Peer Leadership and Mentoring: Design and implementation of an online course for continuous professional development

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Abstract
The blended post-graduate certificate programme for secondary school teachers – Reflective Teaching with ICT (RTICT) has been developed and implemented covering over 2000 teachers working in rural and remote areas across four states in a phased manner beginning in 2016. This programme adopts a reflective model of professional development using a practice-based approach and exemplary OER.

Through the experience of implementation of the RTICT programme, a need for developing a group of teachers as leaders and mentors to support their peers academically was felt at the cluster and school level. Consequently, a 2-credit elective course for the RTICT programme has been developed for teachers to develop as leaders and provide peer mentoring and continuous professional development to enhance pedagogical learning among teachers. This course may also be used as a standalone module for head teachers to understand and support pedagogical innovation through the use of ICT in schools. This online course adopts a practice-based approach. Teachers develop mentoring skills with a focus on peer leadership, self-development strategies, understand the goals of TPD, namely, supporting teachers to adopt learner-centred pedagogies and develop as reflective practitioners. Teachers learn to adapt and adopt ICT based tools for their mentoring process. Teachers engage with the conceptual and practical ideas of development and management of communities of practice. The design rationale, based on empirical findings, theoretical ideas to develop teacher leaders as peer mentors and implementation is discussed in this paper.

Keywords
Peer Mentoring; Continuous Professional Development; Academic Support; Rural Schools; Scaled Programme
Introduction

All system-wide in-service teacher programmes that offer continuous professional development [CPD] to teachers in India must necessarily grapple with the aspect of scale. State education systems need to reach teachers working in rural and remote schools in vast geography. All national documents and policies (GoI, 2012) on education stress the need for developing robust continuous learning opportunities for teachers to develop and update their knowledge and skills. To address the aspect of scale the delivery of most traditional in-service programmes has been through a “cascade” approach, of one-time workshops delivered in a lecture mode. It is widely recognised that continuous pedagogical support is essential for teachers to transform both beliefs and practices for adopting active and interactive pedagogies (Sandi, 2015, Fung Tam 2015). Further, research on adult learning also shows that a collaborative, sharing and reflective environment is more useful for professional development (Vescio et al., 2008). In the Indian context, effective frameworks and methodology of CPD of teachers at scale are yet to be developed. There is virtually no evidence drawn from research primarily in the case of secondary school teachers CPD in the Indian context.

Based on this background, the Tata Institute of Social Sciences (TISS) has developed a 20-credit post-graduate certification programme titled Reflective Teaching with ICT [RTICT] that offers several courses with pedagogical and ICT specialisation in different subject areas. The foundation course ICT and Education and three subject specialisation courses (English, mathematics and science) have been developed and implemented covering over 2000 teachers across four states in a phased manner beginning in 2016. This programme adopts a reflective model of professional development using a practice-based approach (Ball & Cohen, 1999) and exemplary OER like CLIx1. Teachers are introduced to the OER through workshops to gain hands-on experience. Teachers are also required to implement the OER in their schools, observe student’s learning and reflect on their teaching-learning process. The online part of the course requires them to connect the pedagogical theories to their practice to support the development of Pedagogical-Content Knowledge [PCK] and Technological-Pedagogical-Content Knowledge [TPACK]. The subject-based online Community of Practice [CoP] creates a social learning environment for continuous peer and university faculty exchange and sharing.

Through the experience of implementation of the RTICT programme, a need for developing a group of teachers as leaders and mentors to support their peers academically at the cluster and school level was felt. Consequently, a 2-credit elective course - Mentoring for Teacher

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1The Connected Learning Initiative (CLIx) is an innovative field action programme launched by the Centre for Education, Innovation and Action Research (CEIAR) to improve the professional and academic prospects of teachers and high school students from underserved communities in India. CLIx incorporates thoughtful pedagogical design and leverages contemporary technology to provide quality educational experiences at scale across disciplines. The project is currently being implemented in four states. The initiative was seeded by Tata Trusts, Mumbai and is led by Tata Institute of Social Sciences, Mumbai. Winner of the 2017 UNESCO - King Hamad Bin Isa Al-Khalifa Prize for Use of ICTs in Education. See https://demo-clix.tiss.edu for exemplary OER.
Professional Development (See Annexure A) for the RTICT programme has been developed for experienced teachers to provide peer mentoring and continuous academic support to enhance pedagogical learning among teachers. This course may also be used as a standalone module for head teachers to understand and support pedagogical innovation through the use of ICT in schools.

This online course adopts a practice-based approach. Learners develop mentoring skills with a focus on peer leadership, self-development strategies, understand the goals of teacher professional development, namely, supporting teachers to adopt learner-centred pedagogies and develop as reflective practitioners. Learners also learn to adapt and adopt ICT based tools for their mentoring process. Learners engage with the conceptual and practical ideas of development and management of communities of practice. The design rationale, based on empirical findings, theoretical ideas to develop teacher leaders as peer mentors and experiences of implementing the first run of the course, is discussed in this paper.

Review of Literature

CPD
Continuous professional development of teachers is complex, situated in specific contexts of policies, economy and politics. Despite this very contextual nature of CPD, research and theory (Postholm, 2012) do suggest several general aspects that need consideration. Two important aspects of CPD or in-service professional development that impact the macro level discourses are the systemic ideas of teacher professionalism and delivery modalities of programmes designed for CPD. Broadly, two discourses in literature are seen, that are shaping the ideas of teacher professionalism globally, namely, managerial, and democratic professionalism (Day & Sachs, 2004). The current global discourse is trending towards a managerial idea of professionalism, where teachers’ work is system driven; external processes regulate and hold teachers accountable by binding their work with student achievement in narrow ways, largely through standardised student testing; reform agendas are often market driven to meet political ends and ultimately enable the state or external market forces to take control of teacher’s professionalism, imposing on teachers to comply to policy regulations and standards and teaching to standardised tests. A democratic idea of professionalism, however, sees teachers as active agents of policy development processes and reform agendas. Teachers are active participants in professional CoPs, working collaboratively, complementing, and moving beyond the reform agenda, professionally self-regulating their work by developing critical collegiality and taking professional control of their work towards improving student outcome and achievement, in a socially just environment. The second aspect that has been central to the CPD discourse has been the modes of delivery of training and professional development, as most state education systems need to reach many teachers. Thus, the modes of delivery have traditionally been short workshop based training adopting a cascade. Although leveraging of Information
Communication Technologies (ICT) to innovate new delivery modalities have been the dominant discussion (GoI, 2012) areas in the current discourse, it has not yet shown impact as imagined.

The assumption is that this CPD model is based on a constructivist paradigm where teachers as learners make meaning and construct knowledge through work and social interaction. Teachers have the ability and learn effectively by examining their practice, collaborating with other teachers during non-classroom activities, when the school environment nurtures and supports teachers learning and when they have the autonomy to shape their practice. Teachers appreciate formal training that is more connected to their work of teaching and their school contexts. Teacher learning is impactful when they can critically reflect on their practice in professional learning communities (Vescio et al., 2008). Pedagogical change is a slow process, and the changes due to professional learning may impact either teacher’s beliefs, practices or both (Fung Tam, 2015). Typically, changes in both beliefs and practices take a much longer time.

**Teacher Knowledge and Learning**

Defining teacher knowledge is multi-layered as the knowledge base includes practical as well as theoretical knowledge. Three prominent conceptions of teacher knowledge are, knowledge-for-practice, knowledge-of-practice and knowledge-in-practice. Teacher learning involves enhancing teachers ability to interconnect these forms of knowledge through critical reflection and reflexivity to develop and impact their beliefs and practices. Knowledge-for-practice is the researched knowledge base that is already available and the focus of most pre-service professional development programmes. Knowledge-of-practice is the knowledge acquired when a teacher reflects on her/his practice and examines it critically connecting it with the already available knowledge base. Knowledge-in-practice is the practical knowledge teachers use and adapt during classroom teaching (Cochran-Smith & Lytle, 1999). A practice-based pedagogy (Ball & Cohen, 1999) enables connecting the three forms of knowledge by inquiring into one’s practice, examining artefacts of practice and connecting it with the already existing knowledge of practice and researched knowledge base in a collaborative environment through social interaction.

**Peer Mentoring/Coaching through communities of practice**

All teachers, beginners to experts, feel the need for continuous support, motivation for lifelong learning to innovate in their practice. Mentoring and coaching is an important component of cognitive apprenticeship and cognitive tutoring (Koedinger & Corbett,). Coaching can be especially productive for teachers, who benefit from regular, sustained, and personalized interactions with others around their practice (Schaverien & Cosgrove, 1997). Providing access to mentors/coaches, potentially online is a way of providing social support, at a local and more personalised scale, in addition to being part of a larger online community of practice.
Mentoring/coaching is an important way for sharing the expertise of more experienced and expert teacher and scaffolding newer teachers and collectively developing new knowledge, beliefs and practices.

According to Guskey (2002) the most changes to teachers attitude and belief come after teachers adopt their new learning in their practice and are able to observe changes in student's learning outcomes as a result. An online community of practice [CoP] (Wenger, 1998) enables teacher educators and mentors to connect with teachers' practice, provide ongoing support for implementing new ideas, facilitate teachers to continually reflect on student’s learning and enable the process of change in teacher’s practice (Guskey, 2002). The CoP enables teachers to share their practice and discuss issues and ideas amongst peers, mentors, university faculty, teacher educators and subject experts, thus connecting the professional development to their context and classroom practices and developing their PCK. In turn, teacher educators are able to provide feedback to teachers to understand the changes in their practice in more nuanced ways. Over a period of time with continuous engagement of participants, the community of practice develops into an epistemic community and enables a change in the teaching-learning culture through the discourse.

**Conceptual Framework**

It is challenging to find uniting definitions of mentoring (Sandi, 2015, Dawson, 2014). A review of the literature on mentoring and its processes, moreover, point to a diverse set of definitions and processes that are very contextual depending on who is the mentor, mentee, the nature of work and the institutional and systemic structures in place to support the process. However, Dawson (2014) has developed a framework that includes sixteen design elements that can be used as a guide to developing any mentoring programme. The design elements include a wide range of topics from objectives, roles, the relationship between mentor and mentee, the role of technology and so on all the way to termination of mentoring. This framework has been used taking into consideration the CPD context of the RTICT programme as well as the experiences gained from implementing the programme in conjunction with the literature on CPD, mentoring as well as resources that are already available for the Indian context.

Theories of communities of practice have been embedded into the design and implementation of the course, where teachers are brought together on an online forum that allows them to learn productively from each other and also work individually with teachers and provide personalised support. Forming community for continuous learning is an essential component of the course design.
Method

This research uses the Design-Based Research (DBR) (DBRC, 2003; Cobb et al., 2003) method that uses mixed methodologies to understand the relationship between theory, designed artefacts, and practice in authentic, real-world contexts in collaboration with practitioners (DBRC, 2003). The artefact is the mentoring online course. According to (Štemberger & Cencić, 2014), the process of design-based research can be described in four phases. The first phase involves analysis of the problem in collaboration with researchers and practitioners. The second phase includes design of the innovation, that is, finding a technical solution for the problem. The third phase entails multiple iterative cycles of testing and refining the innovation. Finally, the fourth phase involves reflection of the process of developing the innovation and arriving at design principles or theoretical frameworks. The first three phases of this research are described in this paper.

Findings

Course Design

Design Rationale of Course

Need for continuous learning and development has been the emphasis for in-service teacher education. The underlying philosophy of in-service teacher education is lifelong learning. Workshops, seminars are important for CPD. However, CPD is more than training and workshops. Often expert group or teacher educators find it challenging to continue engagement with teachers post workshops. Ideally, workshops should be one of the activities in the process of CPD, and it should continue with classroom practice, reflection, interaction with colleagues and peer mentoring. Teacher education institutes are envisioned as key institutes for both pre-service and in-service. However, there is no organisational set up to do extension or in-service education work in primary teachers' colleges, and colleges do not have enough material facilities and personnel to organise and impart in-service education for primary teachers (GoI, 2007). Hence academic support, discussions and collaboration by master trainers or teacher educators beyond the workshop become limited.

Under SSA, Block Resource Centres [BRC] and Cluster Resource Centres [CRC] was established to provide academic support to teachers from elementary schools (grades 1-8). BRCs and CRCs are overloaded with administrative work, have inadequate infrastructure and are burdened with the job of conducting too many training programmes (SSA, 2010). In states like Telangana, there is a system of school complex meetings where a cluster of schools teachers meet in one of the schools based on their subject for academic discussions once a month. However, it is often reported that complex meetings are not held regularly because of lack of dedicated funds. In other states, for secondary schools, no academic support structure is available. In such a scenario, where there is a lack of any academic support for high school
teachers, peer discussion, peer mentoring and access to a larger community of practice becomes imperative for teachers’ CPD.

The design of the course and the justification, both theoretical and empirical, is described for each of the 16 design elements proposed as a framework by Dawson (2014).

Objectives: The National Curriculum Framework NCF 2005 (NCERT, 2005) adopts a constructivist approach to learning that requires teachers to adopt active and interactive teaching approaches to facilitate students to use their prior knowledge to construct new knowledge. However, lecture-based teaching adopting passive pedagogies is still widely prevalent in the majority of the schools. Teacher knowledge is rooted in school contexts and practices (Cochran-Smith & Lytle, 1999). Therefore, for teachers to be able to change their practice to learner centered pedagogies, they require continuous and school-based or local academic support. The first objective of the mentoring programme is to provide continuing academic support for teachers to adopt student-centered pedagogies in school. To develop such pedagogies teachers need to be able to look into their own practice as well as their peers critically and examine the practice against learner-centered pedagogies to realise how and what needs to change. Until recently (NCTE, 2009; NCERT, 2006) teacher professional development has been based on a positivist rather than a constructivist approach, where teachers have not had the opportunity to reflect on their current practices, but have been given defined methodologies to apply in their classroom teaching. The result is that we see many resource persons and teachers whose beliefs have been impacted, however, teaching practices are still predominantly lecture-based and passive. In our field experiences, we have seen that teachers are yet to develop reflective skills in order to develop an inquiry approach to their teaching. While the RTICT has adopted a practice-based approach, we have seen that teachers find it difficult to describe their practice and examine it critically. The second objective of mentoring is to develop teachers as reflective practitioners. The development of contextually situated PCK requires ongoing support and facilitation of teachers classroom practice and experience with theoretical ideas learned in the courses through the online communities of practice. The third objective of mentoring is to develop skills related to management of teacher communities of practice that will support teacher change.

Also, most programmes provide the same CPD curriculum to build teachers and teacher educator’s capacity. Resource persons struggle to be peer leaders as well as mentors as there is no specific capacity building for mentoring. As a result one often sees resource persons struggle to understand the complexity of professional development, view pedagogical change as a very linear process and are left frustrated when they are not able to identify positive outcomes of their mentoring work. The elective course address this through sessions designed for understanding professional development as envisaged by NCFTE (NCTE, 2009), complexity of pedagogical change, mentoring and peer leadership skills and self-development strategies. Teacher educators
may take this course as one of the requirements to complete the RTICT programme. Additionally, this course may also be taken in a modular mode by head teachers to create an active learning environment for teachers to support adoption of learner centered pedagogies, use of ICT and school-based professional learning communities.

**Roles:** In the absence of a teacher educator cadre and extended support from teacher education institutes and absence of BRCs and CRCs structure for pedagogical support to secondary school teachers, it is teachers with subject expertise and comfort with technology who act as mentors.

**Cardinality:** The course is offered online with a strong practice component. Mentoring is one-to-many and addresses scale. The mentoring is envisaged as a multilayered process leveraging ICT. ICT is being leveraged using mobile messaging application to form subject-based teacher Communities of Practice (CoP). The CoPs enable a direct connect between university faculty and teachers. The next layer is the interaction between teacher educators and university faculty in a different CoP. Finally teacher educators also interact with teachers both online and face-to-face locally. The local cluster level mentoring is also envisaged to be one-to-many with one teacher educator mentoring multiple teachers at the cluster level by creating smaller online groups, as well as providing face-to-face support through school-based meetings held once a month subject-wise. To be able to handle the scale of the professional development many states have two levels of teacher educators, a state resource group as well as district resource groups. Through affordances of ICT, the plan is to use the online CoP to merge these two layers to avoid the cascading effects of professional development.

**Tie Strength:** The manner in which mentor-mentee relationships are structured is generally,
weakly-tied as it is not possible for mentors to invest a significant amount of time in one-to-one mentoring. However one-to-one relationship may organically develop through the cluster/school level interactions. While local and face-to-face mentoring is more useful to provide a personalised and contextual mentoring experience, we have observed that in the local groups, academic discussions, without intervention from external expertise, get diluted and reduced to a platform for complaining about persistent issues rather than seeking strategies to solve issues. Therefore, the tie strength is planned to enable multiple stakeholders to participate in the mentoring and is a multi-layered design as shown in Figure 1 to create a university-school connect aiming to reduce the theory-practice gap so prevalent in teacher education and professional development. Based on field experiences we see that the online CoP has created a link between teachers and university faculty and school and university. An important factor for strengthening academic support is the design of the management of the CoPs.

**Relative Seniority:** Considering the objectives of RTICT of using technology meaningfully and being reflective in one’s practice, participants of the course would be a mix of senior and junior teachers. During the offering of the foundation course *ICT and Education*, it was observed that junior teachers show more comfort and confidence in using ICT and could provide support to senior teachers in using ICT. Senior teachers can bring teaching experience for peer leadership and mentoring process, and it is assumed to work in any combination of said teachers.

**Time:** The mentoring activity is planned one academic year at a time. Teachers get transferred, and hence roles need to be renegotiated with the state every year. During the course run, engagement and activities would be intensive, and practice is expected to continue post the course period in schools through online CoP as well as school-based meetups for continuous academic support and mentoring. Engagement in larger community also lead to interactions at the individual level and making the process personalised and going beyond any stipulated time.

**Selection:** All teachers who are participating in the RTICT programme and teacher educators playing the role of mentors are selected by the state. The suggested criteria provided include subject expertise and teaching experience, comfort in the use of ICT, access to a laptop and interest in taking on a peer leadership role.

**Matching:** Typically the mentor-mentees match is based on geography/school location of both mentor and mentees. As mentoring is not one-to-one, too much emphasis is not placed on the matching process. Moreover, personalised matching criteria are not practical to implement system wide.

**Activities:** As the programme is new, the activities for mentor teachers are two-pronged, professional development and building their capacity as mentors through the RTICT programme as well as participation in the mentoring of other teachers. The mentoring activities include
academic support to teachers while they implement ICT based modules with students, support teacher’s Action Research projects, online CoP mentoring and management, workshop-based training to build teachers capacity, and facilitating school-based meetups. Mentors need to participate in the RTICT programme and complete the RTICT programme taking the mentoring course compulsorily as an elective to gain competency as mentors of the programme.

**Resources and Tools:** Mentor teachers are introduced to a variety of ICT based tools for teaching as well as mentoring. Mentors need to be proficient in the use of exemplary OER in the RTICT programme, use of the internet, mobile-based messaging application *Telegram* and online tools for sharing and reporting. Mentor teachers are required to manage the teacher subject-based CoPs as well as participate in the teacher educator/mentor CoPs.

**Role of Technology:** The affordances of ICT is being leveraged for both communication and connection as well as reporting tasks that mentors would be required to do. The goal is to leverage ICT to minimise administrative tasks so that the mentor teacher can focus energy on tasks that are more academic. One of the concerns of systemic mentoring programmes is the time to travel to schools that are usually remotely located. The selection of mentor teachers by geography as well as using online communication is meant to address this issue.

**Training:** To complete the RTICT programme learners are required to take compulsory courses for seven credits that include a foundational course ICT and Education and Action Research. A 4-credit subject specialisation course and three 2-credit elective courses of their choice. A mentor teacher is required to take the *Mentoring for Teacher Professional Development* 2-credit online elective course. This course has many practice components to help develop mentor teachers capacity as mentors and peer leaders. The course also has components for self-development and understanding concepts of CoPs and its management.

**Rewards:** The university provides recognition by way of certification and badges, however, all other rewards and recognition have to be negotiated and agreed with each state and will also vary with state-level policies.

**Policy:** The mentoring process is implemented starting the 2019-20 academic year. It is envisaged that through the implementation experience, we will be able to inform policy decisions both state and national, especially the type of institutional structures to support cluster level mentoring as well as suggest career development routes and options for teachers.

**Monitoring:** The CoP for teacher educators is a way of sharing between university faculty and mentors and also a platform for self, peer and faculty monitoring of mentoring work. Through active participation on the CoP, filling out timely reflective reports, sharing and discussions we hope to build a self-regulating monitoring environment. During the online course engagement,
structured assignments facilitates teacher learning about mentoring and also supports monitoring of engagement and learning process.

**Termination:** The mentoring process is envisaged as a long term relationship by participation in the teacher educator CoPs and termination takes place only because of systemic career changes such as retirement, transfer to another location or withdrawal of mentor from the programme.

**Course Implementation**

The first round of the course ran starting in July 2019 for 10 weeks, 34 teachers enrolled and 17 (50%) teachers from Chhattisgarh and Telangana government secondary schools successfully completed the course. Teachers responses were collected at the end of the course through a survey using a 5-point Likert scale to elicit feedback on the course. Table 1 summarises the responses of fourteen participants who completed the post-course survey.

**Table 1 : Responses to Post-Course Survey**

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Scale</th>
<th>Percentage of responses</th>
</tr>
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<tbody>
<tr>
<td>I found the course beneficial.</td>
<td>Completely Agree</td>
<td>100%</td>
</tr>
<tr>
<td>The course was easy to complete.</td>
<td>Completely Agree</td>
<td>57.2%</td>
</tr>
<tr>
<td></td>
<td>Partially Agree</td>
<td>26.6%</td>
</tr>
<tr>
<td></td>
<td>Partially Disagree</td>
<td>14.2%</td>
</tr>
<tr>
<td>The course led to examples relevant to my practice.</td>
<td>Completely Agree</td>
<td>92.8%</td>
</tr>
<tr>
<td></td>
<td>Partially Agree</td>
<td>7.2%</td>
</tr>
<tr>
<td>The Discussions were helpful.</td>
<td>Completely Agree</td>
<td>92.8%</td>
</tr>
<tr>
<td></td>
<td>Partially Agree</td>
<td>7.2%</td>
</tr>
<tr>
<td>The assignments were well structured.</td>
<td>Completely Agree</td>
<td>85.7%</td>
</tr>
<tr>
<td></td>
<td>Partially Agree</td>
<td>14.3%</td>
</tr>
<tr>
<td>The feedback was prompt and effective.</td>
<td>Completely Agree</td>
<td>85.7%</td>
</tr>
</tbody>
</table>
The teachers actively engaged in discussions through the discussion forum of the course management platform sharing their experiences of mentoring and facilitating change. This course has also enabled teachers to appreciate the online mode of learning, all teachers agreed that the experience has motivated them to join more online courses. Three open-ended questions asked in the survey were:- 1) What did you most like about this course? 2) What aspects of the course would you like to improve and how? 3) Any Other Comments. Teachers mainly appreciated the structure and content of the course. 41% of the teachers did not find the course easy, one of the teachers specifically commented on this saying, “A great course. But this is not easy to complete, because it has some elements to practice in the daily life in the school, and the outcomes must be reflected”. To improve the course teachers wanted more sessions to develop technical and digital knowledge and skills and more situations of mentoring as examples to be included.

Discussion
The first round of implementation of the course shows positive feedback and active participation of teachers. Most of these teachers have completed two courses in the blended mode and are engaging with a completely online course for the first time. From the active participation and feedback the data shows that teachers are developing the skills of online learning and are motivated to do more online learning. The weekly monitoring of the course activities by the faculty also enabled timely interaction and facilitation that the participants appreciated. They were a variety of assignments, machine graded multiple choice questions; reviewing and critically analysing a case-study; practice-based, where teachers had to engage with their peers and submit a guided reflective report of their experience; and an assignment that required teachers to connect classroom practise with theoretical ideas of teacher knowledge. The case-study and the practice-based reflective assignment responses were good, however the assignment that required a connect with theoretical ideas was not attempted successfully by many of the teachers. In the next iteration of the design of the course, we would like to change the format of the theory oriented question and convert it into a case study. As university faculty we have also learned to develop courses now having much more explicit understanding of what online pedagogies and assessment structures work. To enable large number of participants to take the course together, like MOOCs, all staff graded assignments would need to be converted into peer-reviewed assignments. In this iteration we used staff graded assignments, and the responses have given us ideas on how to set up peer-graded assignments, including the scaffolding and rubrics required for grading. Finally, we are yet to analyse teacher’s responses in the discussion forums and assignments, this will be done in the next phase of analysis and
provide more nuanced feedback for improving the design for input for the fourth phase of the DBR process.

Conclusion
The literature on mentoring as well as CPD suggests that both processes are highly contextual and it is difficult to adopt and adapt models created in different contexts. However, there is sufficient literature and frameworks to guide the design process. The experience of implementing the RTICT programme at scale for over two years has provided us with ample experiences to model the mentoring programme for the Indian CPD for school teachers context. The implementation of the course has provided us with much information to modify the design for the next course design iteration, especially for participants who are very recently exposed to the idea of online learning and are still developing skills to succeed in this process. To achieve quality teacher education at scale that enables teacher change, the integration of ICT and online modes of learning is a necessity. This design-based research has provided us with valuable feedback from the field in terms of course structure, online assessments and online pedagogy to achieve this at scale.

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Course Title: Mentoring for Teacher Professional Development
Course Number: E-08
Weeks: 08
Credits: 02
Course Development Team: Bindu Thirumalai, Anusha Ramanathan, Amina Charania

Course Description
Teachers face new challenges everyday and need support mechanisms in place to build self-efficacy. There is a need to recognise and develop formal channels of support systems to enable teachers to engage in continuous professional development. Peer learning has long been recognised as one such system, but it largely exists in an informal set-up. Mentoring needs to be organised into a system and formal processes need to be adopted to ensure desired outcomes. This course addresses the need to develop the skill sets of experienced and capable teachers to enable them to become mentors to build capacity among their peers. Self-efficacy of teachers a key goal of this course. Teachers engaged in continuous professional development will have a positive impact on student-learning outcomes. Hence, this course aims to ultimately improve education at a holistic level.

The course is aimed at equipping teacher educators to become able resource persons for fellow teachers using a variety of resources and mediums including online ones. It would explore other mentoring programmes such as ECHO project in Hyderabad, the Delhi SCERT’s Mentor-Teacher programme, CEQUE Teacher Fellowships, and ELISS. It would refer to and use research and materials in this field such as those produced by TESS-India. The course focuses on building leadership skills in teachers to enable dialogue and interactions and help build and develop Communities of Practice (CoP).

Objectives
At the end of the course, the teachers will be able to
- Understand the need and principles for peer mentoring
- Developing skills for peer mentoring
- Distinguish between the types of mentoring required in areas such as pedagogy, content, technology, social and so on.
- Develop skills to manage a teacher community of practice.
- Evaluate processes and tools available for mentoring and map them to the purpose.
- Use and adapt the tools and processes best suited to the context.
- Implement at least one tool/process and reflect on its effectiveness.

Unit 1: What is Mentoring?
This unit introduces the teachers to understand the need for mentoring and focuses on peer mentoring. It distinguishes informal social learning from the formal process of mentoring, particularly among peers, and emphasises the need for accountability and the careful selection of mentoring aids. It focuses on enabling the teachers to identify traits and skills in themselves and develop their skill sets to become able mentors of their peers.

Unit 2: Tools and Processes used in Peer Mentoring
The second unit focuses on the various processes and tools that are used in peer mentoring. The tools needed to
ensure a structure of support for teachers aimed at motivating, training and upskilling teachers will be the base of this unit. The tools include observation techniques, communication methods, goal-setting, study groups and local meetups, reflection tools, Communities of Practice and training programmes.

**Unit 3: Mentoring Values**
The third unit establishes the need to involve a larger pool of support systems such as engaging headmasters/principals and community leaders. The ethics of communication and the need to be sensitive and emphasise inclusivity are highlighted in this unit. The unit also deals with the importance of maintaining confidentiality. The unit will use case-studies to throw light on dilemmas that occur in the process and coping mechanisms for the same. The need to manage time and personal space while being sensitive to the needs of others are also discussion points in this unit.

**Unit 4: Management of CoP**
This unit is practice-based and focuses on how the teacher educators would manage groups established as part of building a Community of Practice (CoP) within the RTICT programme. The involvement of the teachers in training programmes; their participation in CoPs through posts aimed at triggering discussion, posts sharing information, and responses to posts by fellow teachers; sensitivity to challenges faced by teachers, organising themselves as a cohort of teacher educator and managing activities in the CoP are part of this unit’s practices. Setting up small meetups as a part of developing local learning centres at the cluster level is also what this unit deals with.

**Methods of Teaching (Pedagogy)**
As a completely online course, the modes of transactions will be through
- Audio Video lectures
- Slideshow Presentations
- Audio-visual inputs and media
- Text Material for self-study and reflection
- Online discussions
- Platform activities including checklists, multiple choice questions, text inputs, surveys, and such.

**Methods of Assessment**
The methods of assessment include the following:
- Online Course Completion (Surveys, Progress in course, Adherence to deadlines in terms of submissions, etc.), and/or Local Meet-Ups.
- Questionnaires, MCQs, quizzes, google forms etc on the platform.
- Qualitative/Quantitative Analysis of Posts and Discussions
- Posts on Telegram, Platform Discussion Threads,
- Submissions (Designing Development programmes, training sessions, CoP management, Reflections on Self and peer engagements in CoP,) etc.
- Self-Review, Peer Review and/or Expert Review

**References**