

Ed-DaSH: Data Science Training for Health and Biosciences



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Programme Overview

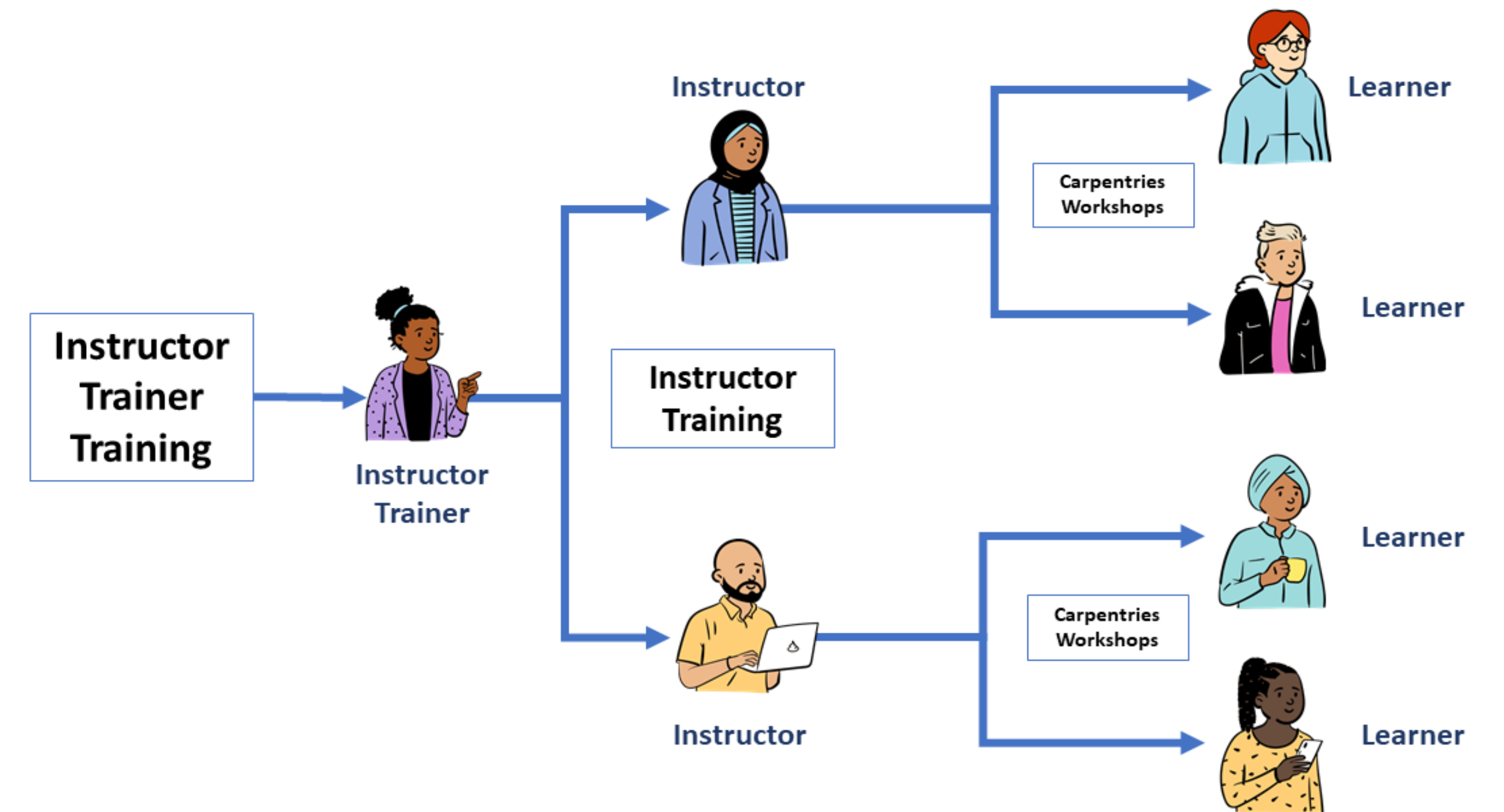
Ed-DaSH aims to develop and deliver workshops that help health and bioscience researchers – in academia, industry and society as a whole – to be both competent and confident in working with their data. Training will focus on analysing, managing and sharing data and on designing portable analysis workflows.

We will develop and deliver training using the open community platform of The Carpentries, and leveraging the existing active local community of Edinburgh Carpentries.

Ed-DaSH will both develop new training materials and adopt existing open source materials. There will be 366 days of training offered to the Health and Bioscience communities locally and nationally.

By training instructors, educating the participating community, and providing high quality materials free of charge and restriction, the project aims to ensure future sustainability.

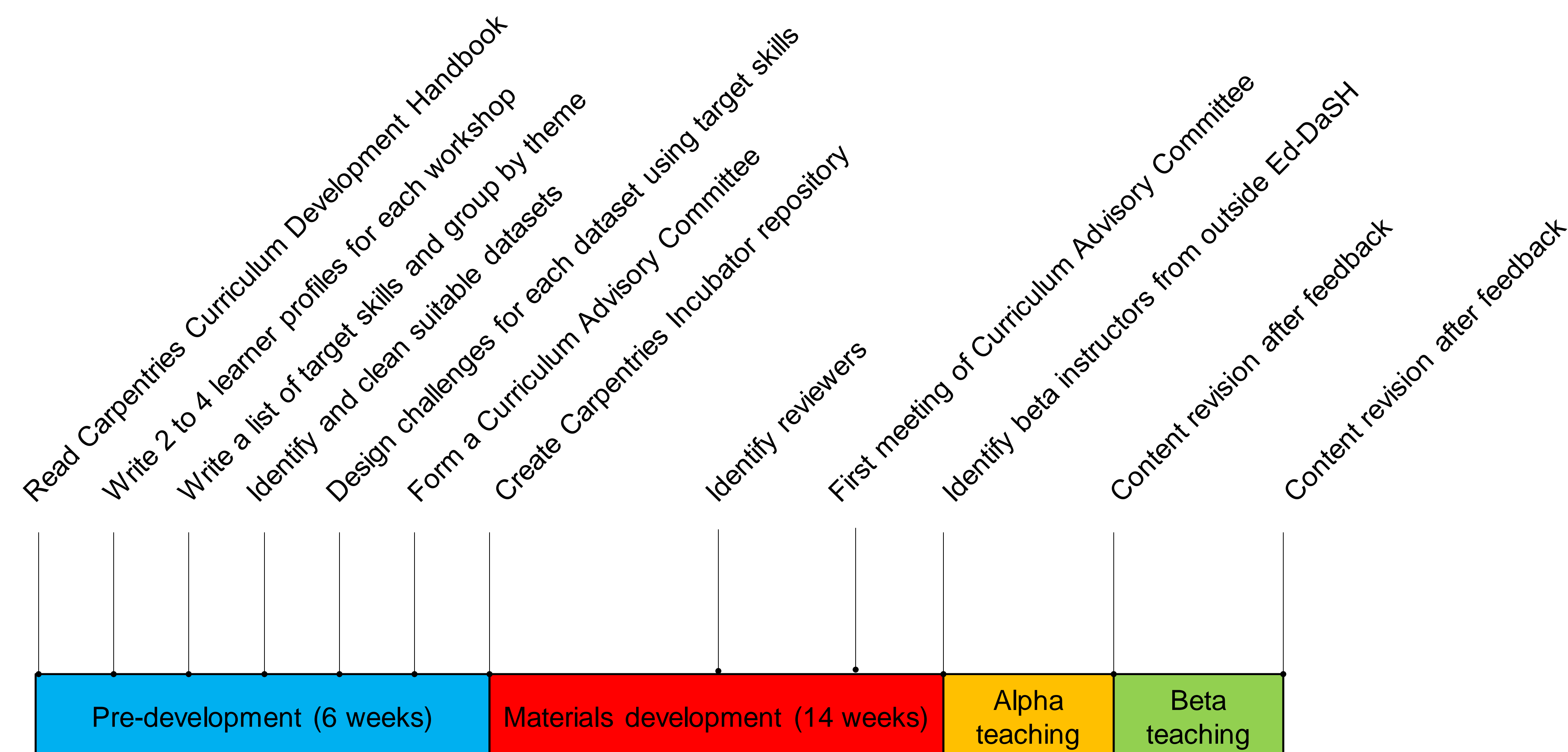
Learners, Instructors, Trainers



Learners can progress to helping at workshops and eventually becoming instructors, teaching workshops at their home institutes.

Image: <https://carpentries.org/blog/2020/07/trainer-training-fall-2020/>

The Carpentries Lesson Development Timeline



The Ed-DaSH workshop development timeline has been derived from The Carpentries Lesson Development Handbook (cdh.carpentries.org/), which is based on How Learning Works: Seven Research-Based Principles for Smart Teaching (Ambrose et al. 2010).

These principles place the learners' background, motivation, and objectives at the centre of materials development, ensuring that workshops are relevant and useful to their intended audiences.

Training Offer

Computational workflows

- Unix, Conda, Nextflow/Snakemake: 4 days, delivered every 2 months over 18 months

Open science, FAIR principles, and data management

- FAIR in practice: 2 days, delivered quarterly over 18 months

- FAIR for leaders: 1 day, delivered quarterly over 18 months

Statistics

- Basic and intermediate statistical skills*: 2 days, delivered quarterly over 18 months

- High dimensional statistics: 2 days, delivered quarterly over 18 months

- Machine learning*: 2 days, delivered quarterly over 18 months

- *Developed by other Software Sustainability Institute funded teams

Equality, Diversity & Inclusion

Training under The Carpentries umbrella must abide by its Code of Conduct, which states “We are dedicated to providing a welcoming and supportive environment for all people, regardless of background or identity.” The steering group includes EDI representation and explicitly considers inclusion as part of its remit.

Ed-DaSH training workshop registration requires a small refundable deposit, to balance inclusion with attendance objectives. All training is delivered remotely, and we have a fund for equipment needed to access the workshops, for example a headset with microphone.

Acknowledgements

This work was supported by UK Research and Innovation [grant number MR/V039075/1].



School of Biological Sciences
 School of Mathematics
 College of Medicine and Veterinary Medicine

