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## Moving towards more participatory practice with Open Educational Resources: TESS-India Academic Review

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# TESSIndia

## Moving towards more participatory practice with Open Educational Resources (OER): TESS-India Academic Review

*“TESS-India gave us a vision of how the classroom could  
change and how things could be different.”*

Vaishali District Director, February 2017



### Acknowledgements

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## Glossary

B Ed	Bachelor of Education
BEO	Block Education Officer
BRC	Block Resource Coordinator
BRP	Block Resource Person
CRC	Cluster Resource Centre Coordinator
CRCC	Cluster Resource Centre Coordinator
D El Ed	Diploma in Elementary Education
DEO	District Education Officer
DIET	District Institute for Education and Training
HT	Head teacher
GoI	Government of India
MOOC	Massive Open Online Course
OER	Open Educational Resources
RSK	Rajya Shiksha Kendra – Head Office - Education
RTE	The Right to Education Act (2010)
SCERT	State Centre for Education, Research and Training
SSA	Sarva Shiksha Abhiyan
SR	State Representative
SRG	State Resource Group

# TESS-India Academic Review:

## Executive Summary

The **purpose** of this academic review of TESS-India activity in three states (Bihar, Madhya Pradesh and Odisha) was to seek evidence for change brought about by TESS-India in teacher education in each of these states. The findings offer informed guidance on future trajectories for TESS-India activity and support discussions with key stakeholders in each of these states.

The overarching goal of TESS-India is to support delivery of quality pedagogic change in teacher education and school classrooms. TESS-India activity is designed to meet identified professional development needs of teachers and teacher educators in each state. Thus it takes a slightly different form in each state, appropriate to local priorities and conditions. The Review focus was similarly differentiated in each state to align to TESS-India activity in that state.

The review field work was carried out by **academics from the Open University UK and the Head Academic, TESS-India Country Office**, between 30 January and 4 February 2017. It adopted an essentially qualitative approach to understand educators' (trainee teachers, teachers, local teacher educators and DIET faculty) experiences with the TESS-India resources and the influence of this engagement on their pedagogic practice. Data was generated from multiple sources including analysis of key documentation, semi-structured interviews with teachers, teacher educators and policy makers, and classroom observation. Teachers, teacher educators and SRG members were sampled at different locations within each state.

The **focus of TESS-India activity** to date has been to strengthen the existing government (state) educational system at the *elementary stage* - SCERT, SSA, DIETS, DEO, DPC (SSA), BEO, BRP, BRC, CRCC, HT, Teacher, Child – in alignment with national policies, frameworks and the RTE Act. The project aims at supplementing and complementing GoI and State specific efforts and activities. Although TESS-India has produced original Open Educational Resources (OER) to support educators working in the secondary stage, as yet there is very little evidence of sustained TESS-India activity with this phase of schooling or with the TESS-India School Leader OER. The review findings are therefore focussed on activity at the elementary stage and are reported at different levels of the system in line with the TESS-India theory of change.

## Overarching findings

**Use of TESS-India OER is contributing to quality change in classrooms with students and trainee teachers.**

- SRG members met by the review team were using the TESS-India OER and described how this use was prompting them to experiment with more interactive and participatory practices.
- Teachers observed and / or interviewed by the review team were drawing on TESS-India OER to inform their lesson planning and subsequent teaching.

Evidence seen by the review team (learning journals and learning plans) indicates that the practices being developed by these teachers are shared by other teachers in the cohort of teachers participating in TESS-India focus district activity.

However the innovation in practice and transformation in pedagogy promised by TESS-India OER is still in the early stages and the evidence is highly emergent. But, critically, through engagement with the MOOC and other TESS-India learning resources, policy makers and lead teacher educators (for example SCERT Directors) are changing their thinking about teacher professional development, moving away from cascade models to a focus on continuous professional development and learning of teachers in their classrooms with support from teacher educators/ experts, either virtually or face-to face.

### Findings with teachers and teacher educators at classroom level

1. **More interactive and participatory practices.** Enactment of TESS-India activities based on TESS-India materials, was observed/ reported to have led to the following changes in teachers and children within classrooms namely:
  - Happy, relaxed children, asking questions and cooperating with each other to learn with and from each other;
  - Children enjoying and expressing a preference for working together particularly paired work;
  - More motivated, friendly teachers, enjoying interacting with children;
  - Teachers actively structuring classroom teaching and learning to attempt to involve all children (including those with special needs);
  - Use of wider range of local teaching and learning materials, including materials created by teachers and children;
  - *Better relationships between all target groups* (children, teachers, CRCCS, teacher educators);
  - Peer learning between teachers and classroom focussed mentoring of teachers effectively supporting teacher learning and development.

2. **Enhanced digital literacies:** The TESS-India tools for teacher educator and teacher professional development (OER (text & video), the MOOC and other materials) were identified to have contributed to: the development of confidence with digital tools including for professional learning; increased familiarity with a range of different websites to enhance classroom teaching and learning practice; and use of social media (eg WhatsApp) to share examples of practice and peer learning.

The openness of the OER offers **flexibility** which has enabled use in different situations and contexts to meet identified professional and student learning needs. Furthermore the availability of the OER in **multiple formats**, such as the micro SD cards on mobile phones and tablets, has allowed easy consultation of the resources for ideas and problem solving; encouraged regular consultation of the resources; adoption of the resources in classroom teaching and learning; and has reached large numbers in the teaching community including those in remote rural and tribal areas.

### **Across education levels in the review states, at SCERT, DIET, BRC, CRC and School level, the review team found:**

3. Awareness and acceptance of Principles in the TESS-India Key Resources; these were found to be the main driver of classroom pedagogic change, towards a more child-centered and participatory approach;
4. TESS-India videos: 'Seeing the theory' in action, reinforcing the acceptance of the TESS-India Principles;
5. DIET faculty using the TESS-India Principles and subject OER with student teachers in regular B Ed and D El Ed programmes in both the practicum and project modules. This use had been stimulated by exposure to TESS-India OER through participation in the TESS-India MOOC. Future teachers (student trainees) are enthusiastic about the use of the TESS-India OER.
6. TESS-India activity offering an opportunity for the CRCCs to play their academic support role as original envisioned in the Sarva Shiksha Abhiyan Programme.
7. TESS-India activity stimulating the creation of, and engagement with, learning communities.

### **The review team recommendations**

Currently the focus of much TESS-India activity is on the use of the Principles of Practice as articulated in the Key Resources. Further improvements in classroom practice and greater teacher capability will require **deeper use of the TESS-India subject OER** by teachers, headteachers, CRCCS, BRPs and DIET faculty in classroom teaching and learning. The review team suggest this can be facilitated by paying attention to the following three areas;

### Access to the OER:

- Maximising **access to and use** of existing digital (SD cards, pen drives) and paper copies of TESS-India OER;
- Developing DIETs as future hubs for online professional learning, for example to support further MOOCs which stimulate and guide use of the OER.

### Support for teacher use of the OER:

- Strengthening school based classroom focussed mentoring (CRCCs, BRPs and HTs) – possibly through the use of video to exemplify effective practice and use of the School Leadership TESS-India OER;
- Integrating and actively using TESS-India OER in further modules in the D.El.Ed. programmes and assignments (student trainee/ student teacher use) where teachers will be supported in the OER use by DIET faculty.

### Focussing TESS-India OER use to meet specific needs:

- Prioritising particular TESS-India practices and subjects in accordance with identified state, district or school needs. For example focussing on the use of TESS-India OER to support teaching and learning in multigrade contexts; developing strategies for embedding of TESS-India practices through use of the OER by teachers working in multilingual classrooms (particularly in tribal areas); promoting engagement with the TESS-India OER user pathways and creating additional ones to meet specific needs;
- Integrating TESS-India OER into activities associated with other state wide programmes such as the Ujwal and Shaala Siddhi programmes which are directed at improvements in the quality of teaching and learning.

In planning activities to deliver these objectives the review team advise that attention should be paid to the systematic on-going orientation and involvement of Educational administrative officers across different levels and active involvement of all SRG members. This will enhance the impact of TESS-India activity by enabling all the key players to contribute to the shared teaching endeavour leading to holistic systemic change and more productive student learning.



## Introduction

National policy in India has constantly emphasised the need for change to improve the quality of educational provision and advocated a child-centred pedagogy as a response to this for the last thirty years. Yet despite the policy reframing of teacher and student education (NCF 2005; NCFTE 2009) and the Right of Children to Free and Compulsory Education Act (RTE) (2009), movement forward into new practices has been the exception rather than the rule. The goal of the TESS-India project is transformative pedagogic change at scale to address this complex problem of practice improvement.

TESS-India works through bringing together researchers, stakeholders and practitioners from across the education system to collectively apply their diverse expertise to this goal. Understanding the interconnections within the education system and working within and across the different components is critical to sustainable holistic change and real improvements for students. The means for change in TESS-India are a set of Open Educational Resources (OER) – including a MOOC and videos, in multiple formats and versions (linguistic and cultural). Through participation in the practices embedded in the OER educators at different levels of the system are able to develop more learner or child centred pedagogy. Hence the TESS-India approach is at once both system focussed – understanding how elements of the system interact, and local - devising local solutions appropriate to each context.

Starting in 2012 TESS-India has been developing this approach in collaboration with state governments in India. In the last year (since April 2016) TESS-India has been working intensively with three states – Bihar, Madhya Pradesh and Odisha, and it is the TESS-India activity in these states which is the subject of this academic review.

## Scope of the review

**This was a qualitative academic review focussing on shifts in the practice of teachers and teacher educators in the focus states.** Thus the review visits sought evidence from the three research sites (Bihar, Madhya Pradesh and Odisha) in the following areas:

- Mechanisms of access, take up and use of the TESS-India OER in the state
- Changes in teacher educator practices arising from engagement with TESS-India activities
- Changes in teacher awareness and practices arising from engagement with TESS-India activities

In Bihar and Odisha the review team lens was on activity in the focus districts (Vaishali and Dhenkanal respectively) and in Madhya Pradesh, the review focussed on the use of the MOOC to stimulate engagement with the TESS-India OER and movement towards participatory practices.

Data gathering was through interviews with student teachers, teachers, teacher educators (at cluster, block and district level), education administrators and policy makers in multiple locations as follows:

State	Interviews: HT/ teachers/ trainee teachers	Interviews: teacher educators / MOOC facilitators	Interviews: Education Administrators and policy makers
Bihar (Focus district)	8 teachers Two HTs	4 CRCCs 6 BRPs 7 DIET Faculty 4 MOOC facilitators	Director, Focus district 6 SRG members
Madhya Pradesh (across 3 locations)	17 trainee teachers	7 MOOC facilitators 5 DIET Faculty 2 DIET Principals	5 SRG members
Odisha (across 2 districts)	7 class teachers in 7 schools One HT	7 CRCCs (15 CRCCs in Focus Group discussion) 9 DIET Faculty	One BEO 4 Senior SRG members including Deputy Director, SCERT + 4 other SRG members

In addition the review team in Odisha observed 7 classrooms, subsequently interviewing separately the respective class teacher and their mentor (Cluster Resource Centre Coordinator), and analysed learning journals/ diaries (Odisha) and Learning Plans (Bihar) from teachers in the focus districts.

Where possible interviews were in English; where this was not possible interviews were in Hindi or Oriya with the help of a local interpreter. Interviews were digitally recorded and field notes were taken during interviews and classroom observations.

Each state review visit concluded with a presentation of the headline review findings and discussion with senior education stakeholders as follows:

Bihar: HoD Teacher Education, SCERT

Madhya Pradesh: Director, RSK; Deputy Director and Controller, RSK

Odisha: District Collector, Dhenkanal; Commissioner-cum Secretary Education, Odisha State.

## Framework for analysis

The overall rationale for the 'planning for embedding' dimension of the TESS India academic strategy assumed that each state TESS-India SRG, with the guidance of the TESS-India team, promotes and supports the state TESS-India Plan, articulating with the state SSA AWP. Each plan involves a range of activities based around capacity building and teacher educator and teacher change. In these activities SRG expertise is deployed and in this process SRG expertise in the use of TESS India OER continues to evolve to enable sustainability. Activities within the focus district plan were designed to have the potential to provide models of embedding and capacity building that can be scaled up and used within and across districts in the state.

Thus the outcome anticipated at the end of this phase of the TESS-India project is to have replicable and scalable models of TESS-India OER use. The models need to target four levels of capacity building; the levels are presented in Figure 1 below:

## Capacity Building: sustainable use of TESS-India OER and resources to achieve teacher and teacher educator change through quality professional development

### **A: TESS India State Resource Group (SRG)**

This structure and its evolving capacity to lead the embedding and use of TESS-India OER (including the MOOC and video elements) is central to the approach to sustainable teacher change in the project. It is expected that SRG capacity will be built in terms of awareness, consultation and use in practice of the OER and associated resources.

### **B: Teacher Educators (SCERT; IASE; Colleges of Teacher Education; Universities; DIET faculty)**

The model of sustainable teacher change assumes relational change in teacher educators' practice. This needs to be ongoing within institutional and individual plans for change to provide momentum and evidence for State level approval of institutional change.

### **C: Block and cluster personnel and coordinators (local teacher educators)**

These educators offer vital pedagogic and subject expertise directly to schools and teachers. BRCCs and BRPs provide support to CRCCs and also work with DIETs and this synergy in relation to developing models of use of TESS-India OER is crucial.

### **D: Head teachers and Teachers in Schools**

Capacity building at this level is in terms of individual pedagogic change to achieve effective, participatory, student centered teaching and learning in subject lessons. It is where the TESS-India OER impact on students' learning and its enrichment. To be sustained school-based staff need to see consistency in pedagogy and use of TESS-India OER at the levels above i.e. B) and C). The TESS-India School Leader OER guide headteachers in creating enabling conditions for use of the TESS-India OER by teachers.

Figure 1: TESS-India education framework for analysis

## Review findings: Bihar

### Key achievements with TESS-India in Bihar State

Translation and localisation of complete set of TESS-India OER for Bihar (125 OER + 55 videos)

Formation of the SRG for TESS-India

#### ***Pre-service Teacher Education***

Integration of TESS-India OER into 66 formal pre-service and in-service teacher training programmes (face to face and ODL versions of the D El Ed).

TESS-India embedded in Self Learning Materials for teacher training

#### ***In –service Teacher Education***

Use of TESS-India OER in the academic support structure (BRPs, CRCCs) for 360 schools in the focus district (Vaishali) to promote activity based classroom transactions

Learning Plan template - based on TESS-India Principles of Practice for teachers' classroom planning - used in Focus District

TESS-India OER mapped to Bihar curriculum textbooks

**Active WhatsApp group - a vibrant and expanding community of practice**

The review visit in Bihar focussed on the TESS-India activity in the focus district of Vaishali.

### Findings: Teachers (level D)

Evidence gathered by the review team through interviews, focus groups and teachers' Learning plans indicated the following emerging themes in teacher practice:

- Teachers use the TESS-India Key Resources to ensure they are planning interesting lessons that involve all students
- Teachers use the Learning plan developed by the SRG to embed Key Resource principles and activities
- Children are pleased to see their teacher as they offer them engaging learning
- Children come to school more and stay at school for the whole day
- Teachers enjoy their work

Teachers spoke enthusiastically about what they have learnt from using the TESS-India resources and how these had influenced their behaviour and motivation and that of the children in their classes, as these quotes illustrate:

*I am using group work more, because this helps me to involve children who were not keen to learn. With group work I can make each child get involved. The transformation I see since using TI: children used to leave school in the middle of the day. Now, with more group work, those who used to leave school stay on because they want to get involved in the activity and because they think I will have them do something interesting and exciting.*

*Apart from this transformation – I see a transformation within me as a teacher. I did not enjoy my work as much as I do now. I enjoy my teaching much more.'*

Teacher, Vaishali district, Bihar, February 2017

The TESS-India OER motivate teachers by enabling them to see how they can lead more active learning for all children in their classrooms despite having few resources, they help them think 'I can'. The TESS-India videos are described by teachers as critical, more engaging than print and more effective at getting their attention.

*'I used to speak in front of the class for 95% of the time, now I make a Learning Plan and I make sure to include questions and getting the students to ask questions, pair work, role play, group work and discussion - these are now part of my Learning Plan. I teach children at very different levels, and the Learning Plan helps me to include disabled children. There is a video of one teacher with a multi grade class. In my school there are only two teachers, and I adapted many ideas from this particular video. When we give group work to students we only need to monitor and guide them'.*

Teacher, Vaishali district, Bihar, February 2017

## **Findings: Teacher educators (local: level C)**

Local teacher educators have been using the TESS-India OER with teachers in cluster meetings and on mentoring visits to schools. Their use has mainly focussed in the use of the Key Resources and video clips and these have become a set of principles and criteria which are used extensively. The videos are described as powerful illustrators of the Key Resources and both are the main drivers of pedagogic change. These educators describe how their practice has shifted from 'showing teachers what to do in front of their class' to a more collaborative, sensitive approach in which they respect the teacher's position with their class and undertake detailed discussion of practice with the teacher after the lesson.

*'Before TI, I was doing more monitoring. Now I do more mentoring. I now understand I need to make the teacher feel good and I know better how to communicate with the teacher. I went through all the videos. These helped me to understand what to focus on when I am monitoring teachers in the classroom – the videos help me to know what to look for when I observe the teacher, and how to give good feedback.'*

BRP, Vaishali district, Bihar, February 2017

*'I make sure that the teacher is implementing his or her Learning Plan by talking informally to students about the lesson. Before TI, I didn't talk to the students about their lesson. The TI*

*training encouraged me to include students in my monitoring. I get to know them as well as supporting the teacher.'*

CRCC Vaishali district, Bihar, February 2017

## **Findings: Teacher educators (DIET: level B)**

From interviews and programme documentation the review team found evidence that Teacher educators are using the print TESS-India OER in teacher education programmes; trainee teachers are being asked to prepare and evaluate activities from the OER and trainee teacher assignments reveal in-depth engagement with the OER. The review team found evidence from interviews of use of the TESS-India OER of the following emerging themes in teacher educator practice:

- Enhanced professional attributes and skills (including flexibility to respond to learners' needs in different situations)
- Improved professional relationships and attitudes
- Participation in professional communities
- Awareness of resources to improve teaching and learning
- Increased initiative, motivation, care

as the following quotes illustrate

*'I show my students the video on group learning. But this video and the Key Resource on group work made me think, and decide to do more group work with my own students. Doing group work, I have become more friendly with the students, and they have become more open with me. They see me taking the role to lead group work and they are motivated to become group leaders themselves.'*

DIET Teacher Educator, Vaishali district, Bihar, February 2017

*'My biggest change, whenever I take my classes, is now I use videos. I even make my own little videos for demonstrating to students. These have really helped me to improve my teaching skills. I access any videos online for the subject I am teaching. I am making a project on Air (what is air, etc) – using videos – and I am posting this on Facebook. ... We now have a team in the field we are training to film and edit videos of teaching and learning.'*

DIET Teacher Educator, Vaishali district, Bihar, February 2017

Teacher educators are becoming aware of the potential of education technology and had found the MOOC useful. They were interested in developing their digital skills and in an offline version of the MOOC to enable study in multiple locations, for example, at home.

## **Findings: SRG (level A)**

The SRG group in Bihar is small but has played a central role in TESS-India activity in the state including mapping the TESS-India OER activities and case studies to the state text books and designing and delivering the TESS-India focus district activity and devising the 'Learning Plan' now widely used in the district. Their knowledge of state programmes combined with their familiarity with the TESS-India OER - through previous involvement in the localisation, enabled them to easily identify where the OER would add most value to current programmes and practice. They perceived the TESS-India OER as aligned with district and state directives and offering an additional approach to train and professionalise teachers, complementing and enhancing other resources. The TESS-India OER are now embedded in a range of programmes both accredited and non-accredited. The experience of participation in the MOOC was valued as professional development and SRG members identified the TESS-India way of working as inclusive and respectful of different experiences and priorities.

## **Moving forward**

TESS-India activity in the focus district of Vaishali has been shown to demonstrate the potential of the TESS-India OER (including the MOOC and video elements) to support movement towards more child centred classroom practices and shifts in relationships between teachers and learners at multiple levels. The review team identified a need to analyse closely the factors which have led to this success in Vaishali district prior to a scale up across the state. Deepening and extending the quality improvement in Vaishali district and beyond is critical. This activity could benefit from greater harnessing of available (locally owned) technologies such as phones and tablets. Where technology has been more readily available, there has been faster progress with embedding the OER. Phones and tablets can be used to enhance the embryonic teacher networks (through Facebook, WhatsApp etc), to create short video clips of practice for sharing through these networks and to access the TESS-India subject OER, essential to move beyond solutions to specific classrooms problems in the journey towards child friendly classrooms.

Many teachers and teacher educators still lack consistent affordable internet access and an offline version of the MOOC would support capacity building with digital literacies as well as deeper understanding of participatory pedagogy.



## Review findings: Madhya Pradesh

### Key achievements with TESS-India in Madhya Pradesh State

#### Translation and localisation of TESS-India OER for MP state context (125 OER + 55 Videos)

- Filming of TESS-India videos - including multigrade classes

#### *Pre-service Teacher Education*

Use of TESS-India OER in pre-service teacher training internship (D El Ed); student teachers trying out ideas from the OER and using the OER in their assignments

#### *In-service Teacher Education*

Secured funding to supply all teachers with TESS-India SD cards

Storytelling Language and Literacy OER selected and distributed to all elementary teachers as a key component of the *Padhe Bharat Badhe Bharat* (Storytelling) programme, a state initiative supporting a national early reading directive

Mapping of TESS-India OER to the Shaala Siddhi standards and domains to inform the integration of TESS-India principles and OER into the programme

#### **MOOC participation:**

English MOOC: 1200 registrations, 70% completion

Hindi MOOC: 3000 registrations, 6 core facilitators and over 90 local facilitators

The review visit in Madhya Pradesh focussed on the impact of participation in the MOOC.

### **Findings: Teacher educators (DIETs) and trainee teachers (levels B and D)**

The OER and MOOC acting in combination were noted as having prompted change across and between teacher educators in DIETs and their students – trainee teachers. They had been particularly effective in reconfiguring and enhancing teacher–trainee teacher interactions; a critical development for sustainable pedagogic change. Experiences with these resources was encouraging both trainees and their teachers (DIET faculty) to try out new ideas, provoking professional conversations between teachers, and sharing with friends and family.

Evidence from the interviews indicated that the TESS-India MOOC was effective in:

- Creating a sense of ‘digital event’ that inspired and prompted action across levels (teacher educators and trainee teachers)
- Acting as a catalyst for teacher educator and trainee teacher pedagogic change

- Reorienting trainee – teacher relationships, through the ‘democratic’ structure of the MOOC which offers the same opportunities to all participants and enables all to contribute to the discussion, and the use of peer review and feedback
- Offering professional recognition – the MOOC Certificate – which is highly valued by participants
- Demonstrating the usefulness of digital literacies to trainee teachers and educators including the use of social media for educational and professional purposes
- Stimulating and fostering communities of participants, using social media tools such as WhatsApp. The review team were shown evidence of regular communicative activity within a range of virtual groups involving DIET faculty, MOOC facilitators and student teachers.

Both groups, DIET staff and trainee teachers, emphasized the importance of the blended model of MOOC delivery; the mediated support provided by the contact classes and through social media tools.

Student teachers were surprised and impressed that they were participating in the MOOC alongside their teachers – the DIET staff, even the DIET Principal. This visible endorsement of MOOC participation conveyed two important messages to students; the value of career long professional learning, and the idea that professional learning encompasses both enhancement of practical capabilities and theoretical knowledge, historically the latter has been seen as having a much higher status.

- *‘When we responded to calls for help with the MOOC from the student teachers we helped ourselves also’.*

MOOC facilitator, Madhya Pradesh, February 2017

The timing of the MOOC was also helpful in generating and sustaining interest. It coincided with the trainee teacher intern placements and thus met a clear perceived need for support with classroom practices. (Fortuitously the MOOC also coincided with a free internet access initiative provided by phone company (Reliance JIO)). Student teachers and their teachers both expressed interest in further online study and increased confidence with the use of online resources.

The TESS-India videos - ‘Seeing the theory’ in action – were heard, in interviews and focus groups, to have reinforced acceptance of the TESS-India key principles (group work, monitoring and feedback) and general skills (multigrade teaching, classroom management), leading to increased confidence in classroom teaching and classroom management

*‘I knew about pair work. I read about and imagined it but the video gave us the full point and I was able to visualise it’.*

Trainee Teacher, Madhya Pradesh, February 2017

## Findings: SRG (level A)

There is a close relationship between the core SRG members and they have developed a clear collective vision for the use of TESS-India OER and online learning more generally. They have demonstrated a willingness to seize opportunities to innovate and try out new approaches to teacher learning. This vision, and their visible advocacy of TESS-India activities, was described by teacher educators and trainee teachers as an important factor in the success of MOOC participation and other TESS-India activities. Their vision for a new paradigm in teacher professional learning has led them to successfully secure funding for micro SD cards (loaded with the TESS-India OER and videos) for all elementary teachers, giving teachers autonomy and agency with respect to the possibility for action with OER – a bold departure from previous models of professional learning.

SRG members, in interviews, articulated how TESS-India resources were relevant to national and state strategic objectives and how, the status of the project was enhanced by its association with the Open University, UK.

SRG members demonstrated a high level of interest in the use of online learning for large scale teacher professional development, including the possibility of developing new MOOCs (and OER). This was prompting a growing awareness of the need for net and wifi access for teaching and learning purposes such as finding OER, connecting with professional communities and personal and collective online study. These educators and policy makers were searching for new ways to enable access to the OER and online study such as local wifi, SD cards and hotspots.

## Moving Forward

Initial engagement by trainee teachers, teachers and teacher educators with the TESS-India Principles (Key Resources and videos) has been positive and the challenge is now to find ways of moving beyond this to working with the text-based OER and their associated activities to create deeper-level understandings and changes in attitudes and classroom practices.

In pre-service teacher education integration of TESS-India OER into B.Ed. and D.El.Ed. programmes and assignments will embed their use in the experienced curriculum. The procurement and distribution of the SD cards promises access for most in-service teachers, this is an excellent start. The review team recommend that a strategic approach is adopted in which particular TESS-India practices and focus subjects are identified in accordance with identified state, district or school needs. Teachers, CRCCs and HTs should then be incentivised to explore and pilot different ways of using the OER activities in their classrooms. Promoting engagement with the TESS-India user pathways and creating additional ones to meet specific needs would be beneficial as would the provision of network and hotspot access to support teachers to collaborate in networked communities.

The embryonic collaboration between TESS-India and the state authorities around the Shaala Siddhi initiative should be extended and deepened; the synergies between the

programmes have been mapped and collaboration offers the potential to leverage the TESS-India OER in support of large scale quality improvement. As part of this collaboration attention should be given to building capacity to adapt the existing TESS-India OER, creating new OER to meet specific identified needs (for example for multigrade classes), and developing means to drive engagement and learning about these (such as MOOCs).

Plans for extending the programme across the state would benefit from the more equitable involvement of all the TESS-India SRG members, greater clarity as to their role, and enhancement of cross-group communication.

## Review findings: Odisha

### Key achievements with TESS-India in Odisha State

**Establishment of TESS-India SRG comprising respected experts and practitioners**

**Odisha localised set of 125 OER and 55 AVs and Key Resource materials.**

#### **In –service Teacher Education (SSA)**

- Dhenkanal Focus District: Use of TESS-India OER in 219 schools through school based mentoring from the academic support structure (DIET faculty, CRCCs) to promote activity based classroom transaction. HT training.
- Integration of Key Resources into SSA training modules
- Extension of Dhenkanal informed model of mentoring to 4 additional districts: Kandhamal, Khordha, Mayurbhanj and Rayagada

#### **Pre-service Teacher Education**

- Embedding of TESS-India OER into B.Ed. Curriculum.
- Use of TESS-India OER in D.El.Ed Curriculum by DIET Faculty

**MOOCs: Capacity building** of all DIET Faculty, CRCCs, teachers and student teachers in online skill development and awareness of OER and participatory pedagogy

The review visit in Odisha focussed on the TESS-India activity in the focus district of Vaishali.

### Findings: Teachers (level D)

The review team observed a number of lessons in different districts and schools, in all cases the teacher observed had been involved in TESS-India activity. In all these lessons the teacher was drawing on ideas from the TESS-India OER – mainly the Key Resources (Principles of Practice) and the TESS-India video. The review group noted:

- Teachers actively structuring classroom teaching and learning to ensure *all children* participate in activities; use of group and pair work to engage all children
- Teachers monitoring by moving around in the classroom and providing feedback to children to guide their learning
- Happy relaxed children, asking questions and cooperating with each other to learn with and from each other
- Evidence of teacher lesson preparation; materials had been collected, pictures and charts developed, activities had been selected and planned
- Use of wider range of resources for teaching (including online resources) to create motivating learning activities including investigation and experimentation

*'The children have become smart and there is a change in their attitude, they are more positive and confident. I can see them developing day by day.'*

Class teacher, Dhenkanal district, Odisha, February 2017.

**Through interviews with the observed teachers, their mentors and headteachers, the review team noted:**

- Improved teacher reflection, informing lesson planning to some extent
- Other teachers in the schools desiring training by TESS-India and becoming part of the TESS-India community
- Peer learning between focus teacher and other teachers in the project school.

*'This method makes me think about children..... I use this method in my classes since I was exposed to this way of teaching and to the materials that is since October 2016. I discuss what happens with my peer group and share everything with them.'*

English teacher, Dhenkanal district, Odisha, February 2017.

In interviews with student teachers (at the DIETs), the review team were impressed with their enthusiasm for online learning and social media, and their accounts of use of TESS-India OER in their practicum.

## **Findings: Teacher educators (local: level C)**

The review team met teacher educators, DEOs and BEOs acting as TESS-India champions who were driving change for quality professional development.

The focus of TESS-India activity in Odisha is the school based mentoring with OER and this was reviewed through interviews and observations at schools and the CRC. **A critical finding is the shift in CRCC practice.** CRCCs were initiating mentor – teacher relationships and productive discussions, drawing on the TESS-India OER – OER, Key Resources, videos, to support these discussions.

*'I use the TESS-India OER because many activities and ideas are given. This improves the teaching –learning situation and students understand better. Reflection in the OER is also useful.'*

CRCC, Khorda Cluster, Odisha January 2017

The review team heard from one CRCC how he was taking video clips on his mobile phone while observing the teacher's class:

*'On my own I started taking video clips as once in the class during observation I saw some children being neglected. The teacher was asking questions to one-two children only. I told the teacher this during feedback. He started arguing so when I showed him the clip, then he accepted my observation.'*

CRCC, Dhenkanal district, Odisha, February 2017

## Findings: Teacher educators (level B)

DIET faculty were aware of the TESS-India OER through participation in various activities such as the MOOC. This engagement with TESS-India OER is facilitating some DIET faculty to play a role in leading professional development for teachers at the district level, engaging with CRCCs and schools. However lack of funds is limiting a wider engagement in these outreach activities.

The review team were not able to observe pre-service teacher education classes in the DIETs visited but faculty described small shifts in classroom pedagogy in pre-service classes.

*'I particularly like the reflection in the OER and the case studies; these have motivated me to develop my own case studies for student trainees. The student teachers are changing a lot'.*

DIET educator, Khorda, Odisha, Jan 2017

The MOOC had stimulated a rejuvenation of the DIET ICT labs and student teachers welcomed this. In one DIET visited by the review team a WhatsApp group had been created for all the students and staff and each faculty member was being encourage to contribute to a monthly DIET blog. However the review team were disappointed not to hear of any practice involving the TESS-India tablets.

## Findings: SRG (level A)

The SRG play a key role planning and operationalisation of TESS-India activities in the state, including in Dhenkanal focus district where SRG members lead and provide guidance for change. The SRG has undertaken capacity building of all levels of educational functionaries and led the process of OER and AV localisation. Some SRG members have influenced embedding and use of the TESS-India in pre-service and in-service programmes and are passionate advocates for the OER. An eminent member of the group spoke about the significance of the reflective prompts in the OER and the ways in which use of the OER was valuing the views of those traditionally seen at the 'bottom' of the education system – the class teachers,

*'How to put theoretical aspects into actual practice was always a question in my mind. When the TI OERs and Key Resources came personally I have benefitted tremendously as the OERs are action oriented and beautifully presented. So with this I can now influence the people I work with especially instilling the need and importance of reflective thinking.'*

Prof M Mohit Mohanty, SRG member, Odisha, February 2017 \_

However the review team found that although officially the SRG comprised a large number of educators from across different levels and districts in the state, only a very small core group were actively involved in contributing to the planning of TESS-India activity and this group was not diverse. It was also suggested by one of the members that the SRG members themselves needed periodic technical academic orientation and support from the TESS India team.

To improve equity and ownership in oversight of TESS-India activity the review team recommend that all SRG members are actively involved and their role specified. The review team suggests that the state consider the formation of a small team to take forward the use of TESS-India OER with secondary teachers. This team could include both existing members of the SRG, bringing their expertise with the OER, and new members from secondary schools and universities.

## Moving forward

The review team concluded that the focus district activity in Dhenkanal had provided a robust 'proof of concept' for the TESS-India model of local classroom focussed mentoring for teachers using the TESS-India OER. But in order to deepen and embed the emerging changes in classroom practice it is necessary to

- Expand the mentor training for CRCCs, and perhaps consider developing video to model effective mentoring practice with the TESS-India OER (many CRCCs have had little training on their role);
- Extend the mentor training to HTs so that they can provide more regular systematic mentoring to their staff to complement the mentoring visits from CRCCs and strengthen the school as a unit;
- Move to greater use of the TESS-India subject OER as well as the Key Resources and videos. The Key Resources and videos provide an accessible and useful entry point to the OER but for effective sustainable practice change it is important that teachers (and their mentors) do not limit themselves to these elements.
- Activity in these districts is then subject to a programme evaluation prior to scale-up across the entire state.

The review team also suggest that a focus could be given to the tribal districts especially using the Language and Literacy OERs and that the TESS-India OER should be integrated into complementary state wide education programmes such as the Ujwal programme.

With respect to the DIETs and SRG members the review team recommend that TESS-India and the State Government should cooperate to develop an interactive version of the TESS-India MOOC in Oriya to support DIET faculty in more fully utilising the TESS-India OER in their pre-service sessions. Following this TESS-India OER should be mapped to the D EL Ed syllabus to integrate them into multiple aspects of the programme; currently they are being used mainly in the practicum but the resources are highly relevant for other areas such as methodology courses.

The ICT facilities at the DIETs were well used during the MOOC and DIET Principals (and the SCERT) should harness this enthusiasm and experience to facilitate further use of these facilities for teachers. DIETs have a potential role as hubs for future online learning. To complement this DIET faculty should avail themselves of TESS-India tablets and develop their use as a recording tool for teacher observation – the resulting photos and video clips



provide mediating objects for productive mentor - teacher discussions, as well use the tablets as a repository for TESS-India OER and newly created OER.

# Appendices (OU visit newspaper articles)

## Bihar Article

...ative set up by Sanjeev Sinha and Dianne Hagen in 2005. It or interpretation of the term 'enlightenment' through the ... in the next couple of days,' she added.

### UK Open Univ collaborates with teachers in Vaishali

**Rajesh Kumar Thakur**  
■ htpatna@hindustantimes.com

**HAJIPUR:** Vaishali has been taken up as a focus district for teacher's education through school based system (TESS) under a project of Open University of UK.

Under the project, teachers are being assisted to acquire and sharpen their pedagogical skills, while learning abilities of children are being explored and monitored. A team of education and pedagogical experts of TESS India -aided by UK, visited many primary schools on Tuesday.

Pankaj Singh, and Alok Ranjan -both senior teachers cum resource persons, said the members of Tess India also took on the spot- feedbacks at schools on elementary education.

Singh said: "The utility of open educational resource during classroom transactions and the impact of scientific pedagogical skills, which are now shared by TESS India, here with teachers, have also been seen and assessed on the spot by team members".

The project in Vaishali district is aimed at rendering support to India's national educational policy by enhancing the classroom practice of primary and secondary schools teachers through the provision of freely available, adaptable

open educational resource (OER).

Approximately, 2000 primary and secondary schools in district are being covered under Tess India program.

Ranjan said: "The talent among the children on language ability, science, mathematics and English are encouraged and explored through case studies and readings are explored under this project. Ranjan monitors 12 schools

on elementary school learning. A number of separate sets of test and video based on OER are prepared and designed to enhance the professional development of school teachers and leaders.

Ms Clair (academic head, maths), Kimberley (academic head of English) and others from UK were on the team that carried out an objective assessment of Tess India program.



■ UK-based members of Tess India interacting with schoolteachers at Vaishali on Tuesday.  
ALOK/JHT PHOTO

### MEMBERS OF TESS INDIA ALSO TOOK ON THE SPOT FEEDBACKS AT SCHOOLS ON ELEMENTARY EDUCATION

**a Ranchi Hai Taiyaar...**





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## मोपाल जबलपुर के अलावा देखा विदिशा

# यूके यूनिवर्सिटी के व्याख्याता पहुंचे डाइट परिसर, किया मूल्यांकन

**स्वतंत्र समय ब्यूरो, विदिशा।** ओपन यूनिवर्सिटी यूके द्वारा अंतर्राष्ट्रीय स्तर का टेस प्रोग्राम पिछले दिनों चलाया गया था। मंत्र में इसे शिक्षण प्रशिक्षण ले रहे छात्रों के लिए हिंदी में ऑनलाइन चलाया गया था। उसी प्रोग्राम को देखने और मूल्यांकन के लिए शनिवार को दो सदस्यीय दल विदिशा आया था। जहां उन्होंने विद्यार्थियों और व्याख्याताओं से बात करने के साथ-साथ डाइट का भी निरीक्षण किया।

ओपन यूनिवर्सिटी यूआईएड किंगडम के सदस्यों ने एक अंतर्राष्ट्रीय स्तर पर सॉल्व किए गए शिक्षण प्रशिक्षण प्रोग्राम को करने वाले शिक्षक के रूप में प्रशिक्षण लेने वाले विद्यार्थियों से मिलने पहुंचे। यह दल भोपाल को डाइट

जबलपुर के संस्थान और राज्य शिक्षा केन्द्र के अलावा सिर्फ विदिशा डाइट में पहुंचे हैं। इस दल में लीन एडीलनाफी लेक्चरर और साइमनक्रास आईटी एक्सपर्ट आए थे। उनके साथ टेस इंडिया के राज्य प्रतिनिधि जावेद शेख, प्रशिक्षण प्रभारी अनिल श्रीवास्तव भी मौजूद थे।

**विद्यार्थियों से किया साक्षात्कार**

दल के साथ आए टेस इंडिया के राज्य प्रतिनिधि जावेद शेख ने बताया कि यह प्रोग्राम 23 नवंबर से शुरू किया गया था। छह हफ्ते तक चले इस प्रोग्राम में विश्वभर में ऑनलाइन शिक्षण का प्रशिक्षण ले रहे विद्यार्थियों और व्याख्याताओं को मिखाने के लिए चुना गया था।



विदिशा डाइट में 63 सदस्यों को इसका प्रशिक्षण दिया गया। जिनमें करीब आधा दर्जन व्याख्याता भी शामिल थे।

प्रशिक्षण ले चुके विद्यार्थियों और व्याख्याताओं से लीन एडीलनाफी और साइमन क्रॉस ने साक्षात्कार किया। प्रशिक्षण के सकारात्मक और नकारात्मक दोनों पहलुओं के बारे में भी उन्होंने बारीकी से बात की। इस दौरान सामने आया कि

स्थानीय स्तर पर कुछ परेशानियां प्रशिक्षणार्थियों को दिखीं। जिसमें डाइट से सरकारी स्कूलों में पढ़ाने जाने और इस कोर्स का एक साथ समय पढ़ने पर परेशानी हुई तो वहीं इंटरनेट कनेक्टिविटी, लैपटॉप और कम्प्यूटर की उपलब्धता कम होना भी समस्या के रूप में सामने आया। जावेद शेख ने बताया कि यह दल साक्षात्कार के बाद शनिवार को राज्य शिक्षा केन्द्र के डायरेक्टर

लोकेश जाटव के सामने अपनी बात रखेंगे।

**नक्षत्र वाटिका के बारे में जुटाई जानकारी**

राशि सभसेना, डाइट प्राचार्या ने बताया कि दल ने यहां के व्याख्याता अर्चना वास्टेह, सुरेशचंद्र शर्मा के साथ नेहा रघुवंशी, अंकित, संपूर्णा और अभिषेक के साथ-साथ डाइट प्राचार्य होने के नाते मुझसे भी अलग से चर्चा की थी।

वहीं दल के सदस्यों ने डाइट में प्रवेश के साथ ही नक्षत्र वाटिका को देखा और इसके बारे में विस्तृत जानकारी भी ली। छह हफ्ते चले इस प्रोग्राम से डीएड, बीएड कर रहे विद्यार्थियों को भी काफी जानकारी मिली है। उनकी अंग्रेजी का ज्ञान भी बढ़ा है।

## दरबार में फिर मिला सिर्फ आश्वासन

**स्वतंत्र समय ब्यूरो, विदिशा।** शुकवार को होमगार्ड ऑफिस में जिलेभर के नगर सैनिक वार्षिक निरीक्षण परेड में शामिल हुए। जिसमें किट के साथ परेड का निरीक्षण किया गया। जवानों का टर्नआउट देखा गया और उसके बाद दरबार सजा। जिसमें लोगों की समस्याएं सिर्फ सुनी गईं, उन्हें हल करने पर पिछले सालों की तरह भी इस साल भी आश्वासन मिला।

शुकवार को होमगार्ड की परेड का निरीक्षण करने दिवोजनल

कमांडेंट केएस परिहार विदिशा पहुंचे। उन्होंने कार्यालय में किट के साथ मौजूद नगर सैनिकों का निरीक्षण किया, उनको परेड देखा। उनका टर्नआउट जांचा। किट को बारीकी से देखा। उसके बाद परिसर में ही उन्होंने दरबार लगाया। पिछले सालों की तरह जवानों के कुछ चुनिंदा सवाल फिर से दोहराए गए। जिन्हें आश्वासन में ही टाल दिया गया। कंपनी कमांडेंट उमेश तिवारी के अनुसार वार्षिक परेड के दौरान नगर सैनिकों के स्वास्थ्य पर जोर

दिया गया। बताया गया कि वह खुद और उनके परिवार को बीमारी और इलाज के दौरान अस्पताल के बिल को क्लेम के रूप में जमा करने को कहा है। एक बार फिर दावा किया गया है कि नगर सैनिकों को अप्रैल माह से 10 फीसदी बढ़ा हुआ वेतन मिलेगा। अब तक विभाग से मिलती रही वर्दी के स्थान पर उन्हें कपड़ा और मिलाई के लिए राशि मिलेगी। इन सबके बाद भी कहीं न कहीं नगर सैनिकों को मांगे अब तक अधूरी बनी हुई हैं।

## शिकायत पर 4 माह बाद

**स्वतंत्र समय संवाददाता, सिरौंज।** स्थानीय जनपद पंचायत कार्यलय में लोगों की शिकायतों के निराकरण में काफी टेंटलतीखी की जा रही है और डिम्पेदार भी इस ओर कोई ध्यान नहीं दे रहे हैं। जिससे लोगों का जनपद में सीईओ के पास शिकायतों पर कोई कार्यवाही न होने से शिकायतें करके ते मन कराउने लगा है। इसी तरह का एक मामला ग्राम पंचायत नुहरघाट के अन्न खेड मध्यमिक स्कूल के जय मत्ता की स्व सहायता समूह की कोषाध्यक्ष पद से हटायी गयी कैज़ी बाई को समूह की अध्यक्ष रेखाबाई द्वारा मन्मर्ती पूर्वक समूह से हटा दिया गया।

जनपद के सीईओ द्वारा 6 माह पूर्व पंजाब नेशनल बैंक को समूह के एमडीएम में कोषाध्यक्ष का मान बढ़ाने को लेकर अपील जती कर दिया गया। अब खबल उठता है कि बिना ठहराव प्रस्ताव के समूह की कोषाध्यक्ष समूह की अध्यक्ष द्वारा कैसी बदली गयी और उपर से सीईओ द्वारा बैंक को अपील जती कर एमडीएम के खाते में अन्य सदस्य को कोषाध्यक्ष बना दिया गया। जिसकी शिकायत वैजंती बाई ने शिक्षा धार माह पूर्व अवेदन देकर जनपद सीईओ से कि मगर समय गुजरता गया, लेकिन अब तक कोई जॉब उक्त शिकायत पर नहीं हुई। जिससे उक्त मामले में

## श्रीराम कथा में उमड़ रहा सैलाब



**स्वतंत्र समय ब्यूरो, विदिशा।** समय पर वेतन न मिलने और

पंचायतों द्वारा संचालित हो रही हैं। जबकि शरूआती दौर में रोजगार



## रोजगार सहायकों ने सामूहिक रु