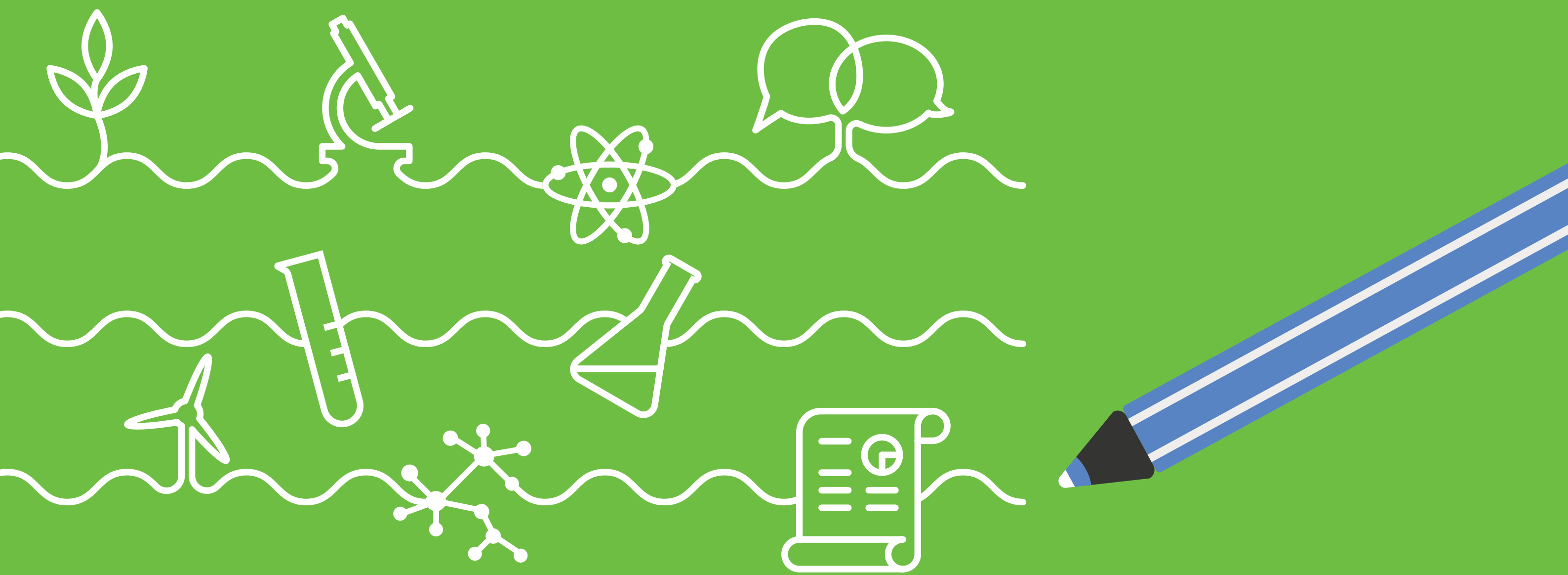

Research Writing Workshop **Facilitation Notes**

Resources to run a participatory research writing workshop at your institution

Guidance for trainers

Background knowledge and skills for trainers

Those who're looking to facilitate this workshop should ideally have

- Experience as an investigator in scholarly research projects
- Authored at least three original research articles that have been published in reputable peer-reviewed journals
- An awareness of current issues in scholarly publishing
- A positive attitude towards active learning
- A strong interest in using techniques to support active learning in the classroom

General advice

- This is a workshop design for 20-25 people.
- The workshop design can be adapted so it is fit for purpose.
- The trainer/s can insert photos/images into the PowerPoint slides where they see fit.
- The timings are an approximate guide and trainers are expected to make adjustments during the course of the workshop.
- The trainers will need to monitor the atmosphere in the training room, and use energizers when a change of pace or in energy levels is required.
- The trainers need to print out the agenda, the facilitation notes and the participant handbook to support the preparation and delivery of the workshop.
- The trainers should make sure that the ‘preliminary information’ document and workshop agenda have been sent to the workshop participants before the workshop.
- As good workshop practice dictates, trainers need to spend time in advance of the workshop, to study the facilitation notes, training resources and participant handbook. It is also recommended that trainers consider how best to format the facilitation notes so that they are easy to use on a day-by-day basis and that they match the trainer’s preferred note format.
- Every participant should receive the following at the start of the workshop:
    - A copy of the participant handbook, ideally placed inside a ring binder folder (so papers can be removed and new ones added using a hole punch)
    - A notepad and pen

The training room

The trainer/s together with the workshop administrator, need to ensure that a suitable training room and layout is organized well in advance of the workshop. It is recommended that, for the smooth and successful delivery of the workshop, the following training room and layout arrangements are made:

- Round, moveable tables are sourced, comfortably sitting up to four participants (e.g. if a total of 20 participants, five tables are required).
- Three small extra tables are provided: one to house the laptop and projector, one for the trainers' workshop materials and one as a spare.
- Light, movable chairs are sourced, enough for each participant and five as spare.
- The tables and chairs need to be placed in roughly one half of the training room, and are at least two or three leg strides apart. The remaining half of the space is left free for other workshop activities.
- Find a training room, with lots of wall space on which flipcharts and training resources can be attached.
- Identify a clear wall to act as a screen if no screen for the projector is available at the training venue.
- Remove any raised platform or stage at the head of the room; they are not required.

Workshop stationery and resources

Please make sure the following are available:

- Sticky notes (or post-it notes): A few sets of both large and small notes
- At least two sets of flipcharts and two flipchart stands
- Two sets of marker pens
- Projector and screen
- Computer to connect to the projector (in case the trainer will not be using their own laptop computer)
- A few flash drives (in case Internet connectivity is not available for the activities where the participants need to share documents with each other)
- Optionally, a whiteboard (in this case, make sure the whiteboard markers are different from the markers used for flipcharts as the latter kind could have permanent ink!)

Abbreviations used in this document

- D1 means day one of the workshop, D2 means day two of the workshop and so on.
- S1 means session one of the workshop, S2 means session two of the workshop, and so on. Session numbering continues from one day to another, so the second day starts from a session number that's one integer higher than the last session number of day one.
- PSL: PowerPoint projector, screen and laptop.

Day one agenda

D1-S1: Introductions and learning agreement

Length of session	50 minutes
Session summary	This session is for participants to get to know one another, become familiar with the workshop format and resources, and reflect on a key question.
Visual aids and equipment	PowerPoint projector, screen and laptop (PSL henceforth)
Resources (on the day)	Facilitator's slides
Participant handbook to be used?	No
Guidance to facilitating learning activities	**Welcome and introductions (20 mins)** Welcome participants to the workshop. Why is this workshop being conducted? What is the big picture? Why have these particular participants been selected? Introduce yourself. If the workshop is to be 'opened' by a senior administrator, ask this person to keep their speech under 5 minutes. Ask participants to introduce themselves one by one. Ask people to give one name by which they wish to be referred to during the workshop and to describe their research or work in two sentences. Give participants 2 minutes to collect their thoughts before starting with the introductions. **Introduction to workshop, learning outcomes, participant handbook, and active learning (10 mins)** Present the slide with the intended learning outcomes. Describe the workshop resources: the facilitation notes in your hand, the slides (make the point that slides are largely meant to support the learning activities), on-the-day resources which you'll be handing out now and then, and importantly the participant handbook. Ask participants to open their handbook and glance at the workshop agenda and browse the handbook for a couple of minutes individually. Point out the structure of the handbook and mention that only sessions for which there are relevant handbook sections are given in the handbook. Take two or three questions at this point but not more. Present the slide about active learning and take a couple of questions. **Learning agreement (5 mins)** Present the slide with points that people should agree to. Ask if these are reasonable and if anyone has objections. **Introduction to end-of-day reflection (5 mins)** Show the slide about this. Encourage participants to keep these points in mind while they go through the workshop. **Think-pair-share activity (10 mins)** Ask participants to individually reflect on this question (show slide): What does success as a research author look like to you? Give them 5 minutes to jot down their thoughts. Ask them to turn to a table partner and share what they've written. Collect the notes and ask a co-trainer to write up the interesting points on a flipchart and put it up on a wall.

D1-S2: Establishing the right mindset to be a research author

Length of session	45 minutes
Session summary	Participants learn about why it's important to have a 'growth mindset' instead of a 'fixed mindset' to be a successful research author
Visual aids and equipment	PSL
Resources (on the day)	Facilitator's slides
Participant handbook to be used?	Yes
Guidance to facilitating learning activities	**Making groups and arranging the physical space (10 mins)** Invite participants to sit in groups of three. This is the first of many small-group activities in the workshop so you might want to offer some support in arranging tables and chairs if necessary and helping people form groups. For this session create groups by having people call out 1,2,3,1,2,3 etc. and grouping all the 1s, 2s and 3s. **Introducing the concept and activity (5 mins)** Once they're all seated, present the graphic on fixed mindset and growth mindset. You can find this at www.brainpickings.org/2014/01/29/carol-dweck-mindset. Mention that this is the work of a world-renowned Stanford University professor – you are addressing an audience of researchers so they would appreciate that a lot of research has gone into this! Point out the link in the participant handbook to an article that has an excellent summary. Then show the slide describing the activity participants have to do. **Part 1 of the activity: Group discussion (15 mins)** Ask participants to read the instructions on the slide and discuss in their group. **Part 2 of the activity: Reporting (10 mins)** Ask one person from each group to report on the group's discussion and examples they came up with. (This person is the rapporteur.) Question rapporteurs when something is unclear or to elicit more information. **Closure (5 mins)** Give an oral summary at the end of the activity, mentioning some of the interesting or important examples or behaviours that participants came up with, and reiterating the importance of having a growth mindset as a research author. Finally, ask participants to read the short note in their handbook on adopting a growth mindset to become a better writer.

D1-S3: Research and publishing ethics

Length of session	60 minutes
Session summary	The goal of this session is to instil in participants an understanding of the major ethical problems on both the researcher side and journal side of ethics
Visual aids and equipment	PSL, sticky notes
Resources (on the day)	Facilitator's slides
Participant handbook to be used?	Yes
Guidance to facilitating learning activities	**Setting the context (5 mins)** Invite participants sit in groups of three (they can work in the same groups formed in the previous session) and present the slide with the activity instructions. **Group work (15 mins)** Participants to work on the activity, fill out sticky notes, and stick them on the wall. **Viewing (10 mins)** Once participants put up their notes on the wall, ask them to walk around and look at what other groups have put up. Encourage them to ask each other questions. Walk around with the participants yourself. **Structuring (10 mins)** Place sticky notes with the following six headings a different part of wall: Data falsification/fabrication, plagiarism, conflict of interest, authorship, journal ethics, other. Ask each group to categorize all their notes under these headings, i.e., by moving each note under the right heading. By the end of this activity, all the groups should have moved their notes under these six headings. Note: there is only one set of six headings, not six headings per group. **Viewing and further additions (10 mins)** Ask participants to circulate again and check if there are any headings with very few or no examples. Can they come up with some examples for those headings? Or do they have anything more to add in general? They can write on more sticky notes and put them up. **Closure (10 mins)** Facilitate a short plenary discussion. Invite people to comment on the key topics in research ethics that concern them. Share tips from your knowledge or experience. Finally point participants to the resources mentioned in the handbook.

D1-S4: Defining the focus and contribution of your paper

Length of session	90 minutes
Session summary	This session gives participants the opportunity to develop their pre-writing, i.e. a preparatory kind of writing which is often useful to embark on a writing project
Visual aids and equipment	PSL Participants should have their laptops ready for this session
Resources (on the day)	Facilitator's slides Peer assessment form which has to be emailed to the participants at the end of the assessment phase Printouts of the assessment form should also be kept ready as a backup in case Internet connectivity is not available Make chits with each person's name, who they are going to assess, and who will assess their work (prepare these chits in the morning or lunch break once you know who exactly has showed up for the workshop). Don't make assessments reciprocal (i.e. A evaluates B and B evaluates A) as this can lead to bad feelings if one person does a thorough assessment of their peer but does not get such an assessment from them. Keep a draft of an email ready in your mailbox with all the participants' email addresses and the assessment form attached
Participant handbook to be used?	Yes
Guidance to facilitating learning activities	**Setting the context (10 mins)** Ask people to close their laptops so you have their full attention. This is one of the two major activities of the workshop. Ask participants to seat themselves comfortably in their own space with their laptop and stuff. You may have to stress on the point that this is an individual activity, not a group activity. Some participants may be hesitant or may even find a way to escape! Individual activities at a workshop can cause stress in some cultures. Show the slide which explains the point of pre-writing and the next slide which explains the activity. Ask if anyone has concerns about the activity. They should have been told before the workshop that they have to be prepared to write, so they shouldn't have any excuses to not participate. Reassure everyone that we are in a friendly learning environment and this is an activity to learn. No manuscript's fate hangs on this activity! Ask people to open their laptops and make themselves comfortable to begin writing. Tell them to put their phones on silent and to refer to the activity instructions in the handbook. Encourage participants to raise their hand if they would like you to assist. Make it very clear that there's a strict time limit for this activity: 40 minutes. **Writing phase (40 mins)** While participants are writing, keep an eye on the room to see if anyone needs help. Don't remain too distant or too close. Walk around the room every 8 to 10 minutes. Call out the remaining time at the following intervals: 20 minutes, 30 minutes, 35 minutes, and 38 minutes. At the 35-minute point, make it clear that no extension is possible. It is likely that some participants will appeal for extensions and it may be hard to say no. You may find that around the 30-minute point there's a buzz in the room and people are in the flow of writing. Try to stop the writing phase at 40 minutes, or give an extension of not more than 5 to 10 minutes if the workshop has proceeded thus far without delays.

Guidance to facilitating learning activities (continued)	**Assessment phase (30 mins)** Show the slide about the assessment phase. Spend 10 minutes handling the logistics – people picking chits and sending and receiving essays. When this is happening, email the assessment form to everyone (you should keep this ready in your drafts to avoid last-minute hassles). If Internet connectivity is not available, hand out the print version of the assessment form to everyone. Then give 20 minutes for the actual assessment. Ask participants to carefully read the instructions in the form and to give constructive feedback. **Sharing and reading evaluations (10 mins)** Ask participants to email the evaluation they have done to their respective peer, or to share the paper version if this was used. Then ask them to quickly go through the evaluation they have received. **Closure (10 mins)** Invite comments and reflections from the participants on the usefulness of this activity and the feedback they've received. At this point it should be time for a break, so you can encourage them to chat with the person who assessed their work if they have any specific thoughts related to the feedback.

D1-S5: Identifying appropriate target journals

Length of session	60 minutes
Session summary	Participants learn how to balance and weigh a number of factors while choosing their target journal.
Visual aids and equipment	PSL
Resources (on the day)	Facilitator's slides
Participant handbook to be used?	Yes
Guidance to facilitating learning activities	**Plenary discussion (5 mins)** Participants sit where they are. Present the slide with the question and ask participants to call out the characteristics of a journal that's suitable for their work. Make note of the unique answers on a flipchart or whiteboard, ignoring repetitive statements. **Summative response (10 mins)** Show the slide with the characteristics listed. Point out any that were not mentioned by the participants and describe them briefly. And bring up any characteristics mentioned by the participants that don't quite fit into this list – they may not be important ones but if they are include them in the list right there. It's likely that some participants would have said 'impact factor' and not 'impact'. Clarify the difference between the two: impact factor is a metric – which is often misused and abused – whereas impact is a word with a generic meaning. Mention that there are links to resources about the impact factor in the handbook. Take a few questions at this point. Some participants may ask how the impact factor is calculated, which impact factor to trust, etc. These are hot topics. Just point them to the resources in the handbook. This is not the time to get caught up in intricate things. **Prioritizing the factors to consider (15 mins)** Have participants sit in groups of four. Give each group a set of six big sticky notes, each with one characteristic shown on the slide. Ask the participants to number the notes in the order of priority that they feel is correct. E.g. if they think 'audience' should have the highest priority and 'prestige' should have the least priority, the former should be numbered 1 and the latter 6. Ask one person in the group to be a note-taker and jot down points that were discussed in the group during the prioritizing. When the activity starts, walk to each group and check that they understand the meaning of each characteristic given. When the groups have numbered their set of notes from 1 to 6, they should put it up on the wall vertically, with 1 on top, 2 under that and so on. Leave at least 5 feet of space between each list. **Viewing (15 mins)** A representative from each group stands beside their ordered list on the wall while the others walk around, look at lists and ask questions. The representative should be able to provide reasoning for the group's order of priority. Ask the representative to switch with another person in their group midway through this part so everyone gets a chance to look at others' work.

Guidance to facilitating learning activities (continued)	**Video (5 mins)** If there's good Internet connectivity at the workshop, show one of the following videos from Editage Insights which describe the process of selecting a suitable target journal. *Selecting a Suitable Target Journal for Your Manuscript* www.youtube.com/watch?v=qHJTiE7RsMg *Tips from a journal editor: How to select a journal for your paper* www.youtube.com/watch?v=-WBTL8PAv2o They are both more than 5 minutes long so just show a part of the video. **Closure (10 mins)** Share your impressions of the activity and invite a few comments from the participants. Emphasize that there's no single correct way of prioritizing the factors to consider when choosing a target journal. It is ultimately a nuanced task. Once again, be careful to not get caught up in intricate points – refer participants to the handbook if they continue to have questions about things such as open access, impact factor, etc. Finally, ask participants to spend some time in the evening after the workshop to identify a suitable target journal for their work, as they will be writing an abstract on the second day of the workshop and it will be useful for them to refer to the journal's instructions.

End-of-day reflection for day one

If there were no delays today, you should have about 30 minutes for this session. If you have less time, take out Part 1.

Part 1 – 5 mins: Share a summary of the day's activities and the highlights of the day for you.

Part 2 – 10 mins: Invite participants to share their reflections on the day's work and impressions of the workshop.

Part 3 – 10 mins: Ask participants to individually fill out exit cards. Show the slide with instructions. Make sure sticky notes of the right colours are available to participants. If you don't have coloured sticky notes, edit this slide before the workshop.

Bunch up green, yellow and red notes separately and take them with you to look at in the evening.

Part 4 – 5 mins: Close the workshop and remind participants to try to identify a target journal before the next day. Address any housekeeping, logistical or attendance issues that came in the way on Day 1, and what you, the organizer or the participants could do to improve things. (If the workshop administrator should fix something, have a word with this person after the workshop.)

After day one

After you're back in your hotel, spend some time looking at the exit cards (or notes). Identify major or interesting points in these cards and look for frequent themes. Address these the next morning. Mark the cards that you will be commenting on the next day, e.g. by highlighting or underlining the text in the cards.

Day two agenda

Preparation for day two

Try to go early to the workshop venue, at least half hour before the participants come. Make sure tables and chairs are clear and the room is clean. Put up the exit cards from Day 1 on the wall, categorized by colour.

Morning review for day two

Part 1 – 5 mins: Start off with some banter about what you or the participants did the previous evening after the workshop. Don't make it about yourself – get participants talking!

Part 2 – 10 mins: Stand beside the exit cards on the wall and make some overall comments on the frequent themes. Say that you won't have time to respond to all the cards but you will be commenting on some. Then look at the cards which you've marked out and say a few things about each. Invite further comments from the participants.

Part 3 – 10 mins: Ask participants to walk around the space with the exit cards, read them and discuss any interesting points informally right there among themselves. *(While participants are doing this, check the attendance sheet and see if anyone is missing. Discuss what can be done with the organizer, e.g., is it appropriate to phone them?)*

Part 4 – 5 mins: Present an overview of the Day 2 workshop activities. Ask participants if they did the 'homework' from the previous day – identifying a target journal. Present the Learning Agreement slide if this was not properly adhered to on Day 1.

D2-S1: Manuscript guidelines given by journals

Length of session	60 minutes
Session summary	The point of this session is to raise awareness of the importance of manuscript guidelines and why reading and following them is essential even if it's a tedious task.
Visual aids and equipment	PSL, green and yellow highlighter pens – one for each group
Resources (on the day)	Two sets of manuscript guidelines, printed out from publisher websites. You could select your own or use the following: ACS Langmuir - pubs.acs.org/page/langd5/submission/authors.html Ceylon Medical Journal - cmj.sljol.info/about/submissions
Participant handbook to be used?	No
Guidance to facilitating learning activities	**Plenary discussion (10 mins)** Present the slide with the question – this might evoke some laughter. But prod participants – just because the task of reading and following instructions isn't exciting or interesting, does it mean it's not important? Ask people to share any anecdotes they may have related to following manuscript guidelines. Share your experiences or anecdotes if you have any. You can also share this joke that originated among journal editors: 'If you have to write a secret in a place where no-one should read it, put it in the middle of your journal's manuscript guidelines'. **Reading manuscript guidelines given by two journals (40 mins)** Ask participants to sit in groups of three. Give each group the two sets of manuscript guidelines (ACS Langmuir and Ceylon Medical Journal). Give each group highlighter pens in two colours, say yellow and green. Show the slide with the activity instructions. For the second part of the activity, ask the rapporteur to clearly identify the part of the documents they would like to comment on so that the others can follow on their own documents. Invite participants to answer points that seemed unclear or confusing to any group. You don't have to answer them yourself – it could well be that you don't know the answer and that's fine. One point of the exercise is that it may not always be easy to understand all the instructions given by journals, and authors should work as a group to make sense of them. **Plenary discussion (10 mins)** Show the slide with the next question for this session. Give a few minutes for people to respond. Then show the slide with the main reasons. If any participants had mentioned additional reasons that you think are important, try to add them to the slide right then or mention that those reasons are also valid. End the session by making the point that it's important to read and follow manuscript guidelines before, during and after writing the paper.

D2-S2: Structure of a typical scientific journal article

Length of session	45 minutes
Session summary	This session is to inculcate in participants a solid understanding of the structure of a typical scientific journal article. Once they understand this framework it'll be a lot easier to fill in the details of the research.
Visual aids and equipment	PSL, a prize such as a bar of chocolate or a pen, big sticky notes in yellow and green
Resources (on the day)	N/A
Participant handbook to be used?	No
Guidance to facilitating learning activities	**Ice-breaker (5 mins)** First show the slide 'every baby knows the scientific method'. Let participants read it – the humour might not translate well if you read the slide or describe it. If anyone has trouble reading the slide ask them to walk up to the front and read it. No harm in a little exercise! Once you see that most people have read it and got the point, mention how this is really the basic outline of the scientific method. Point them to the excellent and detailed Wikipedia article on the scientific method if they'd like to know more about its history and the philosophy behind this term which we might simply take for granted. **Jeopardy (5 mins)** Before you show the next slide, tell participants about the popular game show Jeopardy. Ask if anyone knows about it and if so ask them to describe it. Otherwise, tell them how it works. A concept or term is presented, and the one who correctly says out loud the *question* corresponding to that concept or term is the winner. Give the following example or a country-specific one: if '10 Downing Street' is shown, the correct question would be 'What is the residence of the UK Prime Minister?' Then show the slide with the acronym – IMRAD. Give the prize (e.g. bar of chocolate or a pen) to the person who is the first to say a question along the lines of 'What is the most common structure of a scientific journal article?' If no one is able to get the answer, provide a clue, e.g. that the acronym refers to the structure of a journal article. Once you have a winner, give this person the prize (bar of chocolate / pen / something else). Then ask this person to say the full form of IMRAD. Show the slide with the brief description of IMRAD. **Identify and solve an everyday problem using the IMRAD approach (20 min)** Ask participants to sit in groups of three. Then present the slide with the instructions for this activity. Ask participants to think of some examples of everyday problems and share them. If responses are not forthcoming, give an example such as 'finding the best route to reach the office'. Then hand out one yellow sheet (or big sticky note) and four green ones to each group. During group work, walk around and make sure every group has understood the instructions. **Viewing and discussion (10 mins)** Ask one person in each group to remain at their table and the others to walk around to look at what others have done. Encourage them to ask questions and point out gaps or weaknesses. Walk around yourself and participate in this part of the activity. **Closure (5 mins)** Ask participants to share their reflections – how useful was it to think about an everyday problem using the IMRAD approach?

D2-S3: Writing a working abstract of your paper

Length of session	120 minutes
Session summary	This is the second of the major writing activities in the workshop and should give participants hands-on experience with research writing along with the opportunity to get some immediate feedback.
Visual aids and equipment	PSL
Participants should have their laptops ready for this session	N/A
Resources (on the day)	Chits with peer review pairs written up
Participant handbook to be used?	Yes
Guidance to facilitating learning activities	**A sample abstract (10 mins)** Show on the projector the document called 'Annotated PLOS ONE abstract'. Mention that this is adapted from an AuthorAID resource (www.authoraid.info/en/resources/details/648). Walk participants through the example. Tell them that this document is in their handbook. **Getting ready to write (10 mins)** Ask participants to seat themselves comfortably. This is an individual activity and every participant should be seated at a desk with space for their laptop and papers. Spread people out in the room – they shouldn't be bunched up. Tell participants to have all of their research data, journal instructions, etc. ready, go to the toilet if they wish to, close Facebook, email, etc. and really get into a mood to focus on writing. No phone calls or text messaging either. Ask if everyone has their target journal's instructions to authors. If some people don't, ask them to use one of the two sample instructions given out on Day 1. Email it to them if the hard copy is filed away somewhere. **Writing (40 mins; can be extended to 50 mins)** This hour is for participants to work individually on their abstract. For the first 5 to 10 minutes, stay out the participants' space. Getting ready to write can be hard. Just keep a watch on whether participants are getting ready and they're not distracted. After 10 minutes, walk around now and then but don't lean over participants' shoulders to read what they are writing. Some people can find this annoying. If anyone makes eye contact with you, ask them how their writing is coming along. Look for gestures or expressions that indicate that people need some support from you. Don't disturb anyone who is absorbed in writing. After about 20 minutes, go to the front of the room and ask participants how they are progressing and remind them that you're available to provide support. Keep this brief – some people may be concentrating on their writing. Remind them to put a working title on top of their abstract as this will greatly help their reviewer in the next stage of this activity. When it gets to 30 minutes, remind everyone that there's only 10 minutes left. When 40 minutes are up, it's likely that some people will want more time. Give 10 more minutes for this activity – not more.

Guidance to facilitating learning activities (continued)	**Peer review – getting ready (5 mins)** Announce that we are moving to the review phase of the activity. Hand out to each participant a chit with their name and the name of their peer reviewer. This is going to be a 'reciprocal' assessment activity: Person A evaluates Person B's work, and vice-versa. Prepare these chits before the activity or while it is going on. Ask the peer review pairs to share their work with each other through email and to start reviewing the other person's abstract. If Internet connectivity is not available, distribute a few flash drives for participants to copy and share their abstract document. **Doing the review (20 mins)** Every assessor should check the abstract they have received against the sample abstract (Nature summary). They should refer to the sample – which is in their handbook – during the review. Ask them to insert comments, make edits, use highlights etc. to mark the abstract. They should avoid talking to their peer to clarify things and work only on the writing. **Giving feedback (10 mins)** Ask each pair to sit together and verbally give feedback on the other person's writing while showing the review on their computer. Person A gives feedback to Person B for 5 minutes; then Person B gives feedback to Person B for 5 minutes. **Closure (10 mins)** Bring this activity to a close. Ask people for their impressions of the activity – What worked well? What didn't? Importantly, what did they learn? Make note of the feedback given. If most people found the activity useful, encourage them to arrange such 'group writing' sessions with their colleagues at their institution. Ask if anyone has ideas of what other kinds of writing activities can be accommodated during a workshop. For example, an AuthorAID partner – Sri Lanka Medical Association – have developed an innovative activity in which they hand out a published paper to the participants with the abstract deleted, and participants have to read the paper and draft an abstract. Then they are given the actual abstract to see how well it compares to the published one. Point this out as a possible activity – this would however only work when all the participants are from the same subject area. Finally, ask the participants to email the review that they have done to you and to the respective author. If Internet connectivity is not available, use flash drives to collect copies of the reviews.

End-of-day reflection for day two

Refer to the section 'End-of-day reflection for day one'.

After day two

Refer to the section 'After day one'.

Day three agenda

Preparation for day three

Refer to the section 'Preparation for day two'.

Morning review for day three

Refer to the section 'Morning review for day two'.

D3-S1: Citations and references

Length of session	30 minutes
Session summary	Citations and references may seem to be a boring topic, but accurate referencing is indispensable in research writing. In this session, participants are not told anything about citations and references. Instead, through discussions what they know already will be brought to the fore and structured.
Visual aids and equipment	PSL, sticky notes
Resources (on the day)	N/A
Participant handbook to be used?	No
Guidance to facilitating learning activities	**Functions of references (5 mins)** Show the first slide of this activity and ask participants to discuss the functions of references with their elbow partner. Near the end of 5 minutes, ask people to mention some of the points they came up with. Then show the slide with some functions of references. **Checklist for in-text citations and references (10 mins)** Ask participants to sit in groups of four. Show the slide with the instructions. Ask them to write each point for the checklist on an individual sticky note. Ask participants to post their notes on the wall at the end of the activity – each group should post their checklist in a single vertical line. *Some points to expect: every citation/reference should be placed in the correct place, the cited paper does indeed say what you think it says, citations and references should be formatted properly, all entries in the reference list should be cited somewhere in your paper, all citations should have a corresponding entry in the reference list.* **Viewing and aggregating (10 mins)** Ask participants to walk around and view other groups' checklists. Encourage them to ask questions. And you could aggregate similar notes by sticking them together. Ask for a volunteer or co-trainer to take down the notes, type them up, and email them to all the participants. **Closure (5 mins)** Make some overall comments on the outputs of the participants, and commend any excellent points that came up.

D3-S2: The methods section of a research paper

Length of session	60 minutes
Session summary	At this point in the workshop, the typical sections in the body of a research paper will be considered one-by-one. We start with the methods section because this is considered one of the most straightforward sections to write, in that it is a report of what was done in the research.
Visual aids and equipment	PSL
Resources (on the day)	Activity sheet for identifying missing information in a methods section
Participant handbook to be used?	No
Guidance to facilitating learning activities	**Purpose of methods (10 mins)** Show the first slide of this activity and ask participants to discuss the purpose of the methods section with their elbow partner. Near the end of 10 minutes, ask people to mention some of the points they came up with. Then show the slide with some of the purposes. Make the point that a high level of detail and accuracy is important in the methods section. **Documenting directions (15 mins)** Show the slide with the instructions for this part. Split participants into three or four groups. It's fine to have a large number of people in a single group. This activity involves participants leaving the room and walking to the entrance of the building. If you feel the entrance is too far, change the instructions to make the activity more feasible. **Discussing directions (10 mins)** Ask participants to put up their sheets on the wall with sellotape, and have everyone look at what others have done. There could be some interesting outputs, e.g. some groups may have documented directions with minute details, while others may have given broad details. Get participants to think about what is the right level of detail in the methods section and why. This activity is just to get participants thinking about the level of detail in the methods section. There's no right or wrong answer. **Hot-seat activity (10 mins)** Take on the role of someone who claims to have invented 'herbal fuel for vehicles'. Declare your invention and ask participants to quiz you on the methods that you used. Be evasive when answering them and do not provide any specific information. For example, if they ask 'which herbs did you use', say something like 'a mixture of herbs found in a forest to the east'. Spend about 5 minutes doing this. Then ask participants what they thought of your answers. They should be able to guess you did not provide any specific information. Then point out that the case of 'herbal fuel' actually happened in India in the 1990s and the man who invented it was found to be a fraudster. He declined to create the fuel in the presence of scientists, for example. End this activity with the point that without detailed and accurate methods, research discoveries will not be taken seriously.

Guidance to facilitating learning activities (continued)	**Identifying missing information in methods (10 mins)** Ask participants to work with their elbow partner for this activity. Give to each pair the excerpt of the doctored methods section and show the slide with the instructions. Near the end of 10 minutes, show the document with the answer key on the projector and point out the highlighted parts that contain specific information that was missing in the activity sheet. Ask participants if they identified any of these bits. **Closure (5 mins)** Open the floor for a couple of questions. This would have been a fast-paced activity and hopefully leading into a lunch break or coffee break, so encourage participants to continue the discussion over the break.

D3-S3: The introduction section of a research paper

Length of session	60 minutes
Session summary	The main activity in this session involves reviewing published papers to check the structure of the introduction.
Visual aids and equipment	PSL, highlighter pens (of four colours, one set for each group),
Resources (on the day)	Cards with the elements of the introduction section written out D3-S3 – Introduction section of a published paper
Participant handbook to be used?	No
Guidance to facilitating learning activities	**Purpose of introduction (10 mins)** Show the first slide of this activity and ask participants to discuss the purpose of the introduction section with their elbow partner. Near the end of 10 minutes, ask people to mention some of the points they came up with. Then show the slide with some purposes. **Structure of the introduction (10 mins)** Ask participants to sit in groups of three. Give each group four cards, each with one phrase written on it (see the on-the-day resource for this activity). State that these are the typical elements of the introduction section of a research paper. What participants should do is put these elements in the correct order by numbering the cards. Give 5 minutes for participants to do the ordering and 5 minutes to report on what they have done. Then show the slide with the answer key. **Quiz: Guess the shape (5 mins)** Show the slide with the different shapes. Ask participants to guess which shape best represents the introduction and why. Give them 2 minutes to come up with their response and say that the person who identifies the correct shape and provides a good rationale will get a prize (chocolate bar or pen). Then show the slide with the answer key. **Reviewing a published introduction section (20 mins)** Ask participants to sit in groups of three or four, so that there are a maximum of five groups. Give each group a printout of the resource 'D3-S3 – Introduction section of a published paper' and ask them to highlight the four typical elements of the introduction (from the 'structure' activity in this session) in different colours. Give highlighter pens of four different colours to each group. Ask them to make notes alongside if they have anything to add. **Viewing group work (10 mins)** Ask each group to put up the paper they have reviewed on the wall. Then everyone should walk around and look at what other groups have done and think about whether the typical structure appears to be present in these introduction sections. Encourage participants to ask each other questions. **Closure (5 to 10 mins)** Invite two or three comments from participants on what they learnt in this activity. Ask when might be a good time to write the introduction during the writing of a paper. Point out that an annotated version of the entire journal article that contains this introduction is available on the AuthorAID resource library. Present the slide that has the link to this resource.

D3-S4: The results and discussion of a research paper

Length of session	60 minutes
Session summary	In this session participants create a mind map about the results and discussion section.
Visual aids and equipment	PSL, two flipcharts per group, marker pens, flipchart stand
Resources (on the day)	N/A
Participant handbook to be used?	No
Guidance to facilitating learning activities	**Setting the context (5 mins)** This activity is almost entirely about the different groups creating mind maps about the results and discussion section. Show the example of a mind map on the slide and say that this is the kind of output you're looking for. **Creating the mind map (30 mins)** Group the participants so that there are four or five groups, not more. Give each group two flipcharts, with 'Results and Discussion' written in the centre. One flipchart is for rough work and the other for final work, if needed. Tell the groups that they can look up published papers online to get ideas on what should be included in the results and discussion sections. Attend to each group for a minute at the beginning of the activity to make sure they have got the point of the mind map, as it's a visual structure and some people may not have heard of it before. Then walk around every 5 minutes or so to see how the groups are doing, and intervene if necessary, e.g. if you find that a group is not developing a mind map but something else. Remind people of the time remaining at the 15 minute, 20 minute and 25 minute points. **Presenting the mind map (5 mins per group)** Ask each group to put their flipchart on the flipchart stand and present what they have done to the class. Encourage the participants to ask questions to clarify things. Commend good points and offer constructive feedback. **Closure (5 mins)** Invite two or three comments from participants on what they learnt in this activity. Provide overall comments on the participants' outputs.

End-of-day reflection for day three

Refer to the section 'End-of-day reflection for day one'.

After day three

Refer to the section 'After day one'.

Day four agenda

Preparation for day four

Refer to the section 'Preparation for day two'.

Morning review for day four

Refer to the section 'Morning review for day two'.

D4-S1: Figures and tables

Length of session	45 minutes
Session summary	In this session participants learn to critique figures and tables, and they make checklists for both. Before this session begins, put up printouts of the figures and tables for this session on the wall.
Visual aids and equipment	PSL, post-it notes in two colours
Resources (on the day)	Figures and tables document
Participant handbook to be used?	No
Guidance to facilitating learning activities	**Setting the context (5 mins)** Show the question on the slide. The correct answer is 'any section'. Figures and tables can appear in any section of the body of a research paper (except the abstract, unless it's a graphical abstract or special kind of abstract). **Reviewing figures (15 mins)** Ask participants to walk around the room to look at the figures and the tables that have been posted on the wall. These are all from published research papers. Ask them to make notes in their notepad on the problems with these and to have informal discussions with other participants. **Reporting on the problems (10 mins)** Ask for volunteers to comment on the problems they noticed. Provide comments or feedback based on the answer key. Go over the answer key document and tell the participants where they can find it online (the link is on the first page of this document). **Checklist for tables and figures (10 mins)** Ask participants to work in groups of three to develop a checklist for tables and figures. They should type this up on a computer. **Closure (5 mins)** Ask for a volunteer who can consolidate the checklists to make a master checklist. Then ask the groups to email their checklist to this person. Follow up with this person later to get the master checklist and send this out to everyone. Close this session by saying that making figures and tables is an intricate task. Authors are sure to understand their own figures and tables no matter how complex, but they must keep the reader in mind. Show the slide with Einstein's quote.

D4-S2: Developing a publication strategy

Length of session	90 minutes
Session summary	This is one of the longer workshop sessions and the point of the session is to get participants to think beyond just writing a paper and look at research communication strategically.
Visual aids and equipment	PSL, one flipchart for each group
Resources (on the day)	N/A
Participant handbook to be used?	Yes
Guidance to facilitating learning activities	**Big picture – getting a paper ready for submission (10 mins)** Ask participants to work with their elbow partner to answer the question shown on the first slide for this session and note the steps down on a piece of paper. Give them 5 minutes. Then show the slide with the steps and ask participants how many wrote something like this and whether anyone had written something very different. Emphasize the point about identifying the target journal at the start of the process. **Flowchart – from submission to publication (10 mins)** Show the D4-S2 image file and tell participants it's also in the handbook. Give them 5 minutes to look at the flowchart in their handbook or on the screen. Then ask what they think of it – What stands out? What is surprising? **What does 'publication success' mean? (15 mins)** Ask participants to work with their elbow partner to jot down some points in response to the question on the following slide. Give 8 minutes for the discussion. Ask for volunteers to share some points – they shouldn't repeat what someone else has already said. Comment on interesting points. Then show the slide with what you think of as publication success – edit this slide if necessary to make it match your views. Offer justification for this slide. **Developing a publication strategy (40 mins)** Ask participants to sit in groups of four. Show the activity question on the slide. Give each group a flipchart to jot down their ideas. The flipchart does not need to be presented so they can write whatever they want on it. One person in each group should act as a scribe and document the group's strategy in a Word document (or as a flowchart or another visual representation), which should then be emailed to you. The strategy should be as detailed as possible – not just some top-level points. Walk to each group at the start of the activity to make sure they have understood what they have to do. Then walk around every 5 to 7 minutes. Offer support if you think any group is going off target or seems to be stuck. When 25 minutes have passed, remind the groups that every group's scribe should have started documenting their strategy. Call out the remaining time at 30 minutes and 35 minutes. Give a five minute extension if people need it, but not more. The activity should end with the scribes emailing their strategy document to you, or by copying it on flash drives. This must be done – don't leave it off for later as you'll be left following up with them.

Guidance to facilitating learning activities (continued)	**Closure (10 mins)** Ask participants if they're happy with the strategy they developed and whether they think it'll be feasible to implement. Ask them to share some top points or suggestions for others. Share any experience you may have with developing and implementing a publication strategy. Close the activity by saying that you'll put together the strategy documents from all the groups and share them with everyone.

Preparation for the next session (D4-S3)

Before participants break for lunch, give one index card to each participant. Show the slide with the instructions for this activity. Ask participants to leave their filled-out card at your desk as they go out for lunch. Make plans to eat your lunch at your desk if you can, so that you can look at the cards and organize them.

Try to organize questions into different themes and pick up to five questions that you think should feed into the Q&A session. Think of some justification for why you picked these questions so that participants don't feel bad that their question was not picked.

Feel free to rephrase these questions to make them clearer and write down the revised questions on new index cards.

By this point of the workshop, you should have identified who are the most vocal participants and are good at summarizing and expressing viewpoints. Assuming you're going to set up five groups for the Q&A session, try to think of five people and approach them during the lunch break to offer them the role of 'coordinator'. Guidelines for this role are given in the handbook.

D4-S3: Q&A session

Length of session	45 minutes
Session summary	This is a wrap-up session for the workshop. Participants get to discuss burning questions and come up with answers.
Visual aids and equipment	PSL, one flipchart per group
Resources (on the day)	Index cards with burning questions that you have selected
Participant handbook to be used?	Yes
Guidance to facilitating learning activities	**Preparation (10 mins)** Ask participants to seat themselves four to a table. Make sure there's one coordinator at each different table. If you haven't yet identified coordinators (see the 'preparation' section above), ask for a volunteer at each table to be a coordinator. Once the coordinators have been identified, show the slide with the activity instructions. Give each group one flipchart and ask them to use only one laptop. Ask them to clear away stuff they don't need. Explain what you did to identify the top burning questions. Then hand out the index cards with these questions to the groups – one card per group. **World café (20 to 25 mins)** Guide participants through the activity. Initially you may need to orchestrate the shifting of participants from one table to another. Resolve any confusion or questions about the structure of this activity within the first 5 minutes. Make sure participants are moving from one table to another, but allow some leeway so that participants don't get stressed out. **Summarizing (10 to 15 mins)** Ask the coordinator at each table to summarize the key points that came out of the discussions. Share your thoughts. Ask the coordinators to type up all the points and share it with you for circulating to the whole group (if there is no time to do this during this session, ask the coordinators to do it soon after the workshop ends).

Closing the workshop

This is the last session of the workshop. Some examples of things you can do in this session:

- Ask participants to share their thoughts on the workshop orally
- Ask participants to fill out a feedback form
- Award certificates
- Tell participants about any follow-on activities after the workshop, any monitoring & evaluation surveys you may run in the future, whether there is any provision for participants to stay in touch with each other and you, etc.
- Point out the AuthorAID website