# Table of Contents

- **Minutes** .................................................................................................................. 3
- **Agenda topics** ............................................................................................................ 3
- **Welcome & introductions** ........................................................................................... 3
  - Discussion .................................................................................................................. 3
  - Conclusions .............................................................................................................. 3
  - Action items .............................................................................................................. 3
  - Person responsible .................................................................................................... 3
  - Deadline ................................................................................................................... 3
- **ELIXIR-UK** ................................................................................................................ 3
  - Discussion .................................................................................................................. 3
  - Conclusions .............................................................................................................. 3
- **GOBLET** ..................................................................................................................... 4
  - Discussion .................................................................................................................. 3
  - Conclusions .............................................................................................................. 3
- **First Group Activity** .................................................................................................. 4
  - Discussion .................................................................................................................. 4
  - Conclusions .............................................................................................................. 4
- **ACTIVITY 1** ............................................................................................................... 4
  - Second Group Activity ............................................................................................... 8
    - Discussion ................................................................................................................ 8
    - Conclusions .......................................................................................................... 8
- **ACTIVITY 2** ............................................................................................................... 8
  - Dealing with some of the items then and there ......................................................... 9
    - Discussion ................................................................................................................ 9
    - Conclusions .......................................................................................................... 9
    - Action items ......................................................................................................... 10
    - Person responsible ................................................................................................. 10
    - Deadline .............................................................................................................. 10
- **Drop a thought: what we should tackle** ................................................................ 10
  - Discussion ................................................................................................................ 10
- **Successful training in the era of big data (+ some key questions)** ......................... 10
  - Discussion ................................................................................................................ 10
- **Third Group Activity** ............................................................................................... 11
  - Discussion ................................................................................................................ 11
- **ACTIVITY 3** .............................................................................................................. 11
  - Tasks and names ........................................................................................................ 15
    - Discussion ............................................................................................................... 15
    - Conclusions .......................................................................................................... 15
    - Action items ......................................................................................................... 15
    - Coordinator (push taskforce) ............................................................................... 15
    - those that put their name ...................................................................................... 15
- **ELIXIR-UK/GOBLET: brainstorming Implementation & future actions** ............... 17
  - Discussion ................................................................................................................ 17
Next trainers workshop .......................................................... 17
Discussion.......................................................... 17
Conclusions.................................................................. 17
Action items.......................................................... 17
Person responsible.................................................. 17
Deadline.................................................................... 17

Describe ONE WORD for “SERVICE” .................................. 17
Discussion.......................................................... 17
Action items.......................................................... 18
Person responsible.................................................. 18
Deadline.......................................................... 18
MINUTES

Scientific Organisers
Vicky Schneider-Gricar (Vicky SG), Teresa Attwood, Chris Ponting, Carole Goble and Dawn Field

Invited speakers
Francis Ouellette, Susanna Sansone

Run& summarised by
Vicky Schneider-Gricar

Agenda topics

09:00-10:00
Welcome & introductions

VICKY SG & MARIO CACCAMO

DISCUSSION
Vicky SG welcomed all and explained a few expectations: ALL to refrain from e-mails, etc. until breaks, silence mobile phones and pro-actively interact.

Mario Caccamo formally welcomed all and provided a short introduction to The Genome Analysis Centre (TGAC), clarifying that TGAC does more than genome analysis. Mario also asked all participants to say in three words max: their name, affiliation and what they are...

Speed dating: all, led by the organising committee, holding hands, actively engaging and disclosing a secret!

CONCLUSIONS
All engaged (but some disliked the whistle intensity used to keep the timing during the speed dating session).

ACTION ITEMS
PERSON RESPONSIBLE
DEADLINE
Review activity for future workshops: increase pace and find alternative ‘buzzer’!
Vicky SG
May 2013

10:00-10:15
ELIXIR-UK

CAROLE GOBLE

DISCUSSION
Carole Goble gave a short presentation to explain what ELIXIR-UK is and how it fits within ELIXIR as a whole.

Carole mentioned the request from BBSRC not to include postgraduate training (e.g., PhD programmes, Master programmes). All agreed that this should not preclude PhD students from attending courses/workshops. Carole emphasised the importance of efforts/activities that offer scalability (e.g., one-to-one tutoring vs MOOC).

CONCLUSIONS
Anyone who has questions and/or wants to explore how to get further involved in ELIXIR-UK, drop an e-mail to Carole.

10:15-10:30
GOBLET

TERESA ATTWOOD

DISCUSSION
Terri introduced the ‘Global Organisation for Bioinformatics Learning, Education & Training’, GOBLET, and its historical background, clarifying that GOBLET covers training and education, and spans beyond bioinformatics, also including, for example: computational biology, biocuration and biotechnology.

Terri explained that GOBLET will work on a membership basis (from organisations to individuals) in order to be sustainable; details of how these will work will be finalised in the upcoming GOBLET meeting during ISMB 2013. Terri welcomed all organisations/Institutions to join by signing the MoU http://mygoblet.org/sites/default/files/files/GOBLETMoU23rdSignatory020413.pdf

CONCLUSIONS
Anyone who has questions and/or wants to explore how to get further involved in GOBLET, drop an e-mail to Terri.
First Group Activity

DISCUSSION

Participants segregated into three themes, forming a total of four groups: 2 on Bioinformatics & Biocuration (Champions: Teresa Attwood and Susanna Sansone), one on Computational Biology (Champion: Francis Ouellette), and a third one on Computing (Champion: Carole Goble) with Dawn Field floating across groups. Each group had to define a Chair and Rapporteur. All groups had to reflect on the following five questions:
1) What is the state-of-the-art in training in your theme?
2) What methods work in your theme?
3) How many people are being trained in your theme, and how many are there that need to be trained?
4) What are the training gaps/needs in your theme (based on sticky notes) and,
5) How do you perceive that ELIXIR-UK/GOBLET could help?

CONCLUSIONS

Most participants chose bioinformatics & biocuration, and hence two groups were dedicated to this topic.

<table>
<thead>
<tr>
<th>ACTIVITY 1</th>
<th>Group 1: Bioinformatics &amp; Biocuration</th>
<th>Group 2: Bioinformatics &amp; Biocuration</th>
<th>Group 3: Computational Biology</th>
<th>Group 4: Computing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 What is the state of the art in training in your theme?</td>
<td>Blended learning e-learning training + education → deep knowledge focused themes embedding → visits Openness Peer learning</td>
<td>State of art? Courses given by authorities.</td>
<td>5% vs 95% - if you go and ask a computer scientist you’ll get an answer but you won’t be able to make it work ‘Consumers’ – car driver who doesn’t want to know how the engine works Computer scientists will write highly optimised code but not interested in usability</td>
<td></td>
</tr>
</tbody>
</table>
Software developers optimise for usability and documentation but hard to publish papers – no room for 'here's a thing – use it' papers

How can we make it more attractive for software developers to continue working on someone else's code?

| Q2 What methods work in your theme? | Blended learning:  
  - Games  
  - Face2face: Lectures, Flip-classes, Quizzes  
  E-learning vs online learning  
  Exercises  
  Discussions (small groups) | Tool-oriented training.  
  Refreshers.  
  Social engineer teams in class to mix bio and cs people.  
  T shaped people.  
  Use cases.  
  Problem oriented. | Encouraging researchers to take some basic principles from good software engineering practice  
  Need to train the new generation of researcher-developers  
  Training projects driven from a research point of view, not just 'I'm going to teach you programme X'  
  Enabling others to use your stuff – documentation, testing, revision control, code clinics  
  Sharing code can encourage best practice  
  Benefits to the programmer – reusability, reproducibility  
  Hiring the right guy for the right job: researcher-developer to do research; developer to turn it into a usable product |
<p>| Q3 How many people are being trainer in your theme, and how many need to be trained? | Many, even more | 1000s (15k) reach to appropriate researchers/PIs accreditation or legislation as part of PhD programmes? | Need for training vs teaching. Industry needs shorter. Overview. | 500 (worldwide) through software carpentry last year Lots of online forums Discoverability is hard There are the 'I know I should be doing this but life’s too short' crew (5%) Then there are the 'I didn’t even know that these tools / these practices existed' (the 95%) |
| Q4 what are the training gaps/needs in your theme (based on sticky notes) | Recognition: DOIs for materials Dissemination $$, funder lobbing Keeping with cutting-edge materials Training impact factors | Requirement for mentoring: long-term follow-up. Requirement for blended learning→life-long learning Funding for training Recognition in career structure for contribution to training Peer networking/support Bringing together core bioinformatics facilities Finding common language between researchers + bioinformaticians (also training computational expertise in biological skills) Using Cloud Amazon Web services: negotiate through government Link to ELIXIR infrastructure Distinction between 'in house' training for PhD students AND conferences/workshops/tutorials | Need oriented. Who should train? Other users? Developers? Broad training in computational life sciences. Size of black box? Importance of understanding information is inherent in biology. Tool selection. Tools in context. Scientist - technologist interaction help. Intensive training, broad. Responding to change. Can we train at the cutting edge? Can we train with older things that have better UX? Researcher oriented vs methods. Training in foundations of science for | Need to set up 'SWOT' teams that will create a supportive environment in which researcher-developers are… Encouraged to sit 1:1 with software developers – even for a short time Encouraged to make their code available (GIT-hub) Taught that software needs to live beyond the life of the project Need to provide basic training on what infrastructure is available and on risk assessment – could use the very latest thing but is it supported? Is there a community to help me? Not just about code – it's about data too: need to provide training on how to assess the quality of data |</p>
<table>
<thead>
<tr>
<th>Q5 how do you perceive ELIXIR-UK/GOBLET could help?</th>
<th>Accreditation</th>
<th>Each node can contribute a field to pot.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help make above happen</td>
<td>Link use of data hub to requirements to train + TeSS training portal</td>
<td></td>
</tr>
<tr>
<td>Coordination/dissemination</td>
<td>Database of experts (\leftrightarrow) link to BTN or extend links</td>
<td>Index existing resources. Where to start? Join things up.</td>
</tr>
<tr>
<td>QC</td>
<td>Efficient use of existing resources (identify areas underrepresented).</td>
<td>Prerequisites.</td>
</tr>
<tr>
<td>Promotion of research standards</td>
<td>Accreditation needs to capture experience – not just ‘I’ve done this course’</td>
<td>Gap analysis.</td>
</tr>
<tr>
<td></td>
<td>Provider indexing.</td>
<td>Funding source indexing.</td>
</tr>
<tr>
<td></td>
<td>Facilitate consortium and collaboration formation.</td>
<td>Facilitate consortium and collaboration formation.</td>
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<tr>
<td></td>
<td>Community building.</td>
<td>Community building.</td>
</tr>
<tr>
<td></td>
<td>Hei industry interaction.</td>
<td>Hei industry interaction.</td>
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<tr>
<td></td>
<td>Abandoned tools and dbs.</td>
<td>Abandoned tools and dbs.</td>
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<td></td>
<td>Open content to avoid duplication/syndication.</td>
<td>Open content to avoid duplication/syndication.</td>
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<tr>
<td></td>
<td>Build collaborations to avoid skills explosion.</td>
<td>Build collaborations to avoid skills explosion.</td>
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<td></td>
<td>Embedding.</td>
<td>Embedding.</td>
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<td></td>
<td>Hackathon.</td>
<td>Hackathon.</td>
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</table>

ELIXIR/GOBLET representation of other biological meetings
Mechanisms for recognition of training OR training material/development
Recognition in acknowledgments/authorship for contribution to bioinformatics training

technology background people.
Why are people still coming in from physical science?
Collaboration skills.

resources – otherwise users become locked into ‘here today, gone tomorrow’ services
Need to train a service mentality – by the time they get to postdoc level they’re already embedded in a research mentality
Need to train the PIs to get away from the ‘publish or perish’ mentality for software development

Lobbying on the importance of rewarding trainers and others in a service role
Who provides accreditation? GOBLET as the professional body for this?
Accreditation needs to capture experience – not just ‘I’ve done this course’
Recognised software authoring – publishing papers isn’t the only means of recognition
ELIXIR could foster collectivism – bring small labs together to work on big problems
Second Group Activity

DISCUSSION

Participants were sorted into three groups with respective Champions: Teresa Attwood/Susanna Sansone; Francis Ouellette and Carole Goble. Each group had to define a Chair and Rapporteur. All groups had to reflect on the following five questions:
1) What do you most want to get out of a community of trainers?
2) What training materials are there/should we produce (top three)?
3) What do we not need to produce/re-create?
4) What resources are available to help improve your training?
5) What is missing/would you like to have to help improve your training?
6) How could ELIXIR-UK (TeSS) and GOBLET (portal) help?

CONCLUSIONS

There was some confusion about TeSS: Susanna Sansone presented an overview of TeSS to provide clarification, extracting the information from the ELIXIR-UK node application (two summary figures to be added soon to the workshop website).

ACTIVITY 2

<table>
<thead>
<tr>
<th>ACTIVITY 2</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
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</thead>
<tbody>
<tr>
<td>1) What do you most want to get out of a community of trainers?</td>
<td>1) Quality Control (QC) (QC) Guide to good stuff (QC) moderation of material 2) Training the trainer (licensed): • Interactive Web courses • Learning by doing • Open access • R top rated too/ video tutorials 3) Curriculum/core + customise</td>
<td>Sharing: • Best working practice • Delivery methods • Experience • Feedback • Data-sets good/bad • Training materials/resources • Expertise • Database footprint ppf • Searchable keywords to find trainers</td>
<td>e-forum expertise ←-→ community Improvement skills Support of networks, other people Clear community, access point info CPD Tool &amp; Problem (flexible) Tailored to needs Geographical location (local training)</td>
</tr>
<tr>
<td>2) What training materials are there/should we produce (top three)?</td>
<td>Demonstrators Peer Training Network Credit for demonstration Mentoring Insights into improving with feedback Gaps identified Best practice Successful methods Trust</td>
<td>Make it easy to find one we have already Use-case repository Preparing them for failure Pre-requisites/flow of knowledge</td>
<td>1) e-learning: • filming/videos: - lectures, -demos. • Wiki 2) screen cast: as standard operation procedure 3) slides and exercises</td>
</tr>
<tr>
<td>3) What do we not need to</td>
<td>NGS courses→ increase discoverability</td>
<td>Everything (existing training materials)</td>
<td>X</td>
</tr>
<tr>
<td>produce/re-create?</td>
<td>Databases</td>
<td>Wiki’s</td>
<td>Platform for self promotion</td>
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</tr>
<tr>
<td>4) What resources are available to help improve your training?</td>
<td>Skype/interaction</td>
<td>Social networks/communication</td>
<td>Cloud computing</td>
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<tr>
<td></td>
<td>Training ←-------→ feedback</td>
<td>Feedback during the course</td>
<td>Watching how other trainers train</td>
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<td>3rd person feedback (peer reviewed)</td>
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<tr>
<td>5) What is missing/would you like to have to help improve your training?</td>
<td><em>train the trainers</em></td>
<td><em>train the trainers</em></td>
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<td></td>
<td>• Workshops</td>
<td>• Workshops</td>
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<td></td>
<td>• Bootcamps</td>
<td>• Bootcamps</td>
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<td>• Hackathon</td>
<td>• Hackathon</td>
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<td></td>
<td>Avatars/local demonstrators for virtual teaching</td>
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</tr>
<tr>
<td>6) How could ELIXIR-UK (TeSS) and GOBLET (portal) help?</td>
<td>Collect (long range + honest) feedback</td>
<td>Identifying training organisations that provide training (venues, rooms)</td>
<td></td>
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<tr>
<td></td>
<td>Pressure group: awards 4 teaching, open teaching golden tablet.</td>
<td>Not reinventing the wheel, duplicating work</td>
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<tr>
<td></td>
<td>Use existing: journal OPEN to training</td>
<td>Accreditation/endorsements:</td>
<td></td>
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<tr>
<td></td>
<td>YouTube channel</td>
<td>• Badges</td>
<td></td>
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<tr>
<td></td>
<td>Careful about being measured to death – ref game.</td>
<td>• Champions</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Making training credible</td>
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<td></td>
<td></td>
<td>Standardised feedback system</td>
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</tbody>
</table>

Dealing with some of the items then and there

<table>
<thead>
<tr>
<th>DISCUSSION</th>
<th>Participants were asked about options for the last session, including whether they felt there was any item from the previous session that could be tackled then and there.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The discussion started by defining top items ALL wanted to discuss on a flipchart:</td>
<td></td>
</tr>
<tr>
<td>1) GOBLET’s role and ELIXIR-UK role? (selected)</td>
<td></td>
</tr>
<tr>
<td>2) Who decides what is good or bad? (selected)</td>
<td></td>
</tr>
<tr>
<td>3) All fields vs specific (the entire range) (not selected)</td>
<td></td>
</tr>
<tr>
<td>4) Feedback, in particular long-term (not selected)</td>
<td></td>
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<tr>
<td>5) Semantics: we should clarify first among us a common terminology (e.g., what’s “bioinformatics”, what’s “e-learning vs online learning, vs blended learning”) (selected)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>CONCLUSIONS</th>
<th>1) GOBLET’s role</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• GOBLET could be the Professional Body for Bioinformatics Training: badges, accreditation, community gang!</td>
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<tr>
<td></td>
<td>• Online aggregator!</td>
</tr>
<tr>
<td></td>
<td>• Provides enabling technologies</td>
</tr>
<tr>
<td></td>
<td>• Training award: the GOLDEN GOBLET, community vote.</td>
</tr>
<tr>
<td></td>
<td>• Open courseware</td>
</tr>
</tbody>
</table>
**ELIXIR-UK role**
- ELIXIR-UK: provides the platform and coordinates enabling?
- Design models for training
- Framework for node-to-node efforts
- ELIXIR resources

2) Who decides: after quite some discussion on this, where participants suggested: everyone, trainees, long-term feedback, evaluation of features, it became clear that there was confusion about whether the subject of the discussion was actually materials, courses or trainers. ALL decided to stop, with a common agreement that we should define MINIMUM INFORMATION MODEL OF COURSES (to allow them to be comparable), almost like a "compare the training.com", including investigation of existing standards (e.g., SCORM was cited for e-learning; however, some participants underlined the difficulty of implementing such standards… and questioned whether they were fit for purpose). Regarding MIMCs, Manuel Corpas mentioned SASI, and its potential expansion and suitability as a model to achieve this.

5) Attempts to gauge the type of terms that ALL felt needed disambiguation, definition, etc., provided the following list: workshop, standardisation, cloud, big data, course, service, infrastructure, software developer, life science informatics, clinical bioinformatics, health, computational life sciences, education, training, bootcamp, e-learning, online learning, blended learning, e-training.

<table>
<thead>
<tr>
<th>ACTION ITEMS</th>
<th>PERSON RESPONSIBLE</th>
<th>DEADLINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum information model for courses</td>
<td>Manuel Corpas + Rafael Jimenez + Vicky SG</td>
<td>May 2014</td>
</tr>
<tr>
<td>Create a tag list of terms + descriptions (start with those in this list) and engage with specific communities to created tailored lists (e.g., plants/crops, health/clinicians). Ontology and CVs.</td>
<td>Vicky SG + Susanna Sansone + Manuel Corpas + Rafael Jimenez</td>
<td>May 2014</td>
</tr>
</tbody>
</table>

09:00-09:15

**Drop a thought: what we should tackle**

**DISCUSSION**

Participants were asked to write one item they would like to prioritise, work on, see covered before the end of the day. Overlaps and similar responses led to seven clear groups (from 45 post-its in total - some participants did not contribute):

1) Trainer support (incl. train-the-trainer), 5 post-its
2) Recognition of training, 3 post-its
3) Sharing, 5 post-its
4) Funding, 4 post-its
5) Future course needs/long-term feedback, 9 post-its
6) Curriculum/content/templates, 5 post-its
7) ELIXIR-UK & GOBLET: how will it work/redundancy, how can I get involved/stay informed?, 12 post-its

And two separate but important post-its said:

"need for clear deliverables and actions"
"who did we forget to invite to a workshop like this?"

09:15-10:00

**Successful training in the era of big data (+ some key questions)**

**DISCUSSION**

Invited speaker, Francis Ouellette, addressed this title and some specific questions he'd received prior to the meeting; his presentation will be available soon from the workshop website.
Third Group Activity

Participants were sorted into three themes with respective Champions: Susanna Sansone; Francis Ouellette and Carole Goble. Each group had to define a chair and rapporteur. All groups had to reflect and work on the following five common questions:
1) What are the metrics for evaluating the success of training courses?
2) What are the metrics for evaluating trainers?
3) How could different activities be reported so that they’re comparable?
4) What would you do with £1k for training?
5) How do you perceive that ELIXIR-UK/GOBLET could help?

<table>
<thead>
<tr>
<th>ACTIVITY 3</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
</table>
| 1) What are the metrics for evaluating the success of training courses? | Feedback from students:  
- Forms  
- Collected opinion  
DOI or some other tag to include in papers and CVs  
Ingredients necessary for long-term, testing before and after  
Networking?  
Grant applications mentioning training  
Material reusability  
Message: would you be available to answer… | WHY?  
Best practice for successful courses  
Best practice for evaluating success of courses  
Continuous improvement of course content and delivery  
To convince funders their investment is having an effect  
Evaluate consistently across courses to allow comparisons:  
- For funders  
- For trainers  
HOW?  
Pre-course questionnaire  
During the course:  
- One thing learned  
- Good/bad round up  
Immediate post-course survey:  
- Were expectations met?  
- Shape the next course.  
- Difficult to get beyond environmental problems (e.g., hot, cold).  
Longer-term feedback:  
- What activities did you do that you couldn’t have done without the course?  
- Papers, grants, collaborations?  
Issue: wide range of seniority: no immediate feedback on course. | Nr of people trained  
Nr trainee hours (new)  
Would you recommend this…? (attendees that come as a result)  
Are they using what you taught (6 months later), papers arising, collaborations arising from course  
Checking post-course use/visits of online tools/resources: e.g. spikes post course & who attended  
Online: return visits, Google analytics  
Assessments (“did they learn it?”)  
Course itself vs impact of course  
Quantitative vs qualitative  
Monitoring and feedback during a course  
Paper forms vs online forms  
Pre-survey to pitch material at right level  
* ask the right questions in the right way * |
| 2) What are the metrics for evaluating trainers? | Badges: trainers apply after each event.  
Standardised criteria  
Feedback forms from students  
Reports from trainers  
Peer review  
Test (measure exercises) | QUESTION | Does a numerical metric:  
- e.g., 1-5 “goodness” have a value?  
- e.g., to evaluate trainers.  
- want direct comparisons and to act on them.  
Who does post-course exams? (e.g., for accreditation/certificated):  
- Not suitable for shorter courses.  
- Necessary for university equivalence? Do we want to fulfill this?  
- Does evaluation scare people? Inhibit innovation? New entrants?  
Needs of funders and train-the-trainers are different.  
WHAT TO ASK?  
Did the student feel confident to do more?  
Did the student learn new things not directly related to course content? E.g., connections, collaborating, practices.  
Did content match expectations of participants?  
Did delivery match expectations of participants?  
Balance between practical and theory  
How did you find out about a course?  
Did the trainers “understand the room”? (e.g., expertise of students, balance, syllabus).  
Did students feel enthused  
Did this represent a sea change  
Is content sufficient for trainee to be a trainer (e.g., useful as acceptance criteria for oversubscribed courses) | GOBLET: as Professional Institute: so how do they do it?  
Portfolio & tracking of personal development  
Look at how Unis do it and don’t adopt that approach  
Rate individual sessions/questions on → tease out information about trainers via well chosen questions  
Peer review in a supportive way  
Difference between trainers in some group/organisation or contractors or volunteers  
Adaptability on the fly  
Who has done how much on what…open badges |
| 3) How could different activities be reported so that they’re comparable? | Would you recommend the course to others:  
- What benefits do Heads of Department see?  
- If not, what would you need to change?  
What other courses/topics do you want to see? | |  |
|---|---|---|---|
| Standardised feedback forms  
Open materials (MM)  
Commonly agreed metrics  
Repository:  
- Linking metrics, materials  
- Standardised objectives  
Announcements (rich) with good descriptions  
Categorised ranges:  
- Levels  
- Tagged by subjects | What do we want to find out?:  
- Trainers: delivery, trust, rapport  
- Content covered: appropriate?  
- Trust (recommendations)-improvement  
- Timing: rushed/comfortable?  
Trainers:  
- Peer observations of teaching (choose someone trusted to sit in and provide feedback)  
- Self-identification: are people coming to working like this?  
Numbers: some numbers are private, some very public.  
Number of applicants: accepted, completed  
Keep a mailing list: best people to advertise are your alumni.  
Feedback on course content: creators as well as deliverers. | How to compare:  
- Training courses  
- 1-N consultancy  
- Knowledge exchange  
- 1-1 consultancy  
and see the things that are different.  
Classify the:  
- location  
- types of training  
- levels  
- pre-requisite tests: who should not go on each course  
- resources/tools used  
IT is NOT constructive to compare courses to each other! (“a better than b”). It’s constructive to identify dependencies and pre-requisites  
It is more important to ensure attendees get to the courses they need |  |
| 4) What would you do with £1k for training? | £1K  
Pay time to helpers to build automated forms to collect data  
Fellowships for valuable applicants with no funds  
Support ‘training the trainer’  
Golden GOBLET (plated) TM  
£1M  
A way to pay to trainers  
Research on how to TRAIN | £1K  
Peer mentoring!  
Send people to observe other and publish feedback.  
£1K  
Trainer/internship/scholarship  
Hackathon  
Trainer ‘away day’  
20 hard drives with tools/OS, etc.  
Prizes for contributors  
Amazon-time  
Online resources  
Books for attendees | £1M  
A way to pay to trainers  
Research on how to TRAIN |  |
<table>
<thead>
<tr>
<th>better (learning research)</th>
<th>Large-scale train-the-trainer computing infrastructure (time on the Cloud)</th>
<th>Set-up researchers in developing countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay trainee to:</td>
<td>• revise course</td>
<td>Buy time on GOBLET sequencer</td>
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<tr>
<td></td>
<td>• polish slides</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>5) How do you perceive that ELIXIR-UK/GOBLET could help?</th>
<th>Lobbying</th>
<th>Raising awareness</th>
<th>More recognition</th>
<th>Train-the-trainer WS</th>
<th>Workgroups to study standardisation</th>
<th>Brainstorm on how to engage and proceed</th>
<th>Community building</th>
<th>Widening membership:</th>
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<tbody>
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<td>• Individual</td>
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<td>• Institutional</td>
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<td></td>
<td></td>
<td></td>
<td>Annual meeting</td>
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<tr>
<td>Provide one standard minimal set of questions that you should ask pre- + post-course:</td>
<td>• Allow each course to supplement their own questions</td>
<td>• To allow comparability across ELIXIR (GOBLET)</td>
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<tr>
<td></td>
<td>• Best practice or “enforced”</td>
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<tr>
<td>Act as third-party administrators for post-course surveys?</td>
<td>• Must be quick and easy</td>
<td>• Be of value to trainers</td>
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<tr>
<td></td>
<td>• Unbiased feedback</td>
<td>• Long-term feedback</td>
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<tr>
<td></td>
<td>• Suggestions of courses students might like</td>
<td>• Suggestions of courses students might like</td>
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<tr>
<td>Look at over-arching strategic view from data collected:</td>
<td>• Where are the gaps?</td>
<td>• Where is the interest/buzz?</td>
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<tr>
<td></td>
<td>• Persuade funder to provide funding in underprovided areas</td>
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<tr>
<td>Look at long-term impact on science:</td>
<td>• And provide the info to funders, course organisers</td>
<td>Should GOBLET/ELIXIR-UK accredit trainers?</td>
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<td></td>
<td>• Requires observation, “academy of trainers”</td>
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</table>

TELL someone to DO things!! (be FIRM)
Drive the trainer classification Resource (Grid/Cloud/UPC) brokering for ELIXIR-UK members.
With standards bundles/interJuces/VMS, etc.
Hartree offer resources A/V for training- ELIXIR-UK can leverage things
1-on-1 training match-making
**DISCUSSION**
Since the planned group activity had themes that all felt had been covered previously, everybody agreed to modify the programme to prioritise the tasks we ALL should tackle first.

Based on the “drop a thought: what we should tackle” session at the start of the day, the following seven categories were defined:

1. Trainers support (incl. train-the-trainer), 5 post-its
2. Recognition of training, 3 post-its
3. Sharing, 5 post-its
4. Funding, 4 post-its
5. Future courses needs/long-term feedback, 9 post-its
6. Curriculum/content/templates, 5 post-its
7. ELIXIR-UK & GOBLET: how will it work/redundancy, how can I get involved/stay informed?, 12 post-its

---

**CONCLUSIONS**
Terri and Carole provided each a further overview and clarification of GOBLET and ELIXIR-UK respectively. They particularly tackled questions relating to TeSS and GOBLET, and how one would fit with the other. The conclusion was that TeSS will function as an AGGREGATOR: it’s a platform that depends on the Community for its contents and governance. Interlinked to it: yellow pages (registry of trainers); events calendar; material directory. The two figures Susanna used to explain TeSS will be available soon from the workshop website.

**ELIXIR-UK to GOBLET:**
- Resource to support platform (discuss the hosting), “GOLD sponsor”
- Resource to sponsor necessary activities ➔ minimum description.
- Partner for content/events community (one of many) + review. Training partner!

**ELIXIR-UK additionally to GOBLET:**
- Brokering access to resources in ELIXIR and in UK (support with ELIXIR-UK institutions to enable follow-up training).
- Lobbying.
- Funding proposals/initiatives.
- Roll-out of training approaches to ELIXIR.

---

**ACTION ITEMS**

<table>
<thead>
<tr>
<th>Coordinator (Push Taskforce)</th>
<th>Those that put their name</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trainer support (incl. train-the-trainer) Taskforce</strong></td>
<td>Urmi Trivedi &amp; Cath Brooksbank</td>
</tr>
</tbody>
</table>
| | Rick Dunn  
  Mark Viant  
  Sarah Morgan  
  Rob Davey  
  Tracey Timms-Wilson  
  Johan Nylander  
  Aidan Budd  
  Gabriella Rustici  
  Andrew Deverean  
  Celia van der Gelder  
  Patricia Palagi  
  Angela Davies  
  Eija Korpelainen |
| **Recognition of Training Taskforce** | Allegra Via & Aidan Budd |
| | Mick Watson  
  David Sims  
  Pedro Fernandes  
  Manuel Corpas  
  Bert Overduin  
  Celia van der Gelder  
  Patricia Palagi  
  Vicky SG |
<table>
<thead>
<tr>
<th>Taskforce</th>
<th>Leader</th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharing Taskforce “OPEN”</td>
<td>Neil Chue Honk</td>
<td>Simon Andrews, Katy Wolstencroft, Martin Golebiewski, Pedro Fernandes, Patricia Palagi, David P Judge, Urmia Trivedi, Dan Maclean, Celia van der Gelder</td>
</tr>
<tr>
<td>Funding Taskforce</td>
<td>Patricia Palagi</td>
<td>Mick Watson, Vicky SG, Rick Dunn, Mark Viant, Carole Goble, Celia van der Gelder</td>
</tr>
<tr>
<td>Future courses needs/long-term feedback Taskforce</td>
<td>Jacky Dreyer &amp; Gabriella Rustici</td>
<td>Patricia Palagi, Celia van der Gelder, Mindi Sehra, Andreas Heger, Charis Cook, Christine Ongono, Angela Davies, Eija Korpelainen</td>
</tr>
<tr>
<td>Curriculum/content/templates Taskforce</td>
<td>Pedro Fernandes Phil D Judge</td>
<td>Sumir Panji, Sarah Morgan, Ruth Lovering, Rob Davey, Jan Kim, Gabriella Rustici, Patricia Palagi, Charis Cook</td>
</tr>
<tr>
<td>Outreach/Community engagement Taskforce</td>
<td>Aidan Budd</td>
<td>Celia van der Gelder, Bert Overduin, Tracey Timms-Wilson, Manuel Corpas, Vicky SG</td>
</tr>
<tr>
<td>TeSS (registry/database of training-relevant events/materials/catalogues)</td>
<td>Susanna Sansone &amp; Terri Attwood</td>
<td>Tracey Timms-Wilson, Sarah Butcher, Rafael Jimenez, Manuel Corpas, Carole Goble, Katy Wolstencroft, Tim Booth, Andrew Devereau</td>
</tr>
<tr>
<td>Data Carpentry (incl. biocuration, standards), launching a new initiative under ELIXIR-UK, do you want to be invited? Add your name</td>
<td>Susanna Sansone</td>
<td>Tracey Timms-Wilson, Jan Kim, Rob Davey, Simon Andrews, Sarah Butcher, Katy Wolstencroft, Vicky SG, Martin Golebiewski, Carole Goble, Rafael Jimenez, Francis Ouellette, Manuel Corpas</td>
</tr>
</tbody>
</table>
15:30 -16:30

ELIXIR-UK/GOBLET: brainstorming
Implementation & future actions

**DISCUSSION**
Front panel composed of Carole Goble, Chris Ponting, Teresa Attwood, Celia van Gelder, Allegra Via, Francis Ouellette, Susanna Sansone and Vicky Schneider addressed various aspects and questions from the participants.

**FUTURE MEETING**

Next trainers workshop

**DISCUSSION**
All agreed it would be useful to have a follow-up meeting. This will be held at The Genome Analysis Centre (TGAC) in May 2014, if you are interest please send an e-mail to Helen Tunney.

Costs: we aim to cover similar costs as for this workshop: accommodation and food for all participants, travel for invited speakers and organisers. However details on this will be confirmed by latest May 2013.

One person as facilitator, note taker and time-keeper is quite stretching. Individuals who would like to take any of these roles are welcome. Please send an e-mail to Helen Tunney, indicating which role you would like to have to support the next meeting.

**CONCLUSIONS**
In order to make the most of what we did during this meeting and see what we should change/add/remove for the next one, Vicky SG asked all to give one item about something they really liked on this workshop and something they would like to see different in the future.

Top “I liked” items:
1) Meeting people & networking
2) Interactivity
3) Learning about GOBLET
4) Learning about sharing challenges/training needs of others
5) Being open
6) Speed dating (and dinner quiz)

Top “in future it would be nice...” items:
1) Have deeper, more specific/focused discussions
2) Have smaller break-out groups
3) Work there and then on the actions (e.g., case studies; standards and solutions)
4) See how all fits into a bigger-scale vision
5) Lightning talks from participants
6) Invite all to get involved in organising (e.g., contribute to agenda)

<table>
<thead>
<tr>
<th>ACTION ITEMS</th>
<th>PERSON RESPONSIBLE</th>
<th>DEADLINE</th>
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</thead>
<tbody>
<tr>
<td>Volunteers to facilitate/time-keeping and note-taking for Workshop in 2014</td>
<td>Helen Tunney to remind all and capture volunteers for the roles.</td>
<td>February 2014</td>
</tr>
<tr>
<td>Circulate e-mail to catch items for agenda</td>
<td>Vicky SG</td>
<td>January 2014</td>
</tr>
</tbody>
</table>

**RESPONSIBILITY+ CREATIVITY**
Describe ONE WORD for “SERVICE”

**DISCUSSION**
Carole asked all to post one word to rename service as in: “professional research
Data wrangler; bioinformatics consultancy, grown-up facilitator professional, advisor, profession, scientist, research support, innovation enabler, savior, lord and master, pillar foundational layer, councilors, provider consultant expert, platform, collaborative adviser, science provider, service is good! specialists, expert solution, expert consultant specialists, crafter, carpenter, resource expert, hero, interactomator, partner, professionalisation/industrialisation, indispensable support.

Most popular word on its own (combined):
- enabler-5 (6);
- advisor-3 (4);
- facilitator-3 (4);
- consultant-2 (4);
- expert 1 (4);
- support 1 (2)

<table>
<thead>
<tr>
<th>ACTION ITEMS</th>
<th>PERSON RESPONSIBLE</th>
<th>DEADLINE</th>
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</thead>
<tbody>
<tr>
<td>Carole to follow-up and share any conclusions from this activity</td>
<td>Carole Goble</td>
<td>May 2014</td>
</tr>
</tbody>
</table>