



Integration of ICT in Teaching-Learning and Evaluation

**Central Institute of Educational Technology
National Council of Educational Research & Training**



Education Scenario in India

The infographic features a central circular hub with a white background and a grey border, divided into five colored segments (red, dark blue, teal, orange, and red) that correspond to the five text boxes. Each text box is connected to the hub by a white line and a circular connector matching the segment's color. The background is dark grey with faint icons of a school, a person, and a computer. A yellow L-shaped graphic is in the top-left corner.

15 lakh Schools, 85 lakh Teachers, 26 crore students

Imparting quality education is a concern

Improvement in learning outcome is a challenge

As every child is different, they tend to learn in a unique way

ICT has potential to meet these challenges

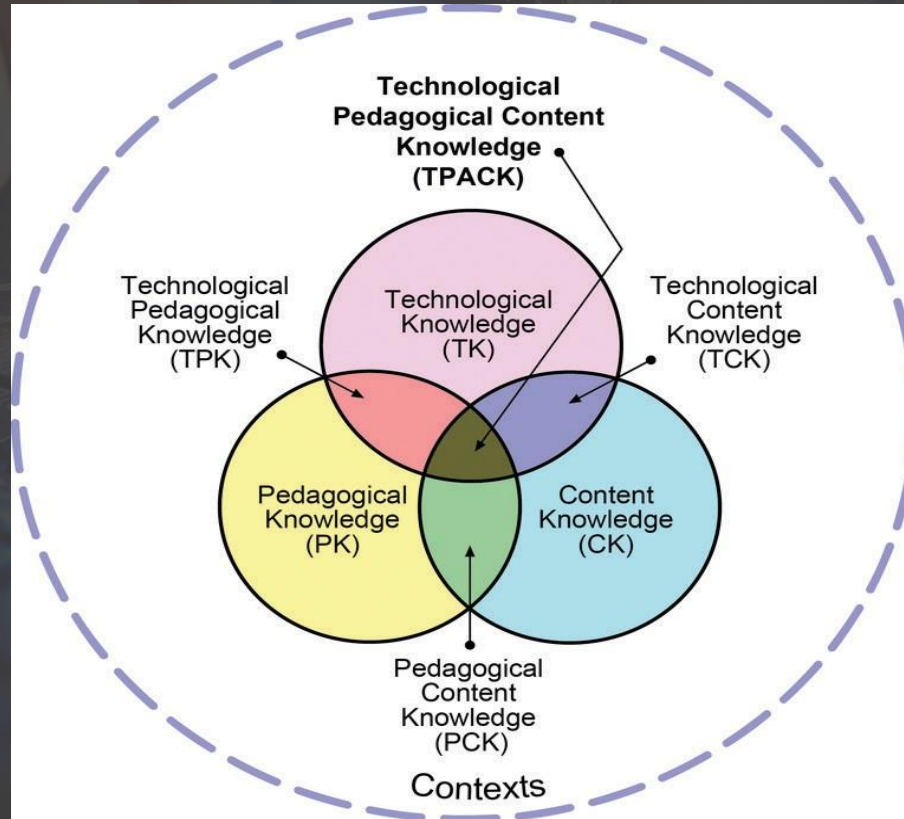
What is ICT?

ICT refers to create, store, retrieve, manipulate, transmit and receive digital information.

ICT Refers to..



How to Integrate ICT in Teaching-learning?



Parameters

1

Nature of Content

2

Context

3

Teaching-learning Method

4

ICT

Example for ICT Integrated Activities

Subject:

Class:

Chapter:

Topic:

Key Terms/concepts:

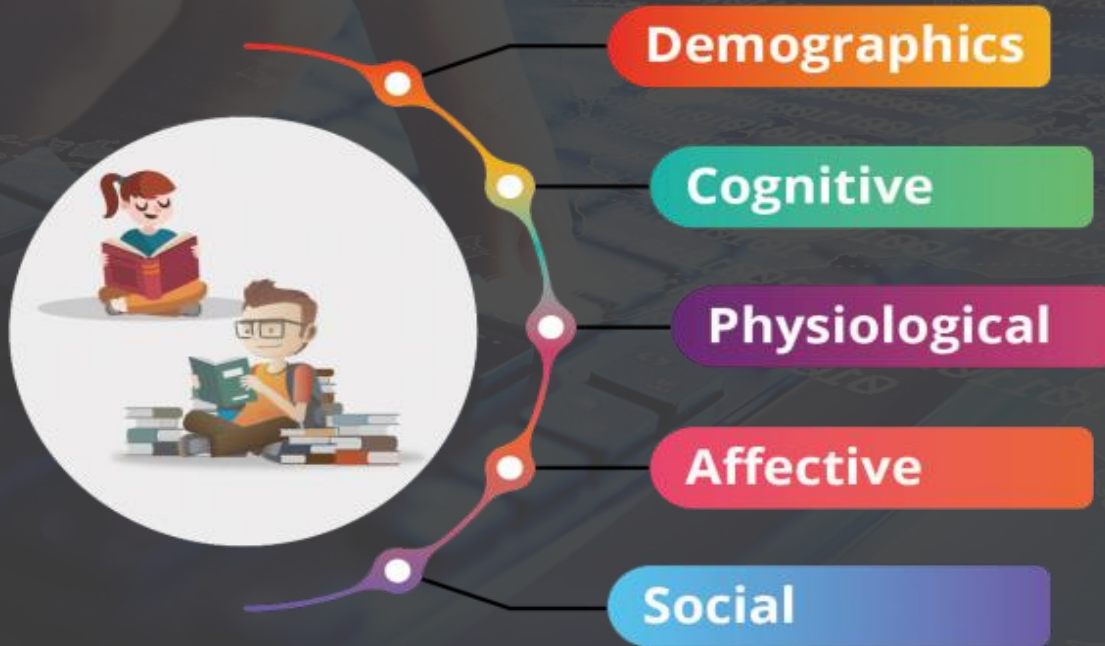
Learning Outcome(s):

Parameter – Nature of Content

Content	Nature of Content	Media that can be used	Rationale for using the media
Fundamental Rights in Indian Constitution (Class VIII)	Factual	Visual — Any kind of presentation like slide presentation, digital poster, digital flashcard, etc.,	Since the content is factual and the students are just required to list the fundamental rights, any visual aid i.e. flashcard, chart, poster etc. is needed
Surface Area of a Solid Cylinder (Class VI)	Conceptual	Demonstration Video	The students would have to visualise the cylinder and its different surfaces. A demonstration video, which shows that the cylinder consists of two circles and a rectangle, would lead to a greater and more effective understanding.
Functioning of Digestive	Procedural	Animation Video/ Augmented reality	Since the content requires the students to understand a process, an animated video

Parameter - Context

Context analysis considers the entire environment of a teaching-learning situation.



Parameter - Context

Demographic — class size, diversity in terms of age, cultural context, socio-economic status, gender, marginality, geographical location and availability/access to technology.

Cognitive and prior knowledge — Educational level [primary, upper primary], Prerequisite knowledge and experience, learning style, level of digital literacy, cognitive ability.

Affective/Social — Attitude towards self, motivational level, interpersonal relationships and area of interest.

Physiological — Physical and emotional health and special needs of her students [assistive technologies to be adopted].

Parameter - Methods of teaching-learning

- ICT tools/media become effective only when it is used appropriately with the content and the method of teaching- learning.
- For example, if a teacher wants to teach the concept of metals and non-metals, an activity may be conducted such as-
 - Display objects made out of metals and non-metals
 - Compare and contrast its properties to derive at the essential and non-essential attributes of metals.

ICT – interactive using H5P

Example for ICT Integrated Activities

Subject:

Class:

Chapter:

Topic:

Key Terms/concepts:

Learning Outcome(s):

Teaching-learning strategy/method:

Parameter - ICT

S 1 .	Parameter	Attributes
1	Target audience	Age group, previous knowledge, social cultural background, learning styles, language, demographic information, emotional development, ability level, social development
2	Content	Accuracy, relevance, content coverage, up-to-date, aligned with curriculum, etc.
3	Pedagogical Consideration	Objectives, method of delivering content, media selection, presentation format, clear communication, free from bias, contextualization to local needs, multiple modes of assessment, learner engagement, etc.
4	Presentation	Aesthetics, motivation, innovative/ creative, font, effects, coherence in media elements, chunking and organization, suitability to learner with special needs, addressing gender equality, multiculturalism, etc.
5	Technical	Free from technical glitches, audio visual quality, smooth interactivity

Parameter - ICT









Criteria For Media Selection and Integration

- Availability
- Accessibility
- Reliability and Validity
- Economy/Costing

ICT integrated activities

Group	Content	Teaching-learning strategy/method suggested	Suitable ICT
Group 1	Content 1	Method/Strategy 1	ICT 1
	Content 2	Method/Strategy 2	ICT 2
	Content 3	Method/Strategy 3	ICT 3
Group 2	Content 1	Method/Strategy 1	ICT 1
	Content 2	Method/Strategy 2	ICT 2
	Content 3	Method/Strategy 3	ICT 3
Group 3	Content 1	Method/Strategy 1	ICT 1
	Content 2	Method/Strategy 2	ICT 2
	Content 3	Method/Strategy 3	ICT 3

Free and Open Source Software (FOSS)

Software		Category
GComprise Educational Suit		Subject specific — Primary level all subjects
Audacity		Generic
OpenShot Video Editor		Generic
Freeplane		Generic
GIMP		Generic
Scratch		Generic
Geogebra		Subject Specific- Mathematics
Kalzium		Subject Specific- Science

The background is a dark, semi-transparent image. It features a close-up of a hand typing on a computer keyboard. Overlaid on this is a faint world map with several circular markers and lines connecting them, suggesting a global or digital theme.

Kahoot Activity

Use URL - <https://kahoot.it>

Kahoot!

Game PIN

Enter

Create your own kahoot for FREE at kahoot.com

[Terms](#) | [Privacy](#)

Join at **kahoot.it**
with Game PIN:

115924



Full Screen



0
Players

Kahoot!

Start



Waiting for players...

ICT doesn't refers to

Skip



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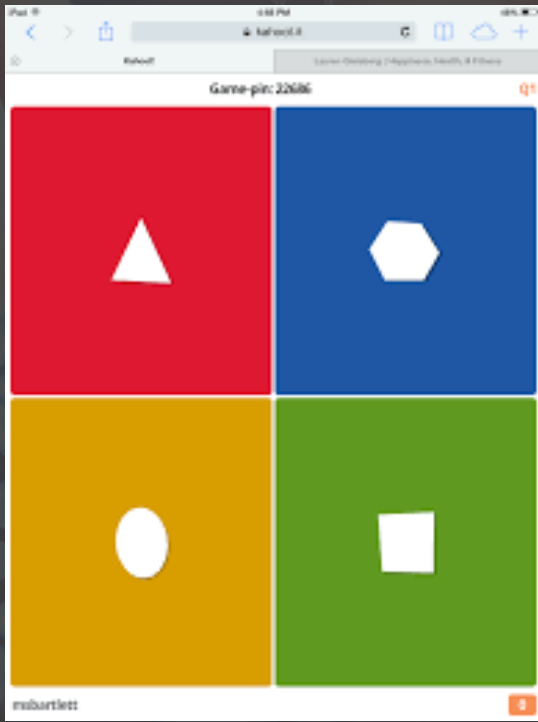
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Answers

▲ Create

◆ Retrieve

● Imagine

■ Receive



Thanks for your attention

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