



JIGYASA

*Assessing the impact of digital education
and teacher training*

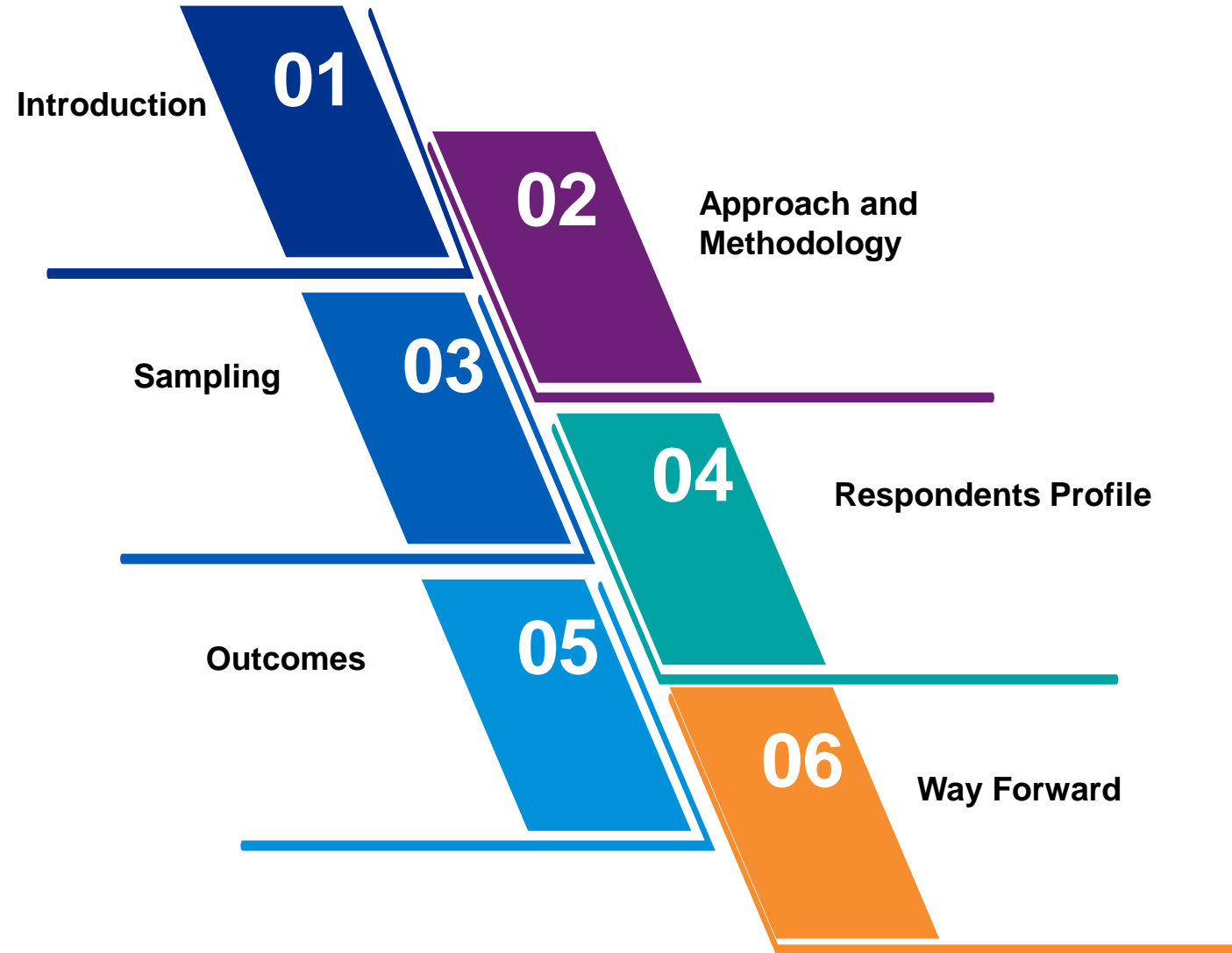
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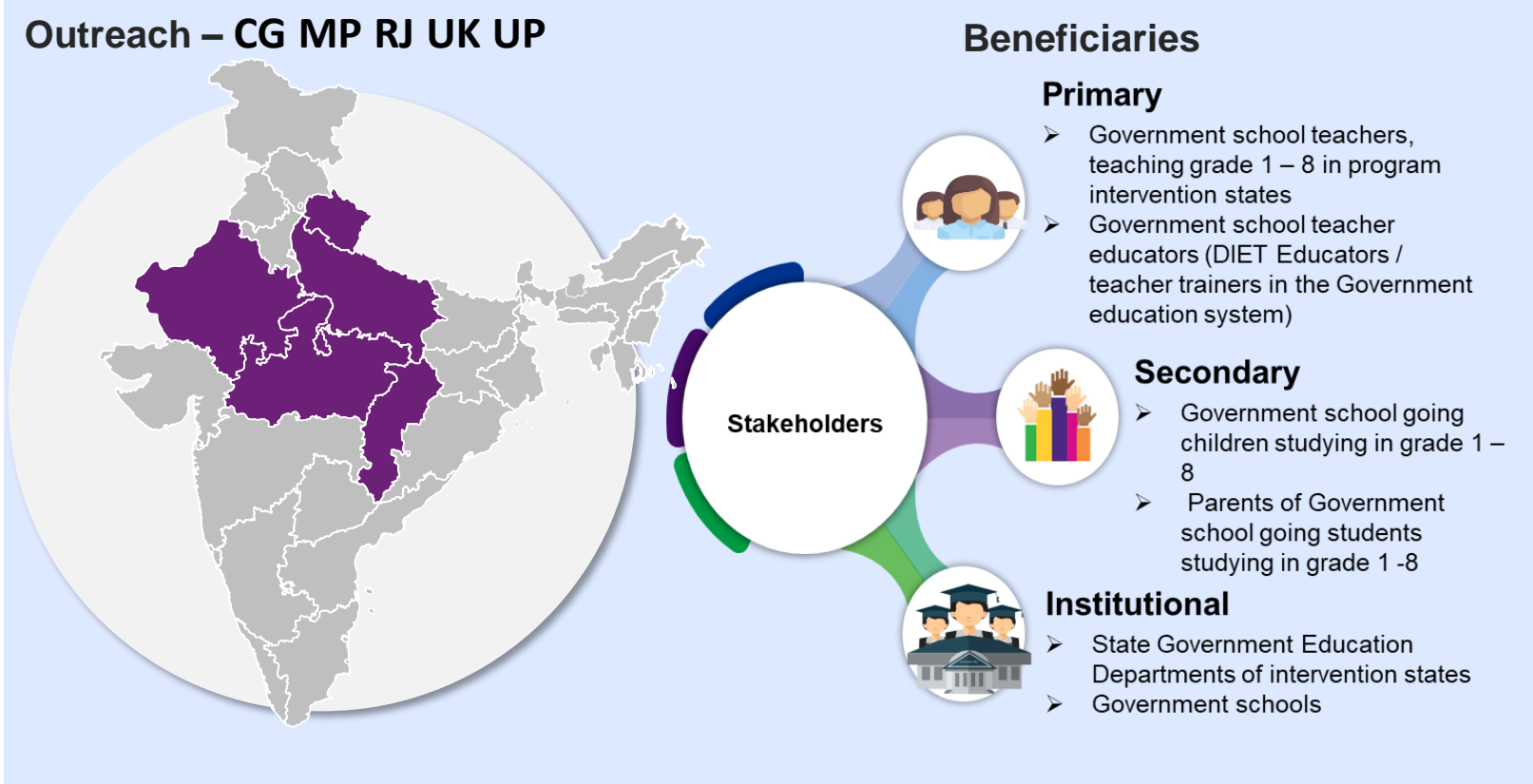


Introduction

India is among the youngest countries of the world with the world's largest student population of ~315 million. The literacy rate in India has been growing at a very fast pace from ~17 per cent in 1947 to ~76 per cent in 2017 highlighting a fast-growing demand for education. If the demand is unaddressed by quality curriculum, teachers and unique pedagogy the same can lead to overall effect on receipt of quality education, employment and life opportunities. In order to address the core problem, Vodafone Foundation started Jigyasa. a unique program which has been developed on the "Knowledge for life" model.

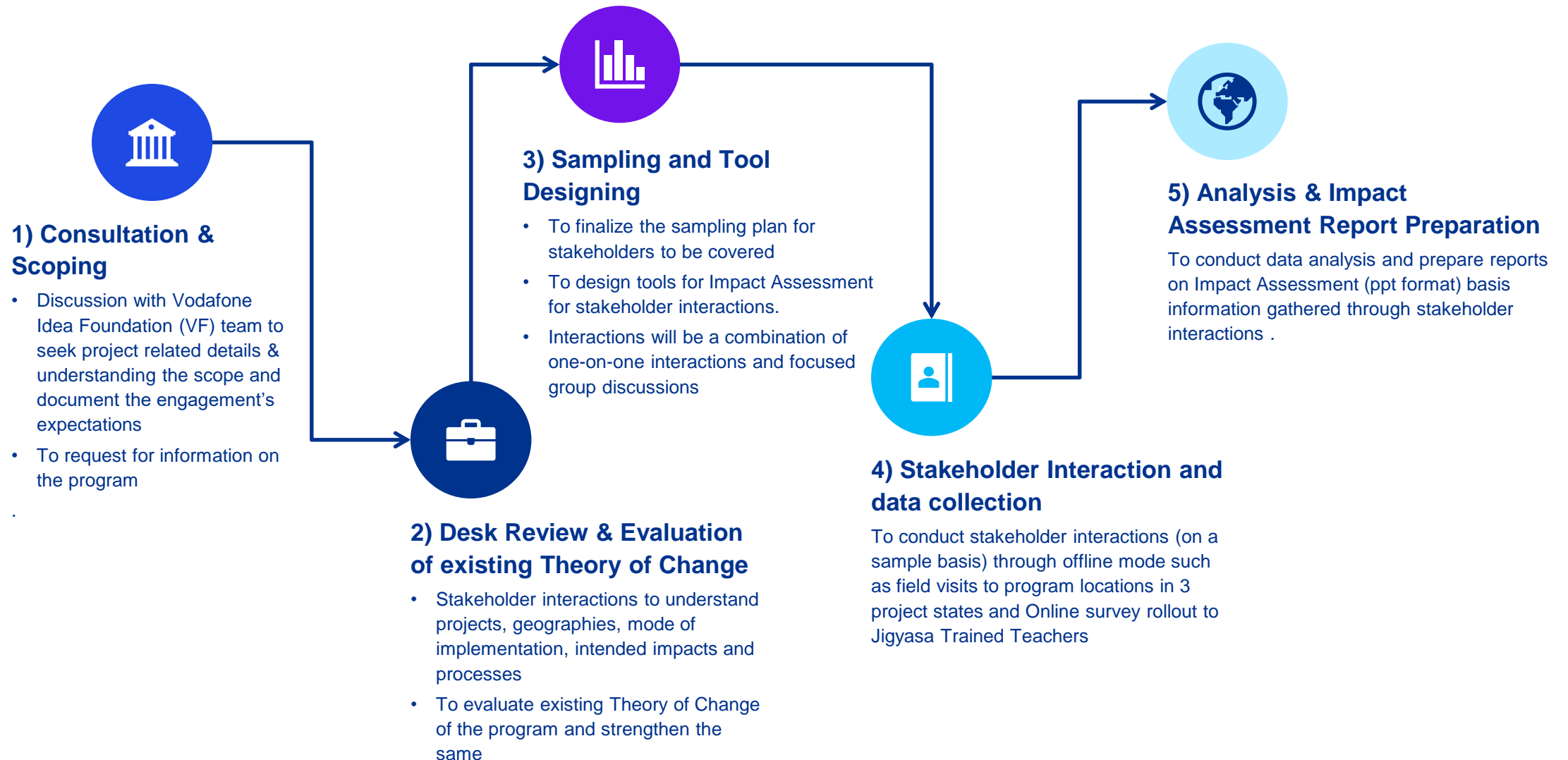
54,011
Teachers & Educators

8693 TLMs developed
15 Model Schools



The impact assessment pursues to evaluate the impact generated by the interventions of the program through its unique design.

Approach & Methodology



Sampling - Teachers

Jigyasa trained teachers comprised a universe of 46639 and therefore teachers were selected based on stratified random sample with adequate representation from each intervention state. This indicates a confidence level of 95% and margin of error of 6% for the treatment group. In total, 286 teachers were covered through online and offline mode thus reaching the desired confidence level and margin of error.

State	District	Stakeholders	Total Reach
Rajasthan	Jaipur	Model school Teachers	30
	Sikar	Students	60
Madhya Pradesh	Bhopal	Jigyasa Trained teachers	26
	Bhopal	DIET or Education Officials	6
Uttar Pradesh	Lucknow	COVID-19 Beneficiaries	16
	Barabanki		
Online (Across the 5 Intervention States)		Jigyasa Trained Teachers	228
Grand Total			366

Offline Interaction at Model Schools

- Based on mutual consultations, **field visits were conducted in 3 states- Uttar Pradesh, Rajasthan and Madhya Pradesh**. 2 out of 3 model schools developed in each of these states were visited to interact closely with the stakeholders.
- A primary research was conducted through quantitative survey and focused group discussions (FGD) with target beneficiaries.
- Further 6 FGDs were conducted on field across 6 schools (2 model schools per state) and the District Education department in Rajasthan, Uttar Pradesh and Uttar Pradesh. Treatment group respondents included, Government school teachers teaching from grade 1 to 8 in these schools who had received training on ICT, students, through Jigyasa.

Online Reach-Treatment Group

- An online survey was rolled out to Jigyasa trained teachers across the five intervention states who received Jigyasa training intervention through Vodafone Foundation support.
- For the online survey, 230 responses were captured from treatment group.
- The questionnaire was aimed to understand the benefits of Jigyasa intervention from a training pedagogy, technology adoption in teaching, effectiveness and use of Gurushala and Khel modules from the treatment group.

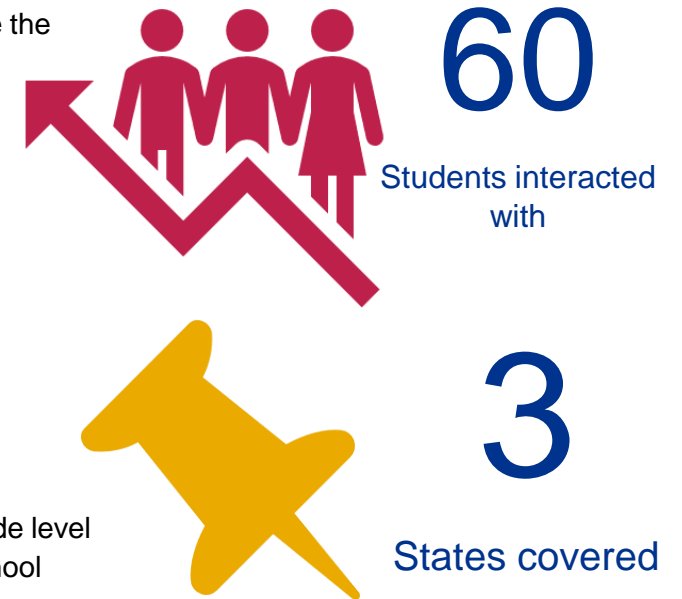
	Teachers	Others
Target (as per LoE)	200-250	-
Achieved	284	82

Sampling - Students

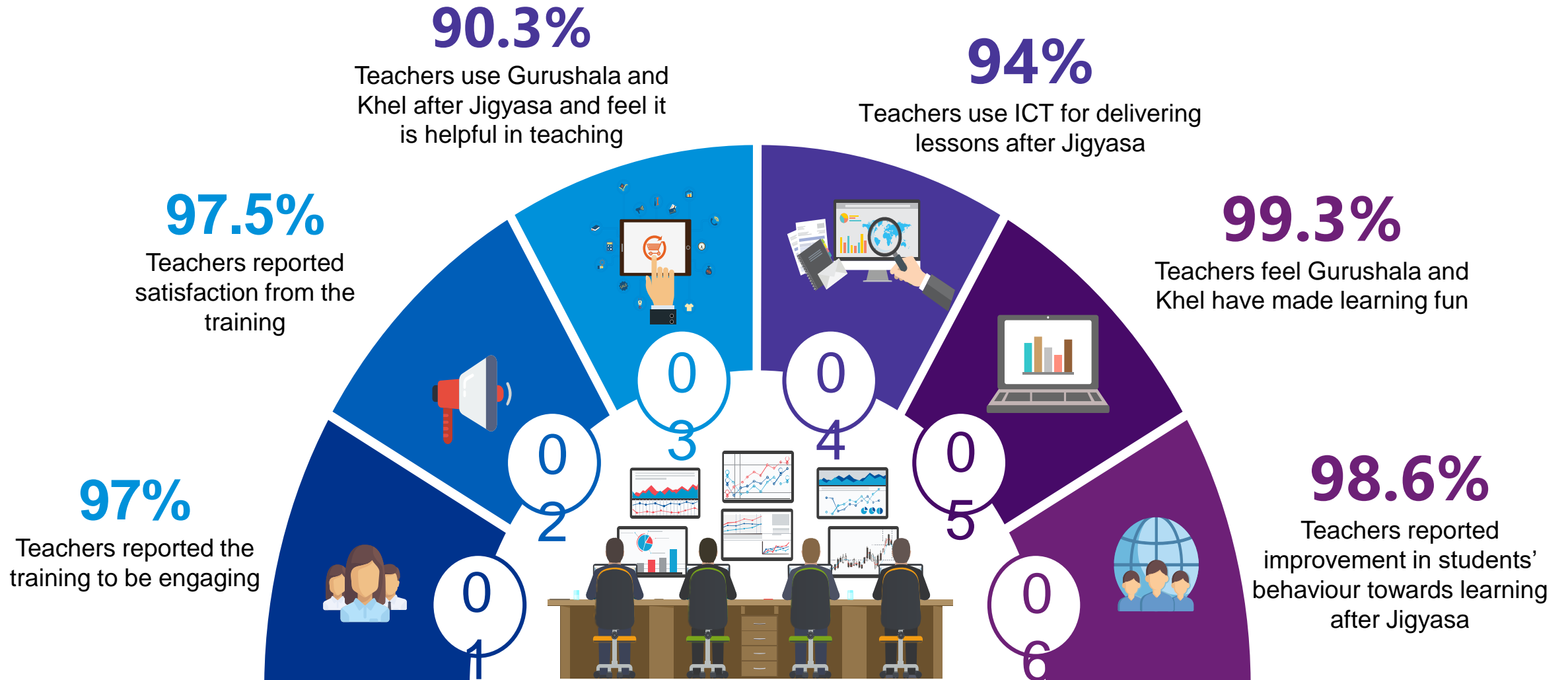
- Students being the end user of Jigyasa intervention, it is essential to measure the effectiveness on how the program has created its impact pertaining to improved access towards digital education and enhanced learning experience. Jigyasa reached 2,14,000 students through its teacher training model, who received various sessions through Gurushala and Khel videos.
- The interactions with the students was conducted through an offline outcomes survey followed by a numeracy assessment to gauge the learning levels for basic numeracy.

Methodology for assessment

- In order to assess the learning levels of the children who have been a part of the intervention, an assessment-based approach was undertaken. The same was covered through a pen and paper based simple numeracy assessment, which was aimed to assess mathematical competencies such as
 - Identification of biggest and smallest number in a series
 - Addition and subtraction of two digit number with and without carry over
 - Multiplication and division of two digit number
 - Recognition of time in an analogue clock
- The questions were designed based on the Gurushala and Khel videos, further the assessment was also customized to assess grade level appropriateness in order to validate the learning level outcomes. All students attempted the assessment under the invigilation of school mentors and field team member through physical means.



Outcomes – Teachers



Outcomes - Students



100
%

Students have improved access to digital learning tools

100%

Students were taught multiple subjects through digital medium



97%

Students understand concepts easily through Jigyasa's digital learning tools

Students have improved retention of concepts and academic learning through Jigyasa's digital learning tools



91%



100%

Students have reported improved classroom engagement through Jigyasa's classroom digital learning tools

Way Forward

The study showcases that Vodafone Foundation is moving in the direction of achieving the intended impact envisioned. Along with the numerous positives of the program, it was also observed that if certain elements are incorporated in the program, it would help enhance the outcomes of program.

Shifting focus on learning level measurement

It is essential as the program moves year on year, measuring the learning level transformation is essential. The same shall be measured for students who have received the intervention in the schools. A provision of baseline of learning level shall be conducted to track quarter on quarter learning level progress at the implementing partner level.

Monitoring of key indicators

It is essential that institutional level outcomes at a school level such as increase in attendance, year on year enrolment and reduction in drop out shall be identified and measured in the long run. Considering the enhanced ICT based delivery by teachers, the extended outcomes shall be considered for further measurement. The same shall be incorporated in the monitoring plan as KPI's and tracked at a set frequency.

Sustainability

The program in its current phase, has expanded and provided digital infrastructure to select schools (called as model schools) in the five intervention states and provided requisite trainings to the school staff. It would be crucial to conduct refresher trainings at regular intervals as teachers in government schools experience frequent transfers.

Scalability

While the program is already in five large states, it is a good opportunity to scale up to more states which lack digital based pedagogy structures. VF may evaluate in long term to replicate the same model in remote states / geographies where digital intervention is limited pertaining to teacher training and use of ICT. Similar model schools can be expanded to more such schools. Further, the program can reach out to a larger teacher base through online training.

