ICT for Education:
Experience from Bangladesh

Anir Chowdhury
Policy Advisor
Access to Information (a2i)
Prime Minister's Office, Bangladesh

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Bangladesh Context: Demography

- Income: $1,300+ GDP per capita, 24%+ under $2/day
- Literacy: 65% Bangla (English 5%)
- Electricity grid: 75% area, very unreliable!
- Mobile phone penetration: 60% individual, 90% household, 99% geographic area (5-fold increase in 6 years)
- Internet penetration: 32% (65-fold increase in 6 years)

Bangladesh Context: Primary and Secondary Education

- Students: ~30 million
- Teachers: 927,880 (Female 39%)
- Schools: 143,356
- Training Institutions: 210 (81 Public, 129 Private)
- Teacher Trainers: 2,602 (Teacher: Trainer ratio 357:1)
- Teachers Received Training on ICT-Pedagogy integration: 8%

ICT in Education 'Myths'

1. ~~ICT in Education = ICT Education~~
2. ~~ICT Literacy must be TAUGHT to students~~
3. ~~First step is setting up computer labs~~
4. ~~Focus on technology, not teachers~~

Wake-up Call in 2010!

1. Govt. + HW/SW Vendor Approach in 2000s
2. Traditional Teacher Training + ICT Labs

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Criticism by 23 Teachers from 7 Schools in 2010

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1. Birth of ‘Multimedia Classrooms’ +
2. Co-creation and Collaboration by Teachers

Using Old Research Findings:
"Sustainable" Learning

Multimedia Classroom in 27,000+ Schools in 4 years

Reduces ‘Digital Divide’
More importantly, reduces ‘Education Divide’

eBOOK

শিখবো, যেকোনো স্থানে–যেকোনো সময়ে

305 e-books covering primary, secondary, madrassa, vocational

100+ Digital Talking Books

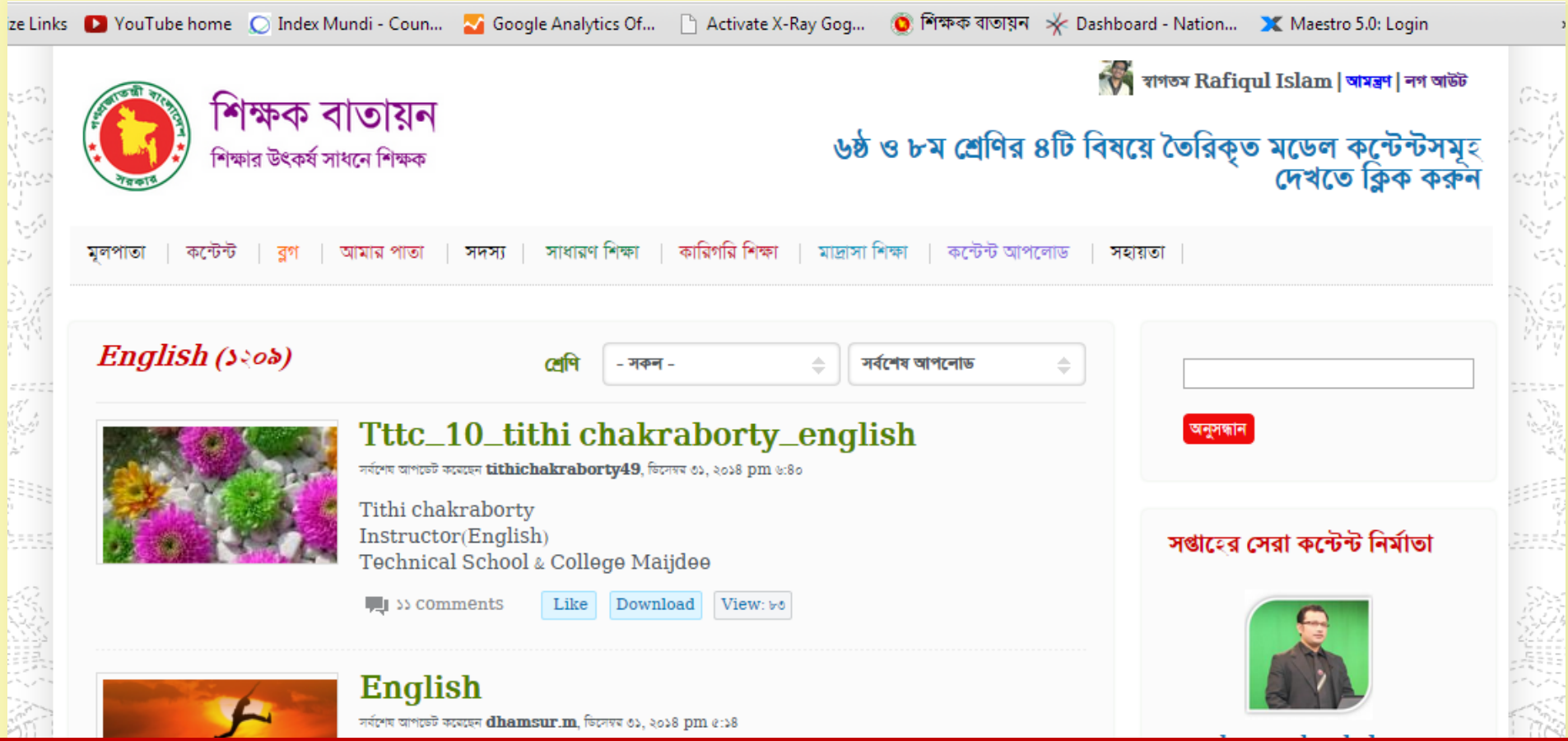
Teachers' Portal: www.teachers.gov.bd

85,000+ teachers in 4 years

Adoption curve accelerating

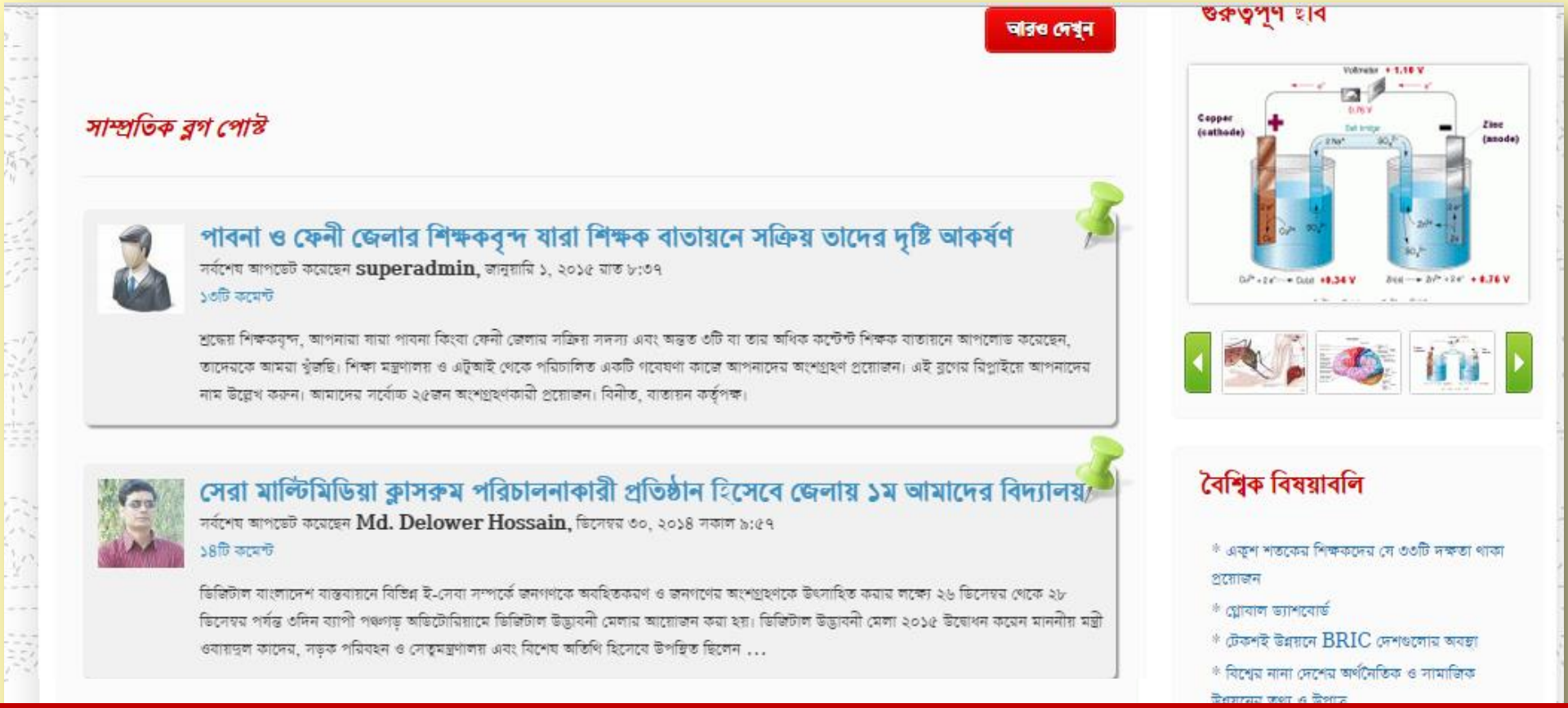
Target: 350,000 teachers by 2018

Content Categorized by Curriculum



Pictures, video, animation, audio, PPT, messages all created, found, ‘stolen’ and uploaded by teachers and teacher trainers

Professional Blogging by Teachers



Troubleshooting, problem solving and PEER LEARNING in an unprecedented way

Best and Active Teachers Section

kawsar hawlader

সম্পূর্ণ নাম বাংলায় : মো: কাওছার আলী হাওলাদার
সম্পূর্ণ নাম ইংরেজিতে : Md. Kawsar Ali Hawlader
পিতার নাম : আ: হান্নান হাওলাদার
জন্মতারিখ: রবিবার, আগস্ট 7, 1983
জন্মস্থান: লালমনির হাট,লালমনির হাট সদর
বর্তমান ঠিকানা: Jamalpur Tower,progoti shoroni,Baridhara,Dhaka.
জেন্ডার : পুরুষ
জাতীয়তা: বাংলাদেশী
ধর্ম: Islam
পেশা: Teacher
পদবী : অন্যান্য
প্রতিষ্ঠানের নাম: ক্যামব্রিয়ান কলেজ,ঢাকা

আপলোডকৃত কন্টেন্ট

প্রেজেন্টেশন(৪৬)

cell-1_biology_XI_chapter-1_kawsar_cambrian
সর্বশেষ আপডেট করেছেন **kawsar hawlader**(জানুয়ারি ২, ২০১৫ am ২:০৩)

অনুসন্ধান

সপ্তাহের সেরা কন্টেন্ট নির্মাতা

kawsar hawlader
অভিনন্দন! আপনি মানসম্মত কন্টেন্ট তৈরি করেছেন। সেরা মোটিং পেয়েছেন। নিয়মিতভাবে আপনি পোর্টালে সক্রিয়। ধন্যবাদ।

আর্কাইভ

সক্রিয় শিক্ষকবৃন্দ

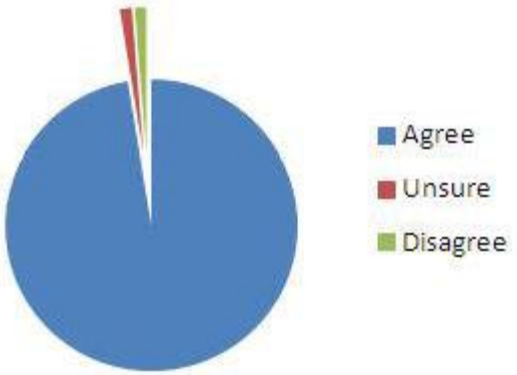
Recognition for ‘going-the-extra-mile’ and excellence is important!

Teachers Summit

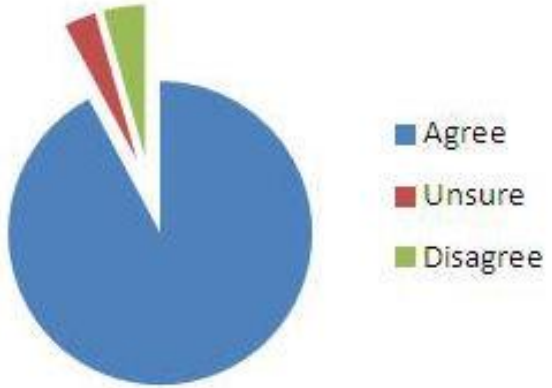
Human connection, more than technology, drives collaboration!

Public reward is highly motivational!

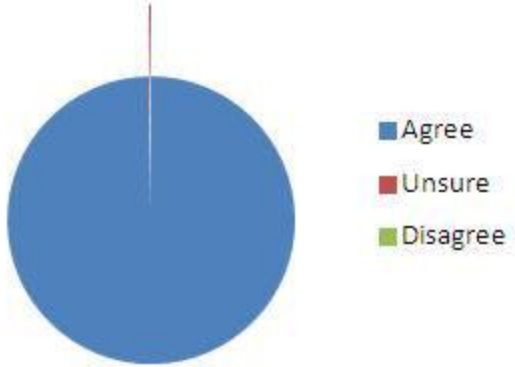
Teaching-Learning in Classroom Improved



Responses to statement:
"I like multimedia lessons because it is more interesting to see videos and photos than to have a normal lesson."



Response to statement:
"We should have multimedia lessons for all subjects."



Responses to statement:
"I like multimedia lessons because I can understand things easier when I see the pictures."

Enjoyable & effective learning

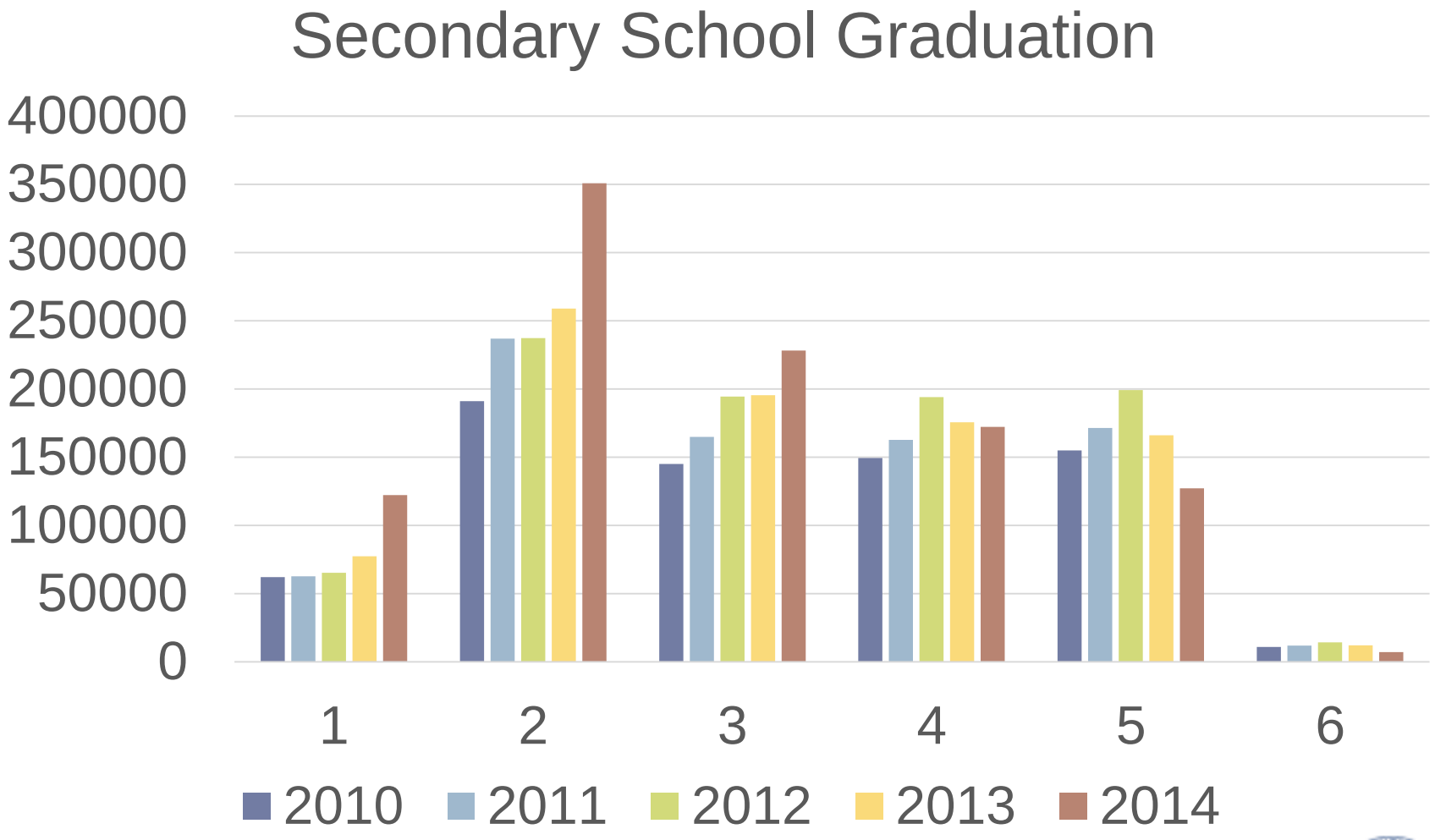
Easy to understand

Sustainable learning

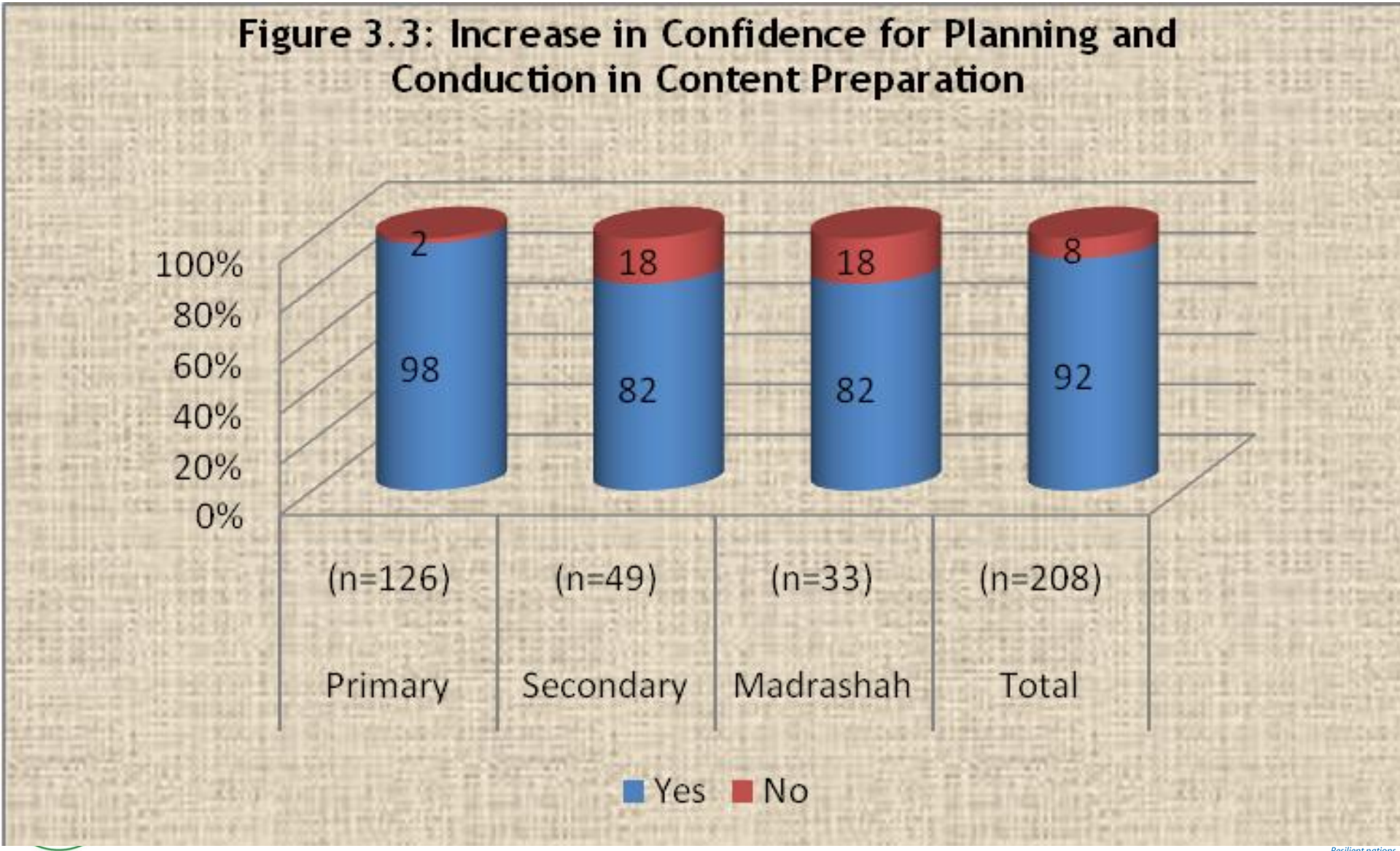
Learning by participation

Research Findings : Dr. Deborah Wyburn et al, 2013 (TQI-SEP)

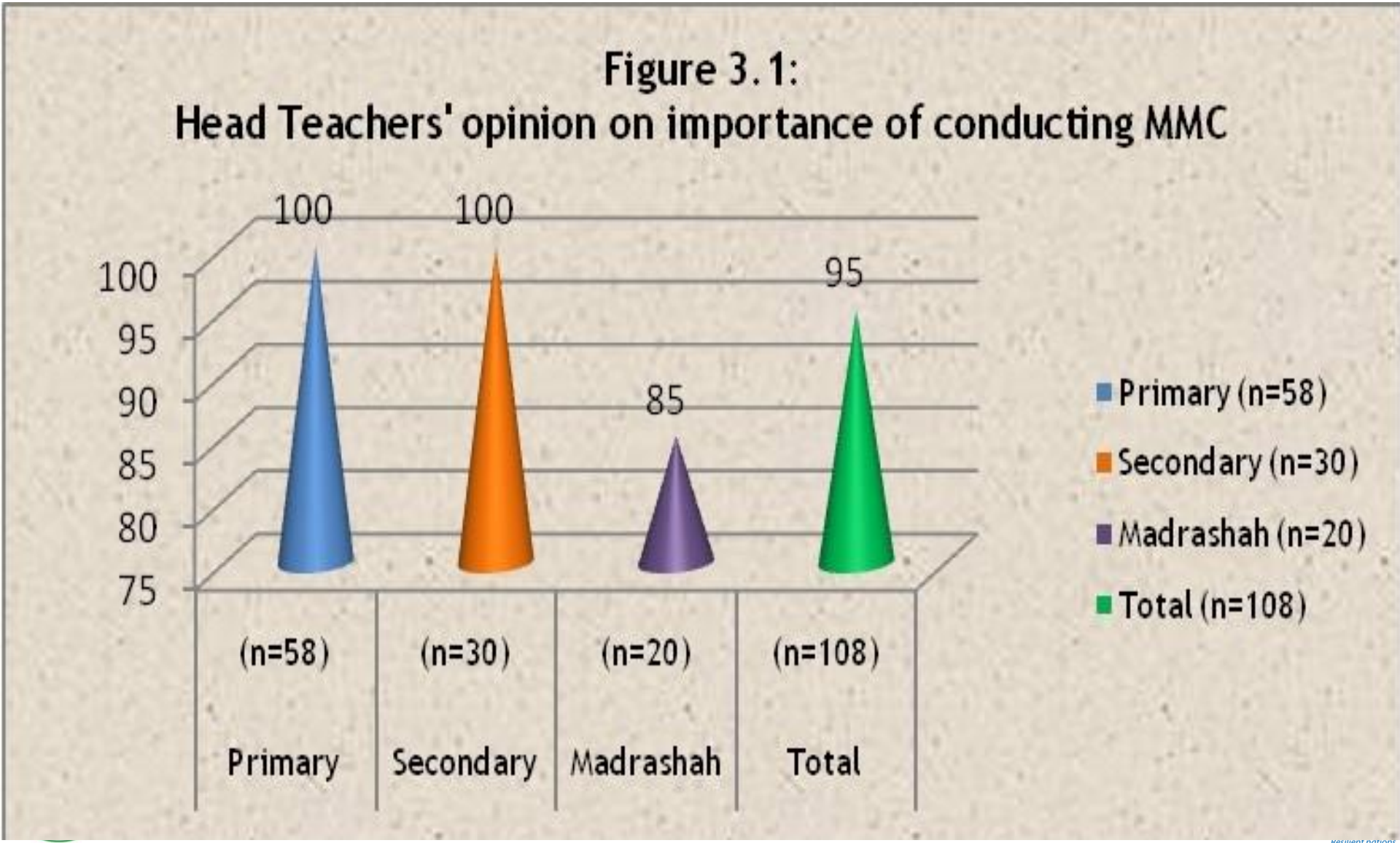
Student Performance Improved (Attribution not clearly researched yet!)



Teacher Confidence Increased



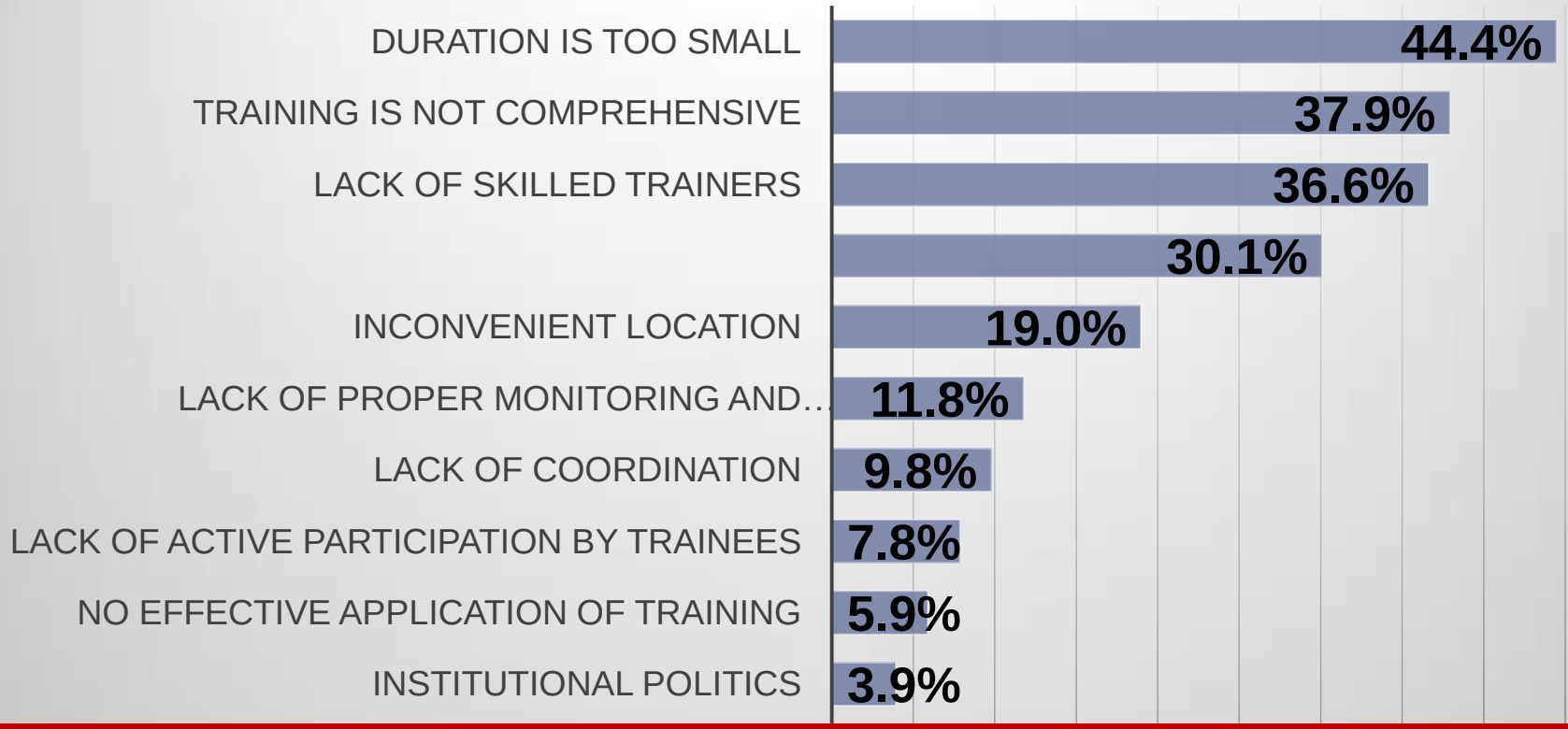
Head Teachers in Agreement



Dilruba Khanom, Secondary Teacher

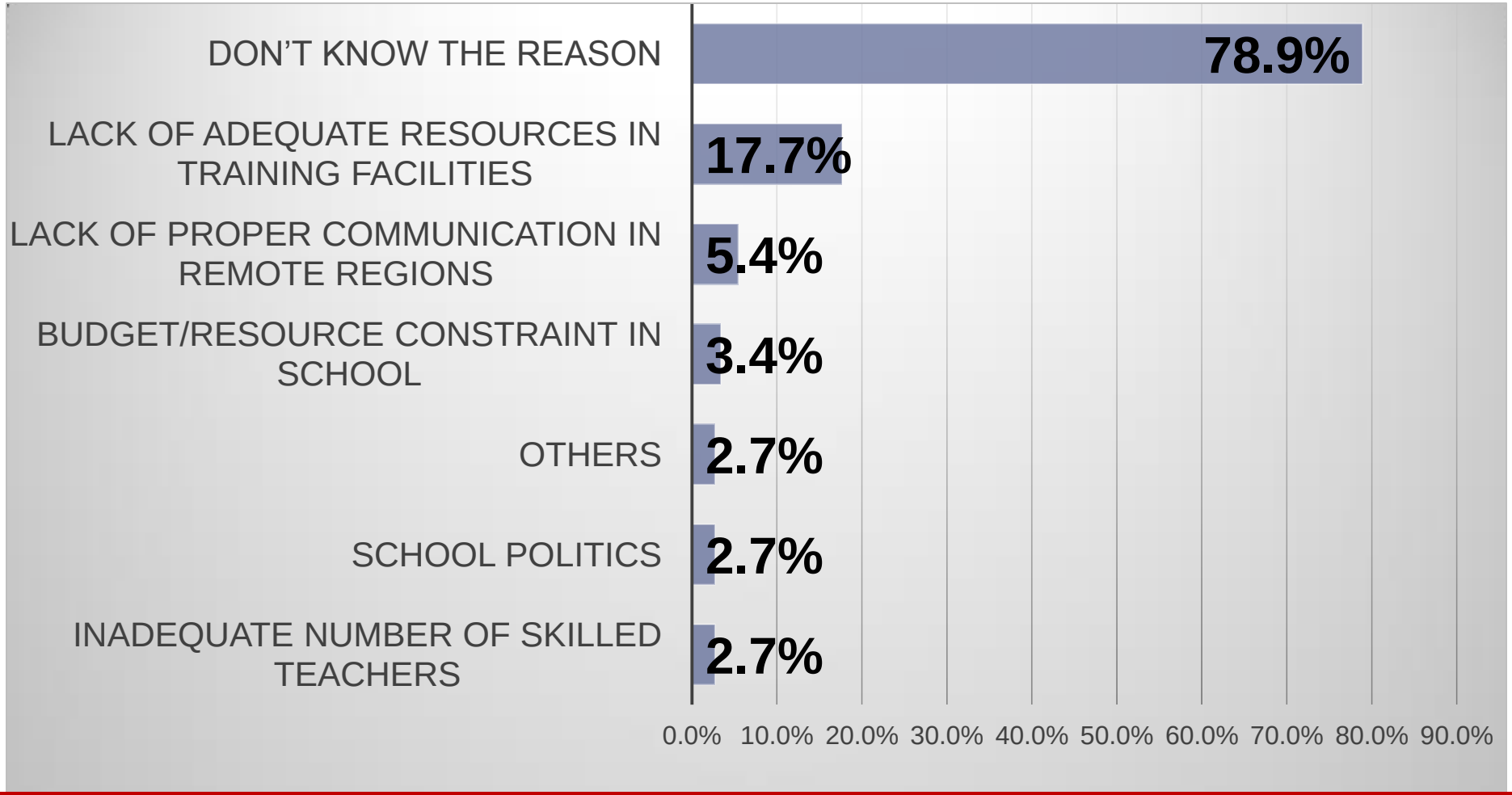
- “I see teachers’ portal as an open peer-to-peer learning tool. I have learned things here that I was never taught anywhere else. Here, I am allowed the opportunity to continuously learn and grow from other’s contents and advice. In the beginning, the quality of the contents I uploaded didn’t rate high on the pedagogical scale. But over the years, I have improved through viewing better contents and constructive feedback from my colleagues on the portal. The best part is, as a teacher my learning is not limited to me only. Whatever I learn, I apply that in my class, which ultimately benefits hundreds of my students. The training has undoubtedly contributed to my professional development as much as, if not more, any formal training.”

New Horizons in Teacher CapDev: Limitations of Traditional Training



Not effective, money-waster:
short, not hands-on, disruptive to otherwise stretched school resources.

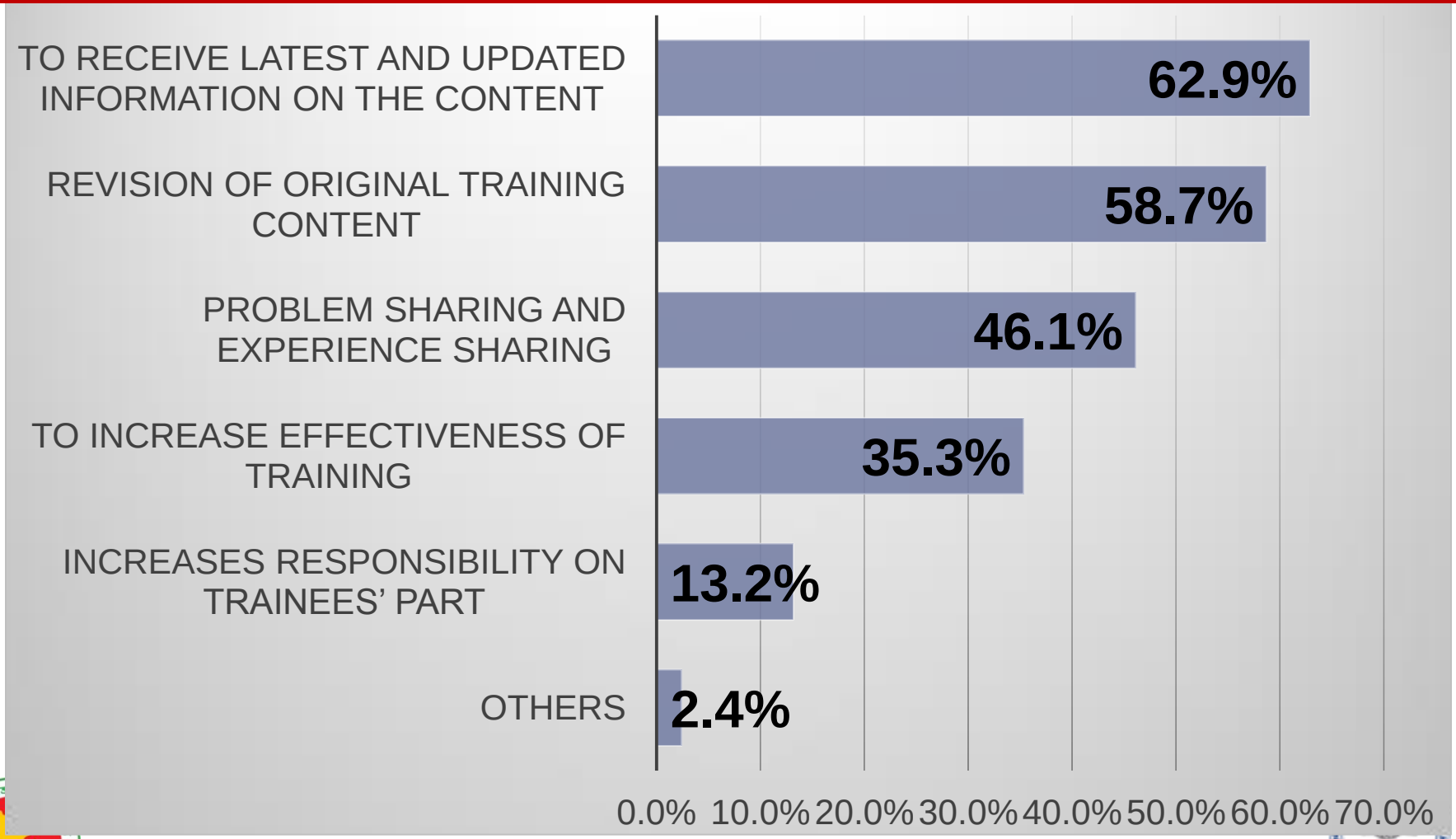
Limitations of Traditional Refresher Training



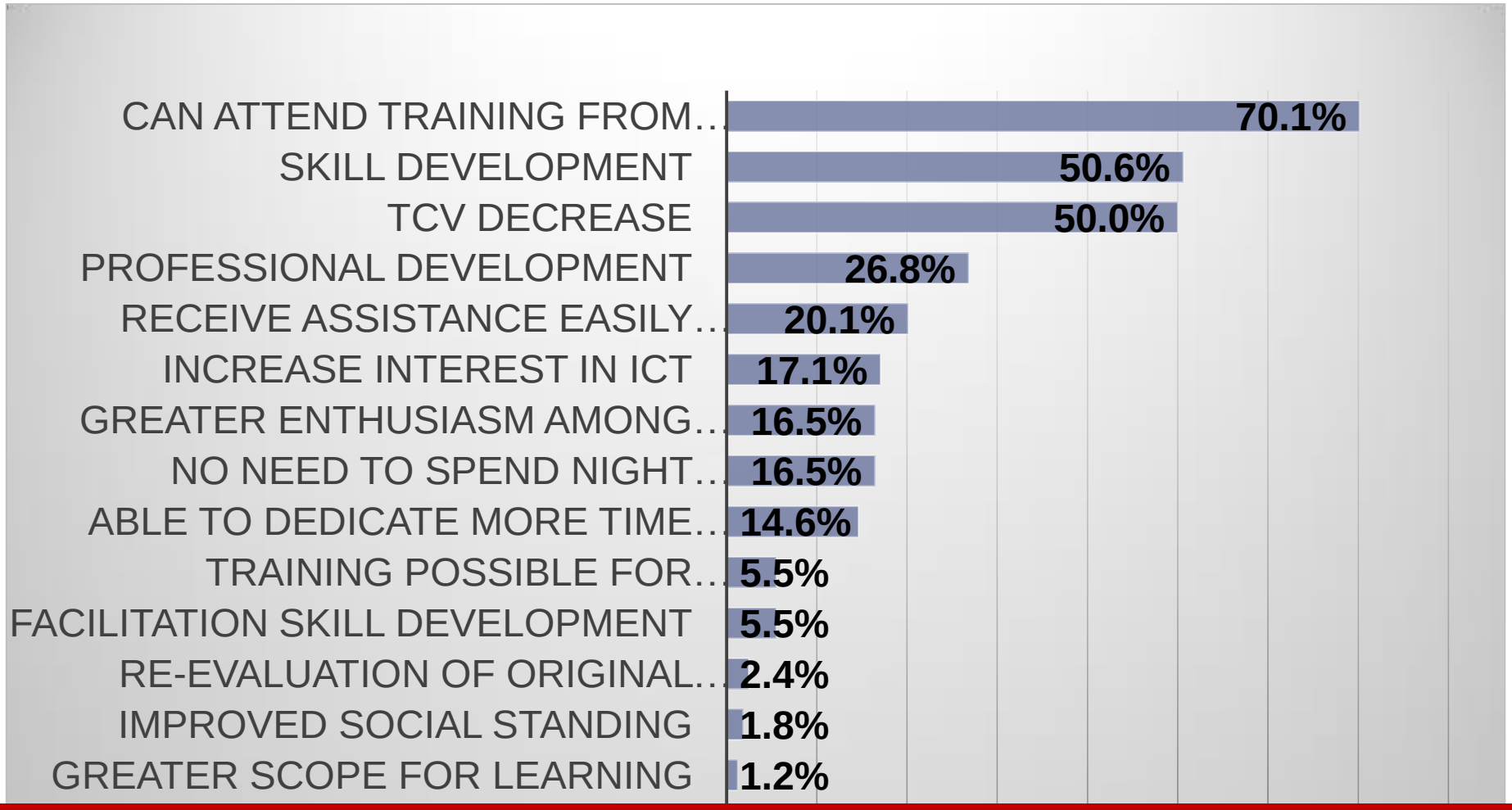
'Don't know the reason' is highest!
What is Refresher Training?

Importance of Refresher Training

But teachers know they need it …

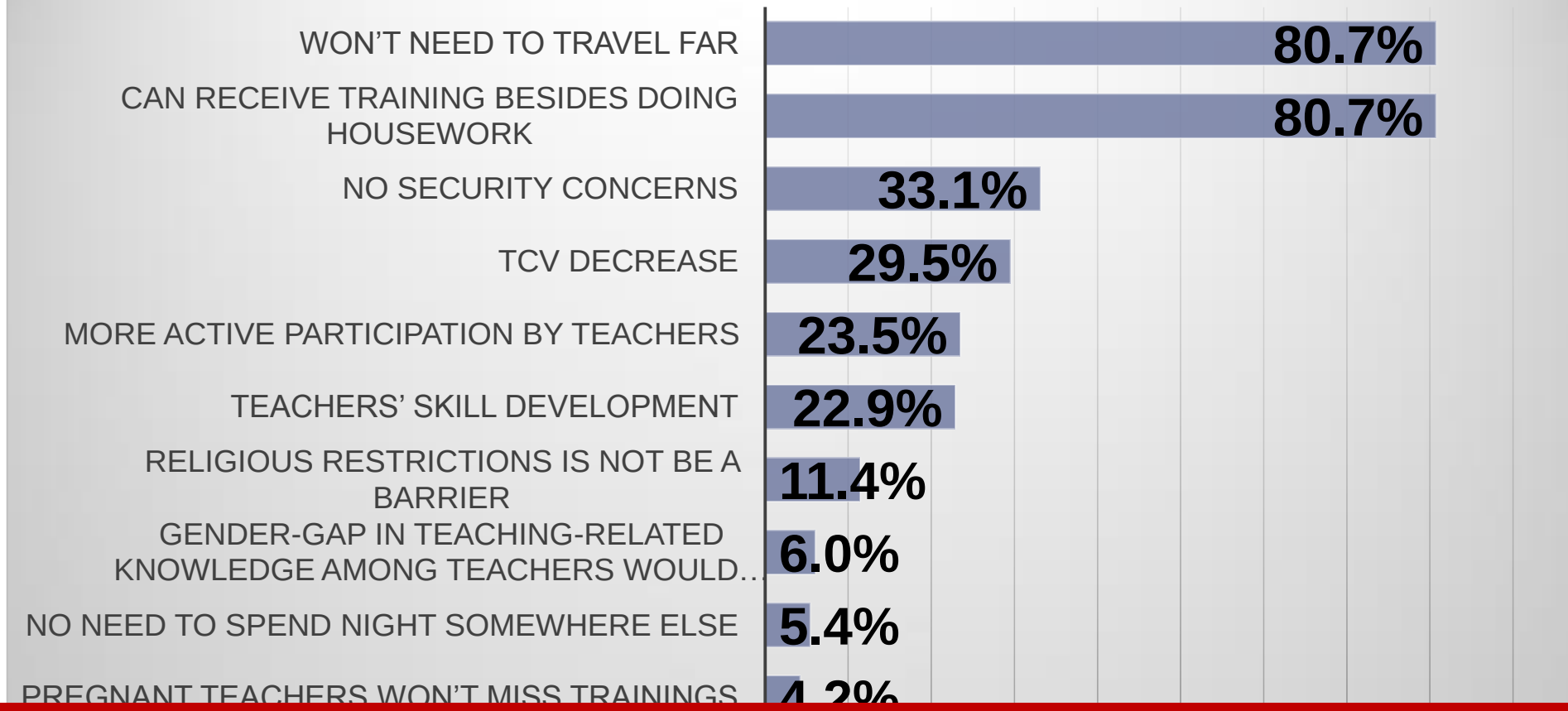


Compared with Traditional Training



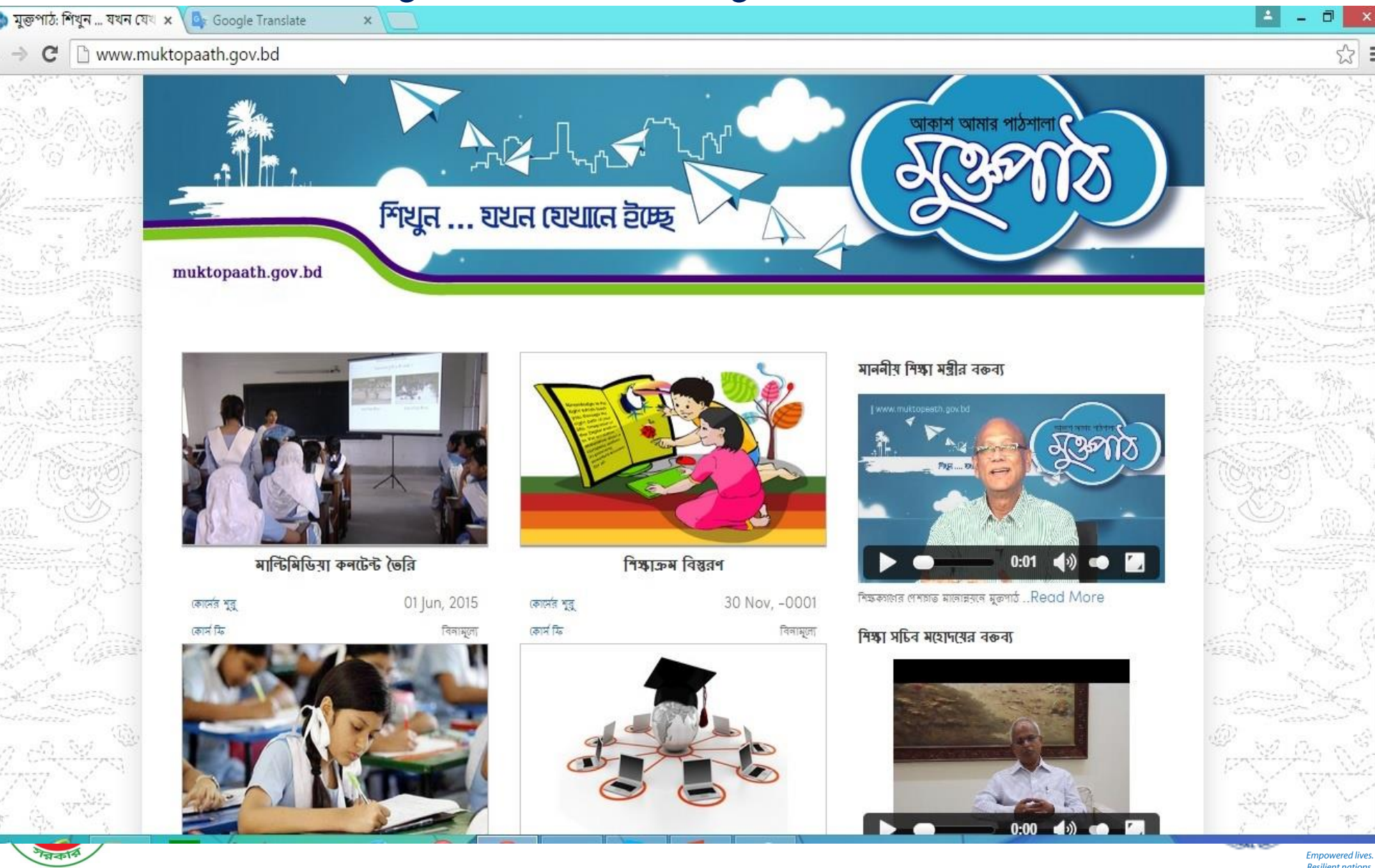
Refresher from home, less school disruption, mentoring, community

For Female Teachers



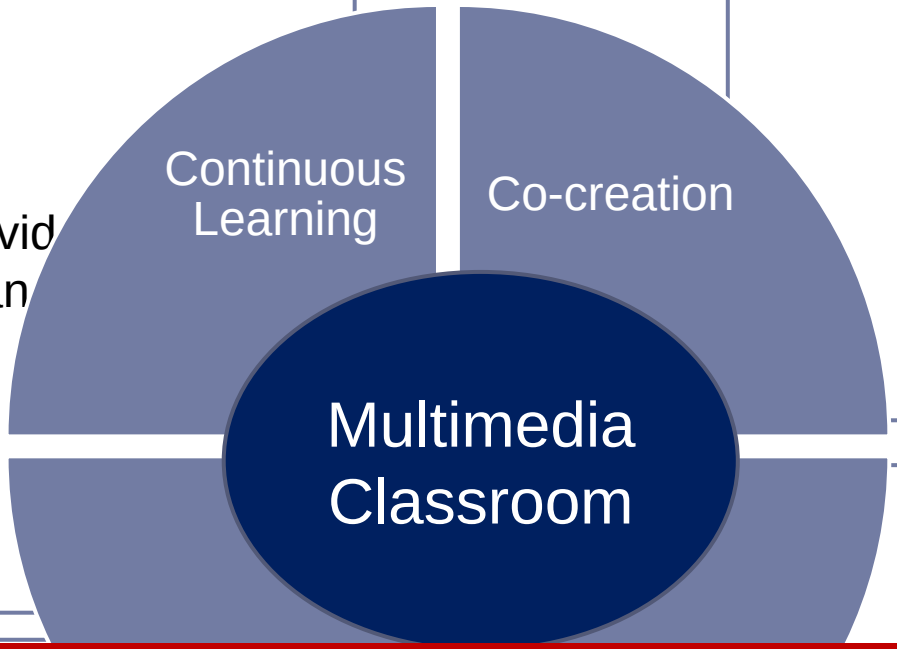
Equal opportunity as males (already showing equal participation), take care of family while attending training, security

Muktopaath:
Learn Anytime, Anywhere



Teacher Empowerment Framework

- On-the-job learning
- Self-directed / self-paced, anytime, anywhere
- Public + private training
- Lower gender divid
- Lower rural-urban divide
- Less school disruption
- More effective monitoring



- Greater relevance of content through customization
- Mentoring
- Learning by debate/discussion
- Cost reduction of content generation

$E = mc^4$

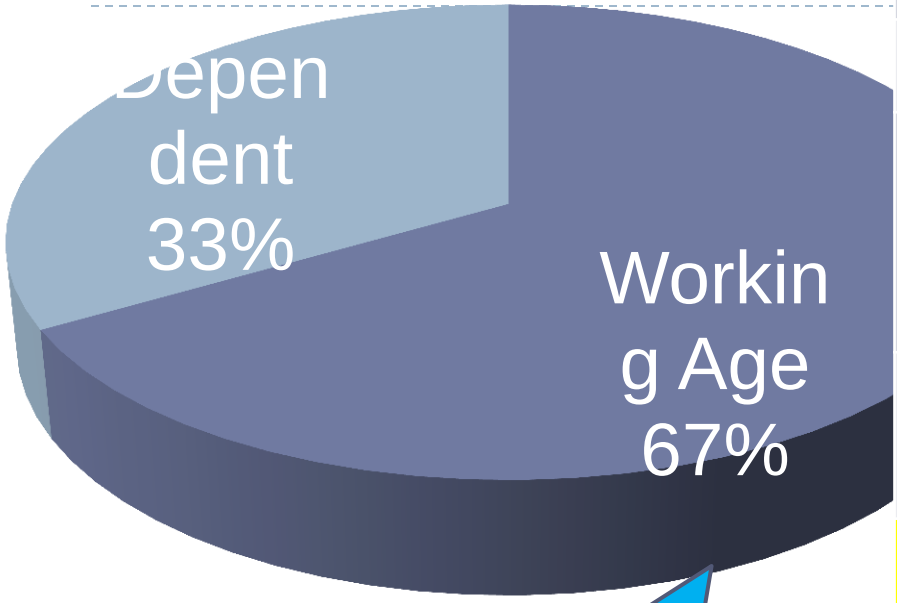
Empowerment = multimedia classroom x continuous learning x co-creation x collaboration x competition

Objectives of ICT in Education Masterplan

1. Teaching-learning environment
2. Professional and ICT skills of teachers
3. Standards of teaching-learning materials
4. Market-based skills
5. Transparency, accountability and efficiency in educational management
6. Services at doorsteps
7. Public participation

1. World-class market-based skill development through participatory teaching-learning environment facilitated by motivated teachers
2. High-quality service at doorsteps of citizens through transparent, accountable and

Skills Context 2030!



	2015	2030
Population	160M	210M
Urban	30%	40%
Status	Low Middle-income	High Middle-income
Economy size	49th largest	30th largest
Strategy	Survival, equity	Growth, equity
Child	Ent	uating

2/3 of all jobs will be replaced!

Sustainable Development Goals 4, 8, 9, 10

What skills will they need?
For the domestic market? For the global market?
Will traditional capacity development channels be effective?

Future: 21st Century Skills-based Curriculum and Assessment

PARTNERSHIP FOR 21ST CENTURY SKILLS

Learning and Innovation "The 4 C's"	Digital Literacy	Career and Life
Critical thinking & problem solving	Information literacy	Flexibility & adaptability
Creativity and innovation	Media Literacy	Initiative & self-direction
Communication	ICT Literacy	Social & cross-cultural interaction

Eliminate 'Finish-the-syllabus' approach. Design Appropriate Assessments.

Future: Student Engagement in the Empowerment Framework

- Co-design of classroom space
- Co-creation of curriculum and content
- Student collaboration within and across classrooms

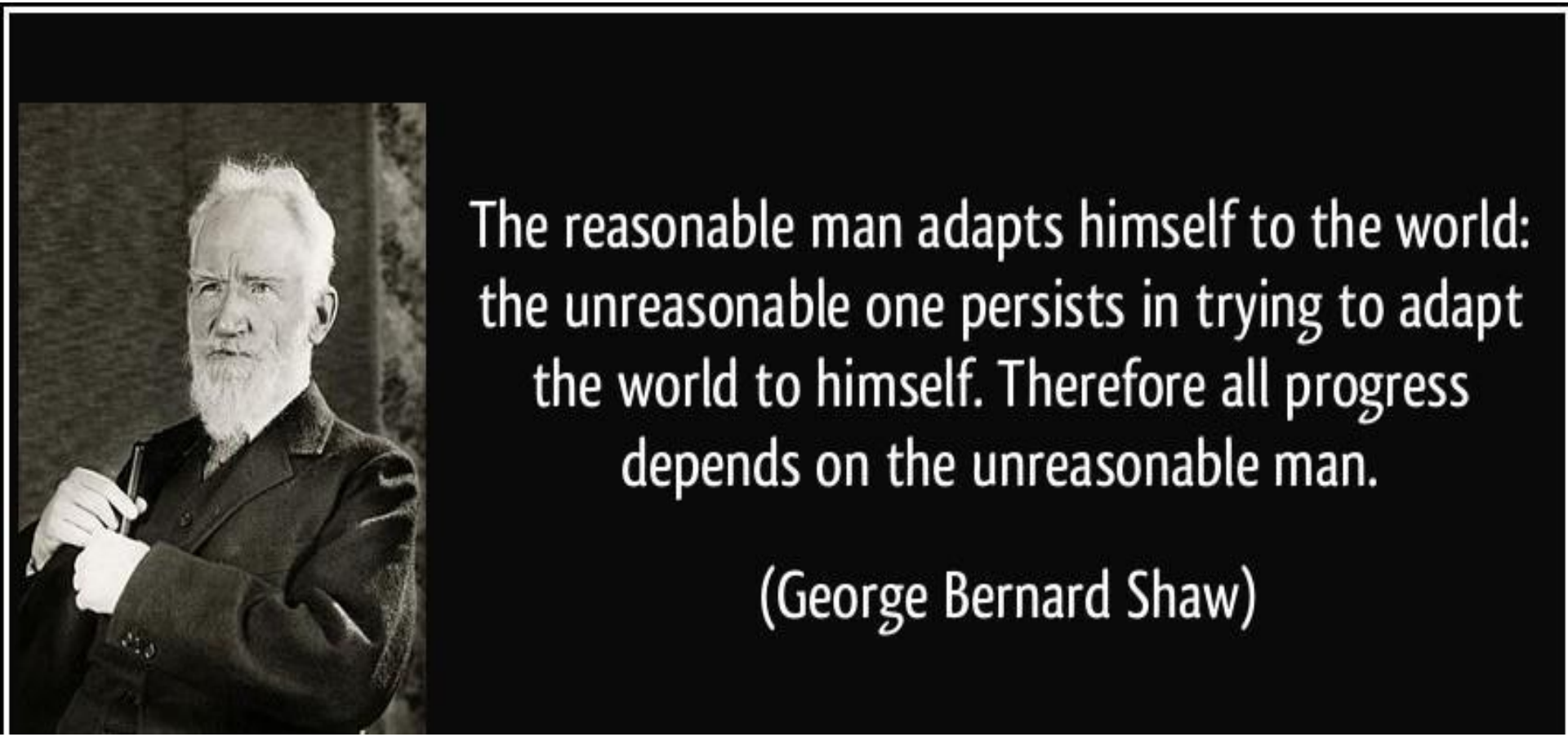
Let students take the wheel

Innovation Fund

- e-Learning Platform of Bangladesh Open University
- e-Learning/m-Learning for migrant workers
- Low-cost, low-powered devices for teaching-learning
- ICT for Children with special needs
- Educational games

Future: Human Development Media

Stop Over-focusing on Technology

- **"Technology can be a powerful education multiplier, but we must know how to use it. It is not enough to install technology into classrooms – it must be integrated into learning. Nothing can substitute for a good teacher."**
  - **UNESCO (From the Save the Children's ICTE Mapping Report)**

Ready. Shoot. Aim.