Presentation on Assessments

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What we shall be covering today

Why do we need assessments, and what are the different types of assessments?

Why do we need Large Scale Assessments when we have FA and SA?

Importance of Questions to achieve 21st century skills

Importance of Questions

Some finding
Need of Assessments

- Change is inevitable
- Most children have access to basic education
- Quality, Equity, SDG
- Quality Education builds human capital, which translates into economic growth. Measuring quality matters - RTE.
- Knowledge era,
Assessments...

- 21st century skills.
- To take learning seriously, start by measuring it.
- The learning crisis is often hidden—but measurement makes it visible
- Identifying gaps helps set priorities for action
- Health position of the system and align the stakeholders
- HM is academician + administrator too ....
- Security of nation lies in your hands ...
The United Nations Sustainable Development Goals include the goal to achieve Quality Education by 2030.
పిల్లల కేంద్రంలో అభివృద్ధి సాధనాలు

పిల్లల కేంద్రంలో అభివృద్ధి సాధనాలు

వారికి, అభివృద్ధికోసం రాష్ట్ర సేవల చేసిన అందించడాన్ని ప్రచుర నియంత్రణ విధానం వహిస్తుంది. మాత్రమే బయట్లు ఉన్న జిల్లాలు ఉన్నత బిందుస్థలాల వ్యాపారం కలిగే విద్య నియామకాలు ఉన్న ప్రాంతాల్లో ఒకప్పటి క్షేత్రంలో ప్రాంతం చేసేదిని ప్రమాణం చేసి విద్య సాధనాలు అభివృద్ధి చేసే ఉన్నత బిందుస్థలాలను నిషేధిస్తారు. ఈ ప్రాంతాలలో నియామకాలు విద్య సాధనాలు అభివృద్ధి చేసే ఉన్నత బిందుస్థలాలను నిషేధిస్తారు.

<table>
<thead>
<tr>
<th>కూటాణ్య</th>
<th>2019 రిచ్చు</th>
<th>2020 రిచ్చు</th>
<th>2030 రిచ్చు</th>
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<tbody>
<tr>
<td>1-10 వర్గాలపై వనరు విద్య</td>
<td>63.50</td>
<td>75.83</td>
<td>100</td>
</tr>
<tr>
<td>11-18 వర్గాలపై వనరు విద్య</td>
<td>65</td>
<td>54.69</td>
<td>67.89</td>
</tr>
<tr>
<td>6-18 వర్గాలపై వనరు విద్య</td>
<td>51.25</td>
<td>44.58</td>
<td>57.17</td>
</tr>
<tr>
<td>వనరు విద్య క్రియలు</td>
<td>0.91</td>
<td>2.97</td>
<td>0.28</td>
</tr>
<tr>
<td>వనరు విద్య క్రియలు</td>
<td>15.71</td>
<td>17.06</td>
<td>10</td>
</tr>
<tr>
<td>వనరు విద్య క్రియలు</td>
<td>98.10</td>
<td>81.15</td>
<td>100</td>
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<tr>
<td>వనరు విద్య క్రియలు</td>
<td>85.99</td>
<td>70.43</td>
<td>100</td>
</tr>
</tbody>
</table>

ఈ పత్రంలో వనరు విద్య క్రియలు 15.71% ఉన్నాయి వనరు విద్య క్రియలు. బయట్లు ఉన్న జిల్లాలు ఫికిస్తూ ఉన్నతం దిగుమతి సాధనం ఉన్న జిల్లాలలో సాధనం ఉన్నతం దిగుమతి సాధనం ఉన్న జిల్లాలలో ఉన్నతం దిగుమతి సాధనం ఉన్న జిల్లాలలో.
4 QUALITY EDUCATION

75.83% of eligible children are enrolled into school at elementary & secondary level.

Class 5: 54.69%  
Class 8: 44.58%

81.15% of school teachers in India are professionally qualified.

17.06% of children at secondary level of education drop out of school.

Roughly 7 in 10 schools in India have at least 1 teacher for every 30 students.

2.97% of children at primary level are out of school.
Quality education implies that relevant learning outcomes are achieved by students. They are linked to 21\textsuperscript{st} century skills that students require.
How do we know if she is learning?
I thought you said the chemical composition for water was $\text{H}_2\text{O}$.
Why do we need large scale assessments when we have FA and SA?

- **Formative Assessments** – while formation.. Assessment for learning. Vary school to school..

- **Summative Assessments**: completion of course. Assessment of learning. Constructive response and evaluation is different form one to one … cont know actual position … where we are strong and where we need to focus …

- **Large Scale Assessments**: NAS..SLAS..ASER..PISA..PERLS TIMMS..Etc.. common to all …

- Administered equally … IRT .. Machine scoring. reliable – validity and fair…. Scandalized test .. Comparable … health of the system best practices … not to label one student or school or teacher… it Assessments makes learning visible .. To all stake holders to improve learning

- Every assessment has their own purpose … x th class board exams...

- **Assessments makes learning visible ..**
Types of Assessments

• Class room Assessments
  ▪ Diagnostic assessment or Pre assessment
  ▪ Formative Assessment
  ▪ Summative Assessment

• Large scale Assessments
  – International Assessments (TIMSS, PISA, PIRLS)
  – National level (NAS)
  – State level (SLAS)
Align Factors

- Learning Objectives
- Instructional Activities
- Assessments
Prioritizing Learning and Not Just Schooling

Assess learning

Act on evidence

Align actors

to make it a serious goal
to make schools work for all learners
to make the whole system work for learning
## Diagnostic assessment or Pre assessment

<table>
<thead>
<tr>
<th>when</th>
<th>Before instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>why</td>
<td>1. To find out what students know before instruction planning 2. To make children feel that you value their learning</td>
</tr>
<tr>
<td>how</td>
<td>1. Brainstorming 2. Pre Test 3. Interview</td>
</tr>
<tr>
<td>Who</td>
<td>1. Teacher</td>
</tr>
<tr>
<td>what</td>
<td>Helps to plan the instruction based on the needs of the students</td>
</tr>
</tbody>
</table>
# Formative assessment
(Assessment for Learning)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>when</strong></td>
<td>During instruction</td>
</tr>
</tbody>
</table>
| **why** | 1. An ongoing assessment to check students understanding of the concepts  
2. Helps teacher to transform the instruction  
3. To close the gap |
| **how** | 1. Check list  
2. Brief summary  
3. Traffic lights  
4. Thumb signals  
5. Exit Card |
| **Who** | 1. Teacher and Student |
| **what** | 1. Reflective tool to adjust instruction  
2. Feedback and personalized learning to excel  
3. Should move on  
4. Should I re-teach  
5. Low Stage |
3-2-1 Cards

Name:

• **3 things I learned** today about.....

• **2 questions** I still have/ am confused about.....

• **1 thing I would like to learn more** about.....
| **when**                          | 1. After instruction  
|                                  | 2. End of the unit or grade |
| **why**                          | To assess what students learn at the end of the unit  
|                                  | To Communicate students learning  
|                                  | To make decisions about Curriculum |
| **how**                          | 1. Written exam  
|                                  | 2. Project |
| **Who**                          | 1. Teacher, Student and Third Parties |
| **what**                          | 1. High strikes  
|                                  | 2. Grade should be based on mastery of the content  
|                                  | 3. Placement |
“When the cook tastes the soup, that's formative; when the guests taste the soup, that's summative.” - Robert Stakes
The garden analogy

If we think of our children as plants...

**Summative assessment** of the plants is the process of measuring them. It is interesting and important to compare and analyse measurements but, in itself, this does not affect the growth of the plants.

**Formative assessment**, on the other hand, is the equivalent of feeding and watering the plants appropriate to their needs – directly affecting their growth.
Large Scale Assessments

- PIAAC
- TIMMS
- NAS
- PISA
- PALIS
- PIRLS

[Map showing the distribution of Large Scale Assessments across the world]
Benefits of Large Scale Assessments

- Ascertaining health of the whole system
- Identifying gaps in learning
- Influencing policies related to education
- Enabling targeted interventions to improve learning levels
Healthy Education System

- Quality
- Equity
- Accountability
Now we are in 5G ....
Information on finger tips - end to rote learning
Students are not learning with understanding and find it difficult to answer questions that check for their conceptual understanding. This is widespread and seen across all the subjects and classes. The performance in Private English Medium is similar.

**Class 9 - Maths**

**What is the lowest common multiple of 5, 10 and 15?**

| A. 5 |
| B. 10 |
| C. 25 |
| D. 30 ✓ |

**Class 9 - Maths**

A flower shop sells red roses in bunches of 9, white roses in bunches of 12 and yellow roses in bunches of 18. Anita wants to buy equal number of all three types of roses. What should be the minimum number of each type of roses that she can buy?

| A. 72 |
| B. 39 |
| C. 36 ✓ |
| D. 3 |

**Sample Question 2.13:** 57.0% of Government TM and 34.9% of Private EM Schools could answer procedural question that require students to calculate lowest common multiple.

**Sample Question 2.14:** 30.9% of Government TM and 25.0% of Private EM School students could solve conceptual question that require students to understand the problem and apply LCM to solve the problem.
Passage: Make Friends with Sarju and Sajni.
(This is an authentic poster published by the Wildlife Trust of India about conserving the habitat of Sarus Cranes)

Who issued this poster?
A. The government of Uttar Pradesh
B. Wildlife Trust of India
C. The Sarus Cranes Association
D. The farmers of Uttar Pradesh

What is the main purpose of the poster?
A. to encourage people to visit Uttar Pradesh
B. to request people to stop cultivating sugarcane
C. to educate people about protecting Sarus cranes ✓
D. to inform people that the eggs of Sarus cranes are stolen

Sample Question 2.15: 60.7% of Government TM and 63.1% of Private EM Schools could answer procedural question that requires students to retrieve an explicitly stated fact.

Sample Question 2.16: 50.9% of Government TM and 46.6% of Private EM Schools could answer conceptual question which requires students to comprehend and come to conclusions about the purpose from explicit and implicit information provided.
The place value of 4 in 294301 is ________.

A. 4  
B. 40  
C. 400  
D. 4000  

Find the answer.

2 tens + 1 hundred + 8 ones = __________

A. 128  
B. 218  
C. 812  
D. 821

Sample Question 2.7: This is a straightforward procedural question. 82.7% of Government TM and 91.3% of Private EM School students answered this procedural question which required students to write the place value of a digit in a given number.

Sample Question 2.8: This is a procedural question that is considered atypical and testing the concept of place value. 67.2% of Government TM and 68.9% of Private EM School students show understanding of the concept and can identify a 3-digit number when written as tens, hundreds and ones.
A. Questions that check for learning that is straightforward or text-bookish (Cognitive Domain: Procedural)

<table>
<thead>
<tr>
<th>Class 4</th>
<th>Maths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Find the answer.</td>
<td></td>
</tr>
<tr>
<td>(8 \times 4 = ) ______</td>
<td></td>
</tr>
<tr>
<td>A. 2</td>
<td></td>
</tr>
<tr>
<td>B. 4</td>
<td></td>
</tr>
<tr>
<td>C. 12</td>
<td></td>
</tr>
<tr>
<td>D. 32 ✔</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class 9</th>
<th>Maths</th>
</tr>
</thead>
<tbody>
<tr>
<td>The area of a square is 100 cm(^2). What is the perimeter of this square?</td>
<td></td>
</tr>
<tr>
<td>A. 10 cm</td>
<td></td>
</tr>
<tr>
<td>B. 40 cm ✔</td>
<td></td>
</tr>
<tr>
<td>C. 200 cm</td>
<td></td>
</tr>
<tr>
<td>D. 400 cm</td>
<td></td>
</tr>
</tbody>
</table>

Sample Question 1.1: This question checks if students can multiply single digit numbers using the multiplication procedure taught in the textbooks and in classrooms.

Sample Question 1.2: This question checks if students can calculate the perimeter of a square based on area of a square.
MAKE FRIENDS WITH SARJU AND SAJNI!

WHY ARE WE IN TROUBLE?
- Our wetlands are drying up!
- Our eggs are being stolen!

- We are being poisoned with Sulfa and Furadan bait!
- We are losing our habitat to sugarcane cultivation!

- And we get electrocuted in power transmission lines!

WHY SHOULD YOU HELP US?
- Simple because we help you!
- We eat the grasshoppers and pests that damage your crops.
- We keep wetlands functioning, which are a source of ground water, fodder, food and medicinal plants and prevent floods.
- We attract tourists to your region, boosting the economy...
- And... we’re the best dancers and can teach you some amazing dance moves for free!

Wildlife Trust of India

Where do Sarju and Sajni live?
A. deserts
B. forests
C. wetlands ✓
D. mountains

What is the main purpose of the poster?
A. to encourage people to visit Uttar Pradesh
B. to request people to stop cultivating sugarcane
C. to educate people about protecting Sarus cranes ✓
D. to inform people that the eggs of Sarus cranes are stolen

Sample Question 1.6 This question uses an authentic poster published by Wildlife Trust of India. This question tests the ability of the students to retrieve an explicitly stated fact.

Sample Question 1.7 This question uses an authentic poster published by Wildlife Trust of India. The question tests the ability of the students to understand and internalise the information given in the poster.
Q.36 మొత్తానికి కొనసాగిన సమయానికి వాడుక రిట్రఇంట్ మార్గం.

<table>
<thead>
<tr>
<th>మార్గ - 1</th>
<th>మార్గ - 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>భూరి</td>
<td>మౌలిక</td>
</tr>
<tr>
<td>మలాండు</td>
<td>నాటకం</td>
</tr>
<tr>
<td>బెంగాలు</td>
<td>సంస్కృతం</td>
</tr>
</tbody>
</table>

హోదా మార్గం సమాచారానికి మైనం సిద్ధాంతాలు.

1. జాతీ అదృశ్యం
2. పాతాలానికి సంబంధం
3. ఎంపిక వర్తమాన
4. ఏమించేవారు నిలిచ అడుగు
Q. 37

రెండో-1: నిష్పత్తి శరీరంలో మధ్యగారి ప్రాతిష్టికాన్ని సమీక్షించి ప్రత్యేక సంస్థాపన నిర్మాణ కేంద్రం నిలిచి నిర్మాణ 
రెండో-2: నిష్పత్తి శరీరంలో యిందికి సాంప్రదాయికు ఇతరాని ఇతరాని మాత్రం లభించలేదు。

మరింత ఉపయోగించాలి శరీరం వివిధ?

1. చాలాంటి రాగణుగా ఇది మాత్రం సంస్థాపన లేదు。
2. ప్రత్యేక రాగణు గురి ప్రత్యేక పరిశీలన చేయండి。
3. చాలాంటి రాగణు అవతరి వివిధ విధానాలు లేదు。
4. ప్రత్యేక శరీరం (ఫిఎంప్) క్రియలు లేదు.
Q.38 సరిపోవచ్చు, నిపుణులు చేయండి.

1. సంపూర్ణంగా విద్యా శాస్త్రమని చేసినప్పటి విశ్లేషణ చాలా ప్రమాణం చేయటానికి సమరాధించినప్పటి.
2. సంపూర్ణంగా సంపాదించడానికి చేసినప్పటి విశ్లేషణ చాలా ప్రమాణం చేయటానికి సంపాదించినప్పటి.
3. సంపూర్ణంగా అందించడానికి చేసినప్పటి విశ్లేషణ చాలా ప్రమాణం చేయటానికి సంపాదించినప్పటి.
4. సంపూర్ణంగా విద్యా శాస్త్రమని చేసినప్పటి విశ్లేషణ చాలా ప్రమాణం చేయటానికి విద్యా శాస్త్రమని సంపాదించినప్పటి.
Q.39 మీరు ఎందుకు దానిచిత్రణాన్ని ఉపయోగించాలి (వీటిని గుర్రపు) అని విశేషాలు (వీటిని ప్రాంతం) రెండు రెండు వీటి విశేషాలను వైపునని చిత్రించండి?

1. 

2. 

3. 

4.
Q.40 మాత్రమే రిలీసు విధానం సాధారణంగా ఉండాలి. P, Q అనే ప్రశ్నలం వంటి విషయాలు ఉంచాలి.

వి సంప్రదాయానికి చెందిన లోపం ఎవరు బసిని?

1. వా
2. రావా
3. గోడ
4. అనంతం
Q.41  ఈ వాటిలో ముఖ్యమైన నిమిషానికి ఎవరించడాలి?

1. రాత్రికి సమ్మనం

2. సాగరం సమ్మనం

3. పర్యాటకం సమ్మనం

4. స్వరూపాధి సమ్మనం సంస్కృతి కవితలు సమ్మనం
స్టేడ్ ఫెచర్ ఈ ప్రాంతంలో ఏంటి యొక్క మాటానా అక్కడ ఉంది?
1. కంప్యూటర్
2. అంటాని
3. ఆల్
4. అడుగు సంఖ్య
Q.57 మామల్లో చిత్రాంకం ఉంది.

<table>
<thead>
<tr>
<th>భాగానం</th>
<th>మామల్లో మంది (హిఫ్ఫ్ఫ్)</th>
</tr>
</thead>
<tbody>
<tr>
<td>కార్పర్</td>
<td>604.3</td>
</tr>
<tr>
<td>ఆటఖా</td>
<td>312.1</td>
</tr>
<tr>
<td>మొదటి</td>
<td>419.7</td>
</tr>
<tr>
<td>తూర్పు</td>
<td>100.8</td>
</tr>
<tr>
<td>మంగళూరు మండలం</td>
<td>68.6</td>
</tr>
</tbody>
</table>

మామల్లో మంది ప్రతి భాగానం యొక్క తండ్రి సమాచారం ఉంది.
Table 4: % Children by grade and reading level  
All children 2018

<table>
<thead>
<tr>
<th>Std</th>
<th>Not even letter</th>
<th>Letter</th>
<th>Word</th>
<th>Std I level text</th>
<th>Std II level text</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>30.5</td>
<td>36.0</td>
<td>28.0</td>
<td>4.3</td>
<td>1.2</td>
<td>100</td>
</tr>
<tr>
<td>II</td>
<td>11.9</td>
<td>24.8</td>
<td>42.9</td>
<td>11.3</td>
<td>9.2</td>
<td>100</td>
</tr>
<tr>
<td>III</td>
<td>6.1</td>
<td>13.8</td>
<td>36.6</td>
<td>21.1</td>
<td>22.4</td>
<td>100</td>
</tr>
<tr>
<td>IV</td>
<td>2.7</td>
<td>6.0</td>
<td>24.8</td>
<td>22.7</td>
<td>43.8</td>
<td>100</td>
</tr>
<tr>
<td>V</td>
<td>1.6</td>
<td>3.9</td>
<td>13.8</td>
<td>21.0</td>
<td>59.7</td>
<td>100</td>
</tr>
<tr>
<td>VI</td>
<td>1.4</td>
<td>3.1</td>
<td>11.7</td>
<td>19.8</td>
<td>63.9</td>
<td>100</td>
</tr>
<tr>
<td>VII</td>
<td>2.0</td>
<td>5.2</td>
<td>10.4</td>
<td>12.2</td>
<td>70.3</td>
<td>100</td>
</tr>
<tr>
<td>VIII</td>
<td>1.4</td>
<td>2.5</td>
<td>7.6</td>
<td>10.3</td>
<td>78.2</td>
<td>100</td>
</tr>
</tbody>
</table>

The reading tool is a progressive tool. Each row shows the variation in children’s reading levels within a given grade. For example, among children in Std III, 6.1% cannot even read letters, 13.8% can read letters but not words or higher, 36.6% can read words but not Std I level text or higher, 21.1% can read Std I level text but not Std II level text, and 22.4% can read Std II level text. For each grade, the total of these exclusive categories is 100%.
Arithmetic

ASER learning assessments are conducted in the household. Children in the age group 5-16 are assessed. Assessments are conducted in 19 languages across the country. The type of school in which children are enrolled (government or private) is also recorded.

### Table 7: % Children by grade and arithmetic level
All children 2018

<table>
<thead>
<tr>
<th>Std</th>
<th>Not even 1-9</th>
<th>Recognize numbers</th>
<th>Subtract</th>
<th>Divide</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1-9</td>
<td>10-99</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>23.8</td>
<td>33.3</td>
<td>39.3</td>
<td>3.2</td>
<td>100</td>
</tr>
<tr>
<td>II</td>
<td>8.4</td>
<td>19.0</td>
<td>57.4</td>
<td>12.9</td>
<td>100</td>
</tr>
<tr>
<td>III</td>
<td>3.9</td>
<td>7.0</td>
<td>50.8</td>
<td>32.8</td>
<td>100</td>
</tr>
<tr>
<td>IV</td>
<td>1.1</td>
<td>3.6</td>
<td>35.5</td>
<td>40.9</td>
<td>100</td>
</tr>
<tr>
<td>V</td>
<td>0.4</td>
<td>1.8</td>
<td>24.8</td>
<td>33.8</td>
<td>100</td>
</tr>
<tr>
<td>VI</td>
<td>0.6</td>
<td>1.0</td>
<td>24.3</td>
<td>32.6</td>
<td>100</td>
</tr>
<tr>
<td>VII</td>
<td>0.4</td>
<td>1.0</td>
<td>19.8</td>
<td>35.6</td>
<td>100</td>
</tr>
<tr>
<td>VIII</td>
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<td>0.2</td>
<td>19.8</td>
<td>31.8</td>
<td>47.6</td>
</tr>
</tbody>
</table>

The arithmetic tool is a progressive tool. Each row shows the variation in children’s arithmetic levels within a given grade. For example, among children in Std III, 3.9% cannot even recognize numbers 1-9, 7% can recognize numbers up to 9 but cannot recognize numbers up to 99 or higher, 50.8% can recognize numbers up to 99 but cannot do subtraction, 32.8% can do subtraction but cannot do division, and 5.5% can do division. For each grade, the total of these exclusive categories is 100%. 
Align Factors

- Learning Objectives
- Instructional Activities
- Assessments
Hear and I forget. I see and I remember. I do and I understand.
5 Es Model

- ENGAGE
- EXPLORE
- ELABORATE
- EXPLAIN
- EVALUATE
Recap – LEO – LOIN

• Unmotivated teacher = un skilled
• Make learning as a serious goal
• Quality question matters
• Make students as Life long learners and self learners
• Act on evidences
• Quality question matters, no rote ... core concepts – critical – analytical – application
• Read to lead ...use ICT..
Thank you
Education is a shared responsibility...