

# Models of Blended Education

## मिश्रित शिक्षा के मॉडल

**CIET@NCERT**

**Feb. 13, 2024**

### **Dr. Sandeep Sancheti**

Vice President (Research Relations & Academic Ambassador), Elsevier India

Former Director, NTK Surathkal, NIT Trichy, SPA Delhi, NIT Delhi, NIT Goa

Former President/VC/Provost, Manipal University Jaipur, SRMIST Chennai

Former Executive Council Member, ACU, London

Former President, AIU, New Delhi

**Email: [sandeepsancheti@gmail.com](mailto:sandeepsancheti@gmail.com)**

# NEP 2020 – Academic Aspects

## Student Centricity – Education 4.0 !

- **Multi-disciplinary approach would be followed**
- **Use of Vocational courses / credits for award of general degrees**
- **Academic Bank of Credit (ABC) with potential of MEME & any time, any where, any mode, any language etc. features**
- **Active promotion of mother tongue and other languages**
- **Support for Adult education or Mature Learners**
- **Exam reforms (Open book, On demand, Group exams..)**
- **Acceptability of Online / ODL in a mixed mode of education delivery**
- **Research to be an integral part of Education**

# Blended Learning - Introduction

- Blended Learning is mix and match of almost everything which can serve the purpose of Teaching & Learning in different circumstances
- Teachers don't have to teach what we want to teach but make Students learn what they want to learn
- It is neither based on pure technology nor avoiding it
- Digital is not a "Divide" but a "Provide"
- Move from the culture of "Cover the course" to "Uncover the course" or its potential
- It is certainly not confined to the terms which we generally understand as "online" or "offline"

मिश्रित शिक्षा की अवधारणा, आवश्यकता और संभावनाओं

# What is Blended?

Can be attained in various forms like

**In Class or Out of Class ; Face to Face or Remote**

**Synchronous or Non synchronous**

**Real or Virtual ; Online or E-learning**

**Physical or Distance ; In Situ or Ex Situ**

**Singular or Group**

**Passive or Interactive Learning**

**Project Based Learning or Industrial Training**

**Content led or Research led Teaching-Learning**

**Some of these have overlaps and some of these are more suitable for a given set of teaching-learning requirements**

# Blended T-L Supports

- **Flipped classrooms**
- **Self learning - MooCs**
- **Practice based learning**
- **More design orientation**
- **More research orientation**
- **Varied pace of learning**
- **Picking teachers and timings**
- **Outcome orientation**
- **Better evaluation strategies**
- **More & active feedback**
- **Use of AI tools...**

# Blended T-L Promotes

Critical thinking involves logical thinking and reasoning including skills such as comparison, classification, sequencing, cause & effect, patterning, designing, analogies, deductive and inductive reasoning, forecasting, planning, hypothesizing, and critiquing etc.

Conceptual thinking involves creating something new or original. It involves the skills of flexibility, originality, fluency, elaboration, brainstorming, modification, imagery, attribute listing, metaphorical thinking, forced relationships. The aim of such thinking is to stimulate curiosity and promote divergence.

# Benefits of Blended Learning

- **Effective time utilization**
- **Increased interaction**
- **Variety in experiences - Experiential learning**
- **Ownership of learning**
- **Learning to be virtual citizens**
- **Reliable, Reproducible, Reconfigurable**
- **Scalable, Repeatable**
- **Outcome Orientation – COs, POs, PSO's etc.**
- **Better and On Demand evaluation strategies**
- **More & active Feedback, Use of AI etc.**
- **Support Meta University Concept**

# Is Technology Driving Future ?

**Clearly visible from at least last 200 years !! May be even more....**

**Steam Engine, Motive Power, Industrialization, Flying Machines,  
Nuclear Technologies, Communications, Electronics....**

**Semiconductor, Computers, Internet, Mobile, Solar & Wind Energy,  
Electric Vehicles, Biotechnology, Artificial Intelligence...**

**Technology has always changed the Physical, Social, Political,  
Financial, Relational and Functional maps of the world**

**BUT HOW ABOUT THE EDUCATION ?**

**BL IS THE WAY FORWARD !**



## Blended v/s Traditional T-L

**Question: Will blended learning instructional model replace traditional Face-to-Face Instructional model in higher education?**

**Answer: No, nothing replaces anything or everything. In fact, everything which comes into existence is for some reason Coexistence of new and old will remain**

**Technology - Initially it creates a huge wave and later it settles down i.e. finds a niche in some areas and continues to be used. While in other new solutions emerge**

**An Example : Communication – Radio, Telegraphy, Walky-Talky, AM, FM, Telephone, HAM, Fax, MW-LoS, Pagers, Mobiles, Bluetooth, Wi-Fi, Satellite Terminals, Optical fibers, Free Space Optical, Li-Fi etc.**

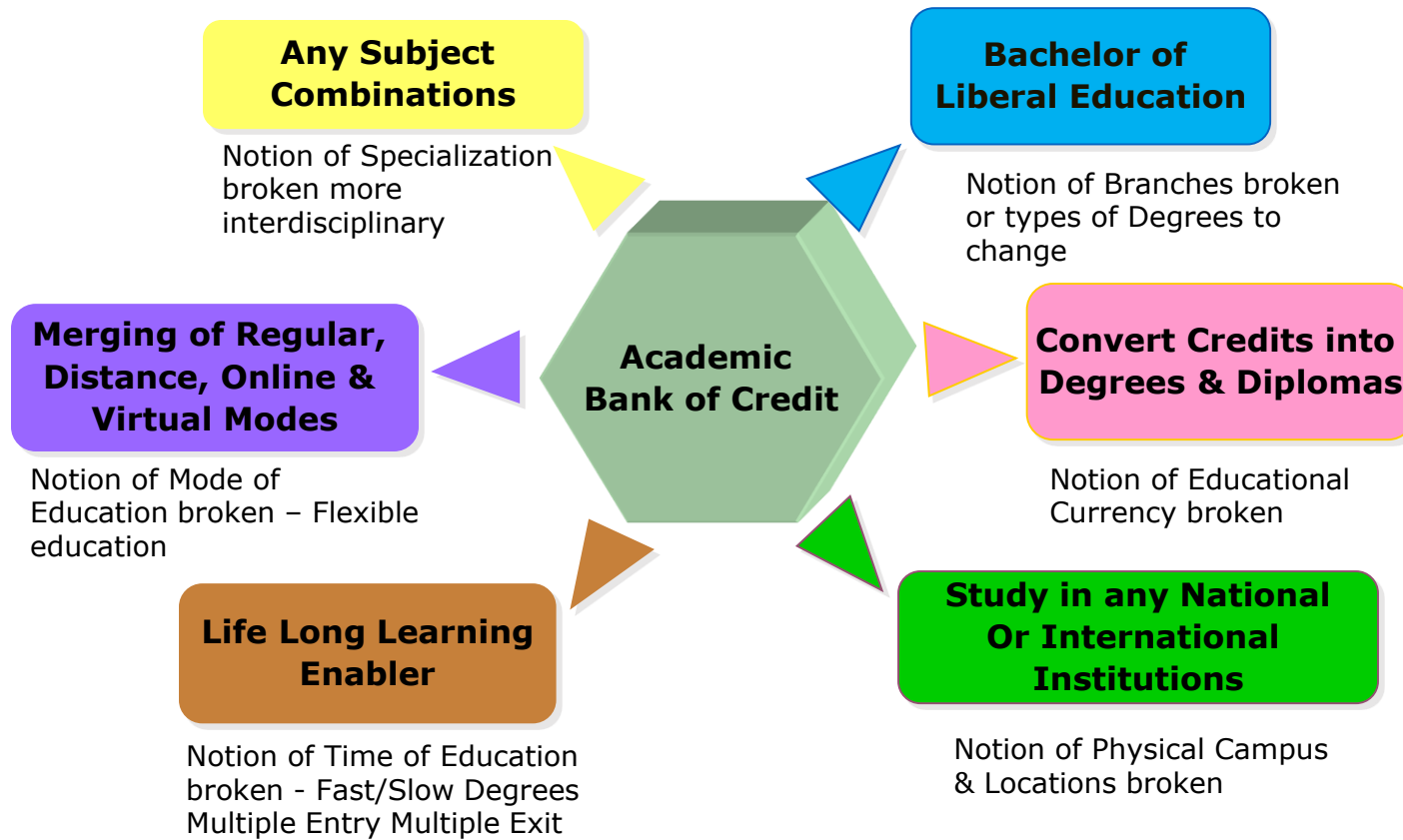
# Names of BL Models

- Blended
- Online
- Virtual
- Distance
- Hybrid
- Digital
- Phygital
- HyFlex
- Flexible.....

# Names of BL Models

- Blended
- Online
- Virtual
- Distance
- Hybrid
- Digital
- Phygital
- HyFlex
- Flexible.....

# ABC – Flexible Education Model\*



# Some Blended T-L Models

- Flipped Class room
- MIT OCW
- MOOCs - Swayam
- DTH and Community Radio Channels
- Distance Education
- Project Based Learning
- Onsite Learning
- Virtual Labs 24x7
- Simulations – Games
- Mobile Apps

# Delivering Blended T-L

- Identify Resources
- Enrich the Resources
- Provide Resources
- Deliver Teaching- Learning
- Provide Additional Support
- Get Continuous Feedback
- Identify the Learning Gaps
- Improve on Shortcomings
- Conduct Test and Assessments
- Assess Learning Outcomes

# Evaluation Processes

- Pen and Paper
- Assignments
- E-Portfolio
- Creative Products
- Quizzes & Viva
- **Open Book**
- **Group Evaluations**
- **Spoken Exams**
- **Use AI Tools**
- **Examinations on Demand**

# IPSIT : Framework for BL\*

IPSIT is a suggestive and not a prescriptive model.

## IPSIT Stands for:

**I**dentify Resources and Activities

**P**rovide resources and announce activities

**S**upport and provide scaffolding

**I**dentify learning gaps and provide feedback (Formative Evaluation)

**T**est(Summative Evaluation)



# BL Model Sample – Programme\*

A Hypothetical structure of one Semester - 80 Credit PG Prog.

(4-6 Courses per Sem.)

Semester II: 4 courses	Total Hours	Offline Hours	Online Hours
<b>Courses: (each course is 4-credit)</b>			
201 Instructional Systems Design	60	39 (65%)	21 (35%)
202 Research Methodology	60	42 (70%)	18 (30%)
203 Educational Psychology	60 (Non-BL)	60 (100%)	---
204 Web Applications#	120 (60)*	72 (60%)	48 (40%)
# Practical course, so double number of hours			

## BL Model Sample – Course\*

Course 201 ISD	Offline Session hours	Online resources and activities (Approx. Access hours)
Module 1	3	12
Module 2	15	0
Module 3	11	4
Module 4	10	5
	(65% of 60) 39	(35% of 60) 21

# BL & General Pedagogy\*

- Pedagogy is the core of the entire BL environment
- BL does not mean throwing learners in the ocean of resources or providing them hundreds of lecture videos
- The success of BL depends on how learning processes help learners to achieve higher order learning outcomes
- BL implementation requires stage-wise plan of execution with innovative teaching-learning activities

# New / Effective Learning Models\*

- **Generate Ideas**
- **Brainstorming**
- **Concept Mapping**
- **Creative Presentation**
- **Animations**
- **Use of AR, VR**
- **Exposure to Real world**
- **Case studies**
- **Co-operative Learning**

# Developing New BL Models

- Models can be generated from combinations of various forms and processes of a given requirement
- Models can be subject or audience or detail or theme specific
- Teachers can have liberty based on the resources available as well as their cost, space, time, scalability and other requirements
- Students learning abilities (practicalities) should be a key driver before finalizing it
- Overall efficacy of the model should be the prime criterion in adapting it

# Conclusion

**Education - A slow moving entity in terms of quality and diversity CBCS, MOOCs, BL, ABC etc. will change it fast and improve it**

**BL can emphasize Vocational and Skills based course integration**

**Blended T-L will improve with adaption of technologies and new pedagogies**

**BL helps with “go as you please” - highly suitable for “Life Long Learning”**

**There can be many Blended models for a given set of requirement**

**Blended can be highly Learner or Student Centric**

**THANK YOU !**

**Questions and Discussions?**

\* Taken from Draft Reports of Committees - Submitted to the UGC, New Delhi – 2020 to 2022