2
Evaluation
6th March 2023

wellcome connecting science

Centre for Genomic Pathogen Surveillance

BIG DATA INSTITUTE

UNIVERSITY OF OXFORD

Evaluation session aims, objectives and intended learning outcomes

Aim: bring awareness of the place of evaluation planning as part of the training design process and of the main steps involved

Objectives:

- Build on the introductory step in module 1a
- Theory: main steps in the evaluation process
- Practical: Hands on exercise – create an initial evaluation plan for your own training

Intended LOs:

- List general steps involved in evaluation planning and implementation
- Discuss purpose and importance of evaluation in training
- Devise a plan for your own training evaluation
- Use and share an evaluation teaching tool

Why evaluation and why now

- Talked about the needs for evaluation in Module 1a

  formative and summative evaluation (‘improving’ or ‘proving’)

- The awareness of the evaluation objectives, will help the overall training design, development and delivery

- It should not be a separate process detached from the training intervention

Evaluation – continued

Simplified, the main phases of the evaluation process are:

- Determining the need for evaluation and who the stakeholders are
- Formulating evaluation questions: What do we want to know about the course/initiative we are evaluating?
- Choosing indicators that are going to help us observe/measure specific aspect(s) we are looking at
- Collection of the information we need, in a timely and ethical manner
- Analysis of collected data in a valid and reliable way
- Sharing the results of the analysis and making decisions about further actions

Evaluation – continued

Questions – what do you want to know about your training?

Examples of formative evaluation questions asked can be related to how the course is implemented (competencies covered, use of certain resources, learners' participation, trainers/facilitators roles, pedagogical approaches used, innovation applied, intended learning outcomes etc).

Summative evaluation questions are usually related to the course or initiative's short, medium and long term outcomes.

Evaluation – continued

Defining what we would like to know about a specific course, i.e. **formulation of the evaluation question(s) should be part of the training design**

The scope and type of evaluation will depend on the questions we are asking

To help us define the questions, it is sometimes useful to represent the course/initiative in terms of inputs, activities, outputs and short-to-long term outcomes (this is called a logic model). (out of the scope of this course)

Evaluation – continued

Evaluation design

Methodology and accompanying methods of data collection: **qualitative** and **quantitative** methodologies

Qualitative methodology draws upon non-numerical data (text, images etc). Qualitative data has a good potential to be used to draw some inferences about the reasons why a course performed well or was less successful

Quantitative methodology uses numerical data, that is often available through learner analytics collected in platforms such as VLEs or can be collected using questionnaires. Quantitative methodologies can be applied to a larger sample and have the potential for drawing more general conclusions

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Evaluation – continued

Data collection: qualitative or quantitative or both

Probably the most used ways of data collection are surveys or questionnaires and scales (such as Likert scales).

Data collection requires an **ethical** approach. For example, when collecting data about the learners, their **rights to privacy, security and confidentiality**, such as confidential and anonymous treatment of participants' data, secure data storing, compliance with the relevant data protection laws, observing learners' right to withdraw their data need to be respected.

Evaluation – continued

Data analysis
The method of analysis will depend on the scale and type of data

Qualitative analysis normally requires triangulation in data sources, methodology and individuals who analyse it, the credibility of the results can be achieved and bias avoided.

Quantitative analysis includes statistical approaches – often in the form of descriptive statistics, but more advanced statistical analysis can be applied

Analysis is followed by the reporting of results – dissemination to stakeholders.

Evaluation – exercise

Aim: sketch an initial plan for evaluating your training

Objectives: to determine the focus of evaluation, and define the questions from this analysis; find relevant indicators, and think about sources and timing for their collection.

- Access the LMS Module 2
- Go to Evaluation exercise
- Start from downloading the evaluation template
- Then work through the exercise from Introduction through all the steps
- Click on **More information** to obtain more details about particular step

Please leave your questions in the Evaluation Q&A forum in the LMS Module 2

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References

Different resources on evaluation are listed in the References of Module 1a for further reading

Acknowledgements

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This module contains materials from the following sources:

- Storyset | Customize, animate and download illustration for free

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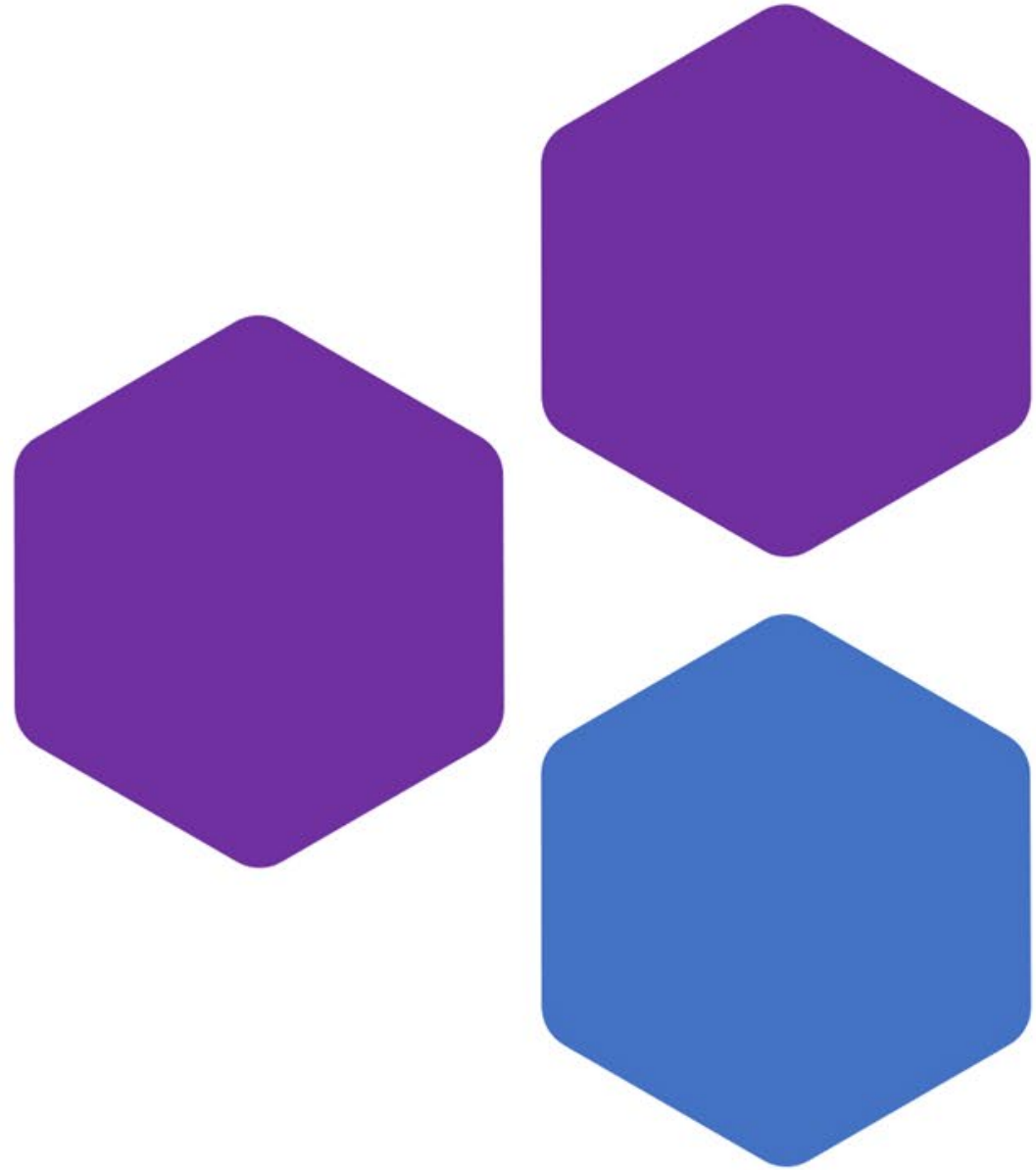
Thank you



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