

Implementation of Blended Learning in Teacher Education in Odisha



Sudarshan Mishra
Manas Ranjan Panigrahi
Pranita Gopal



CEMCA

Commonwealth Educational
Media Centre for Asia, New Delhi



Ravenshaw University,
Cuttack, Odisha

Implementation of
Blended Learning in

Teacher Education in Odisha

Sudarshan Mishra
Manas Ranjan Panigrahi
Pranita Gopal



Commonwealth Educational Media Centre for Asia
New Delhi



Ravenshaw University
Cuttack

The Commonwealth Educational Media Centre for Asia (CEMCA) is an international organisation established by the Commonwealth of Learning (COL), Vancouver, Canada, to promote the meaningful, relevant, and appropriate use of ICTs to serve the educational and training needs of Commonwealth member states of Asia. CEMCA receives diplomatic privileges and immunities in India under section 3 of the United Nations (privileges and immunities) Act, 1947.

Ravenshaw is the oldest institution of higher education in the state of Odisha and one of the oldest institutions of higher education in India. It is located in Cuttack district of Odisha. The institution has long run journey from Ravenshaw College to the status of a full-fledged University on 15 November 2006. Founded with the mission to spread the light of learning and guided by the motto *Jnanameva Shakti* (Knowledge is power), It has a multidisciplinary approach to deal in fulfilling any educational need of the hour.

Authors:

Dr Sudarshan Mishra, *Professor and Head, Department of Education, Ravenshaw University, Cuttack, Odisha*

Dr Manas Ranjan Panigrahi, *Senior Programme Officer (Education), Commonwealth Educational Media Centre for Asia (CEMCA), New Delhi*

Dr Pranita Gopal, *Visiting Faculty, Department of Education, Ravenshaw University, Cuttack, Odisha*

Layout and Design: Mr. Sabyasachi Panja

Copyright © CEMCA, 2022



The publication entitled **Implementation of Blended Learning in Teacher Education in Odisha** is made available under a Creative Commons Attribution-Share Alike 4.0 License (international):

<http://creativecommons.org/licenses/by-sa/4.0/> by CEMCA with permission of the authors.

ISBN: 978-81-88770-44-1

For the avoidance of doubt, by applying this licence, Commonwealth of Learning and Commonwealth Educational Media Centre for Asia (CEMCA) do not waive any privileges or immunities from claims that they may be entitled to assert, nor do COL/CEMCA submit themselves to the jurisdiction, courts, legal processes or laws of any jurisdiction.

While all efforts have been made by the Authors to check accuracy of the content, the representation of facts, principles, descriptions and methods are that of the authors. Views expressed in the publication are that of the authors, and do not necessarily reflect the views of CEMCA/COL. All products and services mentioned are owned by their respective copyright holders, and mere presentation in the publication does not mean endorsement by CEMCA/COL. Every effort has been made to acknowledge and attribute all sources of information used in preparation of this material.

For further information, contact:

Commonwealth Educational Media Centre for Asia

7/8, Sarv Priya Vihar

New Delhi- 110016

<http://www.cemca.org>

Contents

<i>Preface</i>	6
<i>Abbreviations and Acronyms</i>	8
Chapter-I: Introduction to the Project	9
1.1 Introduction	9
1.2 Need for Blended Learning in Teacher Education	9
1.3 Teacher Education in Odisha with Reference to Blended Learning	11
1.4 Theoretical Background	12
1.5 Objectives	14
Chapter-II: Methodology	15
2.1 Introduction	15
2.2 Population	15
2.3 Sample	15
2.4 Data Collection Instrument and Procedure	16
2.5 Procedure of Data Analysis	17
Chapter-III: Identification of Blended Learning Skill Sets Needed by Teacher Educators in Odisha	18
3.1 Introduction	18
3.2 Objectives of Baseline Study	19
3.3 Data Analysis and Interpretation	20
3.4 Part A: Profile of the Participants	20
3.5 Part B: Readiness of Teacher Educators for Blended Teaching	23
3.6 Part C: Integrating ICTs in Teaching	30
3.7 Key findings of the Baseline Study	34
Chapter-IV: Workshops on Blended Learning for Teacher Educators of Odisha	37
4.1 Introduction	37
4.2 Inaugural Session	38
4.3 Workshop - Session 1: Integration of ICT Tools In Teaching Learning	38
4.4 Workshop - Session 2: OER, Techno-Pedagogy and Online Assessment	39
4.5 Workshop - Session 3: Design & Development of Lessons for Blended Learning	40
Chapter-V: Effectiveness of Blended Learning Training Programs for Teacher Educators of Odisha	41
5.1 Introduction	41
5.2 Learning Management System	41
5.3 Resource Persons	42
5.4 Integration of Technological, Pedagogical and Content Knowledge	43
5.5 Mode of Learning	46
5.6 Lesson Planning	47
5.7 Support System	49
Chapter-VI: Conclusions and Recommendations from the Project	51
6.1 Introduction	51
6.2 Recommendations for Universities	51
6.3 Recommendations for Government Agencies (Ministry of Education, Women and Child Development, Skill Development)	54
6.4 Recommendations for CSR Wings of Corporate	55
References:	56
Annexure-I: Case Vignettes of Teacher Educators of Odisha Discussing their Vision on Blended Learning	59
Annexure-II: Media Gallery	61

Preface

The covid19 pandemic has been caused for closing of all institutions imparting face to face mode of teaching globally. In India, the University Grants Commission (UGC), in its 547th meeting held on 29th May 2020 instructed all its higher education institutions running regular courses to opt blended mode of teaching in which 40% of the syllabus will be taught in online and 60% of the syllabus will be taught through offline mode. In the month of May 2021, UGC released its concept note on Blended mode of Teaching and Learning for feedback from stakeholders. Ratifying the usage of online strategies and empowering teachers to create a blend of online and offline mode of course delivery, the UGC has acknowledged the need for and importance of using blended learning strategies in the education system of India. Govt. of Odisha on dated 26th May 2020 in the video conference of all Vice-Chancellors of State public universities unanimously decided to introduce 'Blended Learning' in the form of 'Guided Self Study' covering 25 per cent of the syllabus both at Under-Graduate (UG) and Post-Graduate (PG) level from the next academic session i.e. 2020-21 as per the modalities. It put much emphasis on teacher educators' ability to develop self-guided e-content for the students and making it available in dedicated online portal.

In this connection, implementation of Blended teaching and assessment was also an innovation for the teacher education institutions of the state of Odisha. The teacher education institutions offering elementary and secondary teacher education courses also started working as guided by the UGC in the blended learning concept note and instructions of the Govt. of Odisha to develop e-content for dedicated portals and to deliver ICT integrated blended teaching.

CEMCA, New Delhi and Ravenshaw University, Cuttack joined hands to explore the status of teachers' perception and ability to impart teaching and assessment through a blended approach. Ultimately, it is designed as a baseline survey to identify the needed proficiencies and to design the mode of input program for the teacher educators of Odisha.

This report clearly spells out the training needs of the teacher educators, their perception towards different components of blended learning and the skill level of ICT integrated online teaching. It also describes the details of Workshops on Blended Learning and Outcomes of the Project. This report has six chapters. First chapter deals with introduction, research reviews, scenario of teacher education in Odisha and objectives of the project. The Second chapter deals with methodology opted for the survey and the third chapter deals with the analysis of the Baseline Study about Readiness of Teacher Educators of Odisha for Blended Learning with graphical and textual discussion basing on the objectives of the study. The fourth chapter deals with Workshops on Blended Learning based on Baseline Study. Chapter five discusses about the outcomes of the Project on "Implementing Blended Learning in Teacher Education". Discussion on findings and recommendations were discussed in chapter six. At the end two case vignettes were presented.

We feel honoured to have been entrusted with this undertaking and must convey our gratitude to all those who have helped us in various ways in accomplishing this task. We are grateful to Principals and colleagues of Teacher Education Institutions of Odisha for extending their wholehearted cooperation in sharing their perception and experiences of online teaching. We are deeply indebted to Prof. Sanjay K. Nayak, Vice-Chancellor, Ravenshaw University for extending necessary systemic and academic support for this noble task. We are deeply acknowledging the wholehearted support of Prof. Madhu Parhar, Director, CEMCA, New Delhi for accomplishing the task successfully.

Sudarshan Mishra
Manas Ranjan Panigrahi
Pranita Gopal

Abbreviations and Acronyms

BIET:	Block Institute of Education and Training
TPACK:	Technological Pedagogical and Content Knowledge
CABLES:	Complex Adaptive Blended Learning System
CEMCA:	Commonwealth Educational Media Centre for Asia
COL:	Commonwealth of Learning
DIET:	District Institute of Education and Training
ETEI:	Elementary Teacher Education Institution
IASE:	Institute of Advance Studies in Education
ICT:	Information and Communication Technology
NROER:	National Repository of Open Educational Resources
NEP:	National Education Policy
UGC:	University Grants Commission
UNICEF:	United Nations Children’s Fund

Chapter-I

Introduction to the Project

1.1 Introduction

The COVID-19 pandemic forced teachers to adopt and adapt teaching learning strategies that could be delivered from a distance and in the absence of face-to-face interaction. Teachers across disciplines and ages have come up with innovative ways to engage their learners, but these innovative practices haven't been scaled up to reach a larger student audience and mostly were reduced to a stop gap arrangement that teachers have developed during the pandemic.

Online teaching learning has its own benefits and its own challenges. Dhawan (2020) has listed the various advantages and challenges of online teaching learning programs and processes involved thereof. The paper also explains in detail how the online teaching learning programs have helped students connect with their teachers, mentors and peers, but this was possible only if adequate infrastructure was available at both ends- teacher and the taught. This paper, like many others that have researched about online teaching learning process have laid the emphasis of capacity building of teacher educators to transact online classes and in the same breadth have documented that only online mode of teaching learning may not be sufficient to augment the learning journey of students. Directly or indirectly, we observe, there is a case made for Blended Learning so that educators can make use of the better of the two worlds- online education and face-to-face classroom interaction.

In the month of May 2021, University Grants Commission, India released its concept note on Blended mode of Teaching and Learning. This document was an outcome of the Public Notice by UGC that permitted Higher Education Institutes to teach up to 40% of the syllabus through online mode and the remaining 60% through the offline mode. Ratifying the usage of online strategies and empowering teachers to create a blend of an online and offline mode of course delivery, the UGC has acknowledged the need for and importance of using blended learning strategies in education.

1.2 Need for Blended Learning in Teacher Education

There are two threads that weave the need to introduce blended learning in teacher education. The first thread deals with the benefits of blended learning in the classroom and the second thread deals with the empowering teachers to implement blended learning successfully in the classroom; as blended learning helps teachers plan and execute learning experiences that incorporate online and offline tools.

Graham (2006) broadly defined blended learning as a mix of face of face interaction along with technology-based instruction. This often used, loosely structured definition gives

freedom to researchers and practitioners to decide on the mixing ratios of face-to-face interaction and technology-based instruction. Blended learning combines elements of student control of the time they spend with the content/ activity, the pace they set to complete the course and the learning path they choose to gain the learning experience (Horn and Staker, 2014).

According to Dziuban, Hartman, & Moskal (2004), “Blended learning should be viewed as a pedagogical approach that combines the effectiveness and socialization opportunities of the classroom with the technologically enhanced active learning possibilities of the online environment, rather than a ratio of delivery modalities. In other words, blended learning should be approached not merely as a temporal construct, but rather as a fundamental redesign of the instructional model.” As an ideological change that has the potential to redesign classroom learning experiences, Horn and Staker (2014) write “...it (*blended learning*) can free up teachers to become learning designers, mentors, facilitators, tutors, evaluators, and counsellors to reach each student in ways never before possible...”

Means, Bakia, & Murphy (2014) shared five purposes for blended instruction in school education. They suggest these five purposes have the ability to broaden the access to instruction in the classroom by helping teachers facilitate small-group and one-to-one teacher-led instruction; serving students with diverse needs, providing opportunities for productive practice (additional resources that are so designed to provide corrective feedback), adding variety to instruction so as to enhance student engagement, and lastly, supporting learning of complex and abstract concepts by leveraging technology. The five purposes of blended instruction in school education include broadening access to instruction; facilitating instruction; helping students with diverse needs; giving students opportunities to practice; providing scaffold to strengthen student engagement.

In a very interesting policy paper regarding teacher training, almost three decades back Lawlor (1990) wrote “... *at the basis of the present, bad system of teacher training, there lies a confusion between what can best be learnt by academic study and what can be learnt only through practice. Whereas the individual subjects which teachers will teach require academic study, the skills of teaching are essentially practical ones. They can be acquired only through experience, trial and error and careful, individual supervision...*”. Orchard and Winch (2015) state, “... *teacher education should integrate three kinds of theory— conceptual understanding, empirical research and ethical deliberation – with practical observation, experience and reflection.*” Viewed from the lens of practicality, there is a saying in English that the *proof of the pudding lies in its eating* and therefore, if we want teachers to become proficient in using technology in the classroom so as to support their learning environment, they themselves need to be able to experience its benefits, experience the learning environment, experience the problems learners face in a technology infused classroom so that they are empathetic and pro-active while planning and designing their own classroom learning environment. In the same breadth it is imperative teacher educators also become proficient in planning, delivering, and implementing blended lessons in their classroom so as to help pre-service teachers experience the benefits of blended learning.

1.3 Teacher Education in Odisha with Reference to Blended Learning

In the state of Odisha, there are three IASEs, 13 Colleges of Teacher Education for Secondary level Teacher Education programme and 31 DIETs, 33 ETEIs, four BITEs and three Secondary Training (ST) schools for Elementary level Teacher Education programmes (<http://scertodisha.nic.in/admissions/>). As per the Joint Review Mission report (2013) 163 teacher educators at Elementary level and 122 at Secondary level are working in regular mode. There are contractual teacher educators in the vacant positions which numbers varies from year to year. Apart from that, there are 12 Govt. Institutions those are running Secondary level or Higher studies in Teacher Education in Self-financing mode.

Directorate of Teacher Education and SCERT Odisha in collaboration with UNICEF organised a workshop on ICT integration in Teacher Education in the year 2016 for the teacher educators. It recommend that

- There is a need to establish ICT competency level for teachers, in terms of competency in the innovative and creative use of ICT in teaching
- Provision of training in teaching methods and recommended that the teacher training curriculum should incorporate competence in the use of specific ICT tools, competence in integrating ICT into subject teaching, and competence in utilizing ICT for planning, preparing, teaching, assessing and evaluating lessons

Teacher Educators of DIETs have been trained on DIKSHA portal and its usefulness for the teachers and Teacher Educators. ICT in Teacher Education programme was introduced in selected DIETs / IASEs / CTEs and BITEs with technical support of SNDT Women University, Mumbai and CIET, New Delhi. ICT tools have been used by those TEIs in Teaching-Learning Processes and Assessment.

ICT components have already been integrated in the PSTE Curriculum for B.Ed and D.El.Ed. (as a special paper as well as integration in Core/Pedagogy papers). Online Professional Learning Community (PLCs) are functioning at DIET, Khurda and DIET, Nayagarh. All the Teacher Educators and official staffs are being trained on the Basic computer literacy skills as per the suggestions given in the PAB by Ministry of Human Resource Development (2017) (Source: <http://scertodisha.nic.in/programmes-undergoing/>). It also organized online teachers training for selected teacher educators enabling virtual engagement with students through IBM programme (STEM) during 2020. Most of the programmes are piecemeal in approach and did not cover all the teacher education institutions and teacher educators. There is no single programme designed to train all the teacher educators of the state on blended learning. However, the state government has introduced 'Blended Learning' in the form of 'Guided Self Study' covering 25 per cent of the syllabus both at Under-Graduate (UG) and Post-Graduate (PG) level from the academic session i.e. 2020-21. It says,

"To ensure proper student self-study, teachers shall provide necessary guidance to students through 4 (Four) hours of doubt clearing classes (4/5 classes) in physical classroom teaching mode; one class at the beginning, one class at the end and 2/3 classes in between. While the first doubt clearing class should necessarily be used for orienting

the students for self-study (including informing students about how to get access to prescribed Text Books and e-Learning Resources), the remaining doubt clearing classes should be utilized for doubt-clearance, explaining complex portions of the self-study syllabus, question-answering, analytical discussion amongst students, etc”.

As follow up actions many State Universities and Autonomous colleges of Odisha organized workshops, orientation programs on development of e-learning resources, use of e-learning resources and face the challenges confronted by the teachers during teaching. The central University of Odisha located in Koraput also started its initiatives in this regard. But the fact is as there was no or little preparation of the teachers for Blended Learning with ICT integration, thus, teachers throughout the state looked for support for ICT integrated teaching, designing of lessons best fit to blended approach and appropriate assessment tools of blended learning. Neither the higher education system of Odisha experienced such modalities earlier nor pre-prepared to adapt the guidelines given by the UGC, New Delhi. As there was no way out, both higher education administration and higher education institutions opted and explored many alternate initiatives for teacher preparation and development of necessary e-resources for the students.

1.4 Theoretical Background

Garrison & Vaughan (2008) have identified a key characteristic of blended learning as the thoughtful fusion of face-to-face and online learning experiences. This key feature also lends itself in the definition of blended learning as envisaged in this project and as defined by Cleveland-Innes and Wilton (2018)-blended learning is the use of traditional classroom teaching methods together with the use of online learning for the same students studying the same content in the same course.

On the surveying the related literature on blended learning a very useful framework to identify, structure and implement blended mode of learning was identified- the TPACK framework. This framework in its essence aims at helping educators integrate technology

into the classroom practice by focussing on their technological, pedagogical, and content knowledge.

This project used this framework to identify the skills needed to plan, develop and implement the blended learning mode of learning in pre-service teacher education program. Figure 1. 1 presents a comprehensive view of the TPACK Framework.

The TPACK framework identifies three basic forms of knowledge – pedagogical, content and technological knowledge

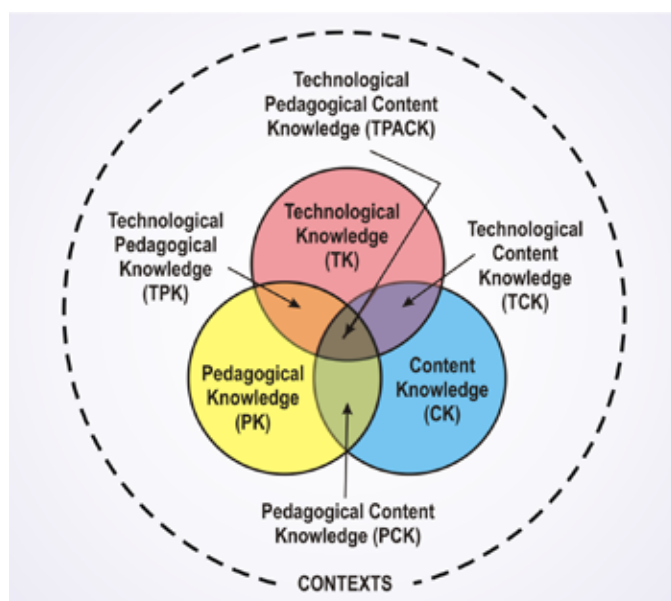


Figure 1.1: TPACK Framework: Reproduced by permission of the publisher, © 2012 by tpack.org

along with its intersecting points – pedagogical-content; technological-pedagogical; technological-content and technological-pedagogical-content knowledge. For the purpose of this project, the investigators will aim at strengthening the intersecting points of knowledge i.e: technological- pedagogical; technological- content and technological-pedagogical-content knowledge of the teacher educators of Odisha as a starting point.

Apart from this framework, the project also drew from the Complex Adaptive Blended Learning System (CABLS) while implementing the blended learning mode in pre-service education in Odisha. At the heart of the CABLS model is the learner but each component along with its sub-systems interact with each other. The six components within the CABLS model includes the learner, teacher, content, technology, learning support and the institution. The CABLS framework (Figure 1.2) is designed to “facilitate a deeper, more accurate understanding of the dynamic and adaptive nature of blended learning” (Wang, Han, & Yang, 2015).

With these theoretical constructs the project aimed to empower teacher educators from Odisha implement Blended Learning in their pre-service teacher education classrooms.

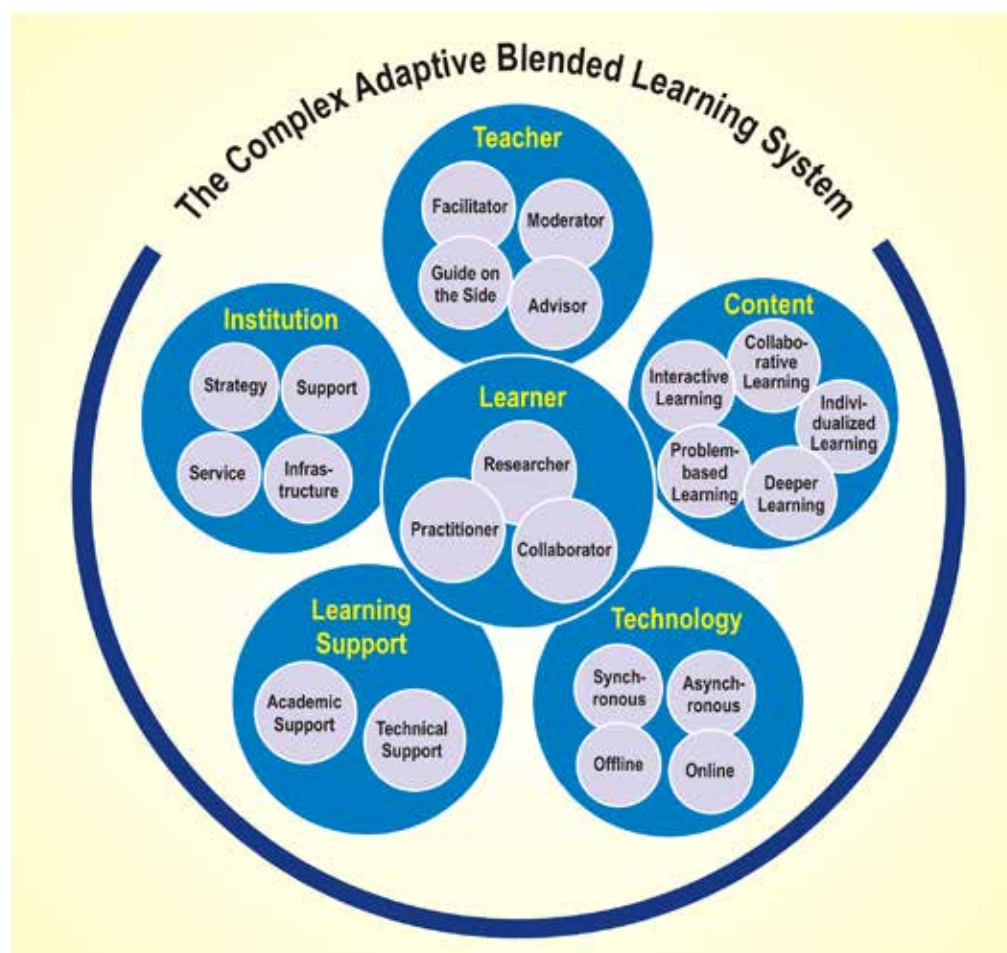


Figure 1.2: The framework of Complex Adaptive Blended Learning Systems (CABLS)

1.5 Objectives

The objectives of the project are

1. To identify blended learning skill sets needed by teacher educators in Odisha.
2. To design and organise blended learning training programs for teacher educators of Odisha.
3. To study the reaction of teacher educators about the effectiveness of blended learning training programs for teacher educators of Odisha.

Chapter-II

Methodology

2.1 Introduction

This chapter discusses the methodology of the project from identifying the theoretical framework underlining the project to planning the baseline study, designing the framework for the workshops of teachers, to planning and executing the workshop for blended learning and understanding the results of the opinion of teacher educators of Odisha on completion of the workshops.

2.2 Population

All the teacher educators working in the state of Odisha comprises the population of the study. They constitute of teacher educators from the institutions, like IASEs, CTEs, DIETs, ETEIs, BIETs, self-financing Teacher Education Institutions, University Departments of Education, Department of Education of various colleges under State Governments.

2.3 Sample

The target was to reach more than 300 teacher educators across the state. It is to note that 203 teacher educators participated in the study from various Teacher Education institutions of Odisha. The Teacher Education Intuitions like, IASEs, CTEs, DIETs, ETEIs, BIETs, self-financing Teacher Education Institutions, University Departments of Education, Department of Education of various colleges under State Governments participated in the baseline study. 100 participants registered on the LMS of the project and participated in the workshops. These participants also constituted the sample for the endline study.

The project was executed under 3 Phases – the first phase included the Baseline Study; the second phase included the workshops for teacher educators and the third phase included the endline study along with the report writing and recommendation from the project. Table 2.1 discusses the timeline of the project along with the activities that were carried out in the respective phases

Table 2.1: Timeline of the project

Phases	Activities	Timeline
Phase I: Baseline Study	<ul style="list-style-type: none">Desk review of the available models to plan training on blended learning for teacher educators. CABLS and TPACK were identified.	Completed by 15 Sept 2021

	<ul style="list-style-type: none"> • Conceptualizing the baseline study: to identify the blended learning skill sets that teacher educators in Odisha have. • Need analysis for training workshops of teacher educators of Odisha • Identifying the topics for the workshops based on the baseline study • Identifying the resource persons for the workshops. Sending invitations and receiving consents for the same. • Creating content for the LMS to be uploaded for the participants • Creating assessment plans for participants. • Identifying and mobilizing 250 teacher educators from teacher education institutions of Odisha. 	
Phase 2: Capacity Building	<p>Design and organize three capacity building programs for identified teacher educators on the following areas:</p> <ul style="list-style-type: none"> • Integration of ICT tools in teaching learning • OER, Techno-pedagogy and assessment • Design and development of lessons for blended learning <p>Plan for Workshops: Duration: 5 days each workshop Mode: Online (Synchronous and Asynchronous) Resource Persons: 2 to 3 maximum</p>	Completed by 30 October 2021
Phase 3: Endline Study and Reporting	<ul style="list-style-type: none"> • Documentation (Reports) of the research project on implementing blended learning model in preservice teacher training in Odisha. 	Completed by 15 Dec 2021.

2.4 Data Collection Instrument and Procedure

The actual scenario of Teacher education institutions in Odisha skewed towards government managed institutions than private (self-financing) institutions. In Odisha, there is no private institution running teacher education program. Thus, the participants are only from govt. institutions. The study opted convenient sampling procedure in the baseline study. Attempt was made to include teacher educators of different age groups, designation, length of experience and gender, thus the link of the survey was shared to majority of the institutions through email, WhatsApp, Facebook and posting letters to the institution heads.

Following two tools were used for the

1. A Questionnaire for Baseline study
2. A Questionnaire for Endline study

2.4.1 Questionnaire for Baseline Study

After a thorough review of the literature, the relevant components of blended learning were listed out. The team developed the items relating to each component of blended learning for baseline study. Initially the questionnaire had three sections. The first section was about the demographic profile of the participants like, age, experience, gender, designation, subject of teaching and type of management in which s/he is working. Second section dealt with readiness of the participants in ensuring and checking the participation of students, checking of students' progress, ability to get students' feedback, integration of different activities in online teaching. Third section dealt with ICT integration in online teaching which includes items like, participants' exposure to online collaboration tools, e-Portfolio, eBook, video, audio resources to different platforms, use and accessibility of tools, educational games, pallet, flip grid, etc. The piloting of the Questionnaire was done for checking the appropriateness of the language of the items, ambiguity and feasibility of the tools to the targeted group. Accordingly, necessary modifications were made. Finally, the Online Survey Questionnaire had three sections. The respondents were given 15 days duration to fill up the online questionnaire. The team also sends reminders to the institutions to submit the questionnaire in time.

In the baseline study Google form was used to administer the questionnaire to collect information from the teacher educators of Odisha.

2.4.2 Questionnaire for Endline Study

After the hands-on training on blended learning through workshop mode, a questionnaire for Endline study was developed and administered to the participants. The relevant components of blended learning workshops were listed out. The team developed the items relating to each component of blended learning workshop for endline study. Initially the questionnaire had nine sections. The first section was about the demographic profile of the participants like, age, experience, gender, designation, subject of teaching and type of management in which s/he is working. The piloting of the Questionnaire was done for checking the appropriateness of the language of the items, ambiguity and feasibility of the tools to the targeted group. Accordingly, necessary modifications were made. Finally, the Online Survey Questionnaire had six sections dealing with areas like, learning management system, efficacy of resource person, integration of technological, pedagogical and content knowledge, mode of learning, lesson planning and support system of the workshops and 25 items. The respondents were given 15 days duration to fill up the online questionnaire. The team also sends reminders to the institutions to submit the questionnaire in time.

In the endline study Google form was used to administer the questionnaire to collect information from the teacher educators of Odisha.

2.5 Procedure of Data Analysis

Data collected from baseline and endline study were analysed by using descriptive statistics such as, frequency and percentage. The analysed data were also represented through Bar and Pie Chart.

Chapter-III

Identification of Blended Learning Skill Sets Needed by Teacher Educators in Odisha

3.1 Introduction

A baseline study simply defines the ‘pre-operation exposure’ condition for the set of indicators that will be used to assess achievement of the outcomes and impact expressed in the program’s logical framework¹. This baseline study was undertaken while the world was grappling with the COVID 19 pandemic. It was almost twenty months since educators around the world were using technology to facilitate learning. In the state of Odisha also teacher educators were using technology to conduct their classes and therefore, it was sufficient reason to know the ability of the teacher educators leveraging technology in the classroom. It was with this aim, following indicators were selected for the baseline study; many of the indicators found research support while there were some that were chosen for their perceived value.

Table-3.1: Indicators of Baseline study

Indicator	Rationale/Research Support
Gender	Boyte-Eckis, Minadeo, Bailey, & Bailey (2018); Cai (2016); Diep, Cocquyt, Zhu, & Vanwing (2016) are some studies that studied gender vis a vis online learning vis a vis educational outcome – and the results were inconclusive. On the other hand, research like that of Leong, Goh, Ismail, & Tan (2021) suggests that the university administrators need to undertake strategic change to assist female learners in overcoming the barrier of Internet self-efficacy skills. Therefore, this indicator was chosen to ensure equitability and access to both men and women teacher educators in training to implement blended learning in teacher education.
Age	Many research identify age as a factor in adopting newer technologies, prominent among them is that of Czaja (2006). On the other hand, if older people are shown how technology can add value to their lives, they are more open to learn, adopt and adapt technology (Heinz et. al., 2013). This indicator was chosen to understand the technology proficiency of the participants.

¹ United Nations World Food Programme, How to Plan a Baseline Study, Monitoring & Evaluation Guidelines.

Discipline& Educational Qualification	Research around academic discipline versus technology integration in the classroom is not exhaustive. Research of Orji (2010); Semary (2011); Hue, & Jalil (2013). Mercader and Gairín (2020) provide a glimpse of how academic discipline could act as a barrier to integrate technology into a classroom. Since the pandemic of 2019 forced all teachers to integrate technology into their curriculum and classroom it was decided to use academic discipline as an indicator for the baseline study.
Designation& Teaching Experience	Mohamad, Salleh, ohd, Salam, and Bakar (2016) shows teaching experience does not affect the usage of technology in the online classroom. Researchers wanted to explore this dimension in the context of Odisha.
Status of Institution	The UGC regulation on blended learning permitted teachers to conduct 40% of their classes using blended mode. The NEP 2020 introduced and ratified the choice-based credit which provides university students with the option of completing the requisite credits of their degree program from various recognized universities. For this system to be robust, teacher educators across the country can create and get students to enroll for their blended learning courses based on the status of their institution (state university/ central university/ UGC recognized university etc.).
Blended Teaching Readiness	Blended teaching model has been around for some time now, empirical research regarding teacher readiness to plan, initiate and sustain blended teaching is needed. Understanding the readiness of teacher educators towards blended teaching will help the researchers plan the workshop on blended teaching.
Integrating technology in the classroom	Technology integration is an integral part of implementing blended learning. In Greenhow et.al. (2008) numerous researches have been studied and five factors have been identified that that aid in successful technology integration.

3.2 Objectives of Baseline Study

1. To study the profile of Teacher Educators working in the state of Odisha.
2. To study the readiness of Teacher Educators on different components of Blended Teaching and Learning
3. To suggest broad framework for a capacity building program to address the emerging needs of teacher educators (described in Chapter five).

3.3 Data Analysis and Interpretation

Keeping in mind the objectives of the Baseline Survey, the responses of teacher educators have been analysed by using descriptive statistics. The procedure of analysis has been done in the following way:

- The distribution of the participants in percentage relating to their different sample characteristics like gender, age, experience, designation, subject of teaching and type of institution in which they work
- What percentage of participants knows/do not know the use/availability/ accessibility of each component of blended learning?
- What is the level of agreement of participants to the statements relating to the implementation of the blended learning in Teacher Education in the state of Odisha (Part C)?
- Graphical (Histogram and Pie diagram) representation of data

3.4 Part A: Profile of the Participants

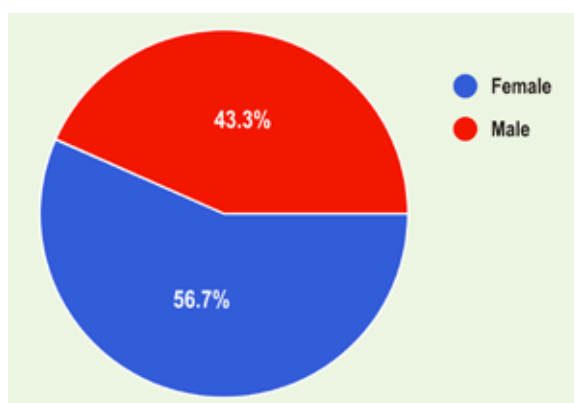


Figure 3.1: Gender wise distribution of participants

Figure 3.1 represents the gender wise distribution of participants. More than half of the participants (56.7%) were female. Although research on gender vis a vis online technology integration supports the view that female needs more support than male. Thus, to ensure equitability and access among the targeted group, female participants were encouraged to participate in the survey. Familial roles and responsibilities

traditionally filled by women in the home had to be a considering factor in understanding the participation of participants in the proposed capacity building program. In Section 1 of this study, the indicators of the baseline study along with their research support and rationale was discussed.

It is found that 41% the participants are above 40 years of age; while, 59% of the participants were less than 40 years of age. This age distribution is significant because majority of the participants of the study would be an integral part of

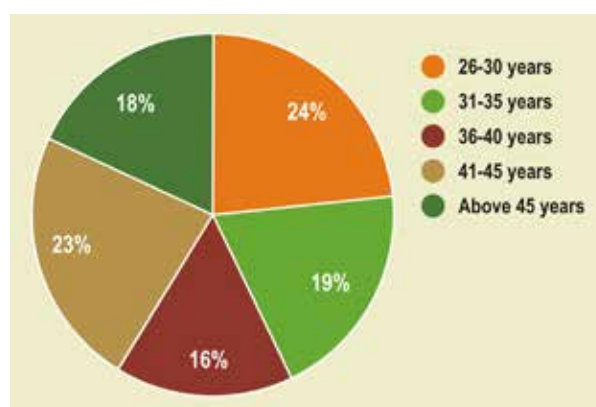


Figure 3.2: Age-wise distribution of participants

leading their institutions in implementing the blended learning policies that NEP 2020 would necessitate – adding to the importance of these training workshops.

In the state of Odisha, the teacher educators working in DIETs are designated as Teacher Educators and Senior Teacher Educators; while in Education colleges and University Department of Education, they are designated as Assistant Professor, Associate Professor, Professor based on their position in the institution. Figure 3.3 is representative of the participants designation and it is interesting to note 51% of the workshop participants belonged to the DIETs. As an institute, DIETs provides Diploma in Elementary Education (D.El.Ed.) programme. Students who pass out from DIETs become elementary school teachers. These student teachers who pass out from DIETs are eligible to teach up to Class VIII. It is expected skillsets the participants learn in the Blended Learning Workshop would assist them to create access and equity in education.

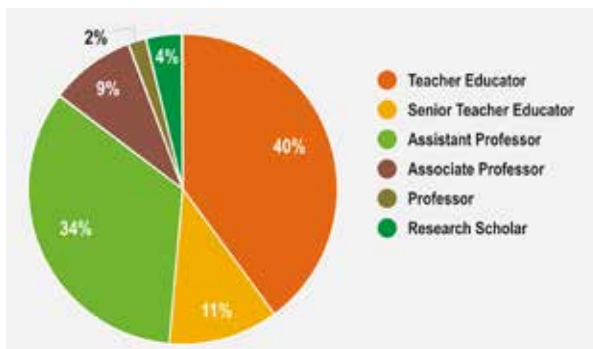


Figure 3.3: Designation-wise distribution of participants

The Figure 3.4 shows that more than 70% of the participants are from Science, Social Sciences and Mathematics. The remaining participants are from Indian Languages, Odia and English. However, research reviews claim that academic subjects stand as barrier in integration of technology in the classroom (Mercader and Gairín, 2020). But the UGC guidelines for Blended Learning is common to teacher educators irrespective of their subject of teaching. The Blended Learning compels each teacher educator to plan, execute and assess through technology integration in online and offline classes. It is not restricted to any subject/ discipline.

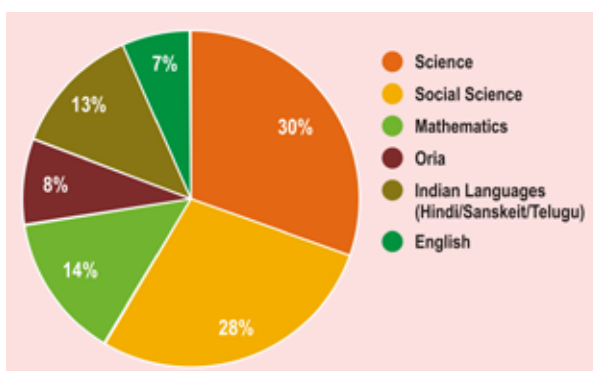


Figure 3.4: Subject-wise distribution of participants

The Figure 3.5 shows that more than 75% of the participants in the study fall in the category of 0 to 10 years of experiences. The remaining participants had more than 10 years of teaching experiences. However, the previous research supports the view that experience in teaching does not affect usage of technology in online classroom teaching.

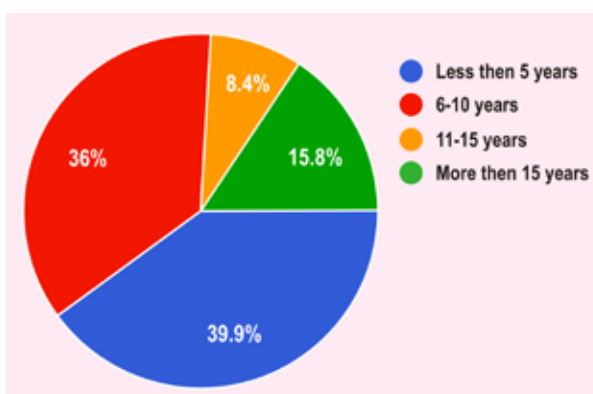


Figure 3.5: Experience-wise distribution of participants

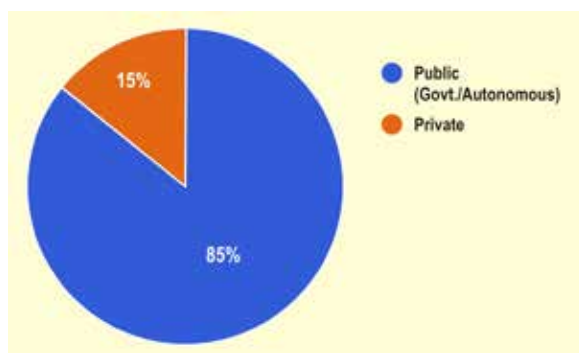


Figure 3.6: Participant's status of institute

Figure 3.6 It shows that majority of the participants i.e. more than 85% of participants are from public/Govt. institutions. UGC and NEP 2020 viewed for blended learning in all types of institutions throughout the country.

From Part-A presentation of the data it can be inferred that there is a sizable female teacher educator who participated in the

survey. It gives a clue for their future participation in any need based program even though they have their domestic responsibilities. 41% of the participants are 41 years and above age group which again a positive sign of the participants to be involved in any need based program. 85% of the teacher educators are lecturer/Asst. Professor/Senior Teacher Educators/Teacher Educators in the sample who are in a better position to spare time for their professional growth than the higher positioned teachers like, Readers, Associate Professor and Professors. It is a fact that Reader and Professors are assigned more responsibilities and multiple tasks than others. It is also found that about 76% of the teacher educators participated in the survey have 0 to 10 years of teaching experiences that is mostly on offline teaching, thus, there is a need to expose them to the online as well as blended approach so that, they can implement and innovate in their long future. As the teacher education in Odisha is dominated by the Govt institutions, thus, any program to be designed should best fit to the teacher educators of the Govt. set up at large. Thus, it can be inferred that sample characteristics best resemblance with the real status of teacher educators in the state of Odisha.

Table-2: Key insights drawn from graphical representations

Age Indicators	Age below 30 years	Age between 31 -40 years	Age 41 – 50 years	Above 50 years
Gender	29 Females 24 Males	46 Females 25 Males	32 Females 31 Males	8 Females 8 Males
Institutional Status	<ul style="list-style-type: none"> • 38 working in Government/ Public funded institutions • 9 working Private Institutions • 3 in Government Aided colleges • 3 in Autonomous colleges 	<ul style="list-style-type: none"> • Only 6 of the participants were from Private Institutes and the remaining 65 were from Government Institutions 	<ul style="list-style-type: none"> • 52 Participants were from government run public institutions while one participant was from a self-financing institution 	<ul style="list-style-type: none"> • All participants in this category worked in the Government run institutions

Number of years of teaching experience	<ul style="list-style-type: none"> • 48 of the participants had less than 5 years of teaching experience 	<ul style="list-style-type: none"> • 38 participants had teaching experience between 6-10 years • 26 participants had less than 5 years of teaching experience and remaining had more than 10 years of teaching experience 	<ul style="list-style-type: none"> • 17 participants had more than 15 years of experience • 9 participants had experience between 11-15 years • 30 participants had experience between 6-10 years • 7 participants had less than 5 years of teaching experience 	<ul style="list-style-type: none"> • 14 participants had more than 15 years of teaching experience • 2 participants had between 11 and 15 years of experience
Educational discipline	Majority of the participants were from the Social Science stream	Mixed distribution of discipline	Mixed distribution of discipline	Mixed distribution of discipline

3.5 Part B: Readiness of Teacher Educators for Blended Teaching

This section deals with the teacher educators’ opinion regarding the various components that finally lead towards blended learning practices. These statements and opinions help the researchers form a basis of clearing misconceptions during the training process and plan experiences that could either strengthen the opinion or suggest strategies to implement practices in the classrooms. For this purpose, 21 statements relating to practices of online planning of teaching, teaching delivery and assessment were taken, and the teacher educators responded to them. The responses of the teacher educators were collected using a five-point scale. The scale point started from Strongly Disagree (1) to Strongly Agree (5). The followings are the graphical representation of the distribution of teacher educators’ responses to each statement along with their interpretation.

Figure 3.7 represents the opinion of teacher educators regarding the participation of students and teachers with regard to online discussions. From the figure, it is evident that majority of the teacher educators (51.2%) either agreed or strongly agreed

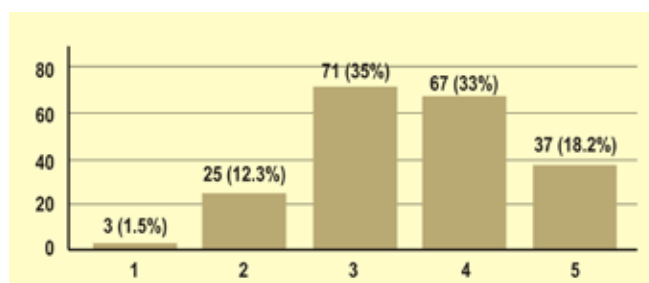


Figure 3.7: Opinion of participants on online discussions leading to better learning experiences

with that statement, but what was surprising to see from the figure was that as an individual category, 35% of the participant teacher educators were not sure about the statement of online discussions in improving learning experiences. Hence, training for teacher educators related to how to organize online discussions is essential.

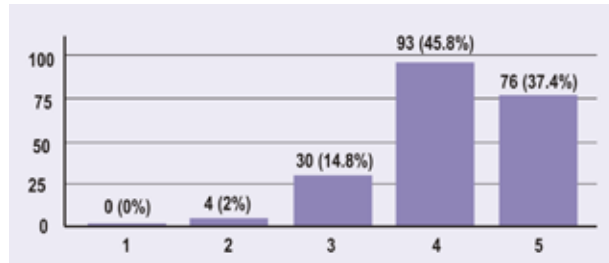


Figure 3.8: Opinion of participants on teachers exploring new teaching strategies combining in-person and online learning

were in undecided and disagree category. Hence, training for teacher educators for exploring the new teaching strategies that combine in-person and online learning is essential.

Figure 3.8 discusses the opinion of teacher educators on exploring the new teaching strategies that combine in-person and online learning. 83% of the respondents agreed that teachers should explore new teaching strategies that combine in-person and online learning. Nearly 17% of the respondents

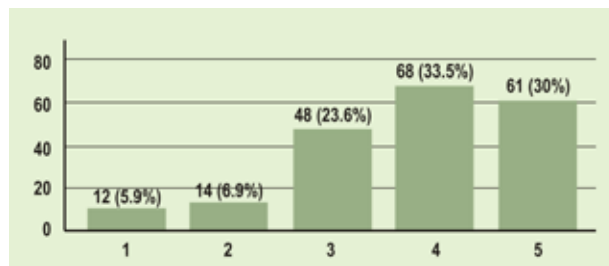


Figure 3.9: Perceptions of teacher educators about how online activities would be difficult to achieve without personal technology access

(nearly 24%) who were undecided and nearly 13% responses falls in disagree and strongly disagree category. Hence, training for teacher educators for exploring online quizzes, discussion boards, etc. is essential.

Figure 3.9 discusses perceptions of teacher educators about how online quizzes, discussion boards, etc. that teachers often use to support their learning outcomes would be difficult to achieve without technology. 63.5% of teachers agreed that this would be difficult whereas, 48 participants

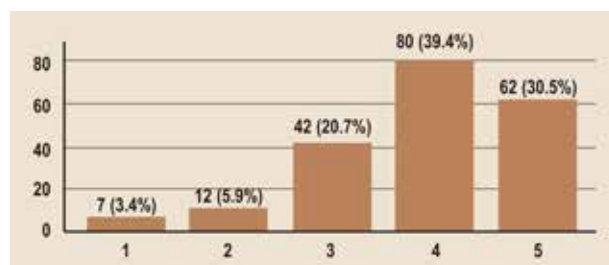


Figure 3.10: Opinion of teacher educators on using online technology to ensure students have completed the learning material before moving ahead

This statement is reflective of the behaviour disposition of the participant teacher educators as in the normal classroom it is difficult to ensure if all students have learnt the material before moving ahead. On the basis of the data received, majority of the teacher educators (69.9%) agreed that online technology is important as a tool to ensure that each student has learned the material before moving to the next lesson. Nearly 30% of

Figure 3.10 discusses the stem statement on how online technology can ensure that the student has learnt the material before moving on to the next lesson. The statement for this theme was worded laying emphasis on online technology is important to ensure that each student has learned the material before moving ahead.

the responses in undecided, disagree and strongly disagree category.

Figure 3.11 discusses the stem statement students learn better when technology allows them to adjust the speed of their own learning. When students adjust the speed of their own learning they are making use of self-pacing feature offered by technology in education. Research on self-pacing in education suggests that self-pacing boosts students' confidence and motivates students to be engaged with the content. 77.3% of respondents of this baseline study agreed that technology allowed students to adjust the speed of their own learning. Nearly 23% of the teacher educators' responses fall in undecided and disagree category.

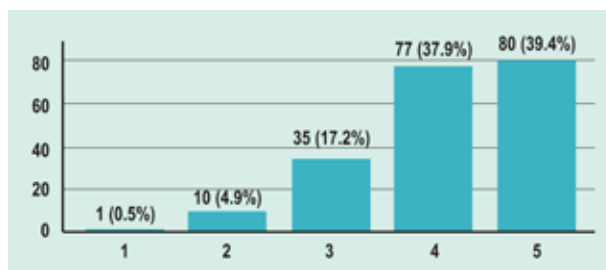


Figure 3.11: Opinion of teacher educators on the ability of technology to adjust the speed of learning

Figure 3.12 shares the opinion of teacher educators on the relationship of teachers with students with regard to the use of technology. 81.7% of the teachers agreed to the statement *teachers who regularly use technology can help their students more than those who don't*. Nearly 18% of the responses of the teacher educators are in strongly disagree, disagree and undecided category.

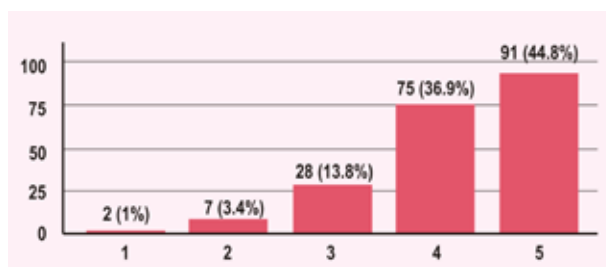


Figure 3.12: Opinion of teacher educators on the relationship of teachers with students with regard to the use of technology

Figure 3.13 discusses the opinion of teacher educators of Odisha regarding the ability of teachers to integrate technology in the classroom to encourage students to become self-regulated learners. Zimmerman and Schunk (1998) have attributed self-regulated learning as a key area that helps increase academic achievement. Nearly 82% of the respondents of the survey agreed to the stem statement; 14% were undecided. Therefore, a positive opinion of teacher educators towards this statement reinforces the commitment of the researchers of the baseline study to also give opportunities to the participants of this workshop to experience self-regulated learning via the LMS.

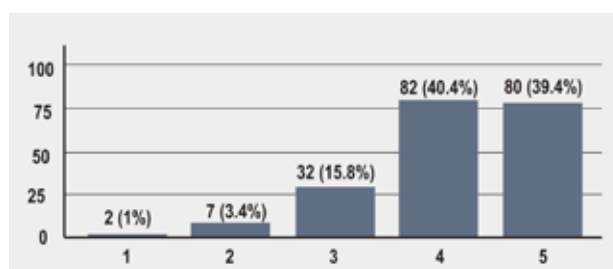


Figure 3.13: Opinion of teacher educators on the ability of teachers to integrate technology in the classroom to encourage students to become self-regulated learners

Figure 3.14 is representative of the stem where the teacher educators of Odisha share their perception on the ability to integrate online technology in teaching which will help to decide when it is better to interact with students-in-person and when through

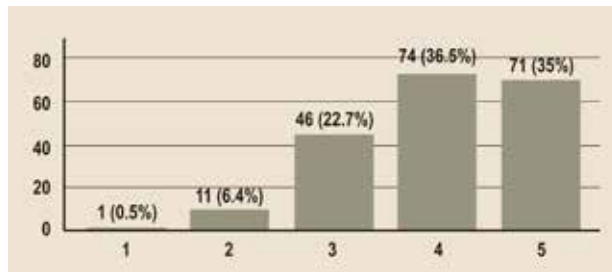


Figure 3.14: Opinion of teacher educators on their ability to integrate online technology in the classroom to decide when it is better to interact with students-in-person and when through the online options

appropriately integrate technology in online and in-person mode; 28.5% of the teachers were not confident about their ability. Ability to appropriately integrate technology for online and in-person learning experience is integral to blended learning.

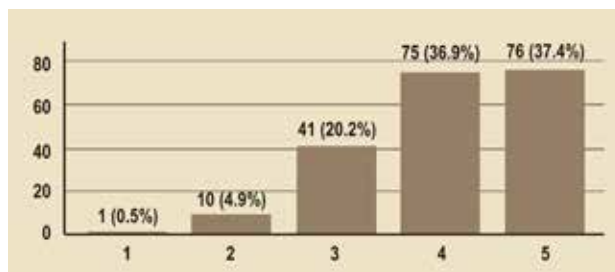


Figure 3.15: Opinion of teacher educators of Odisha in their ability to integrate online technology to create reports of the projects and assignments

work on projects, reports and assignments; while nearly 25% felt that they were not able to do so. Teachers need data points that help them get a clear picture about students learning, and therefore, assessment is very important. In a blended learning environment, assessment plays a crucial role, as students' work in both modes (offline and online mode) with varying degree and make use of self-learning principles.

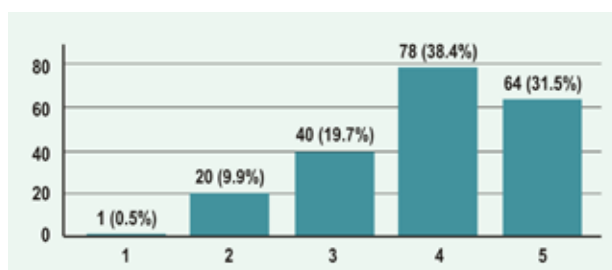


Figure 3.16: Ability of teacher educators Odisha in integrating online technology to evaluate the strength and limitations of specific online activities for students

balance of activities that help their students to access learning resources. Therefore, this stem statement was important. The data from the baseline study showed 69.9% teachers were confident of their ability to evaluate online activities that helped meet the criteria of their learning goals, while nearly 30% of the teacher educators comprised of teachers who were either not confident, or who had very little confidence. This, aspect was

the online options. Blended learning is about merging online instruction and in person instruction so as to strengthen the learning experience of the learners. When teachers are able to make this judicious decision, blended learning strengthen learning. Data from this baseline study found that 71.5 % of the participants were confident of their ability to

Figure 3.15 discussed the opinion of teacher educators of Odisha in their ability to integrate online technology to create reports of the projects and assignments. 74.3% teacher educators agreed that they were able to integrate online technology in their teaching learning process that helped them assess their students'

Figure 3.16 discusses the ability of teacher educators of Odisha in integrating online technology to evaluate the strength and limitations of specific online activities for students. With the EdTech boom, and the variety of websites and apps available with teachers, it is important that teachers should find a right

taken into consideration while deciding on the various tools that were to be discussed during the workshop.

Figure 3.17 discusses the opinion of teacher educators of Odisha on their ability to see students' learning progress while using online and offline assessment results. As a teacher, understanding the

assessment results help the teacher plan the next learning cycles. Technology tools, like spreadsheet software, etc. help teachers visually see students' data to gain inferences and 77.4% teacher educators from Odisha agreed that they were able to interpret the learning progress based on the assessment results, while the remaining teachers were not confident in their ability to interpret the data. Incidentally, if the Figure 19 is read with Figure 18, one could say that there are slightly more teachers who are confident in interpreting the data than those who could integrate online technology to create reports of the projects and assignments.

Figure 3.18 discusses a very important aspect for online and blended learning – student participation. During the COVID-19 pandemic when all the classes shifted into an online mode, teachers found it difficult to ensure student participation; students found it difficult to participate due to various reasons like, low data, bandwidth issues, home environment, etc. The resultant effect was that many a times teachers were having monologues and staring at the screen without knowing who was listening and who wasn't. As the pandemic times, progressed teachers become more adept and started using simple techniques like calling out students' names who were present to answer questions, or seeking response on the chat, or including a quick poll in the classroom learning environment. These simple techniques can bolster a teachers' confidence and increase student participation. Researchers of this baseline study were desirous of seeking data on this aspect from the teacher educators of Odisha. Results of the baseline study show 76.3% teachers were able to use tools that helped check student participation.

Figure 3.19 discusses the opinion of teacher educators of Odisha who were able to

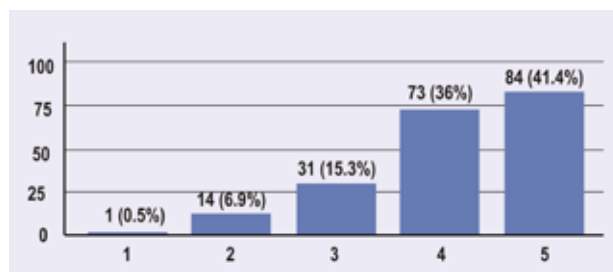


Figure 3.17: Opinion of teacher educators of Odisha on their ability to see students' learning progress while using online and offline assessment results

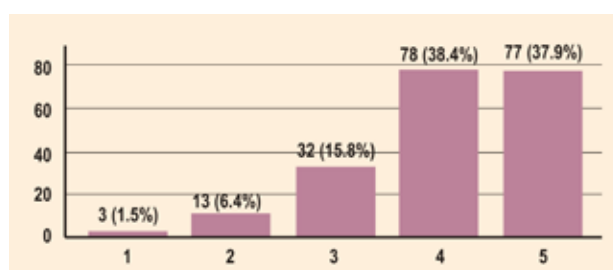


Figure 3.18: Opinion of teacher educators of Odisha on their ability to use technology to check student participation in online activities

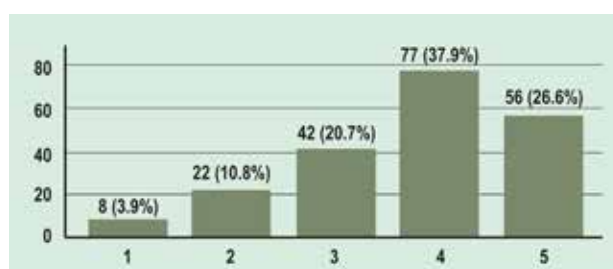


Figure 3.19: Opinion of teacher educators of Odisha on their ability to evaluate effectiveness of instruction for special needs students

evaluate the effectiveness of instruction for students with special needs. It is pertinent to note that although the baseline study data shows that 64.5% teacher educators agreed to this statement, 35% of the teacher educators were not confident of their ability or were not aware on how to evaluate the effectiveness of instruction for students with special needs.

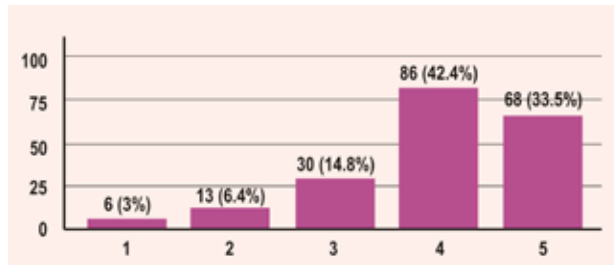


Figure 3.20: Opinion of teacher educators of Odisha on their ability to decide which student needs additional help

Figure 3.20 discusses the ability of teacher educators of Odisha to decide which individual student or group of students need additional help. Nearly 76% of the teacher educators from Odisha opined they were confident on their ability to decide on students who needed additional help.

Nearly 15% of teacher educators were undecided; while nearly 9% of the teacher educators of Odisha felt they were not confident in their ability to decide who needed additional help. The Figure 22 circles back to the Figure 19 where 77.4% teacher educators from Odisha agreed they were able to interpret the learning progress based on the assessment results, while the remaining teachers were not confident in their ability to interpret the data and therefore not able to provide additional help.

Figure 3.21 discusses the teacher educators of Odisha's ability to organize and display student assessment results. Nearly 75% of the teacher educators were confident in their

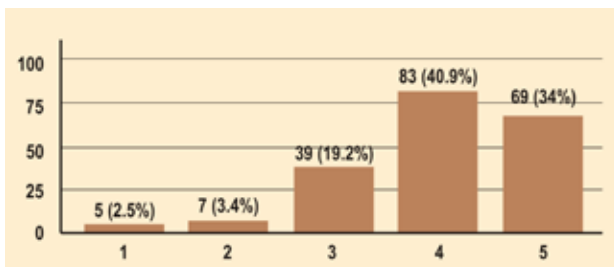


Figure 3.21: Opinion of teacher educators of Odisha on their ability to use technology in student assessment

ability to display the results while nearly 25 % of them were either not sure or expressed their inability to organize and display student assessment results.

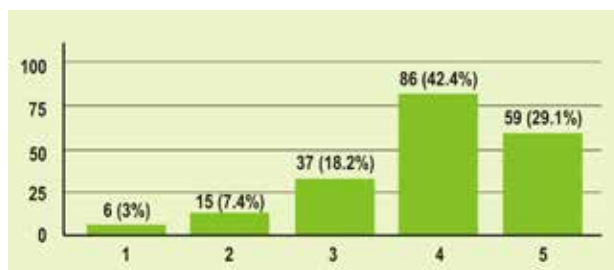


Figure 3.22: Opinion of teacher educators on their ability to use of online tools to ensure students learn the material before moving to the next lesson

Figure 3.22 discusses the ability of teacher educators to make use of online tools to ensure that students learn the material before moving to the next lesson. 71.5 % teacher educators agreed that they were able to use online tools to ensure that student learn the material before they move to the next lesson. This data point was in sync with the earlier figure 12 where 69.9% agreed that online technology is important as a tool to ensure

that each student has learned the material before moving to the next lesson. The researchers of the baseline study and the organizers of the workshop, decided to add this

topic in the workshop, so that all the teacher educators will be able to ensure maximum participation in their classes.

Figure 3.23 discusses the opinion of teacher educators on their ability to give students the agency of choice so that students can take onus of their learning. This stem statement also encompasses the ability of teacher educators to create a repository of learning resources that help teachers share varied resources with students. There were more than 75% teachers who were confident of their ability to develop online and offline resources that give students choice in how they learn. Nearly, 25% of the participants were not confident on their ability.

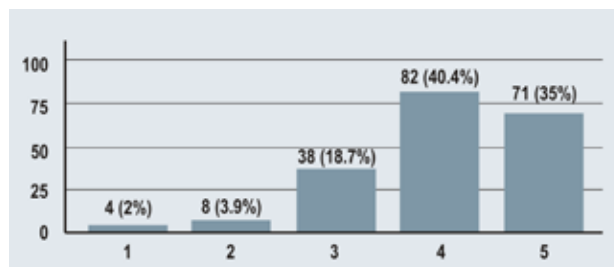


Figure 3.23: Opinion of teacher educators on their ability to give students the agency of choice so that students can take onus of their learning

Figure 3.24 discusses the ability of teacher educators to assist students in interacting well during online discussions. One of the pillars of communications is the ability to ask questions, apart from that, while communicating we need to be able to acknowledge what is being said and even learn to respectfully disagree with the peers. These pillars of communication are essential not only during the student life, but also during the professional life of the individuals. Teachers in their various discussions have the ability to steer discussions allowing students to be more tolerant, respectful and open minded while discussing topics. This rationale helped the researchers use this stem question, and 78.8% of the respondents were confident in their ability to help students interact well during online discussions. 15.8% participants were undecided, and the remaining fall in disagree and strongly disagree category.

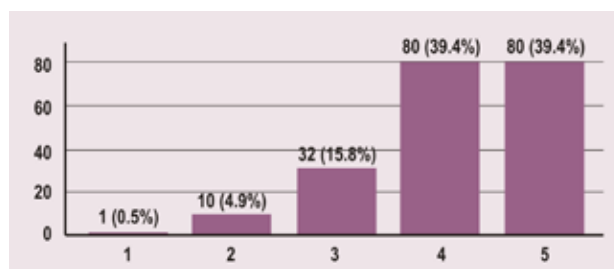


Figure 3.24: Opinion of teacher educators on their ability of teacher educators to assist students in interacting well during online discussions

Figure 3.25 discusses the ability of teacher educators of Odisha in getting quick feedback from students using texts, audio or video. 77.4% respondents of the baseline study agreed they were able to get feedback from students using a variety of ways, but in Figure 39 63.3% participants were not aware of Flipgrid – a versatile tool in using video in the teaching learning process. Using Flipgrid, comments can also be given using Video. Therefore, Flipgrid was added as a tool for consideration in the workshop.

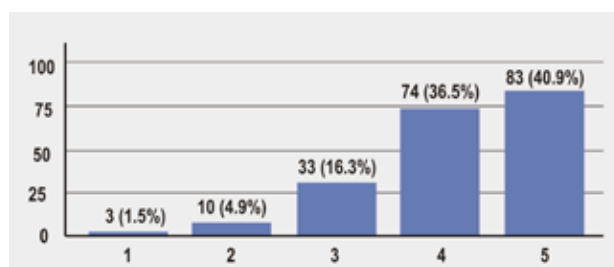


Figure 3.25: Opinion of teacher educators of Odisha on their ability in getting quick feedback from students using multi-modes

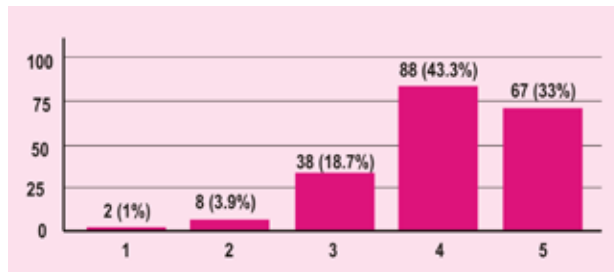


Figure 3.26: Opinion of teacher educators on their ability to communicate online with students while maintaining the professionalism in the student teacher-relationships

Figure 3.26 discusses the opinion of teacher educators on their ability to communicate online with students while maintaining the professionalism in the student-teacher relationships. 76.3% teacher educators agreed they were able to. 18.7% teachers expressed their inability.

3.6 Part C: Integrating ICTs in Teaching

This is the third section of the online questionnaire. The items are the statements which describe a skill related to online teaching. These skills are the basic requirements for teacher educators to conduct online class of any subject. Teacher educators were asked to rate themselves in a five-point scale. The scale points are from lower to higher order such as, 'I can't use it', 'I can use it little', 'I can use it satisfactorily', 'I can use it well' and 'I can use it very well'. The last point of scale i.e., "I can use it very well" represents the perfectness or in other words the perfect user. Here, the responses given on "I can't use" and "I can use little" have been clubbed with a reason that this will present the emerged needs to be addressed through any capacity building program. The teacher educators rated themselves out of their experiences in online teaching during COVID 19. Similarly, the responses on the scale points like "I can use satisfactorily", "I can use it well" and "I can use it very well" have been clubbed with a reason that this will show the skilled status of teacher educators on different skills. It shows that teacher educators are using those skills during their online teaching. The skill level variation exists due to individual factor or experiences. Because the participants in the survey have range of teaching experiences.

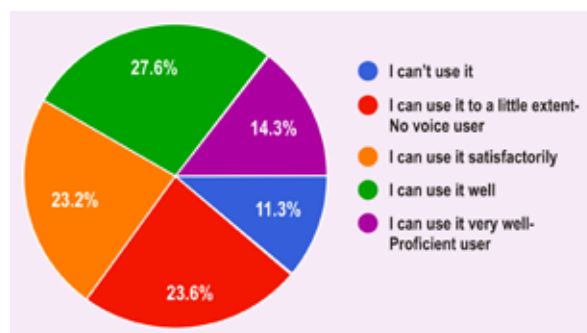


Figure 3.27: Opinion of teacher educators of Odisha on their ability to use LMS

Figure 3.27 represents the ability of teacher educators of Odisha on their ability to use Learning Management System. 34.9% of the respondent do not know or know little about the use of learning Management System like Moodle, Canvas and Google Classroom. The remaining 65.1% of the respondent know the use of Learning Management System at satisfactory, well and proficient level.

However, the extent to which the teacher educators know, understand and use LMS is not known. Thus, there is an emergence of the exposure of teacher educator for the use of LMS

Figure 3.28 discusses the opinion of teacher educators of Odisha on their ability to use e-portfolios. This figure shows that 56.6% of participants responded that they know little or do not know the use of e-Portfolio. The remaining 43.4% of the participants

responded that they know the use of e-Portfolio at satisfactory, well and proficient level. Thus, there is a need to expose those 56.6% participants to the use of e-Portfolio for students to whom they are teaching in online mode.

Figure 3.29 discusses the opinion of teacher educators of Odisha on their ability to use online collaboration tools. This figure shows that 75.4% of the participants are exposed to online collaboration tools like, docs, sheet, forms in Google whereas 24.6% of participants have little or no exposure to online collaboration of tools. Thus, there is a need to expose those teacher educators to the online tools and making them to satisfactory or well or proficient level. No doubt individual factors affect a lot of making teachers proficient in collaboration of online tools.

Figure 3.30 discusses the opinion of teacher educators of Odisha on their ability to use ebooks/ etextbooks. The figure shows that 24.7% of the participants either know little or do not know the use of the eBooks/ eTextbooks whereas the remaining 75.3% of the participants are of the view that they know the use of eBooks/ eTextbooks at satisfactory, well and proficient level. Thus, there is a need to acquaint those 24.7% of teacher educators with the use of the said books.

Figure 3.31 discusses the opinion of teacher educators of Odisha on their ability to use online video resources like, vimeo/ NROER. The figure shows that 59.1% of the participants know little or do not know the

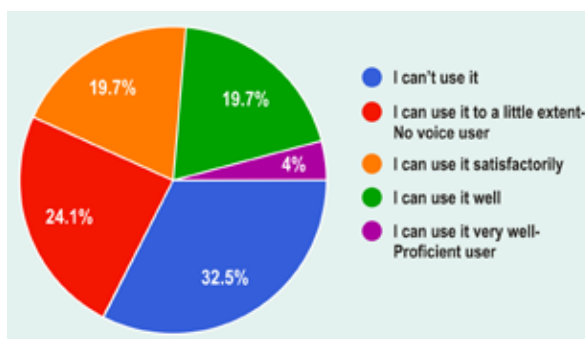


Figure 3.28: Opinion of teacher educators of Odisha on their ability to use e-portfolios

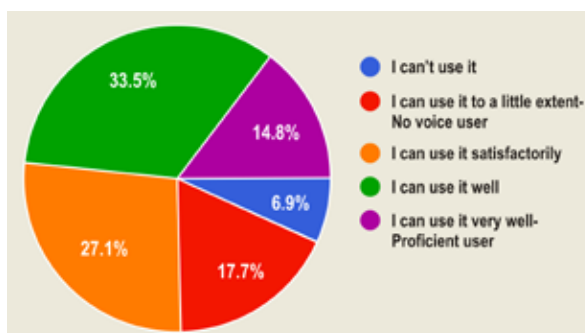


Figure 3.29: Opinion of teacher educators of Odisha on their ability to use e-portfolios

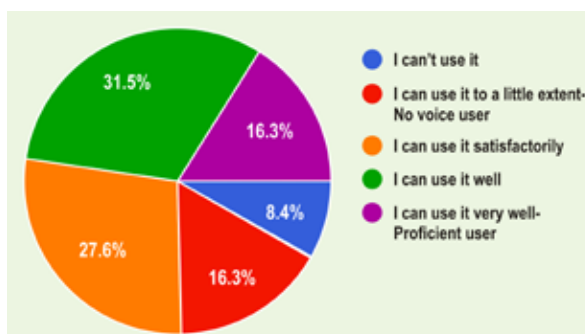


Figure 3.30: Opinion of teacher educators of Odisha on their ability to use ebooks/etextbooks

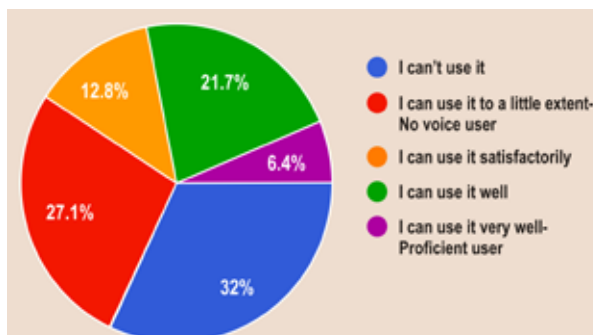


Figure 3.31: Opinion of teacher educators of Odisha on their ability to use NROER, Vimeo

use of online video/audio resources, like vimeo, NROER, etc. They need exposure to those online resources. Remaining 40.9% of the respondents know the use of those resources at satisfactory, well and proficient level.

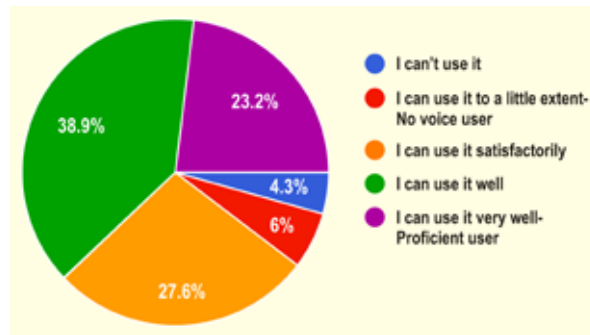


Figure 3.32: Opinion of teacher educators of Odisha on their ability to use audio/video resources

Figure 3.32 reflects the opinion of teacher educators of Odisha on their ability to use audio/video resources such as YouTube. The figure shows that 89.7% respondent know the use of online video/audio resources. That means a great majority of participants know the platforms/portals where online resources are available. The remaining 10.3% of participants needs exposure of those platforms/portals of online resources.

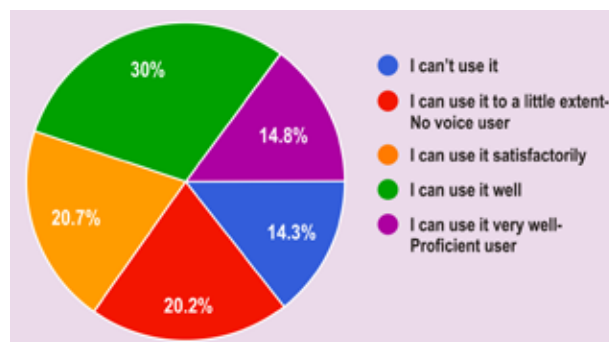


Figure 3.33: Opinion of teacher educators of Odisha on their ability to use YouTube to share video lectures

Figure 3.33 reflects the opinion of teacher educators of Odisha on their ability to use YouTube to share their video lectures. The figure shows that 34.5% of the participants responded that they know little or do not know, how to share their own lecture in YouTube channel. The remaining 65.5%

of the respondents are of the view that they know the sharing of their video lecture at satisfactory or well or proficient level. Thus, as it is a basic skill for teacher to deliver online teaching, this 34.5% of the participants need to be acquainted in this particular skill.

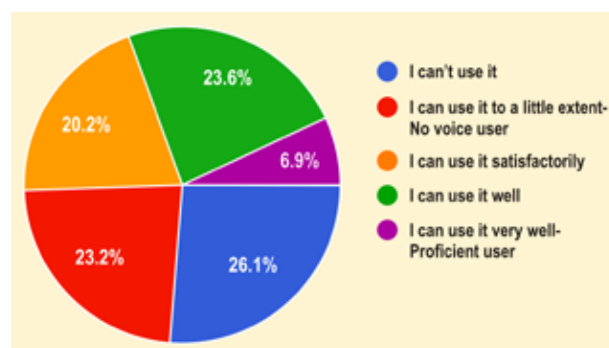


Figure 3.34: Opinion of teacher educators of Odisha on their ability to make video content using screen capturing tools

Figure 3.34 reflects the opinion of teacher educators of Odisha on their ability to create video content using screen capturing software. The figure shows that 49.3% of the participants do not know or know little on making video contents through screen capture tools. The remaining 50.7% of the participants are skilled in making video contents through

screen capture tools. Thus, this 49.3% of the participants need to be acquainted in this particular skill.

Figure 3.35 reflects the opinion of teacher educators of Odisha on their ability to use educational games and simulations that are available online. The figure shows that 54.7% participants responded that they know little or do not know the availability of educational games/simulation in online. The remaining 45.3% of the participants responded that they know use of the educational games/simulations available online. Thus, this 54.7% of the participants need to be acquainted in this particular skill.

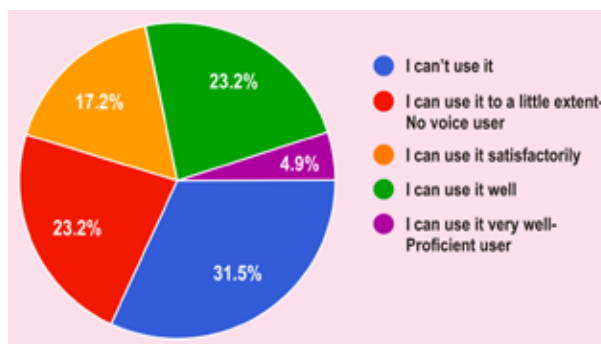


Figure 3.35: Opinion of teacher educators of Odisha on their ability to use educational games/simulations in the teaching learning process

Figure 3.36 reflects the opinion of teacher educators of Odisha on their ability to use accessibility tools/ apps for students with special needs. The figure shows that 56.6% of the participants responded that they do not know or know little about the use of accessibility tools/ apps for students with special needs. Thus, there is a need to make them skilled in use of tools/ apps for the students with special needs. The remaining 43.3% of the participants are already skilled in use of tools/apps for the students with special needs

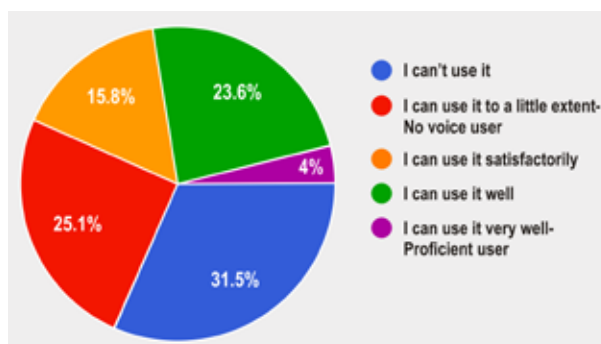


Figure 3.36: Opinion of teacher educators of Odisha on their ability to use accessibility tools/apps for students with special needs

Figure 3.37 discusses opinion of teacher educators of Odisha on their ability to use tools like Padlet and Flipgrid. The figure shows majority of the participants were unable to use these two tools. The advantage of these tools is their ease of use and the flexibility in using them across devices. Padlet allows learners to interact in the virtual space, where responses from learners are visible and can be commented upon for better interaction. It acts an excellent tool to see questions that students wish to ask about topics. Flipgrid on the other hand allows video based interaction amongst participants. This tool is extremely useful for music teachers who can not only review video shots of students practicing,

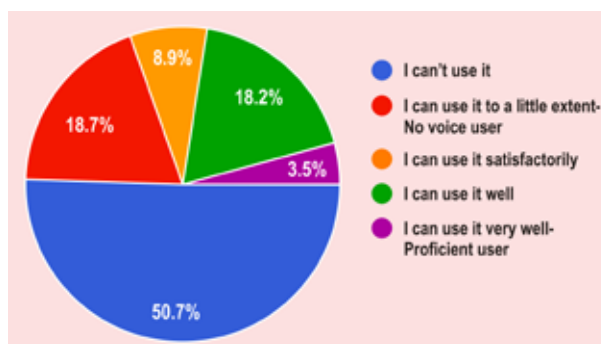


Figure 37a: Opinion of teacher educators of Odisha on their ability to use Padlet

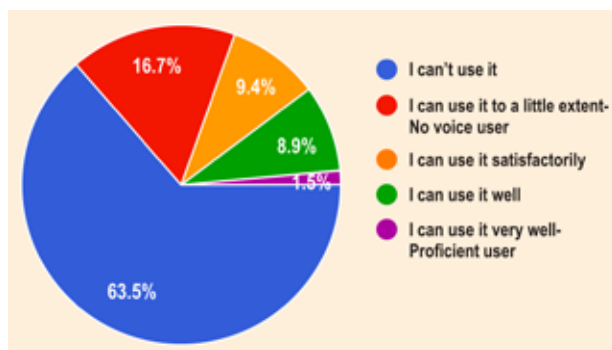


Figure 3.37b: Opinion of teacher educators of Odisha on their ability to use Flipgrid

but also give video feedback. The same feedback loop can be viewed by other participants of the class. Such tools are extremely useful in the blended learning environments where teachers need tools to increase the interaction in the class.

3.7 Key findings of the Baseline Study

Overall key findings of the Baseline Study on readiness of teacher educators of Odisha for blended learning include:

- 48.8% of participants were either not sure or disagreed to the statement that participation in online discussions helps in providing better learning experiences. Hence, training for teacher educators related to how to organize online discussions is essential.
- Nearly 17% of the respondents were undecided or disagreed to the statement that teacher should explore new teaching strategies that combine in-person and online learning. Hence, training for teacher educators related to how to explore new teaching strategies that combine in-person and online learning is essential.
- 36.5% of participants were either not sure or disagreed to the statement that online activities that teachers use like, online quizzes, discussion boards, etc. can result in learning that would be difficult for students to achieve without technology. Hence, training for teacher educators for exploring online quizzes, discussion boards, etc. is essential.
- Nearly 30% of the respondents were undecided or disagree to the statement that online technology is essential to ensure that each student has learnt the materials before moving on to the next lesson. Hence, training for teacher educators for exploring online technologies is essential to ensure that each student has learnt the materials is essential.
- 18% of the respondents were undecided or disagree to the statement that ability to integrate online technology in teaching will help teachers to combine online and in-person activities to encourage students to become self-regulated learners. 28.5% of the respondents were undecided or disagree to the statement that ability to integrate online technology in teaching will help to decide when it is better to interact with students-in-person and when through online. Nearly 30% of the respondents were undecided or disagree to the statement that ability to integrate online technology in teaching will help to evaluate the strength and limitations of specific online activities for students. Hence, training for teacher educators to integrate online technologies in teaching and evaluation.
- 22.6% of the respondents were undecided or disagree to the statement that as teacher educators, they can see students' learning progress while using online and

offline assessment results. 23.7% of the respondents were undecided or disagree to the statement that as teacher educators, they can use technology tools to check student participation in online activities. Hence, training for teacher educators how to use technologies to see students' participation and their learning progress.

- 35% of the respondents were undecided or disagree to the statement that as teacher educators, they can evaluate the effectiveness of instruction for students with special needs. Hence, training for teacher educators how to use technologies to evaluate the effectiveness of instruction for students with special needs.
- Nearly 25% of the respondents were undecided or disagree to the statement that as teacher educators, they can use technology that organizes and displays student assessment results. Hence, training for teacher educators how to use technologies to organizes and displays student assessment results.
- 29.5% of the respondents were undecided or disagree to the statement that as teacher educators, they can use online tools to make sure that students learn the material before moving to the next lesson. Hence, it is essential to add this topic in the workshop, so that all the teacher educators will be able to ensure maximum participation in their classes.
- Nearly, 25% of the participants were not confident on their ability to develop a set of online and offline resources to give students choice in how they learn. Hence, training for teacher educators is essential on how to create repositories of online and offline resources.
- 21.2% of the participants were not confident on their ability to assist students in interacting well during online discussions. 22.6% of the participants were not confident on their ability to get quick online feedback from students in a variety of ways using text, audio or video. 23.7% of the participants were not confident on their ability to communicate online with students while still maintaining professionalism in student-teacher relationships. Hence, training for teacher educators is essential on how to communicate using text, audio or video.
- 34.9% of the respondent do not know or know little about the use of learning Management System like Moodle, Canvas and Google Classroom. Thus, there is an emergence of the exposure of teacher educator for the use of LMS
- 56.6% of participants know little or do not know the use of e-Portfolio. Thus, there is a need to expose the participants to the use of e-Portfolio for students.
- 24.6% of participants have little or no exposure to online collaboration of tools. Thus, there is a need to expose teacher educators to the online tools and making them to satisfactory or well or proficient level. No doubt individual factors affect a lot of making teachers proficient in collaboration of online tools.
- 24.7% of the participants either know little or do not know the use of the eBooks/ eTextbooks. Thus, there is a need to acquaint teacher educators with the use of the said books.
- 59.1% of the participants know little or do not know the use of online video/audio resources, like vimeo, NROER, etc. They need exposure to those online resources.
- 34.5% of the participants know little or do not know, how to share their own lecture in YouTube channel. Thus, as it is a basic skill for teacher to deliver online teaching, participants need to be acquainted in this particular skill.

- 49.3% of the participants do not know or know little on making video contents through screen capture tools. Thus, the participants need to be acquainted in this particular skill.
- 54.7% participants responded that they know little or do not know the availability of educational games/simulation in online. Thus, the participants need to be acquainted in this particular skill.
- 56.6% of the participants do not know or know little about the use of accessibility tools/apps for students with special needs. Thus, there is a need to make them skilled in use of tools/apps for the students with special needs.
- Majority of the participants were unable to use Padlet and Flipgrid. . Thus, there is a need to make them skilled in use of such tools.

The very purpose of the Baseline survey was to map out the skills of the teacher educators to implement Blended learning in teacher education institutions of Odisha and using this data broad framework to plan the workshop interventions was to be decided. The framework that was developed as a result of the baseline study is discussed in the next chapter.

Chapter-IV

Workshops on Blended Learning for Teacher Educators of Odisha

4.1 Introduction

As mentioned in Chapter 1, the theoretical frameworks of CABLS (Complex Adaptive Blended Learning System) and TPACK (Theoretical- Pedagogical- Content-Knowledge) were used to plan this project. Data from the baseline study helped researchers of this project decide the model, content, participants, mode of delivery and management of the workshop. The learning theories, management theories and technology integrated pedagogical principles were key areas that helped plan the broad framework for the proposed workshop.

Table 4.1 Broad Framework of Proposed Workshop

Paradigm	Justification
Model: Constructivist Enquiry Model	<ul style="list-style-type: none"> • Constructivist Enquiry Model is preferred as almost all the teacher educators were skilled in online teaching and do understand the importance of Blended Learning in their teaching and assessment. The role of the resource persons were to facilitate the participants to a specific task to accomplish.
Content	<ul style="list-style-type: none"> • The skills like, Use of portfolio, Online video platforms, Educational Games, Addressing the needs of students of Special category, Use of Padlet, Use of Flipgrid, Use of Waklet and Use of Kahoot • Online collaboration of teaching, Use of eBook/eTextbook, Own video sharing and Video content making needs to be incorporated in the planned training/ orientation/ workshop • Systematic Integration of content as per complexity and feasibility of delivery • Designing content for interactive, collaborative, individualized task, etc. • Packaging and Phasing the contents for measurable indicative knowledge and skill enhancement
Participants Independent Learners	<ul style="list-style-type: none"> • Teacher educators of all levels, all types of management (Govt. and Self-financing) institutions • Teacher educators who have less exposure to online teaching

Mode of Delivery	<ul style="list-style-type: none"> • Both synchronous and asynchronous mode • Individual task may be offline
Virtual and Collaborative	<ul style="list-style-type: none"> • Use of Most common online platform • Inbuilt collaborative and progress tracking
Management of Workshop Cooperative and Consensus Driven	<ul style="list-style-type: none"> • The decision about time, day and duration of the session and completion of individual task were decided with due consultation with the participants • Cooperation was sought from various institutions and persons • The schedule was preferably second half of the each working day • The length of the workshop depended upon the content, the time duration in each day

Using this framework, the sessions were planned to incorporate various facets that would help teachers develop their technological-pedagogical and content knowledge. It was also planned to keep the workshop post lunch and before the breakoff time of institutes so as to allow participants of the Institutes – as many had approached the researchers of the project during the baseline study regarding the need to keep the workshops in the second half and before college duties end time.

4.2 Inaugural Session

Prof. Sanjay Nayak, Vice-Chancellor, Ravenshaw University and Prof. Madhu Parhar, Director CEMCA, inaugurated the collaborative workshop series on “Implementation of Blended Learning in Teacher Education”. The inaugural session began with a brief introduction about the project, its genesis and rationale for the launch by Dr Manas Ranjan Panigrahi, Senior Program Officer (Education), CEMCA. Dr Panigrahi also shared the expectations from the project and how it could be of great use to the teacher educators. The welcome address for the inaugural session was delivered by Dr. Sudarshan Mishra, the Programme Director of the Workshop series. Launching workshop session- 1 on ‘Integration of ICT tools in Teaching-Learning’ from 20-24 September, 2021, Prof. Nayak said “Teaching-Learning can be better facilitated by integrating ICT Tools. Synchronous and Asynchronous mode of online education if used by the learners and teachers would be a pace setter in the domain of digital learning in higher and teacher education”. Chief Guest of the Session Prof. Madhu Parhar, Director CEMCA said, “Use of digital learning tools will bring transformation in teaching-learning process”. The vote of thanks for the inaugural session was given by Dr S K Rout, Head, Department of Education, Ravenshaw University.

4.3 Workshop – Session 1: Integration of ICT Tools In Teaching Learning

Theme : Integration of ICT Tools in Teaching Learning

Dates : 20 September – 24 September 2021

About Session 1:

The first session of the hands – on workshop on implementing blended learning in Teacher Education in Odisha aimed to help participants familiarise and use the various ICT tools in their teaching learning processes. These tools include tools that help facilitate classroom interaction; tools that help reflect on what they have learnt, tools that help teachers assess what students know and tools that help teachers deliver meaningful learning experiences. The workshop covered tools like Padlet, Flipgrid, Jamboard, EdPuzzle, Google Tools – Google Forms, Google Docs, Google Spreadsheet, Google Slides, PearDeck, OpenCast Software, Screencast-o-matic with an introduction to OBS. Teacher educators were also shown how they could encourage their own students to earn professional badges displaying their competencies in the tools like PearDeck, EdPuzzle, etc. and become certified users. The aim of this session was to help teacher educators from Odisha to get a glimpse of the various tools available to integrate technology in education and decide on the factors that help for successful integration of technology in education. In the synchronous Zoom session, the demonstration of the tool was given and wherever time permitted, participants were involved in using the tool that was discussed. Apart from the two detailed technical synchronous sessions, there was a synchronous session for reflection and doubt clearing – in this session there was active participation. This session was conducted by Dr Pranita Gopal, Visiting Faculty, Ravenshaw University.

4.4 Workshop – Session 2: OER, Techno-Pedagogy and Online Assessment

Theme : OER, Techno-pedagogy and Online Assessment

Dates : 05 October -09 October 2021

About Session 2

Using Open Educational Resources in planning and developing blended learning helps teachers cater to the diverse needs of students. OER has the potential to help teachers save valuable time for creating resources from scratch. It helps teachers adopt resources to suit their learners’ needs. There are two facets of OERs where educators play a pivotal role – one as OER creators and the other as OER consumers. Teachers need to be able to transition between these two roles seamlessly and therefore, the second session of the workshop was focused on OERs, Online Assessment and Techno-pedagogical tools that help teachers create assessment plans and assessment schedules to be incorporated in their blended lessons.

Dr. Barnali Roy Chaudhury, Assistant Professor, Netaji Subhas Open University, Kolkata facilitated the session on what are open educational resources, how as teachers we often mistake free for open educational resources, how does an open educational resource look like, what intellectual protection rights are available for releasing work under the Creative Commons License, why is it important for teacher educators to know and understand the various Creative Commons Licenses and what licenses should teacher educators use to release their own work under the creative commons license.

In the session on Online Assessment, Dr Pranita Gopal, Visiting Faculty, Ravenshaw University, discussed about the various online assessment options available for teachers and classroom facilitators using blended learning model. A detailed discussion was also

held using the COL resources on Assessment Strategies for Online Learning where the big question of 'What does enhancement of learning by technology offer assessment practices' was dealt in detail. The session also covered ideas to use differentiated instruction in summative/formative assessment in blended learning, creating authentic assessment. The teacher educators were also exposed to a Flipped Learning Class on Hot Potatoes™ and its use in blended learning environments for practice, etc. Teacher Educators were also encouraged to link their screencast-o-matic videos into EdPuzzle to create tailor made e-assessments. Screencast-o-matic and EdPuzzles were covered in the first session of the workshop.

Prof Manoj Saxena, Professor, School of Education, Central University of Himachal Pradesh, Dharamshala conducted the workshop session on planning and drafting project proposals with emphasis on planning projects that are in sync with the needs of the educational system today and the expectations from researchers.

4.5 Workshop – Session 3: Design & Development of Lessons for Blended Learning

Theme : Design and Development of Lessons for Blended Learning for Teacher Educators of Odisha

Dates : 26 October - 30 October 2021

About Session 3

In the 5 day workshop on designing and developing lessons for blended learning, Dr. Indira Koneru, Associate Dean & Head, eLearning Department, ICFAI Business School provided hands on learning experience to participants on familiarizing, working and creating learning materials in Moodle. The workshop began with a detailed explanation on Blended Learning Environments and how to write course objectives for the courses. The workshop also focused on creating Course Introduction videos. Video-based course introduction is an essential requirement under the SWAYAM platform and helps learners understand the course expectations and course learning outcomes. The participants were expected to create the videos using Screencast-o-matic and upload it to the Moodle platform. Course introduction videos are akin to the sales pitch that teachers need to use to get students enrolled into the Blended Learning Programs to make use of the benefits of UGC Guidelines.

The second day of the workshop focussed on embedding the course introduction video in the Moodle Platform and giving feedback to each other. The workshop then continued to discuss the course assessment options available via Moodle. For this, participants learnt how to create a question bank, import questions from the question bank into the Moodle, various types of questions that can be used to create formative and summative assessment tasks. On day four of the workshop, participants learnt about different types of asynchronous activities that can be blended into the Moodle Platform. On the last day of the workshop, the participants learnt about how to create badges, how to embed OERs and webpages into the Book Module of Moodle, grade assessments, send message alerts to participants. Participants also learnt to evaluate blended course quality using COL's blended course learnability evaluation checklist.

Chapter-V

Effectiveness of Blended Learning Training Programs for Teacher Educators of Odisha

5.1 Introduction

In order to study the effectiveness of blended learning training programs for teacher educators of Odisha, reaction of teacher educators was studied. A questionnaire was shared through Google form to all the participants. After receiving the filled questionnaire, data were analysed under following sections and the results are presented below.

1. Learning Management System
2. Resource Persons
3. Integration of Technological, Pedagogical and Content Knowledge
4. Mode of Learning
5. Lesson Planning
6. Support system

5.2 Learning Management System

Figure 5.1 discusses the opinion of the participants about the accessibility and usefulness of the LMS used in this training Program. Annexure has screenshots of the LMS that was used for this training. This LMS was developed in consultation with the CEMCA team. Most of the participants (92%) found the content in the LMS was accessible and useful. Researchers of the study had various discussions with resource persons on the content that was to be uploaded on the LMS and steps were taken to ensure the LMS had components of both Video and Textual Content, so that the learning needs of the participants be fulfilled.

Figure 5.2 discusses the opinion of teacher educators of Odisha on their doubts being cleared – both in general and specifically regarding the LMS. As

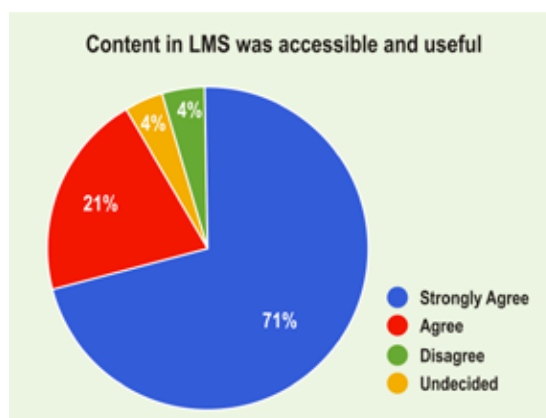


Figure 5.1: Reaction of teacher educators of Odisha about accessibility of content in the LMS

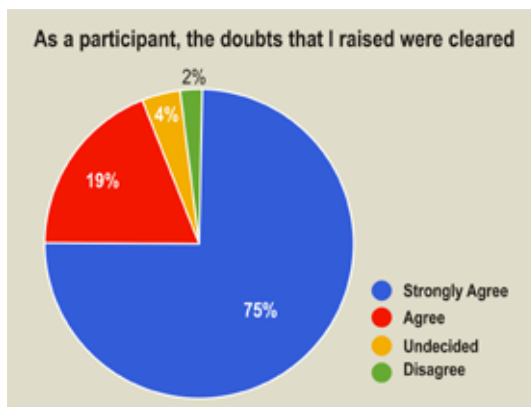


Figure 5.2: Reaction of teacher educators of Odisha about clarification of doubts

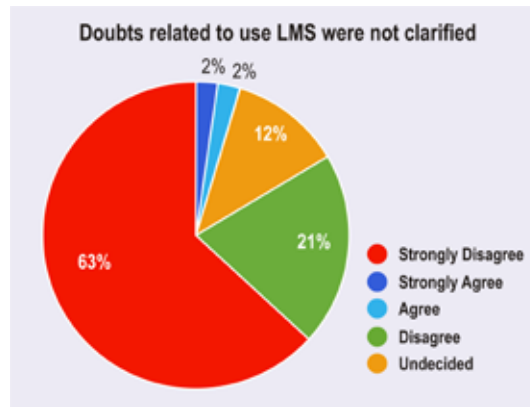


Figure 5.3: Reaction of teacher educators of Odisha about clarification of doubts related to LMS

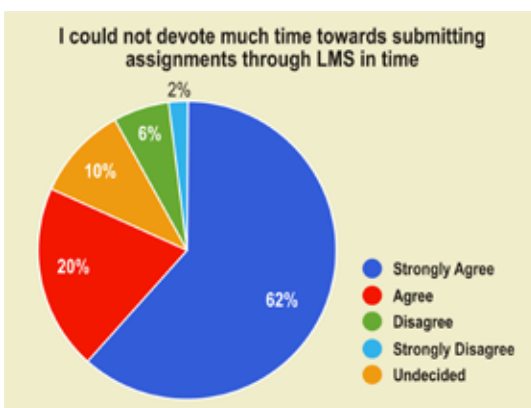


Figure 5.4: Reaction of teacher educators of Odisha about assignment

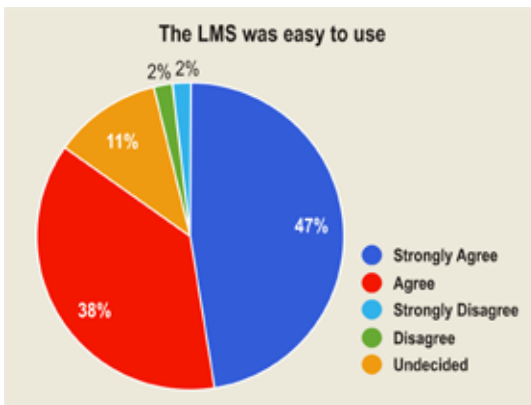


Figure 5.5: Reaction of teacher educators of Odisha about use of LMS

blended learning lessons include a component of self-learning, course designers need to plan and execute feedback mechanisms within the system to ensure the students' doubts are addressed appropriately. 94% participants felt their doubts were cleared while 84% participants felt their doubts regarding the LMS were also well handled as depicted in figure 5.3

Figure 5.4 discusses the opinion of teacher educators with regard to the time devoted to submitting the assignments through LMS on time. As many teacher educators of Odisha who participated in these workshop sessions had other institutional responsibilities, they couldn't submit their assignments on time via the LMS and therefore nearly 82% of them agreed on their inability to devote time towards submitting assignments through LMS on time.

Figure 5.5 discusses the opinion of teacher educators of Odisha regarding the ease of using the LMS. 85% participants felt the LMS was very easy to use and immensely benefitted from the content that was shared in it; but due to time constraints and academic/ non-academic responsibilities they were not able to complete the assignments on time

5.3 Resource Persons

Figure 5.6 discusses the reaction of teacher educators of Odisha regarding the effectiveness of the instructors of the workshop. Annexure (XX) lists the detailed profile of resource persons. Blondie and Zusho (2018) discussed the teacher's decision-making base as an indicator whether instruction engages students and fosters deeper

learning. They say good decisions in the classroom that lead to engaging instruction are based on the intersection of content knowledge, pedagogical knowledge, cultural awareness, and self-awareness. 95% participating teacher educators felt the resource persons were effective instructors while 2% were undecided and 3% disagreed.

Figure 5.7 discusses the opinion of teacher educators of Odisha with regard to the theoretical knowledge imparted by resource persons during the workshop. As evident from the figure all participants disagreed that only theoretical knowledge was shared by the resource persons, thereby strengthening the data point received (Figure XX1) where 93% participants felt the workshop was hands on and not only theoretical.

Figure 5.8 discusses the opinion of teacher educators of Odisha regarding the ability of resource persons to use pedagogical principles of online learning and training. Online learning and training requires facilitators to plan and execute sessions that extremely interactive and engaging so as to reduce the screen fatigue and inactivity. By conducting engaging lessons, resource persons were able to also demonstrate to the participating teacher educators how they could also create engaging lessons for their online classes. From Fig XX we can confidently argue that 96% of the participants feel the resource persons help engaging lessons by following the pedagogical principles of online learning.

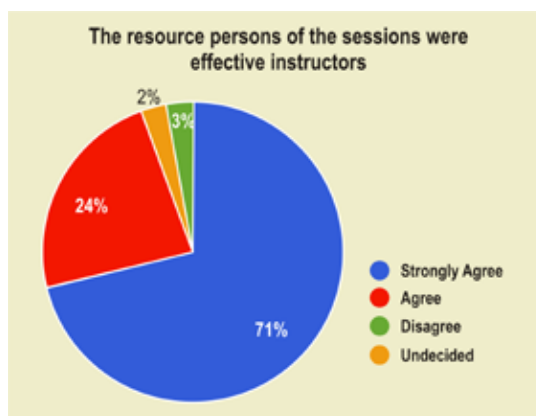


Figure 5.6: Reaction of teacher educators about effectiveness of resource persons

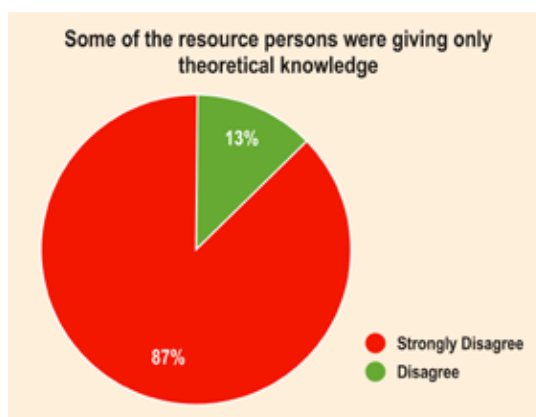


Figure 5.7: Reaction of teacher educators of Odisha about theoretical knowledge imparted by resource persons

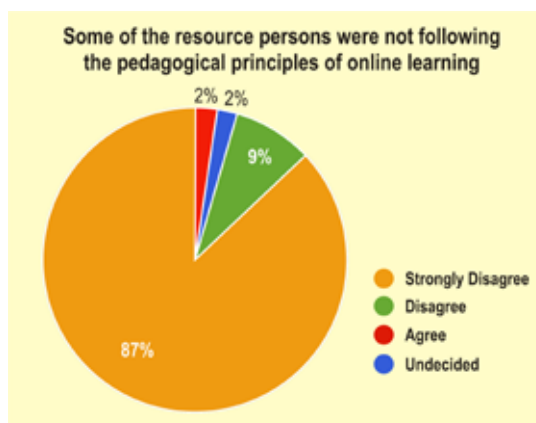


Figure 5.8: Reaction of teacher educators of Odisha about resource persons

5.4 Integration of Technological, Pedagogical and Content Knowledge

Figure 5.9 depicts the participants reaction to the topics covered in the workshop. The workshops that were conducted are described in detail in Chapter (XX). Almost all participants (97%) agreeing to the usefulness of the topics also depicts an accurate

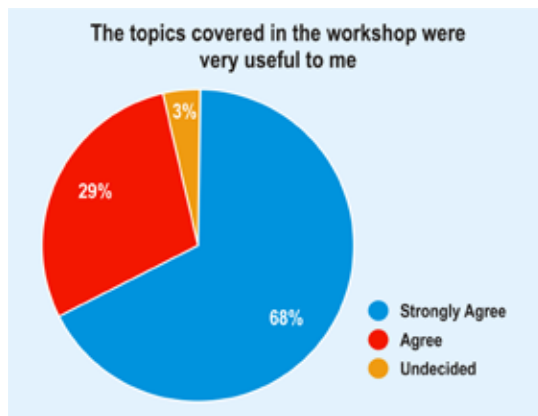


Figure 5.9: Reaction of teacher educators of Odisha of the topics covered in the workshop on Blended Learning

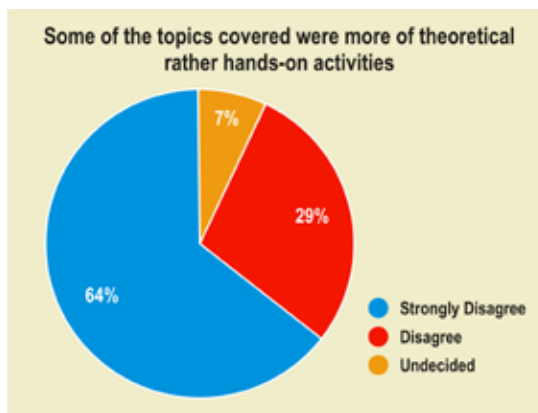


Figure 5.10: Reaction of teacher educators of Odisha on theoretical nature of content delivered

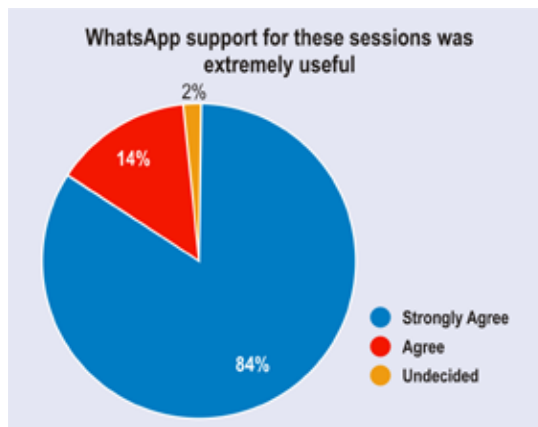


Figure 5.11: Reaction of teacher educators of Odisha about WhatsApp support

duration of the workshop. Researchers of the study were told by the participants that not only the WhatsApp group chats were useful, but when one participant was not able to do a certain task, using the WhatsApp video instead of a screen sharing software like Teamviewer was more beneficial.

Figure 5.12 discusses the teacher educators of Odisha’s opinion on creating flipped lessons for blended learning lessons. Zainuddin & Halili (2016) and Limniou et al. (2018)

self-assessment of the participants regarding their skills in the baseline study (covered in detail in chapter XX).

Figure 5.10 depicts the reaction of the teacher educators of Odisha who participated in the workshop on blended learning. The workshops on blended learning was completed hands on, where participants had the opportunity to work on the software simultaneously as the experts were sharing its details. This is reflected in the reaction of the teacher educators of Odisha, when 93% of whom disagreed to the statement “Some of the topics were more of theoretical rather hands-on activities”. Researchers of this project, also had an opportunity to discuss with a few participants on their indecisiveness, when a participant mentioned that as there was no computer facility given by the institute for this training, the topics were only theoretical for her.

Figure 5.11 shares the opinion of teacher educators of Odisha on the use of WhatsApp during the duration of the entire project. WhatsApp allowed participants to connect with experts to clarify doubts and solve login issues when using the LMS first time. Ethical practices, acceptable behaviours and norms to use WhatsApp were discussed in the first session itself. As most of the participants had used WhatsApp earlier for their own classroom practices, they were aware of the challenges teachers face due to the WhatsApp and how they could support resource persons for the

describe flipped learning as a model for blended learning. Flipped learning allows for small group interaction with teachers and students. Nearly 84% of the participants agreed about their ability to use flipped learning strategies to create effective blended learning lessons. This was very encouraging to the researchers of this project because in the baseline study, many teachers had shared their inability to create effective blended learning lessons using flipped learning strategies.

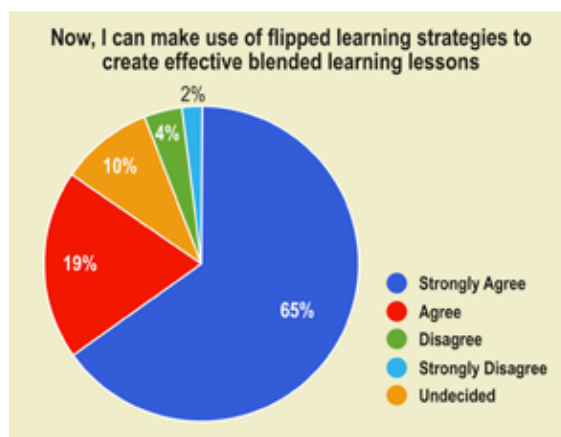


Figure 5.12: Reaction of teacher educators of Odisha about use of flipped learning strategies

The project, on implementing blended learning for teacher educators of Odisha, drew on the theoretical construct of TPACK and aimed at strengthening the pedagogical, technological and content knowledge of the participants. Figure 5.13 tells us that 86% of the participants agreed that they were able to strengthen their pedagogical and technological knowledge; while 87% participants agreed that they were able to integrate

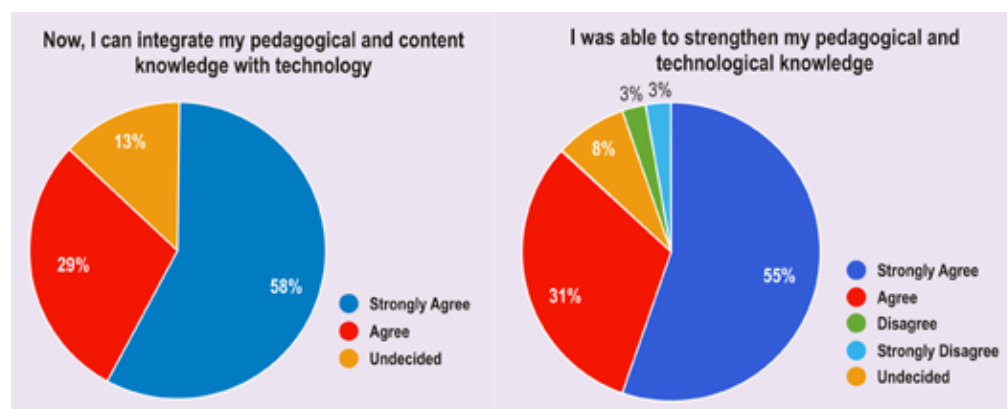


Figure 5.13: Reaction of teacher educators of Odisha about strengthening pedagogical and technological knowledge

appropriate technology for their content and pedagogical initiatives.

Figure 5.14 discusses the ability of the participating teacher educators of Odisha in working with tools like, Padlet, EdPuzzle, YouTube, etc. Tools like, Padlet, EdPuzzle, YouTube, Screencastomatic, Flipgrid, etc. help teachers add interactivity to the blended lessons are therefore, very useful. 87% of Teacher Educators from Odisha who participated in this blended learning

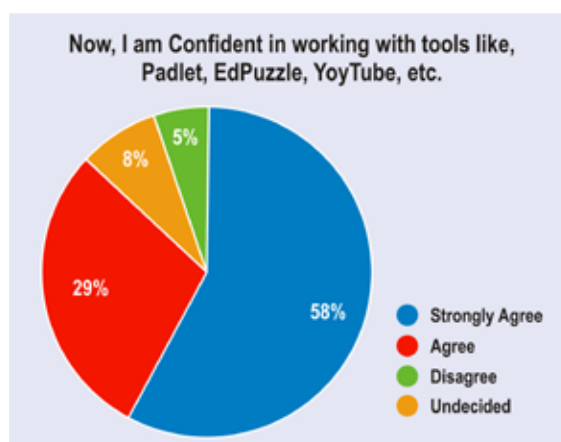


Figure 5.14: Reaction of teacher educators of Odisha about working with Padlet, EdPuzzle, YouTube, etc.

program felt confident about working with these tools. This is significant because in the baseline study more than 50% of the participants had shared their inability to use these tools.

5.5 Mode of Learning

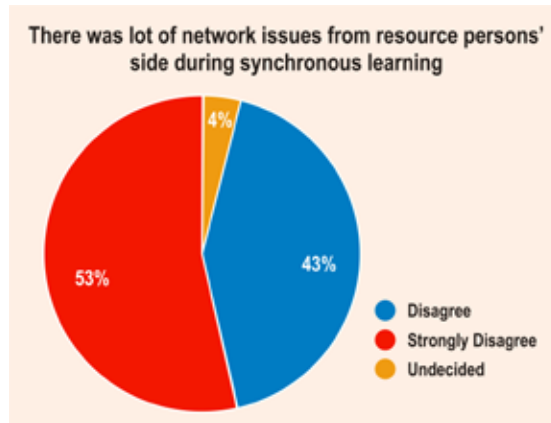


Figure 5.15: Reaction of teacher educators of Odisha on network issue of resource person

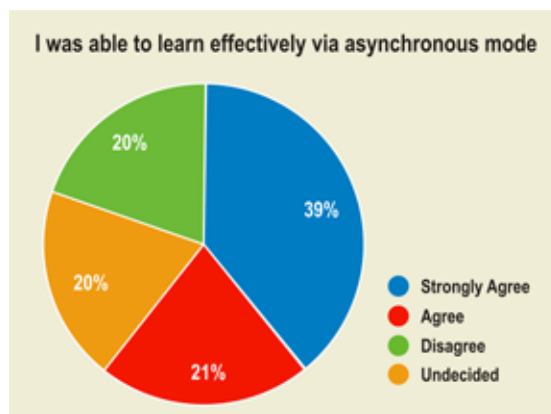


Figure 5.16: Reaction of teacher educators of Odisha about learning through asynchronous mode

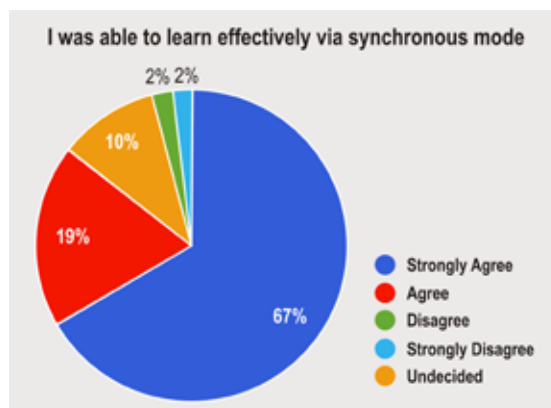


Figure 5.17: Reaction of teacher educators of Odisha about learning through synchronous mode

Figure 5.15 discusses the opinion of teacher educators regarding the network issues faced by resource persons during the training workshops. As all synchronous sessions were conducted online, it was important the network issues were addressed. 96% participants disagreed about network issues from resource persons' side. This also meant for most of the participants the interaction and workshops with resource persons was not disrupted due to sketchy internet issues.

The project on blended learning for teacher educators of Odisha, was planned in a manner that participants used a synchronous online mode and an asynchronous offline mode. The asynchronous offline mode was accessed via the LMS. The content of the LMS and the design of the LMS was useful; but in Figure 5.16 20% disagreed and 20% participants were undecided about their learning journey via the asynchronous mode. Researchers of this project were told, although the content was easy and useful, many teacher educators felt hesitant in solving small problems they faced using the LMS; and they did not want to share their query in the WhatsApp group due to their hesitation.

In Figure 5.16, we saw nearly 20% of the participants disagreed on their ability to learn effectively via the asynchronous mode due to various reasons. In Figure 5.17 we see only 4% of the participants disagreed on their ability to learn effectively via synchronous mode; while 10% of the

participants were undecided and the remaining majority (86%) agreed on their ability to learn effectively via the synchronous mode. The researchers of the project were later told by the participants that learning and doing activities along with the resource persons was more effective and easier as the doubts kept getting cleared along the way and therefore, they preferred the synchronous mode. Researchers of the project also shared with the participants the aim of the asynchronous mode was to allow participants to explore their learning paths and allow for differentiation of instruction.

Figure 5.18 discusses the opinion of teacher educators of Odisha regarding their experience of the synchronous learning, especially since there were three synchronous workshops planned for each 5-day session. From Figure 5.18 it is evident, that half of the teacher educators felt they could not concentrate during synchronous learning. Due to exam duties, and other assignments, many teacher educators were not able to attend all the synchronous sessions – this could be the reason for the discrepancies in the opinions of teacher educators.

Figure 5.19 discusses the opinion of teacher educators regarding the network issues faced by the teacher educators during the synchronous learning. Blended learning lessons aim to take the best of the online learning experiences and that of the offline learning experiences and therefore stable internet connection is needed. During many synchronous sessions, there were network issues from many participants. 28% of the participants agreed regarding the network issues while the majority disagreed or were undecided.

5.6 Lesson Planning

Figure 5.20 discusses the opinion of teacher educators of Odisha regarding their confidence on writing objectives for blended learning lessons. 92% agreed on this aspect. Researchers of the study had the opportunity to discuss the same

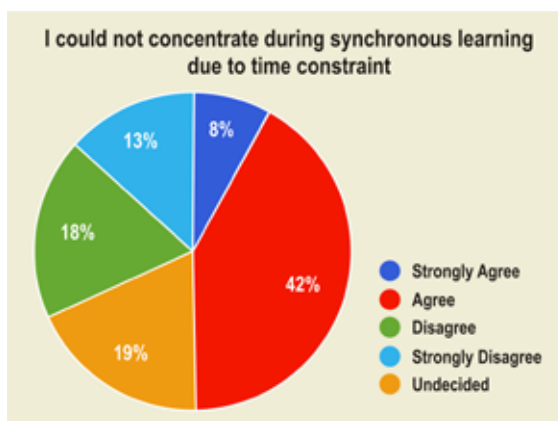


Figure 5.18: Reaction of teacher educators of Odisha about concentration during synchronous learning

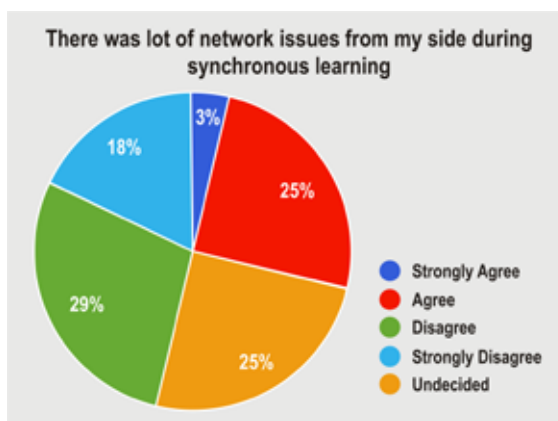


Figure 5.19: Reaction of teacher educators of Odisha about network issue from participants' side

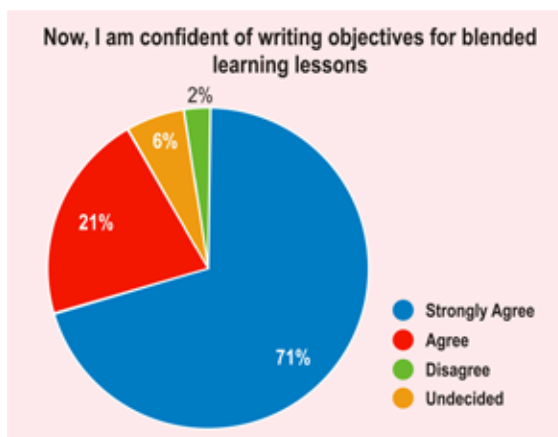


Figure 5.20: Reaction of teacher educators of Odisha about confidence in writing objectives

with a few participants who were undecided/disagreed. It is interesting to report that one of the participants felt the writing objectives for technology infused/technology enabled lessons was tougher than writing objectives for regular lessons. A detailed discussion with the researchers of the project, assisted this participant in writing better objectives for technology enabled lessons.

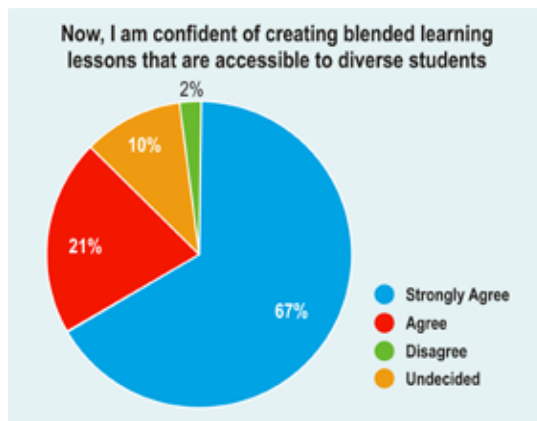


Figure 5.21: Reaction of teacher educators of Odisha about confidence in creating lessons

Figure 5.21 represents the opinion of teacher educators of Odisha on their ability to create blended learning lessons that is accessible to diverse students. Research of Haijian et al., (2011); Lalima & Dangwal (2017); Nortvig et al. (2018) show how blended learning environments assist students of diverse needs fulfil their learning needs. When the training program for these workshops was being planned, helping teacher educators of Odisha create accessible resources was a very important aspect. 88% of the participants agreed that they were in

a position to create accessible resources. This is especially encouraging because in the baseline study nearly 70% participants were not confident about their ability to create blended learning lessons that are accessible to diverse needs of students.

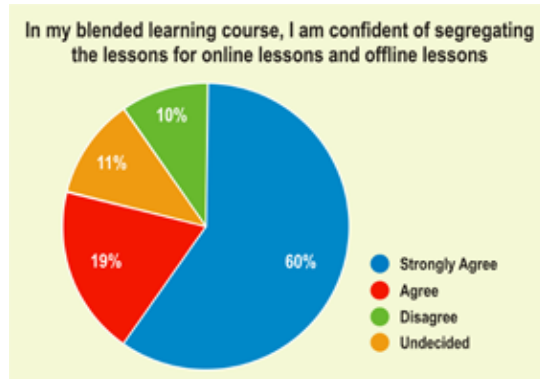


Figure 5.22: Reaction of teacher educators of Odisha about segregating online and offline lessons

Figure 5.22 discusses the confidence of teacher educators of Odisha in their ability to segregate lessons for online and offline lesson. Alammery, Sheard, and Carbone (2014) discuss three approaches to designing blended learning lessons – the first approach is by adding extra online components to a face to face course; the second approach is to replace certain face to face activities with a few online activities and the third approach is to build the entire course from scratch. During the workshops,

the resource persons had discussed in detail as to how teacher educators can plan for the blended learning courses. The resource persons reiterated that the aim of blended learning courses is not to add more course content, but to balance out the best of online and offline learning experience – and one of the key ways to achieve this balance was to be able to segregate lessons. In the endline study of the program, 79% teacher educators from Odisha were confident regarding their ability to segregate lessons for online and offline lessons; while 11% were undecided and 10% were not confident of their ability to do the same.

Figure 5.23 discusses the opinion of teacher educators of Odisha on their confidence of planning their lessons for blended learning. Planning a blended learning lesson

includes planning for small group interaction, planning for individual learning, integrating technology into the learning experience, adding components of differentiated instruction, planning components of feedback so as to improve the learning process and track student performance. All these areas were discussed in the workshops that were delivered during the intervention of training teacher educators of Odisha in blended learning. The end line study reveals, 83% of the participants were confident of making use of the various planning strategies that were discussed in the workshop, while 15% were undecided. On discussing with the participants who were undecided, researchers of the project got to know some participants felt they would be confident only when they executed a blended lesson.

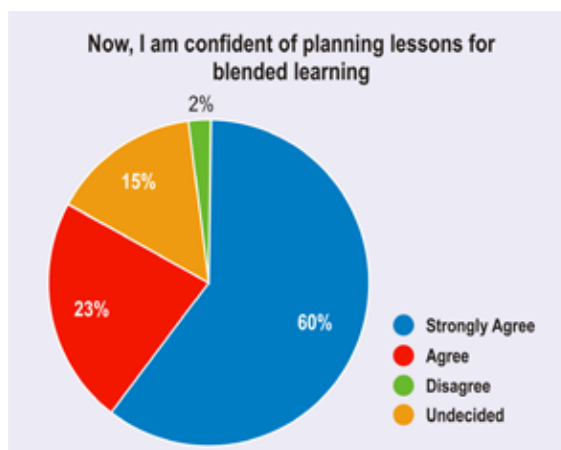


Figure 5.23: Reaction of teacher educators of Odisha about confidence in lesson planning

5.7 Support System

Figure 5.24 discusses the participants' opinion on institutional support when they are engaged in creating a blended learning course. UGC in its concept note on Blended learning has given details about the suggestive course structure that can be adopted to create blended learning courses. Without institutional support creating blended lessons would be difficult for teachers. And therefore, only 27% felt they would be able to get institutional support in terms of no additional responsibilities, etc. while 22% disagreed and the remaining 51% were undecided. On further discussions with the participants, researchers of this project were told that since the participant institutes' didn't have a Blended Learning Course Policy or an OER development policy in place, their Heads would find it difficult to give the teacher educators the necessary support.

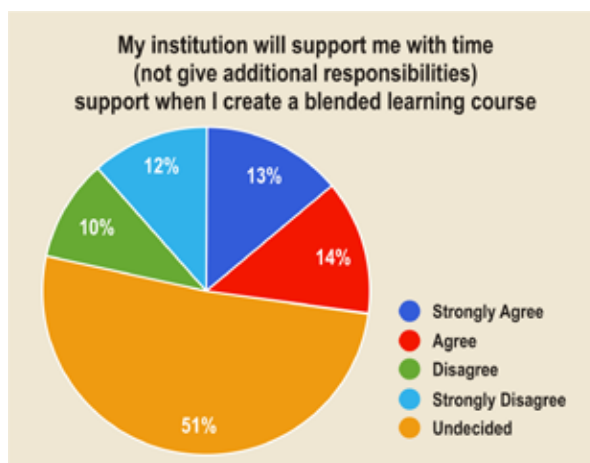


Figure 5.24: Reaction of teacher educators of Odisha about institutional support

Figure 5.25 discusses the opinion of the teacher educators of Odisha about their Head of Departments/Principals giving them the necessary permissions to create a blended learning course. Unfortunately, majority (63%) of them were undecided as they were not sure if their HoDs/Principals would be supportive. Researchers of the project

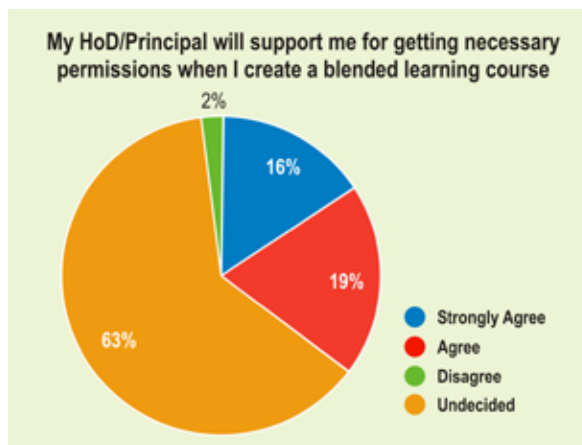


Figure 5.25: Reaction of teacher educators of Odisha about HoD/Principal support

also got to know that some HoDs were going to change in some institutions therefore, many participants were not sure how would the new HoDs work around the system as there is no policy/structure in place for creating blended learning courses within their institution. It emerged from further discussion that having a policy for Blended learning was very essential if teacher educators needed to experiment with taking their offline course to a blended mode of instruction.

Chapter-VI

Conclusions and Recommendations from the Project

6.1 Introduction

For a country like India, where access to education is not equitable, blended learning can help students from the remotest part of the country gain knowledge and skill sets. Based on the baseline study and endline study conducted by the Ravenshaw University and CEMCA, the researchers have the following recommendations. These recommendations are for universities, education departments, teacher education institutions and more importantly for all policy makers involved as stakeholders in the higher education process.

6.2 Recommendations for Universities

The UGC in its notification and concept note on blended learning has discussed its idea on what blended learning should look like and how could the various stakeholders benefit from it. Basis this study, where around 200 teacher educators participated at various stages, the researchers have the following recommendations for universities implementing blended mode of learning.

- **Institutional Policy**

The Constitution of India has placed “education” in the concurrent list – meaning– the central government and state government are in a partnership to implement educational policies to strengthen the foundation of education. Therefore, policies instituted by the Central Governing Bodies, need to be ratified within the State Governing Bodies with either suitable modifications or as such to ensure smooth implementation of the policy.

The institutional policy, of any University must reflect the guidelines of the Central Government and that of the State which have been adapted to suit the local population and community. We suggest the following questions that can act as initiation points for discussion while formulating the institutional policy:

- o **Blended Learning**

1. What does the Institution mean by blended learning?
2. Who is the intended audience for the course?
3. How does the institution (therefore its institutional policy) understand the benefits of blended learning?

4. What is the enrolment policy in the blended mode?
 5. What is the ratio of offline vs online class engagement for a course to come under the blended learning mode?
 6. How are the teachers compensated for developing and successfully running the blended course?
 7. How do the various departments of the institution collaborate on creating blended learning lessons (IT department, Library, Publication Cell, etc.)?
 8. What is the process of developing the blended course (Role of Academic council, etc.)?
 9. How will the blended learning course be audited?
- o **OER**
1. What does the institution mean by OER? Which definition of OER does it validate in its document?
 2. Why does the institution think OERs are necessary?
 3. How could OERs created by the institution help the larger educational system (Especially, if the institution is a state university – with a state language and language script)?
 4. Where would the OER be hosted?
 5. What is the process to be followed while creating an OER?
 6. How will the OER be reviewed?
 7. Under what creative commons licences will the OER be released?
 8. How accessible would the OERs need to be?
- o **Copyright**
1. How does the institution recognize copyright?
 2. Who holds the copyright of the material developed?
 3. What amounts to copyright violation?
 4. What is the institutional policy in violating copyright laws?
 5. What training programs does the institute plan to have to get its stakeholders aware of the copyright laws (like e-learning module ; On demand workshops, etc.)
- o **Plagiarism**
1. How does the institution define plagiarism?
 2. What the penalties for plagiarism – for students; for academicians or other members?
 3. What training programs does the institute plan to have to get its stakeholders aware of plagiarism (like e-learning module; On demand workshops, etc.)?
 4. What programs does the institute have in place to ensure teachers plan assignments to minimise plagiarism?
 5. What software has the institute subscribed to check for plagiarism? Do the students have access to it?

- **Faculty – Training, Roles and Responsibilities**

Faculty are the driving force behind all academic initiatives by the institutes; and therefore, onboarding them for implementing systemic changes in the way classroom transaction is planned is very important. The University must have adequate training opportunities and hand-holding mechanisms in place to ensure faculty members are supported while conceptualizing, planning, and implementing blended learning lessons in higher education.

Most faculties may not be very tech savvy and would need additional support to implement blended learning. This additional support may not be restricted to just tech support, it could also be for hardware, software and even financial support. The researchers in their interaction with faculty members while implementing blended learning courses in respective institutions, the faculty felt the following needs:

- o Unwavering support from the Head of the Department
- o Support from other staff members so that no additional responsibility was given while the course was being developed.
- o Availability of an instructional designer, graphics designer and instructional coach to brainstorm ideas
- o Faculty Development Cell for planning and conceptualizing discussion workshops
- o Financial support to ensure the faculty can purchase either tech or books or reference material needed for the purpose.
- o Recognition of the developed courses during career promotions
- o Robust mechanisms in place for effective feedback to ensure the developed course is meaningful

- **Administration – Training, Roles and Responsibilities**

Effectively managing the administration of educational issues is extremely important as Administrators are not just dealing with processes and systems but also living beings that are growing and are shaping to be the next generation. Therefore, if any institutional policy needs to be implemented, it is very important the educational administrators understand the process involved and the overarching objectives of initiatives. Researchers were not able to include administrators in the blended learning training as it was outside the scope of the project, but the lead researcher of the project was also functioning in administrative capacity during the pandemic. During this stint, the lead researcher was able to gather insight from other members of the administrative teams on their views of Blended Learning. Based on these informal yet deeply rich discussions, the researchers suggest the following:

- o Orientation program towards the objectives and benefits of the blended learning initiative.
- o Clearly documenting how administration can support the academic staff-enrolment process; eligibility criteria; hiring process of interns or competent staff for the online course moderation; disbursement of funds; enabling adequate sharing of institutional resources; assistance to faculty to settling of bills, etc.
- o Easing bottlenecks in procurement of tech equipment or tech services

- o Either having a system in place of reimbursement of services paid via personal credit cards or the institute have its own credit card to pay for services
- o Allowing administrative staff to audit courses in case they wish to.

- **Head of the Department – Training, Roles and Responsibilities**

Research of Dou, Devos, & Valcke (2016); Hitt & Tucker (2015) ; Loeb, Kalogrides, & Béteille (2012) have shown how effective school principals have helped in curbing student absenteeism, staff satisfaction and essentially collective staff efficacy. The same would definitely hold true for all educational departments and that is why the roles and responsibilities of the Head of the Department has to be clearly defined so that all faculty members are conscientious of the expectations from them. Based on the interaction with the various faculty members and that of the head of the institutes, the researchers suggest the following for the Head of Departments:

- o Providing adequate support to all faculty members desiring to initiate a blended learning course – support not only entails resource support, library support and financial support but also moral support for the emotional well-being of the faculty working on this initiative for the first time.
- o Giving time from additional departmental responsibilities to faculty
- o Allowing faculty to attend professional development workshop needed to enhance their skill sets and content knowledge.
- o Creating an environment for in-house faculty development opportunities

- **Media Presence**

We are living in unprecedented times where media footprint is necessitated. The university needs to have a strong PR or a media cell to share with the world the various courses available via the blended mode of learning. The media presence should not only be limited to advertising of courses, but should also capture learning moments, projects, and end-term benefits of attending the blended learning course. This itself will act a funnel for further enrolments. Positive media presence along with a great curriculum can ensure the blended learning course becomes self-financing and add to the revenue of the institutes.

6.3 Recommendations for Government Agencies (Ministry of Education, Women and Child Development, Skill Development)

The UGC concept note on blended learning can be translated into an e-learning course or a blended course to enable faculty members create blended learning material themselves.

- o Creating blended learning courses should be recognized in the career growth trajectory of the concerned faculty with ample weightage.
- o Create a small fund for developing blended learning courses in local languages to promote these courses in local languages.
- o Create provision for translation/transcription/closed captions of online section courses that are useful to all students.

6.4 Recommendations for CSR Wings of Corporate

Researchers of this study strongly believe in the private public partnership of education and its impact in creating skilled individuals. With blended learning courses being recognized across the world, corporate houses can fund small projects/researchers/ internships of students enrolled in certain courses – adding to its utility and acceptability in the industry. This small boost will help students take the courses funded under the CSR initiative more seriously. Faculty desirous of making use of these funding funnels will create courses that have relevance to skill and needs of the industry also.

References

- Alammary, A., Sheard, J., & Carbone, A. (2014). Blended learning in higher education: Three different design approaches. *Australasian Journal of Educational Technology*, 30(4).
<https://doi.org/10.14742/ajet.693>
- Boyte-Eckis, L., Minadeo, D. F., Bailey, S. S., & Bailey, W. C. (2018). Age, gender, and race as predictors of opting for a midterm retest: A statistical analysis of online economics students. *The Journal of Business Diversity*, 18 (1), 17–28.
http://digitalcommons.www.na-businesspress.com/JBD/JBD18-1/EckisLB_18_1.pdf
- Directorate of TE & SCERT, Government of Odisha (2022). *Admissions – SCERT Odisha*
<http://scertodisha.nic.in/admissions/> Accessed on June 14, 2022.
- Dou, D., Devos, G. & Valcke, M. (2016). The relationships between school autonomy gap, principal leadership, teachers job satisfaction and organizational commitment. *Educational Management Administration & Leadership*, 45 (6).
DOI:10.1177/1741143216653975
- Dziuban, C., Hartman, J., & Moskal, P. (2004). Blended Learning *EDUCAUSE review*, 2004 (7).
<https://www.educause.edu/~media/files/library/2004/3/erb0407-pdf.pdf?la=en>.
- Graham, C.R. (2006). Blended learning systems: Definition, current trends, and future directions. In C. J. Bonk & C. R. Graham (Eds.), *Handbook of blended learning: Global perspectives, local designs* (pp. 3–21). Pfeiffer Publishing.
- Haijiana, C., Hexiaob, H., Leic, W, Weipingd, C. & Kunrue, J. (2011). Research and Application of Blended Learning in Distance Education and Teaching Reform. *International Journal of Education and Management Engineering*, 3, 67-72.
- Higher Education Department, Govt. of Odisha (2020). Letter No.20119/HE dated 19/06/2020. Retrieved February 26, 2022, from
<http://www.gwckeonjhar.in/GWCphoto/Syllabus/28.pdf>
- Hitt, D. H. & Tucker, P. D. (2016). Systematic review of key leader practices found to influence student achievement: A unified framework. *Review of Educational Research*, 86(2), 531-569.
- Horn, M. & Staker, H. (2014). *Blended: Using disruptive innovation to improve schools*. Jossey-Bass.
- Hue, L.T., & Jalil, H.A. (2013). Attitudes towards ICT integration into curriculum and usage among university lecturers in Vietnam. *International Journal of Instruction*, 6 (2), 53–66.
<https://files.eric.ed.gov/fulltext/EJ1085366.pdf>
- Koehler, M.J., & Mishra, P. (2009). What is technological pedagogical content knowledge? *Contemporary Issues in Technology and Teacher Education*, 9 (1), 60-70.
https://www.researchgate.net/publication/241616400_What_Is_Technological_Pedagogical_Content_Knowledge
- Lalima , Kiran Lata Dangwal (2017). Blended Learning: An Innovative Approach. *Universal Journal of Educational Research*, 5(1), 129- 136
- Lawlor, S. (1990). *Teachers mistaught: Training in theories or education in objects?* Centre for Policy Studies.

- Limniou, M., Schermbrucker, I. & Lyons, M. (2018). Traditional and flipped classroom approaches delivered by two different teachers: the student perspective. *Education and Information Technologies*, 23. 10.1007/s10639-017-9636-8.
- Loeb, S., Kalogrides, D. & Béteille, T. (2012). Effective Schools: Teacher Hiring, Assignment, Development, and Retention. *Education Finance and Policy*, 7 (3), 269-304.
- Means, B., Bakia, M., & Murphy, R. (2014). *Learning Online: What Research Tells us about whether, when and how*. Routledge.
- Mercader, C. and Gairín, J. (2020). University teachers' perception of barriers to the use of digital technologies: the importance of the academic discipline. *International Journal of Educational Technology in Higher Education*, 17 (4).
<https://doi.org/10.1186/s41239-020-0182-x>
- Mishra, P., & Koehler, M. J. (2006). Technological Pedagogical Content Knowledge: A framework for teacher knowledge. *Teachers College Record*, 108 (6), 1017-1054. doi: 10.1111/j.1467-9620.2006.00684.x.
- Mohamad, S.N.M., Salleh, M.A.M., Salam, S., & Bakar, N. (2016). Motivation and teaching experience: does teaching experience affect lecturers' motivation in teaching online? *Sains Humanika*, 9 (1).
https://www.researchgate.net/publication/313234948_Motivation_And_Teaching_Experience_Does_Teaching_Experience_Affect_Lecturers'_Motivation_In_Teaching_Online
- Nortvig, A. M., Petersen, A. K., and Balle, S. H. (2018). A Literature Review of the Factors Influencing E- Learning and Blended Learning in Relation to Learning Outcome, Student Satisfaction and Engagement. *The Electronic Journal of e-Learning*, 16 (1), 46-55.
- Orchard, J. & Winch, C (2015). *What training do teachers need? Why theory is necessary to good teaching?* Retrieved November 30, 2021, from
<https://onlinelibrary.wiley.com/doi/full/10.1111/2048-416X.2015.12002.x>
- Orji, R. O. (2010). Effect of academic discipline on technology acceptance. *International Conference on Education and Management Technology*, 617-621. 10.1109/ICEMT.2010.5657581.
- Report of the Joint Review Mission on Teacher Education in Odisha Dates of the JRM: March 10 – 16, 2013*. Retrieved February 27, 2022, from
<http://14.139.60.153/bitstream/123456789/2019/1/Teacher%20Education-Report%20of%20the%20Joint%20Review%20Mission%20on%20Teacher%20Education%2C%20Odisha.%20march%2010-16%2C%202013..pdf>
- Semary, H.E. (2011). Barriers to the effective use of technology in education: Case study of UAE University. *Asian Transactions on Science & Technology*, 1 (5), 22–32.
- University Grants Commission (2021). Public Notice D.O.No.1-9/2020 (CPP-II) on dated 20th May 2021.
https://www.ugc.ac.in/pdfnews/7782448_Public-Notice.pdf
- Wang, Y., Han, X., & Yang, J. (2015). Revisiting the Blended Learning Literature: Using a Complex Adaptive Systems Framework. *Educational Technology & Society*, 18 (2), 380–393.
- Zainuddin, Z., & Halili, S. H. (2016). Flipped Classroom Research and Trends from Different Fields of Study. *The International Review of Research in Open and Distributed Learning*, 17(3).
<https://doi.org/10.19173/irrodl.v17i3.2274>
- Zimmerman, B.J. & Schunk, D.H. (Eds.) (1998). *Self-regulated learning and academic achievement: Theory, research and practice*. Springer.

Annexure-I

Case Vignettes of Teacher Educators of Odisha Discussing their Vision on Blended Learning

Name: Withheld (Dr Mam)

Gender: Female

Designation: Lecturer in DIET

Teaching Experience: 11 years

Medium of Instruction: Odia

Dr Mam, has studies in the local state language of Odia. She is extremely proficient in Odia and greatly influenced by its rich culture and literature. She has been teaching Odia literature and Teaching of Odia at the DIET. Before the pandemic, her teaching methodology and ideology for teaching language was more prescriptive. With the pandemic and the decision of the DIET to conduct the DIET training program in online mode, Dr Mam said she felt completely incapacitated as she was not proficient in technology and did not have a starting point to learn tech.

Fast forward to the next academic year, Dr Mam, said she knew what all she wanted to learn, but it was a systematic workshop like the Blended Learning Workshop for Teacher Educators, specific aspects related to teaching learning as addressed. Her high point was to use the Google Input Tools to not only type in Odia, but get her stories published in online platforms.

As a qualified teacher educator to implement blended learning, Dr Mam aspires to create a Blended Learning Course on Teaching Odia to young learners; so that parents settled abroad can also learn how to teach the Odia language to their young children. Dr Mam, feels confident to undertake this initiative because she has another colleague who also wishes to work in the area of Teaching of Odia.

The researchers of this project share this case because it discusses the importance of a systematic approach to training and follow up activities.

Name: Withheld (Dr Sir)

Gender: Male

Designation: Lecturer in DIET

Teaching experience: 15 years

Medium of Instruction: English

Dr Sir, has been working with the DIET institute for a long time and teaches social studies. Prior to the pandemic, books that he used as a student were something he liked referencing back to. During the pandemic, when the online teaching started, he started watching YouTube videos of other faculty members and that helped him teach concepts better in his own class. He felt, in case he get an opportunity; he too would like to create the videos for the Odia medium students. During the blended learning program, the researchers found him extremely curious and diligent in all assignments. Dr Sir, approached his institute for funds to buy a good recording system and laptop to create the blended lessons. But, as this was a DIET, budgetary provisions restricted these purchases. Due to his own financial liabilities, he couldn't invest in these tech solutions. He kept asking researchers of this project, in case he could be funded for a blended learning course in Odia.

It was the case of Dr Sir, that prompted the researchers to make recommendations to the Ministry of Education to create a fund for Blended Learning Course Creation in local languages.

Annexure-II

Media Gallery



ଅଧ୍ୟାପନାରେ ମିଶ୍ରିତ ଶିକ୍ଷଣ ପ୍ରଣାଳୀ ସମ୍ପର୍କିତ ଜାତୀୟ କର୍ମଶାଳା

ଭୁବନେଶ୍ୱର (ଓଡ଼ିଶା): ଦେଶର ବିଶ୍ୱବିଦ୍ୟାଳୟର ସେନା, ରାଜ୍ୟ ସ୍ତରୀୟ ଅଧ୍ୟାପକ ସମାଜର ସମାଜର ଅଧ୍ୟକ୍ଷ ଶ୍ରୀମତୀ ପ୍ରମିଳା ସେନାଙ୍କ ଦ୍ୱାରା ଆୟୋଜିତ ଏକ ଜାତୀୟ କର୍ମଶାଳା ଅନୁଷ୍ଠିତ ହୋଇଛି। ବିଶ୍ୱବିଦ୍ୟାଳୟର ପ୍ରଧାନ ପ୍ରାଧ୍ୟାପକ ପ୍ରଫୁଲ୍ଲ କୁମାର ସାହୁ ଏହି କର୍ମଶାଳାକୁ ଉଦ୍ଘୋଷଣ କରିଥିଲେ। କର୍ମଶାଳାର ପ୍ରଥମ ସ୍ୱାଗତରେ 'ଶିକ୍ଷଣ ଶିକ୍ଷକମାନଙ୍କର ସମ୍ପର୍କରେ' ଉପରେ ଆଲୋଚନା ହୋଇଥିଲା। କୁମାରୀ ପ୍ରମିଳା ସାହୁ ଏଥିରେ ଉଦ୍ଘୋଷଣା କରିବା ସହ ଆଜ୍ଞାପକ ଭାବରେ ଉପସ୍ଥିତ ଶିକ୍ଷକଙ୍କ ଓ ଶିକ୍ଷଣ ପ୍ରକ୍ରିୟା ସହକାରୀ ପ୍ରଦାନୀ ଉପସ୍ଥିତ। ଅନୁଷ୍ଠାନ ଶିକ୍ଷଣ ଦୁର୍ଲଭତାକୁ ଦୂର କରିବା ପାଇଁ ଶିକ୍ଷକ ପ୍ରଦାନୀ ସହକାରୀଙ୍କ ସହ ଯୋଗାଯୋଗ କରିବାକୁ ଉପାୟ ଖୋଜିବାକୁ ଅନୁରୋଧ କରିଥିଲେ। ଏହି କର୍ମଶାଳାରେ ପ୍ରାଥମିକ ସ୍ତରର ଶିକ୍ଷକମାନଙ୍କୁ ଉଦ୍ଘୋଷଣା କରିବା ସହ ବିଭିନ୍ନ ଶିକ୍ଷଣ ପ୍ରଣାଳୀ



ଏହା ଶିକ୍ଷକମାନଙ୍କୁ ଉଦ୍ଘୋଷଣା କରିବା ସହ ବିଭିନ୍ନ ଶିକ୍ଷଣ ପ୍ରଣାଳୀ ଉପରେ ଆଲୋଚନା ହୋଇଥିଲା। ବିଭିନ୍ନ ବିଶ୍ୱବିଦ୍ୟାଳୟର ଅଧ୍ୟାପକ ଶ୍ରୀମତୀ ପ୍ରମିଳା ସାହୁ ଏହି କର୍ମଶାଳାକୁ ଉଦ୍ଘୋଷଣା କରିଥିଲେ। କର୍ମଶାଳାର ପ୍ରଥମ ସ୍ୱାଗତରେ 'ଶିକ୍ଷଣ ଶିକ୍ଷକମାନଙ୍କର ସମ୍ପର୍କରେ' ଉପରେ ଆଲୋଚନା ହୋଇଥିଲା। କୁମାରୀ ପ୍ରମିଳା ସାହୁ ଏଥିରେ ଉଦ୍ଘୋଷଣା କରିବା ସହ ଆଜ୍ଞାପକ ଭାବରେ ଉପସ୍ଥିତ ଶିକ୍ଷକଙ୍କ ଓ ଶିକ୍ଷଣ ପ୍ରକ୍ରିୟା ସହକାରୀ ପ୍ରଦାନୀ ଉପସ୍ଥିତ। ଅନୁଷ୍ଠାନ ଶିକ୍ଷଣ ଦୁର୍ଲଭତାକୁ ଦୂର କରିବା ପାଇଁ ଶିକ୍ଷକ ପ୍ରଦାନୀ ସହକାରୀଙ୍କ ସହ ଯୋଗାଯୋଗ କରିବାକୁ ଉପାୟ ଖୋଜିବାକୁ ଅନୁରୋଧ କରିଥିଲେ। ଏହି କର୍ମଶାଳାରେ ପ୍ରାଥମିକ ସ୍ତରର ଶିକ୍ଷକମାନଙ୍କୁ ଉଦ୍ଘୋଷଣା କରିବା ସହ ବିଭିନ୍ନ ଶିକ୍ଷଣ ପ୍ରଣାଳୀ

ଉପରେ ପ୍ରଶ୍ନ-ଉତ୍ତର ଆଦିରୁ ପ୍ରସ୍ତୁତ ହେବ। ଏହା ସହିତ ଶିକ୍ଷକମାନଙ୍କୁ ଉଦ୍ଘୋଷଣା କରିବା ସହ ବିଭିନ୍ନ ଶିକ୍ଷଣ ପ୍ରଣାଳୀ ଉପରେ ଆଲୋଚନା ହୋଇଥିଲା। ବିଭିନ୍ନ ବିଶ୍ୱବିଦ୍ୟାଳୟର ଅଧ୍ୟାପକ ଶ୍ରୀମତୀ ପ୍ରମିଳା ସାହୁ ଏହି କର୍ମଶାଳାକୁ ଉଦ୍ଘୋଷଣା କରିଥିଲେ। କର୍ମଶାଳାର ପ୍ରଥମ ସ୍ୱାଗତରେ 'ଶିକ୍ଷଣ ଶିକ୍ଷକମାନଙ୍କର ସମ୍ପର୍କରେ' ଉପରେ ଆଲୋଚନା ହୋଇଥିଲା। କୁମାରୀ ପ୍ରମିଳା ସାହୁ ଏଥିରେ ଉଦ୍ଘୋଷଣା କରିବା ସହ ଆଜ୍ଞାପକ ଭାବରେ ଉପସ୍ଥିତ ଶିକ୍ଷକଙ୍କ ଓ ଶିକ୍ଷଣ ପ୍ରକ୍ରିୟା ସହକାରୀ ପ୍ରଦାନୀ ଉପସ୍ଥିତ। ଅନୁଷ୍ଠାନ ଶିକ୍ଷଣ ଦୁର୍ଲଭତାକୁ ଦୂର କରିବା ପାଇଁ ଶିକ୍ଷକ ପ୍ରଦାନୀ ସହକାରୀଙ୍କ ସହ ଯୋଗାଯୋଗ କରିବାକୁ ଉପାୟ ଖୋଜିବାକୁ ଅନୁରୋଧ କରିଥିଲେ। ଏହି କର୍ମଶାଳାରେ ପ୍ରାଥମିକ ସ୍ତରର ଶିକ୍ଷକମାନଙ୍କୁ ଉଦ୍ଘୋଷଣା କରିବା ସହ ବିଭିନ୍ନ ଶିକ୍ଷଣ ପ୍ରଣାଳୀ

Workshop on Blended Learning held by Ravenshaw varsity & CEMCA

STATESMAN NEWS SERVICE
CUTTACK, 27 SEPTEMBER.

Prof. Sanjay Nayak, Vice-Chancellor, Ravenshaw University inaugurated the Ravenshaw-CEMCA (Commonwealth Educational Media Centre for Asia) collaborated workshop series on "Implementation of Blended Learning in Teacher Education".

Prof. Nayak said "Teaching - Learning can be better facilitated by integrating ICT Tools". Synchronous and Asynchronous mode of online education if used by the learners and teachers would be a pace setter in the domain of digital learning in higher and teacher education".

Prof. Madhu Parhar, Director CEMCA said, "Use of digital learning tools will bring transformation in the teaching-learning process. Dr. Sudarshan Mishra, the Programme Director of the Workshop series also addressed the participants.

The Workshop background



and activities were briefed by Dr. Manas Ranjan Parigrahi, CEMCA, New Delhi. Three days of synchronous learning via zoom and two days asynchronous learning by LMS was held. Dr. Ajith Kumar, School of Education, IGNOU oriented the participants on the topics such as 'Video content creation for Teaching and Learning' and 'Reflections and Learning'. Dr. Pranita Gopal was the resource person on 'ICT Tools in Teaching

and Learning'. The participants learnt the use of various google tools, creation of video contents using ScreenCast-o-Matic, use of Padlet, Flipgrid, Edpuzzles, launching their own YouTube channel and so on. The participants included the faculty members from Universities, Teacher Education Colleges and DIETs. The follow up workshop series will be held in the month of October, 2021.



Implementation of Blended Learning in Teacher Education



Workshop on Integration of ICT tools in teaching learning 20 Sept 2021 - 24 Sept 2021

The first session of the hands-on workshop on implementing blended learning in Teacher Education in Odisha aims to help participants familiarise and use the various ICT tools in their teaching learning processes. These tools include tools that help facilitate classroom interaction; tools that help reflect on what they have learnt, tools that help teachers assess what students know and tools that help teachers deliver meaningful learning experiences.

Program Schedule

20 Sept 2021 - Synchronous Learning via Zoom

3:00 pm - 3:30 pm Inaugural Session

Project background and activities - Dr. Manas Ranjan Panigrahi, CEMCA, New Delhi
Welcoming of Dignitaries and Participants - Dr. Sudarshan Mishra, Department of Edu., Ravenshaw University
Address by Prof. Sanjay Kumar Rout, Vice Chancellor Ravenshaw University
Address by Prof. Madhu Parbar, Director CEMCA, New Delhi
Vote of Thanks - Dr S K Rout, HOD, Department of Edu., Ravenshaw University

3:30 pm - 5:30 pm Zoom Workshop - ICT Tools in Teaching & Learning - Dr. Pranita Gopal - Visiting Faculty, Ravenshaw University

21 Sept 2021 - Asynchronous Learning via LMS

22 Sept 2021 - Synchronous Learning via Zoom

3:30 pm - 5:30 pm Zoom Workshop - Video Content Creation for Teaching and Learning. - Dr. Ajith Kumar, School of Education, IGNOU

23 Sept 2021 - Asynchronous Learning via LMS

24 Sept 2021 - Synchronous Learning via Zoom

3:30pm - 4:30 pm - Reflections and Learning - Dr. Ajith Kumar & Dr. Pranita Gopal

Participants please note

- The workshop will use both the asynchronous learning environment using an LMS and synchronous learning via Zoom meetings.
- It is expected the participants will use the asynchronous learning environment everyday for the duration of the workshop.
- This workshop is only for the teacher educators teaching in the state of Odisha.
- Participants who have registered for the workshop will receive LMS login details via their registered email address.
- A WhatsApp group will be created for the participants and the link for the group will be shared on the registered number.
- The LMS will be functional from 20 Sept 2021 and will be accessible till the end of the third session of the workshop.
- Certificates will be issued to all the participants who complete all the three workshops and submit necessary assignments for each workshop session.

CEMCA Representative
Dr. Manas Ranjan Panigrahi
Program Director
Dr. Sudarshan Mishra
rucemca@ravenshawuniversity.ac.in
Workshop Co-ordinator
Dr. Pranita Gopal
pranitan@ravenshawuniversity.ac.in

Program Convenor
Dr. S K Rout
Organizing Committee
Dr. B.C. Das
Dr. Ashok Dansana
Dr. D.B. Tali
Ms. P.B. Binjha
Mr. Manish Ch. Roy



Implementation of Blended Learning in Teacher Education



Workshop on OER, Techno-pedagogy and Online Assessment

05 Oct 2021 - 09 Oct 2021

UNESCO defines Open Educational Resources (OER) as teaching, learning and research materials in any medium - digital or otherwise - that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions. OER form part of 'Open Solutions', alongside Free and Open Source software (FOSS), Open Access (OA), Open Data (OD) and crowdsourcing platforms. OER's aim to democratize education and help greater access to material that aid learning. Teachers as OER creators can become agents of change.

In the second session on the workshop on implementing blended learning in teacher education we will be looking into understanding OERs, creative commons licenses, writing project proposals for OERs, using online assessment tools like Google Forms, Hot Potatoes etc.

Program Schedule

05 Oct 2021 - Synchronous Learning via Zoom

3:30 pm - 5:30 pm Zoom Workshop Using Google Forms, Hot Potatoes for Assessments in Blended Learning Environments
Dr. Pranita Gopal Visiting Faculty, Ravenshaw University

06 Oct 2021 - Synchronous Learning via Zoom

3:30 pm - 5:30 pm Zoom Workshop - Understanding OERs and creative commons licenses, - Dr. Barnali Roy Choudhury
NSOU Kolkata

07 Oct 2021 - Asynchronous Learning via LMS

08 Oct 2021 - Asynchronous Learning via LMS

09 Oct 2021 - Synchronous Learning via Zoom

3:30pm - 4:30 pm - Writing Project Proposals for Blended Learning - Prof Manoj Saxena, CUHP, Dharamshala

Participants please note

- The workshop will use both the asynchronous learning environment using an LMS and synchronous learning via Zoom meetings.
- It is expected the participants will use the asynchronous learning environment everyday for the duration of the workshop.
- This workshop is only for the teacher educators teaching in the state of Odisha.
- Participants who have registered for the workshop will receive LMS login details via their registered email address.
- A WhatsApp group will be created for the participants and the link for the group will be shared on the registered number.
- The LMS will be functional from 20 Sept 2021 and will be accessible till the end of the third session of the workshop.
- Certificates will be issued to all the participants who complete all the three workshops and submit necessary assignments for each workshop session.

CEMCA Representative
Dr. Manas Ranjan Panigrahi

Program Director
Dr. Sudarshan Mishra
rucemca@ravenshawuniversity.ac.in

Workshop Co-ordinator
Dr. Pranita Gopal
pranitan@ravenshawuniversity.ac.in

Program Convenor
Dr. S K Rout

Organizing Committee
Dr. B.C. Das
Dr. Ashok Dansana
Dr. D.B. Tali
Ms. P.B. Binjha
Dr A K Mohanty



Implementation of Blended Learning in Teacher Education



Workshop on Design and Development of Lessons for Blended Learning for Teacher Educators of Odisha

26 Oct 2021 - 30 Oct 2021

Moodle is a free and open-source learning management system (LMS) written in PHP. It is distributed under the GNU General Public License. Moodle draws from numerous pedagogical principles that support blended learning, distance education, flipped classroom and e-learning projects, assessments and lessons in classrooms across schools, universities and other learning sectors.

In this last session of the workshop, participants will get to explore another LMS - Moodle. The participants will have the opportunity to explore the LMS as a student and as a content creator (teacher).

Program Schedule

Day 1: 26-10-2021

Planning & Designing a Blended Online Course

After completing Day 1 training and activities, participants will be able to:

- Plan & design a blended online course
- Write course description, objectives & modules using LMS online learning platform
- Create course structure using LMS Moodle LMS

Day 2: 27-10-2021

Understanding Moodle functionality & Structuring Moodle Course

After completing Day 2 training and activities, participants will be able to:

- Admin Moodle on Moodle site
- Set course settings
- Admin Moodle introductory sites
- Structuring a Moodle course

Day 3: 28-10-2021

Designing & Creating Assessments

After completing Day 3 training and activities, participants will be able to:

- Design assessments
- Create a Moodle assignment with rubric
- Grade assignments with Moodle
- Export questions to Moodle course question bank
- Create and administer a quiz
- Monitor grades from the gradebook

Day 4: 29-10-2021

Asynchronous & Synchronous Interaction & Communication

After completing Day 4 training and activities, participants will be able to:

- Use different forum types for asynchronous interaction and activities
- Create a live session using the Moodle module
- Create a chat session for synchronous interaction
- Explore messaging functionality for meeting students
- Track learning progress
- Monitor progress

Day 5: 30-10-2021

Testing and managing assessments in Moodle

After completing Day 5 training and activities, participants will be able to:

- Configure quiz & test
- Manage quiz results
- Monitor quiz in Moodle
- Monitor quiz results

Participants please note

- These workshops are completely hand on and will be conducted via Zoom.
- The links of the workshop will be shared via the WhatsApp group and will be the same for all 5 days.
- This workshop is only for the teacher educators teaching in the state of Odisha.
- Participants who have registered for the workshop will receive LMS login details via their registered email address.
- A WhatsApp group will be created for the participants and the link for the group will be shared on the registered number.
- The Moodle LMS that has been created specifically for the purpose will be accessible via the website <https://elearning.bdfoundation.in/>



- Certificates will be issued to all the participants who complete all the three workshops and submit necessary assignments for each workshop session.

CEMCA Representative
Dr. Manas Ranjan Panigrahi

Program Director
Dr. Sudarshan Mishra
rucemca@ravenshawuniversity.ac.in

Workshop Co-ordinator
Dr. Pranita Gopal
pranitan@ravenshawuniversity.ac.in

Program Convenor
Dr. S K Rout

Organizing Committee
Dr. B.C. Das
Dr. Ashok Dansana
Dr. D.B. Tali
Ms. P.B. Binjha
Dr A K Mohanty



CEMCA

Commonwealth Educational Media Centre for Asia

7/8, Sarv Priya Vihar

New Delhi- 110016

<http://www.cemca.org>