Consultant Orientation Handbook 2015

Name...........................................................................................................
Contents

Welcome Page 3
The TESS-India Consultant Orientation Page 4
Getting Started with the Outline Activities Page 5
Activity 1: What are OER’s Page 6
Activity 2: Introduction to TESS-India Page 7
Activity 3: The TESS-India Pedagogy Page 8
Activity 4: Active Learning Page 9
Activity 5: TESS-India Key Resources Page 10
Activity 6: TESS-India OER in Detail Page 11
Activity 7: Using TESS-India OER with Teachers Page 12
Activity 8: Sharing TESS-India OER Page 13
Activity 9: Reflecting on your Learning Page 14

Appendix A: OER Titles
Appendix B: Key Resources
Appendix C: OER Sections
Appendix D: Some examples of proposed use of TESS-India OER
Appendix E: Localisation

This handbook has been prepared by the TESS-India academic team to support the orientation and training of TESS-India consultants.
Welcome!

TESS-India was initiated in 2012 at the request of the Government of India to help address the issue of teacher quality. As increasing numbers of children across India attend school, the challenge is to ensure a productive learning experience for each child. Recent data indicates large numbers of children achieve poor learning gains for each year in school (ASER, 2014). Investment in teachers is critical to improving these children’s learning, and targeting teacher training is a significant goal of the Government of India (MHRD, 2014). TESS-India offers a pioneering teacher education response to these challenges in its multilingual Open Educational Resources (OER) toolkit comprising text and video materials available in multiple formats to support the professional learning of primary and secondary teachers of Literacy, Maths, English and Science. TESS-India harnesses the attributes of ‘open’ in both the outputs – OER - and in its ways of working, offering a unique approach to teacher change at scale.

TESS-India is funded by UKAid from the UK Government. As a multiple stakeholder partnership led by the Open University from the UK, TESS-India is working with the Ministry of Human Resource Development (MHRD) and Departments of Education in seven states across India¹. Collaboration is central to the TESS-India model and over 200 Indian and international teacher education experts, policy makers and teachers were involved in the creation and adaptation of the OER and large numbers of Indian teacher educators are now incorporating the OER into their pre-service and in-service teacher education programmes, aiming to sustainably strengthen and improve systems at relatively low cost.

Your role is to support this process, helping teacher educators and teachers to adopt and use more participatory interactive approaches in their classrooms and lecture halls through the use of the TESS-India OER. Realising the potential of the OER at scale will not be easy. Courage, conviction and resilience are needed to disrupt historically embedded practices of teacher education and to value the capacity for action of teachers and teacher educators. The limited success of many previous ideas and initiatives has led to a prevalent ‘deficit’ view of teachers but activity on social media platforms, for example, demonstrates that teachers have an appetite and enthusiasm for these new forms of interaction. The challenge is to harness this energy and new ways of working to transform enacted practice in teacher education.

We look forward to working with you in this exciting endeavour.
Thank you for your contribution.

Freda Wolfenden
Academic Director

¹ In this first phase TESS-India is working in Assam, Bihar, Karnataka, Madhya Pradesh, Odisha, Uttar Pradesh and West Bengal.
The TESS-India Consultant Orientation

Some of you will be familiar with the TESS-India Open Educational Resources (TI OER) but many of you will be new to this OER resource bank and the pedagogic approach of the OER. For most of you, the ways of working of TESS-India will be different to your usual practices. Our emphasis is on collaborative working through interactive participatory workshops and follow-up activities. To support you in your role, we are providing orientation sessions, and at the end of the sessions, our aim is that you will be able to:

- Articulate and recognize the pedagogic approach of the TI OER
- Be familiar with the TI OER: teacher development, key resources, and audio
- Demonstrate confidence and capability to design and facilitate an interactive participatory workshop

The orientation has been organized in two parts:

1. Preparatory online activity (12 hours study)
2. Face-to-face workshop mode (2 days)

Consultants will be expected to complete Part 1 prior to the workshops and bring evidence of their engagement with the online materials to the workshops. This booklet outlines the preparatory online activity.

Please read through the booklet now and decide how you will work through the activities. Use the pages at the end of the booklet to note your questions and queries.
Getting started with the Online Activities

The online activities are all in a MOOC (Massive Open Online Course) called ‘Enhancing Teacher Education through OER’. To do the activities you will need reliable internet access and an email address. In order to access the MOOC go to https://www.edx.org/course/enhancing-teacher-education-through-oer-oecx-tess101x click the ‘Enrol Now’ button on the right hand side of the screen.

You will be prompted to register with edX, complete the form, once registered you need to verify your account. It is normally a link sent to your email. You will now be able to access the course. We suggest you note here the email address you use for the MOOC and your user name / password. The MOOC is no longer running as a supported course so you will not be able to achieve a certificate. As part of your consultant orientation we require you to study a selection of activities from the MOOC and to make note of your responses and thoughts. This is referred to as the evidence. Please bring this to the face-to-face workshop - we will be using your notes.

We have given each activity a timing, if you are unable to complete the activity in this time please leave and move to the next activity. It is most important that you look at all the activities.

You will find the activities in ‘courseware’. When viewing the content you will navigate through the weeks and sections using the vertical navigation on the left hand side (a) when in each section you can navigate to each page using the horizontal navigation (b) at the top.
Activity 1: What are OER?
Time: 60 Minutes

Activity: Complete activity 1.4 (in week 1 of the MOOC) and read the associated text.  
http://tinyurl.com/TESS-activity1

Evidence: Note here (or in an online or hardcopy learning journal) your questions on OER and notes on at least one OER site.
Activity 2: Introduction to TESS-India
Time: 60 Minutes

Activity: Complete activity 1.5 (in week 1 of the MOOC) and read the associated text. (You will find the TESS-India website at [www.tess-india.edu.in](http://www.tess-india.edu.in))

http://tinyurl.com/TESS-activity2

Evidence: Note here (or in an online or hardcopy learning journal) the 2-3 TESS-India OER you have chosen and your reasons for choosing them.
Activity 3: The TESS-India Pedagogy
Time: 120 Minutes

**Activity:** Complete activities 1.6 and 1.7 (in week 1 of the MOOC) and also read the associated text. Activity 1.7 tests your understanding of OER; your score isn’t important. If you submit an incorrect answer please make sure you click on ‘show answer’ to see the explanation.

[http://tinyurl.com/TESS-activity3](http://tinyurl.com/TESS-activity3)

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge is objective and external</td>
<td>Knowledge is constructed and situated</td>
</tr>
<tr>
<td>Learning is a process of transmission from teacher to learner</td>
<td>Learning is an active process of knowledge construction between people interacting</td>
</tr>
<tr>
<td>Learning is determined by innate biological abilities</td>
<td>Learning depends on what is available to learn and the time available</td>
</tr>
</tbody>
</table>

**Evidence:** Note here (or in an online or hardcopy learning journal) your responses to the ‘reflection point’ and your answer to question 2 in activity 1.6.
Activity 4: Active Learning
Time: 60 Minutes

Activity: Read the introduction to week 2 and undertake activity 2.1.

http://tinyurl.com/TESS-activity4

Evidence: Note here (or in an online or hardcopy learning journal) your responses to questions 2 and 3 in activity 2.1
Activity 5: TESS-India Key Resources
Time: 120 Minutes

Activity: Study activity 2.2 (reading the Key Resources and viewing a selection of the TESS-India video clips).

http://tinyurl.com/TESS-activity5

Evidence: Choose 4 Key Resources and write a short summary (50 words) of each of these Key Resources.
Activity 6: TESS-India OER in detail
Time: 90 Minutes

Activity: Study activity 2.3 and the text on 'key messages' of the OER.

http://tinyurl.com/TESS-activity-6

Evidence: Note here (or in an online or hardcopy learning journal) your answers to questions 3.6 and 7 in activity 2.3.
Activity 7: Using TESS-India OER with teachers
Time: 90 Minutes

Activity: Read the associated text and attempt activity 4.3 (week 4)

http://tinyurl.com/TESS-activity7

Evidence: Note here (or in an online or hardcopy learning journal) your ideas for questions 4 and 5 in activity 4.3
Activity 8: Sharing TESS-India OER
Time: 90 Minutes

Activity: In week 6 read activity 6.2 ‘Presenting to colleagues’ and develop an interactive session to introduce TESS-India OER to your colleagues.

http://tinyurl.com/TESS-activity8

Evidence: Record your draft plan for an interactive session with colleagues on TESS-India.
Activity 9: Reflecting on your learning  
Time: 30 Minutes

Activity: Think about the 8 activities you have undertaken on the TESS-India MOOC: What have you learnt? What surprised you? What puzzled you? What excited you? What did you enjoy? What did you find difficult?

Evidence: Note down 3 key learning points from your study with the TESS-India MOOC activities and any questions or queries you have for the workshops.

Don’t forget to bring this learning record to the workshop.
Appendix A: OER Titles

**Elementary English**
EE 01 - Classroom routines
EE 02 - Songs, rhymes and word play
EE 03 - Letters and sounds of English
EE 04 - Mark-making and early writing
EE 05 - Storytelling
EE 06 - Shared reading
EE 07 - Planning around a text
EE 08 - Promoting the reading environment
EE 09 - English and subject content integration
EE 10 - Using the textbook creatively
EE 11 - Learning English in the creative arts
EE 12 - The learning environment
EE 13 - Developing and monitoring reading
EE 14 - Developing and monitoring writing
EE 15 - Community resources for English

**Secondary English**
SE 01 - Local resources for teaching English
SE 02 - Using more English in your classroom
SE 03 - Building your students’ confidence to speak English
SE 04 - Supporting reading for understanding
SE 05 - Whole-class reading routines
SE 06 - Supporting independent writing in English
SE 07 - Whole-class writing routines
SE 08 - Strategies for teaching listening
SE 09 - Supporting speaking in English: pair and group work
SE 10 - English grammar in action
SE 11 - Strategies for teaching vocabulary
SE 12 - Promoting reading for pleasure
SE 13 - Supporting language learning through formative assessment
SE 14 - Developing your English
SE 15 - Using resources beyond the textbook
Elementary Maths
EM 01 - Using number games: developing number sense
EM 02 - Using structured resources to develop understanding: place value
EM 03 - Using a number line and the expression ‘Imagine if ...’ positive and negative numbers
EM 04 - Mathematical stories: word problems
EM 05 - Asking questions that challenge thinking: fractions
EM 06 - Making students believe they CAN do mathematics: operations on fractions
EM 07 - Using manipulatives: decomposition and regrouping
EM 08 - Using real-life contexts: the formal division algorithm
EM 09 - Comparing and contrasting tasks: volume and capacity
EM 10 - Using rich tasks: area and perimeter
EM 11 - Physical representation in mathematics: handling data
EM 12 - Learning through talking: variables and constants
EM 13 - Conjecturing and generalising in mathematics: introducing algebra
EM 14 - Using embodiment, manipulatives and real-life examples: teaching about angles
EM 15 - Creative thinking in mathematics: proportional reasoning

Secondary Maths
SM 01 - Using visualisation: algebraic identities
SM 02 - Developing mathematical reasoning: mathematical proof
SM 03 - Visualising, comparing and contrasting: number systems
SM 04 - Connecting mathematics: finding factors and multiples
SM 05 - Building mathematical resilience: similarity and congruency in triangles
SM 06 - Cooperative learning and mathematical talk: triangles
SM 07 - Creating contexts for abstract mathematics: equations
SM 08 - Enacting vocabulary and asking questions: exploring the circle
SM 09 - Hands-on learning and embodiment: constructions in geometry
SM 10 - Tackling mathematical anxiety: combination shapes and solids
SM 11 - Learning from misconceptions: algebraic expressions
SM 12 - Developing creative thinking in mathematics: trigonometry
SM 13 - Reading, writing and modelling mathematics: word problems
SM 14 - Thinking mathematically: estimation
SM 15 - Developing stories: understanding graphs

Elementary Science
ES 01 - Brainstorming: sound
ES 02 - Pair work: life processes
ES 03 - Using group work: floating and sinking
ES 04 - Using demonstration: food
ES 05 - Concept mapping: water
ES 06 - Teacher’s questioning: forces
ES 07 - Pupils’ questioning: sorting and classifying things
ES 08 - Observing patterns: shadows and night & day
ES 09 - Practical investigation: change
ES 10 - Using stories: environment
ES 11 - Using games: electricity
ES 12 - Alternative conceptions: heat and temperature
ES 13 - Developing the learning environment
ES 14 - Discussion in science: malnutrition
ES 15 - Using the community: environmental issues

Secondary Science
SS 01 - Pair work: atoms and molecules, and chemical reactions
SS 02 - Reading in the science classroom: heredity and evolution
SS 03 - Mind mapping and concept mapping: acids, bases and salts
SS 04 - Using local resources: life processes
SS 05 - Community approaches: science education and environmental issues
SS 06 - Using games: the Periodic Table
SS 07 - Questioning: why do we fall ill?
SS 08 - Language in the science classroom: cells
SS 09 - Probing understanding: work and energy
SS 10 - Using physical models: teaching electricity to Class X
SS 11 - Brainstorming: forces and laws of motion
SS 12 - Building mental models: teaching carbon & its compounds to Class X
SS 13 - Practical work and investigations: teaching gravitation to Class IX
SS 14 - Effective demonstrations: teaching light and vision to Class X
SS 15 - Effective project work: sources of energy

Language and Literacy
LL 01 - School-home communication
LL 02 - A language-rich classroom
LL 03 - Speaking and listening
LL 04 - Early reading
LL 05 - Storytelling
LL 06 - Reading for pleasure
LL 07 - Reading for information
LL 08 - Knowing and using children’s literature
LL 09 - Authentic writing
LL 10 - Using local resources
LL 11 - Language, literacy and citizenship
LL 12 - Multilingualism in the classroom
LL 13 - Pair work for language and literacy
LL 14 - Integrating language, literacy and subject learning
LL 15 - Monitoring, assessment and feedback

Appendix B: Key Resources

N.B. These resources are not localised, but translated for each state.

- Planning lessons
- Involving all
- Talk for learning
- Using pair work
- Using questioning to promote thinking
- Monitoring and giving feedback
- Using group work
- Assessing progress and performance
- Using local resources
- Storytelling, songs, role play and drama
### Appendix C: OER Sections

<table>
<thead>
<tr>
<th>What this unit is about</th>
<th>Introduces the teaching approach and the curriculum topic of the unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>What you can learn in this unit</td>
<td>These are learning expectations for the teacher and highlight the key opportunities for professional development and learning in the unit.</td>
</tr>
<tr>
<td>Why this approach is important</td>
<td>This section explains why the teaching approach is important in supporting student learning.</td>
</tr>
<tr>
<td>Activity</td>
<td>These are activities to be carried out by the teacher. Most of them are activities for the teacher to do in the classroom, with their students, but some involve working collaboratively with colleagues, or involve preparing for classroom activities</td>
</tr>
<tr>
<td>Case study</td>
<td>These are first-hand accounts, by teachers, of their experience of carrying out the activities described, similar activities, preparatory activities or follow-up activities. The case studies are used to show how teachers respond to some of the challenges facing teachers in India such as large, multi-lingual and multi-grade classes, and a lack of resources. In particular they demonstrate inclusive practices, how to elicit prior knowledge, and how to make the teaching relevant to students’ lives.</td>
</tr>
<tr>
<td>Pause for thought</td>
<td>This encourages the teacher to reflect purposefully on their existing practice or experience, or on what they have noticed when carrying out the activities or discussing the case studies. It is this sort of reflection that will lead to learning for the teacher.</td>
</tr>
<tr>
<td>Narrative</td>
<td>The narrative reinforces the benefits of the approaches and techniques that are the focus of the OER. It shows how different aspects of the approach link together and complement each other. The purpose of the narrative is to support the teacher in being able to develop their learning and their pedagogic practice in different curriculum contexts.</td>
</tr>
<tr>
<td>Summary</td>
<td>This provides a brief review of the technique covered in the unit and encourage the teacher to take forward their learning, revisiting the ideas in different curriculum contexts.</td>
</tr>
<tr>
<td>Resources</td>
<td>These contain material to support the teacher in carrying out the activities. They may contain more detail about the approach (e.g. material from one of the key resources), support for subject knowledge development, classroom resources, links to the NCF, or further examples of similar classroom activities.</td>
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<td>-----------------</td>
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</tr>
<tr>
<td>Additional resources</td>
<td>These are intended to empower the teacher by encouraging them to take their learning beyond the OER and to engage with other resources to support their developing professional practice. In particular, this is an opportunity to support subject knowledge development and to raise awareness of resources available in India and internationally.</td>
</tr>
<tr>
<td>References/Bibliography</td>
<td>These include references used by the authors and other recommended readings for the teacher to extend their academic understanding of the issues highlighted in the unit.</td>
</tr>
</tbody>
</table>
Appendix D: Some examples of proposed use of TESS-India OER

- For discussion in Head Teachers’ forum and subject teachers’ forum.
- For exemplification and teaching the MA in Education programme
- Orientation for the DIET faculty, school teacher, educational administration.
- Incorporating 2-3 seminars in a teacher training module. Sensitise the teacher on the utility of the material, how to use the material in classroom process, how the materials will help her/him to design the activity and to use the web.
- School Libraries; give each school library a set of TESS-India OER for self-access by teachers.
- In-service training program: TESS-India OER used during content enrichment program according to the subject.
- ICT Kiosks at DIETS enabling teachers to browse and print the OER for use in their own classrooms.
- Incorporate the OER in micro teaching and simulation teaching lessons of teacher education programmes
Appendix E: Localisation

English Original TESS-India OER written by Indian and International Experts (English version)

Translate

Different language versions of the OER for each state e.g. Hindi, Odia, Kannada, Bengali, and Assamese

Localise

STATE SPECIFIC VERSION OF THE OER

Specific local versions

In Maithili

For groups of teachers

For head teachers