

# District Education Resource Centres (DERC)

Project Report

November 2019 - December 2020



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## 1.0 Objectives

In the DERC project, faculty of Centre of Excellence in Teacher Education [CETE] (formerly CEIAR), TISS are supporting the setting up of District Educational Resource Centres (DERCs) in all District Institute of Education and Training (DIETs) in Karnataka. Faculty are working closely with the DIETs in enabling their DERCs to emerge as active centres providing a common platform for practicing and prospective teachers as well as teacher educators. The aim is to create synergy among teacher education institutions and neighbouring schools and broaden DIET faculties' conceptual understanding related to education through action and design-based research and professional development.

## 2.0 Report of Activities

### *2.1 Inaugural Session of District Educational Resource Centres (DERC) Project held on December 19 & 20, 2019 at DIET, Chamarajanagar, Karnataka*

#### **Workshop Attendees:**

40 attendees from different DIET's and DSERT were part of this workshop. Mr. Kenche Gowda, DDPI TE Cell DSERT, Mr. Manjunath, SADPI TE Cell DSERT, DIET Principals from Chamarajanagar, Mysore, Dharwad, Davanagere, Faculties from TISS Prof. Mythili Ramchand, Asst Prof Bindu Thirumalai, Sunil & Nodal officers from 27 DIET's.

#### **Workshop Sessions (2 days) :**

Day 1 Programme started with Inauguration of DERCprogramme by Mr. Manjunath SADPI TE Cell DSERT, sharing of objectives, goals of DERC programme and setting up of DERC was done by Prof. Mythili Ramchand. Ms. Annapoorna, Lecturer DIET Chamarajanagar presented her experience of setting up & working of Chamarajanagar DIET DERC. Many questions arose from participants which were taken up in the planning sessions. Mr. Shashidhar in-charge of DERC did a walk-through and shared the management and day-to-day administration work of DERC, enabling participants to understand the functioning of DERCs.





A visit to **Deenabandhu Teacher Resource Center**, run by Prof. G.S. Jayadev as planned. Prof Jayadev shared his vast experiences of the purpose and need for resource centres, usage of resources and role of resource persons. The DIET faculty participated actively and interacted with the resource persons. Resource persons from Deenabandhu demonstrated many science and maths working models with ideas on how to facilitate its use and learning with students. A visit to Deenabandhu Science Park provided a hands-on experience of teaching science concepts using resources.



Day 2 started with a presentation on curating, collating, creating resources by Ms. Bindu and a demonstration of creating maths resources using origami sheets.



**Group work:** Participants worked in 3 groups and evolved plans to establish DERCs in their DIETs. In the afternoon groups shared division wise plans on setting up and running DERC. Parallel session meeting with DSERT DDPI, Mr. Manjunath, Mythili, 4 DIET Principals each DIET officer evolved plans to establish a DERC for their respective DIETs; Orientation on Zoom Call for later meetings with participants.



## ***2.2 District Educational Resource Centres (DERC) Project's session-2 workshop held on February 26 & 27, 2020 at DSERT, Bangalore, Karnataka***

**Workshop Attendees:** 35 attendees from different DIET's and DSERT were part of this workshop. Mr. Maruthi, Director DSERT, Mr. Kenche Gowda, DDPI TE Cell DSERT, Mr. Manjunath, SADPI TE Cell DSERT.

**TISS:** Prof. Padma Sarangapani, Ms. Latha, Mr. Shivkumar, Ms. Padma GT, Mr. Sunil Kumar & Nodal officers from 26 DIET's.

### **Workshop Sessions (2-days) :**

Day 1 started with discussions on what had been achieved, participants suggested that they required official communications to kick-start the work in their respective DIETs and shared their ideas and problems faced during setting up and running of DERC.



Mr. Shivkumar from Tata Trust ran a brainstorming session to ideate on ways to make a DERC active. Mr. M.R. Maruthi Director DSERT addressed the participants and took inputs and progress of functioning of respective DERC's. Director asked all participants to frame and send the DERC plan along with the budget. Participants divided themselves into groups to come up with a concrete plan. Mr. Shivkumar and Padma.GT took a session on choosing resources, evaluating resources and criteria for choosing resources.

**Day 2 sessions were planned on Action Research,** Prof. Padma Sarangapani took a session on some preliminary ideas on Resource Centers and how it's different from training the teacher. Ms. Latha took a session on action research and methodological principles for action research. It generated useful discussion on the institutional location of DERC, ownership and strategic action.

Participants were grouped and asked them to develop an action research proposal. During group work Ms. Latha and Prof. Padma Sarangapani interacted with the groups on their ideas. Participants were required to submit their respective DERCs Action Research Plan within a month. Mr. Manjunath, SADPI, DSERT concluded the workshop with guiding the group on next steps.



Participants shared the DERC plan at the end of the workshop session after discussions.

### **DERC PLAN**

#### **Vision:**

1. Improve the quality of education in each district
2. Strengthen teaching practices to include experiential learning
3. Encourage the participation of educational stakeholders in learning process
4. Provide quality education in the district by including creative activities, experiential and innovative activities.

#### **Mission:**

1. Implementing the suggestion and requirement of NCF 2005, RTE 2009 and NEP 2019

#### **Objectives:**

1. Comprehensive and unique centre for learning
2. To ensure the quality education in the district supporting and strengthening of all stake holder even usage for public
3. To create an educational environment that encourages personal and professional development of those who serve in various fields.
4. Developing DIET's as special and innovative learning centers and up gradation of resource centre

#### **Establishment of DERC:**

1. List of physical infrastructures like building, labs, list of educational resources and other e-resources. Subject wise, concept wise sorting resources and developing resource manuals.
2. Detail out the financial support requirements
3. Appoint a person to run the DERC. This might be permanent/temporary (DSERT Director suggested that they can have one out-source person to run the DERC).
4. Steering committee for DERC, responsibility and review the DERC in cascade from DSERT director, DIET Principal and Nodal officers. Three members committee, charge must be given to one nodal officer, two assistants. If anyone gets transferred/promoted/retires others should replace.
5. Maintaining register for documentation of resources, list of resource persons, activity register, feedback register for visitors, stock register, annual report of DERC, Action plan, Action Research and Studies, Schedule(Time table), Digital documentation of DERC.
6. Set up Language labs and other subject labs in DERC
7. Initially setup DERC with available place, resources, books and training modules
8. DERC should not be the responsibility of only the nodal officer, it should belong to all DIET faculties and should be taken care of by everyone.
9. All meetings and workshop should happen at DERC so that everyone will know and will use resources available at DERC
10. Proper guidance should be conveyed from Nodal DIETs to other DIETs.
11. District wise DERC WhatsApp groups, so that others will get updates on what's happening in DERC
12. Getting educational needs and requirements from each Taluks and providing the same to them.

13. Resource Centre should kept open during office hours and should be open center
14. Publicity of DERC should happen

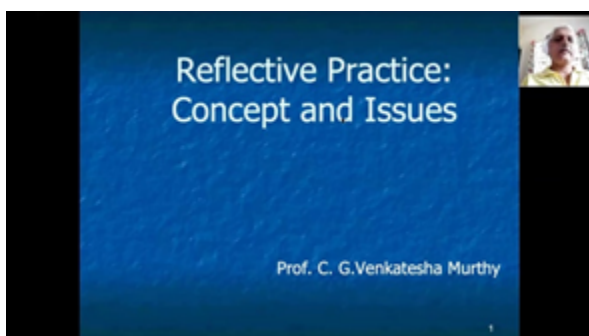
#### **DERC Plan and Activities:**

1. List of activates, subject wise activities for teachers and student teachers, experiential activities, usage of resources kits.
2. Plan activities from June to March, activities on every first and thirds Saturdays
3. Demonstration, seminars, workshops, sharing meeting
4. Activities for stakeholders like teachers, students, student teachers, teacher educators, other DIET staffs both teaching and non-teaching, supervisory teams like DDPI, BEO, BRC, BRP, CRPs and also activities for public community
5. Coaching for CET aspirants, organize visits to DERC for teachers, BRP, CRP and other department officials.
6. Activities related to local place and later activities related to Karnataka and India

### **2.3 DSERT-TISS Webinars held from April 26th to June 6th, 2020.**

Webinar sessions were planned by the CETE, TISS in partnership with Department of State Education Research and Training [DSERT], Karnataka for DIET nodal officers, DIET Lecturers and faculty in-charge as part of the DSERT-TISS District Educational Resource Centre [DERC] project across Karnataka. In the context of the ongoing Covid-19 situation and the disruption of regular DIET activities, weekly webinars on relevant topics were conducted by experienced faculty members from various educational institutions on Saturdays from 11 am to 12 pm.

The webinar series included six themes which were chosen to build capacity of DIET faculty to support online professional development for teachers. The topics selected were: Open Educational Resources, Inclusive Education, Action Research as Reflective Practice, Knowledge as Constructed in Social Contexts, TPACK, Assessment and Feedback. Resource persons were invited from Seva-in-Action, VSEI, RIE Mysuru-NCERT, APU, Vijaya Teachers College and some of our CEIAR faculty also facilitated the webinars.



About 1200 lecturers were part of these six webinars, while lecturers logged in individually in the initial seminars, groups of faculty from each DIET logged in using a single ID in the later seminars.



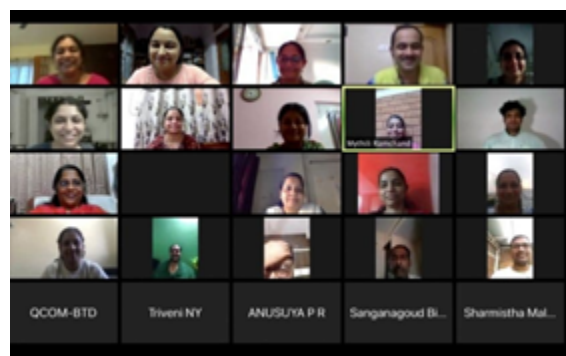
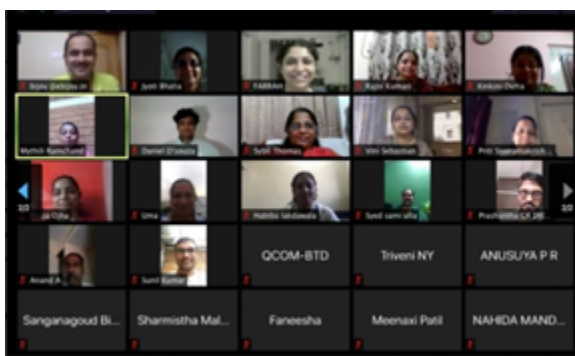


We polled the participants for feedback at the end of three of the seminars. The poll results showed that the majority of the participants found the webinars useful and applicable. Some lecturers initially found it difficult and struggled with new technologies but with the help of our team and with some of their knowledgeable peers and from younger members of their families they managed to participate in the seminar.

The details of the webinar session are available in appendix 4.1.

#### ***2.4 Design Workshop for Teacher Educators, September 2020 to November 2020***

CETE, TISS organised a design workshop for teacher educators from DIET faculty and M.Ed students. About 134 DIET faculties were part of this workshop. The primary objective of the workshop was to introduce participants to the principles of design to curate OERs around anyone's lesson/topic of their choice.



In the workshop, participants:

1. Explored the characteristics of an OER
2. Engaged in the design thinking process to curate OERs and created teaching-learning events and resources for teacher education
3. Learnt to prepare and maintain digital portfolios
4. Shared the designed resources and implementation experiences and engaged in peer discussions on TALC
5. Earned a digital badge for displaying collaborative skills and submitting artefacts

The details of the 6 workshop sessions are available in appendix 4.2

### ***2.5 Practitioner Research 9th, 10th, 11th December, 2020***

Tata Institute of Social Sciences offers a Postgraduate Course in Contemporary Education Perspectives and Research (PGC-CEPR) primarily to encourage Practitioner Research. DSERT has supported interested DIET faculty to enroll for the course, as part of their professional development. Two batches of 65 faculty of DIETs across Karnataka have so far completed research projects, inquiring into their practice in their districts. The studies range from systemic issues such as integration of ICT, teacher education, for example seeing how student-teachers develop as reflective practitioners to pedagogic studies, understanding of teaching-learning of school subjects such as language, mathematics and science.

Practitioner research is a new and growing area of research in the Indian context. It enables us to understand the achievements, issues and improvements required from the practitioners themselves. To enable collective action to address various issues, the findings from these researches need to be made public.

The seminar was organised to provide a forum for the faculty who have completed the PGC-CEPR course to showcase their work. Out of 65 participants who have completed their project 12 was selected through a peer-review process to present their research work as well as their reflections of participating in the research project.



The seminar brought together policy makers, practitioners and university researchers for mutual learning and sharing expertise so as to inform policies and practices of Karnataka education system; and develop communities of practitioner-researchers who can collectively discuss experiences and challenges of research and find solutions to advanced practitioner research in the state.

#### **Outcome of the seminar**

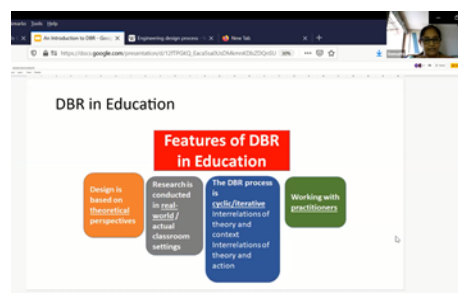
The seminar resulted in a draft policy brief compiling the key trends that emerged from practitioner research in the form of inputs for Policy and Practice.



## Inputs for Policy and Practice

Themes	Trends in key findings
<b>CPD</b> (PSTE, NQT, TPD)	<ul style="list-style-type: none"> <li>Scaffolding for writing reflective reports - Teacher educators need support in action research</li> <li>Teachers need support to work with SDMC and the larger community</li> <li><i>Guruchetana</i> programme has been effective in offering a variety of good quality content and pedagogy</li> </ul>
<b>PCK</b>	<ul style="list-style-type: none"> <li>Questions by teachers mostly focus on recapitulation of content</li> <li>Error analyses imply poor conceptual understanding</li> <li>Teachers tend to overlook chapters of importance (like number patterns) if they are not familiar/do not find value in them</li> <li>Learning through activities support students' learning better</li> <li>Teachers need orientation on taking into account children's socio-economic background</li> <li>Designing unit plans must become a part of TPD</li> </ul>
<b>Assessment</b>	<ul style="list-style-type: none"> <li>Formative assessment strategies and tools to be provided to teachers</li> <li>Teachers need support in designing questions and task-based assessments for conceptual understanding</li> <li>Teachers to be introduced to analysing children's errors and identifying alternate conceptions in science</li> </ul>
<b>ICT Integration</b>	<ul style="list-style-type: none"> <li>TALP programme has increased teacher's knowledge and use of digital technology</li> <li>Textbooks need to include ways of using technology for learning</li> <li>Passive use (such as watching videos) is not good , for effective learning, technology must be used interactively and promote active learning.</li> <li>There is increase in SSLC results in rural schools as a result of TALP implementation</li> <li>Good infrastructure and maintenance is required in schools to increase use of ICT</li> </ul>

The seminar also included a workshop, **Introduction to Design Based Research [DBR]**, that was attended by 60 DIET faculty. The session was facilitated by Bindu , Anusha and Gomathi introducing participants to the new and emerging DBR methodology to enable participants to create and curate resources for the DERC using a DBR approach.



### 3.0 April-May 2021 Plans

We will begin the Design-Based Research (DBR) work as part of the District Educational Resource Centre (DERC) programme with DIET faculty. The first phase of this programme will include 2 months of research work to study and analyse district level data of Karnataka Teacher Eligibility Test (TET) and identify problems for individual DBR research. This work will be done in April and May 2021 that includes 6 online sessions, every week with TISS faculty. We plan to bring out a research report on inputs

for pre-service programmes and teacher professional development plans as an output of this collaborative effort.

To enable this first phase of the work we would require access to detailed anonymized TET data (disaggregated by districts) for Karnataka.

## 4.0 Appendix

### 4.1 DSERT-TISS Webinar Series

Sl. No.	Date	Theme	Objectives/Key Question	Description	Resource person
1	25/04/2020	On-line engagement during COVID-19 times & Open Educational Resources	Orientation to curating and using OERs Introduction to instructional design to develop frameworks for evaluating/creating OERs Strategies for online engagement of teachers, student teachers and teacher educators	Introduction to instructional design to develop frameworks for evaluating/creating OERs and Strategies for online engagement of teachers, student teachers and teacher educators. This session was meant to be an introductory session for Open Education Resources and their use for developing online sessions for educators.	Prof. Mythili Ramchand & Ms. Bindu Thirumalai, Centre for Education, Innovation and Action Research, TISS.
2	02/05/2020	Inclusive Education	What are the ways to ensure continuity of education for the marginalised? How can teachers be supported to reach out to them?	In this webinar, the presenters discuss principles of inclusive education, adoption of Universal Design for Learning (UDL) guidelines to develop and teach lessons that are inclusive.	Ms Manjula Nanjundaiah, Seva-in-Action & Ms Brinda VSEI
3	16/05/2020	Action Research as Reflective Practice	Why is reflection a prerequisite of any professional practice? How do we reflect our practice in schools? Can action research be undertaken by all of us as teacher educators too? Should action research be undertaken only by school teachers?	In this webinar, the presenter discussed Reflective Practice- Concept and Issues, attributes of Reflective Teachers and also discussed on Action Research- Objectives and Ten Models of Action Research. In the end, participants and the speaker interact during the Q&A session.	Dr. C.G. Venkatesha Murthy, Prof & Dean, Research, Regional Institute of Education, NCERT, Mysuru.
4	23/05/2020	Knowledge as Constructed in Social Contexts	Brief overview of psychology of learning. Understand how learners construct knowledge. To draw out implications for pedagogy and curriculum based on constructivist perspective.	In this webinar, the presenter discussed Psychological theories of learning, Assumptions and limitations of Behaviorism. Maturationism, Assumptions and limitations of Maturationism. Constructivism. The Role of representation, the learner according to constructivism, application of constructivism to education.	Dr.Indira Vijaysimha, Professor, Azim Premji University.
5	30/05/2020	TPACK	Briefly discuss the TPACK knowledge framework Application of the TPACK knowledge framework How can student-teachers and teachers develop TPACK? How can we use the TPACK framework for developing lessons and activities?	In this webinar, the presenter discussed understanding the TPACK framework through a discussion on what knowledge-base is required for teachers. Application of TPACK framework. How do we use the TPACK framework? Two applications of the TPACK framework are discussed	Ms.Bindu Thirumalai, CEIAR, TISS
6	06/06/2020	Assessment and Feedback	Revisit the reforms in assessment and feedback. Develop understanding about foundations of assessment. Get awareness about contemporary considerations that influence reforms in assessment. Critically reflect on the failures of few reforms in assessment and feedback. Ponder over the suggestions in assessment procedures for post-COVID19 situation in Karnataka.	In this webinar, the session begins with exposing the participants to the objectives of the session. The presentation covered the following aspects: · Recommendations made by NCF 2005 and NEP 2019 on reforms in assessment. · Need for reforms in assessment. · Contemporary considerations that guide reforms in assessment. · Framework for future assessment – Assessment Triangle. The discussion session continued by video viewing on misconceptions in learning and how to assess them.	Dr. G. Vijayakumari, Associate Professor, Former Principal and coordinator, Vijaya Teachers College, Jayanagar, Bengaluru:560011

#### **4.2 Design Workshop**

**Faculty:** Mythili Ramchand (TISS), Sybil Thomas (Mumbai University), Gomathi Jatin (TISS), Bijoy K Thomas (Mumbai University), Bindu Thirumalai (TISS) & Ananya Chatterji (Research Associate)

**Guest Faculty:** Jennifer Thomas (TISS), Anusha Ramanathan (TISS)

**Resource Persons:** Sayali Tamane (Design Thinking)

Sl. No.	Dates	Venue	Mode	Topic	No. of participants
1	26-09-2020	DBR-Design Thinking for Teacher Educators	Online	Open Educational Resources	15
2	03-10-2020	DBR-Design Thinking for Teacher Educators	Online	Design Thinking	14
3	10-10-2020	DBR-Design Thinking for Teacher Educators	Online	Designing Learning Experiences	16
4	15-10-2020	DBR-Design Thinking for Teacher Educators	Online	Digital Portfolio and Developing OERs	11
5	17-10-2020	DBR-Design Thinking for Teacher Educators	Online	Development of Digital Portfolio	12
6	07-11-2020	DBR-Design Thinking for Teacher Educators	Online	TALC Design Workshop Follow-up Meeting	6

