Chapter **7** New Way for Learning: Navigated Learning Technology

"The only person who is educated is the one who has learned how to learn and change." – Carl Rogers, American Psychologist



Just a week after the gathering of the panchayat Adhyakshas and Elected Representatives in the village of Hebbet Nanjamma, Nanjamma arranged another meeting. She wanted to start utilizing the

computers that had recently arrived at her Panchayat as soon as possible and was eager to learn how to use them.

To facilitate this, she called another meeting in her village and invited me and my team back to her Grama Panchayat. At the beginning of this meeting, Nanjamma asked me to explain how the Gram Panchayat could utilize the new computers and mobile devices.

At that moment, I was reminded of the words of American Psychologist Carl Rogers: "The only person who is educated is the one who has learned how to learn and change."

"According to Carl Rogers, one is considered educated only when they can learn and utilize that knowledge to effect change. Are you aware of this concept?" I asked. The attendees shook their heads in denial. "This means, a competent Adhyaksha or Elected Representative can bring significant changes to rural India only when they acquire domain knowledge and start using it as a tool to meet the needs of rural India. If the presidents and representatives of all the Gram Panchayats perform as efficiently as you, it will completely transform the image of rural India," I emphasized.

"If you and your team of Elected Representatives aim to establish strong and independent local governance, it's crucial for you to understand all the aspects of running a Gram Panchayat, including the rules and how to address citizen's needs. And to achieve competency in the subject of Gram Panchayat, we will examine a technology called Navigated Learning Technology, and understand why it offers a more effective training method than the current paradigm of training" I started to explain.

"Consider this: at the beginning of each academic year, we would purchase new books as we advanced to a new grade. The subjects grew more complex with every passing year. All the students who passed the previous year were grouped together in a classroom where a teacher would instruct the entire class. Some students would perform exceptionally well while others would fail. Do you understand why this happens?"

As I posed this question, a question mark seemed to form on the faces of those attending the meeting.

"Each individual's learning capability varies, and a traditional classroom setting doesn't necessarily allow learners the flexibility to learn in their own way and at their own pace," I explained, drawing from my teaching experience.

"For instance, I recall a classmate who failed the 8th grade. When he finally passed and was promoted to the 9th grade, he failed again. Yet, nearly three decades later, I learned he had earned a PhD in

Aeronautical Science and was teaching at a university. His journey exemplifies how the traditional classroom setting failed to cater to his unique learning style. He took an alternative route, faced challenges, but eventually achieved a PhD. On the other hand, another boy who was incredibly bright in high school never completed a degree. This further illustrates how traditional classrooms are not tailored for individual capabilities," I pointed out.

"Recall the discussion we had last week. As you and your fellow Elected Representatives go through training after your election, you undergo a standardized process which may lead you to feel detached, or even find the training ineffective. Why is that?" I asked.

Silence was the response.

"You are grouped together in the same classroom where you receive training for a few days on all the different aspects of local governance. The training is intended to build your capacity to effectively govern rural India. However, as we discussed in chapter 5, this form of training comes with many challenges. You might miss out on a lot of important information you need as an Elected Representative," I explained.

"Why does it happen like this, Shankranna?" Nanjamma asked.

"Currently, training is administered through a preset system. The syllabus to train you is predetermined, without a prior assessment of the abilities of you and your Elected Representatives. Moreover, Elected Representatives like you come from diverse backgrounds, with a wide spectrum of learning abilities. Therefore, the training may not suit the learning capabilities of all the Elected Representatives in a classroom," I explained.

"Elected Representatives may range from being illiterate, partially literate, to even being graduates. This shows the broad range of capabilities among the Elected Representatives who are grouped together in the same classroom for training. We need a methodology that can equitably impart knowledge to each learner in the classroom. Navigated Learning Technology (NLT) is one such tool that will completely transform the way we learn today," I continued.

7.1. GPS in Learning

"What does Navigated Learning Technology or GPS in learning mean, Shankranna?" Lakumipura Lakkamma inquired.

"GPS in learning is based on the idea that a Navigator can guide a learner to their learning destination. To achieve this, the Navigator must know where you are, where you want to go, and all the possible routes to get you there. In Gram Panchayat trainings, all the elected representatives share the same learning destination: to master the subjects on Gram Panchayats. However, their current knowledge or competency on the subject varies from person to person. That's why we believe that learning is a unique experience and the path to mastery will differ for each individual," I clarified.

"To understand the concept of GPS in learning, consider this situation," I said, mentioning Rangappa, Sureshappa, and Krishnappa, who were at the meeting.

All three need to travel from Mangalore to Bangalore, but they have different resources. Rangappa only has a bicycle, Sureshappa has a motorbike, and Krishnappa has a car.

"Krishnappa seeks a comfortable journey, while Sureshappa, having only a bike, can't travel as comfortably. Rangappa, on the other hand, must ride a bicycle. Although all three need to reach Bangalore, the journey shouldn't be tiresome. Therefore, they choose different routes based on their capacities," I explained.

"Rangappa takes a shorter route to reduce fatigue. Sureshappa, wishing to enjoy the scenic beauty of Madikeri Ghat, chooses a slightly longer route. Krishnappa, who wants to visit his aunt's house in Shivamogga, picks a route that allows him to do so. So, even though they all start from Mangalore, they take different paths based on their capabilities, but they all eventually reach the target destination, Bangalore. Isn't that correct?" I asked.

"Yes," the participants replied.

"In a similar vein, in learning, Rangappa, Sureshappa, and Krishnappa must be educated on different aspects of Gram Panchayat based on their learning capacities. If you can read and write, a text in PDF form may be suitable. For those who are semi-literate, video teachings could be more effective. If you're illiterate, storytelling or drama-style videos might work best. Regardless of the route taken, all three will eventually learn what they need to," I explained.

"Thus, Navigated Learning Technology, or GPS technology, is an innovative technique that guides learners and helps them reach their learning goals," I elucidated. Nanjamma nodded her head in agreement.

"I recall when we implemented NLT in a Gram Panchayat in the Chikkaballapur district of Karnataka. The Elected Representatives with higher qualifications were usually able to grasp the lessons more easily. Each Representative had their own personalized learning path, even though all were in the same virtual classroom," I recalled.

"Gayathri, an Elected Representative who had completed an engineering degree, grasped the lessons faster than others. On the

other hand, Rangappa, who hadn't finished high school, took a bit longer to progress. The advantage for Rangappa was that the lessons were entirely in video format, which facilitated his learning. Their learning paths were different, demonstrating how NLT personalizes the learning journey based on the individual's competency," I explained.

"Then what's the difference between classroom training and NLT classes, Shankranna?" Lakkamma asked.

"Today, when training Elected Representatives, a preset syllabus is universally applied. The same syllabus and materials are used for all the Representatives, regardless of their literacy level. This approach doesn't take into account an individual's unique learning needs. It's a considerable challenge because a traditional classroom experience is not designed to meet these individual requirements," I outlined the current difficulties in the training process.

"However, with GPS in learning, the Navigator locates the learner, identifying their current competency on the subject. Based on this knowledge, the Navigator provides a personalized learning path for Rangappa and guides him until he reaches his learning goal."

"Learning should be an experience tailored to each student's needs, producing outcomes that demonstrate their subject mastery. When our Elected Representatives are gathered in a classroom for training, there's no plan addressing individual needs or abilities. The training tends to be trainer-led, not acknowledging the broad spectrum of learning capabilities among the Elected Representatives. Although everyone is in the same classroom, understanding a simple mathematical operation, such as addition, might be much easier for Rangappa than for others. Learning is a unique experience for everyone, and the process to help each learner effectively acquire knowledge should be equally unique," I expressed. "Consider, for example, Lakkamma. If she's given the responsibility of finance, she needs knowledge about economic affairs, revenue, expenditure, financial services, sanctions, and banking. Only when Lakkamma has expertise in these areas will she perform her tasks effectively, without continually seeking help from others. However, if Lakkamma is only partially literate, we can't expect her to grasp all these concepts quickly. She needs her time to comprehend the subject to apply the concepts in real-time, doesn't she?"

The meeting participants silently agreed.

7.2. Navigator for Learning

7.2.1. Diagnostic Test: Locating the Learner

"What makes NLT so unique?" Janopakari Krishnappa asked.

"The most distinctive feature of NLT is its ability to determine a learner's current knowledge on a subject. This step establishes where the learner will begin based on what they already know. For instance, when Rangappa attended the Elected Representatives training run by the government, no one inquired if he or his peers knew about the 73rd amendment or what GPDP (Gram Panchayat Development Plan) entailed. The trainers began discussing unfamiliar concepts, leading to confusion and disinterest. NLT ensures that if Rangappa has no prior knowledge on the subject, he begins learning from the most fundamental level, allowing for systematic progression. Isn't this a superior approach?"

"Now, there's no need to worry about understanding the 73rd amendment on the first day of training or any other subject matter for that matter. If you're new to the subject, you'll be given a clean slate, and the Navigator will guide you through your learning journey. For any learner, it's vital to remember the terms associated with the subject, understand the concept, and learn how to apply it to your work. Therefore, the diagnostic test is a crucial step in determining where to place Rangappa on the learning path. In NLT, we call this step 'locating the learner'," I explained.



Figure 7.1. While the present learning method has a uniform teaching system, in GPS based NLT method there is a teaching system according to the ability of the learner.

"After realizing something like this, does everyone receive different lessons?" Middle School Muniyappa asked.

"In a sense, the lesson is the same, but the teaching approach is tailored. Here, everyone learns according to their ability," I continued:

"NLT, an online learning platform, uses the concept of the Global Positioning System (GPS) to guide and navigate an individual through their learning journey. Much like GPS, which provides directions to a destination based on your location and mode of transportation, NLT guides an individual along the optimal learning path to help them achieve competence in any subject. The learning path might differ between two students, given the individual learning abilities. However, by the end of the course, they will have achieved the same learning outcome, demonstrating mastery of the subject."

"After the Navigator locates the learner, a personalized learning path is created for Rangappa based on his diagnostic test results. He will then begin learning the subject systematically. Unlike traditional textbooks, which provide purely text-based learning, NLT offers a more engaging and fun variety of learning resources. Each chapter is complemented with resources like videos, images, websites, infographics, and PDFs. Rangappa can read notes available online or watch explanatory videos, offering more flexibility and engagement," I explained.

7.2.3. Assessing the Learner

"Then how can I know whether I have learned or not using NLT?" Nanjamma asked with doubt.

"That's an excellent question, Nanjamma," I responded. "At the end of each chapter, Rangappa will take an assessment to determine his understanding of the concepts taught. After completing the test, the computer will present his score. If Rangappa scores above the passing grade, he's considered competent enough to proceed to the next level. If he doesn't, the Navigator will reroute him to a 'Signature Collection' where he can relearn the chapter in greater detail. This process of rerouting is an integral part of NLT."

"The Navigator will continue rerouting Rangappa on personalized learning paths, ensuring he acquires the required knowledge to proceed to higher competency levels until he reaches the learning destination. This destination is the end of the learning journey, where Rangappa is considered to have mastered the subject, meaning he remembers the terms, understands the concepts, applies them, and can analyze his knowledge of the Gram Panchayat."

7.2.4. Teacher-Student Ecosystem

"But Shankranna, if we can't learn lessons on mobile, who will guide us?" Krishnappa asked.

"NLT is designed to actively involve a teacher or mentor in the learning process. During our pilot in the Chikkaballapur Gram Panchayats, we created a classroom for all the 17 Elected Representatives from Manchanabele Gram Panchayat. Once enrolled, a mentor was assigned to the class. The mentor's role is to assist the Representatives in downloading and using the application, tracking their progress, assigning activities, assisting if they're stuck on a learning path, and facilitating communication between the developers and the users," I explained, describing our experience with implementing Navigated Learning Technology at Manchanabele Gram Panchayat.

"Deepa was appointed as the mentor of Manchanabele Gram Panchayat. She could monitor each student's progress on her page, see how long each student spent on specific resources, and assess their performance in the evaluations. Based on this, she could identify the Representatives struggling with the course and help them navigate the application."

7.3. NLT: Inclusive Learning

"Shankranna, is Navigated Learning Technology really that powerful?" Sahukar Seenappa asked.

"Indeed, NLT has proven to be a robust technology in numerous classrooms worldwide. It was introduced in several institutions in the United States for testing and has been shown to significantly improve student performance. NLT is a student-centric model, ensuring that the learning journey is personalized for each learner," I said.

"What sets this technology apart is its inclusivity, catering to a much wider range of learners with diverse learning abilities as compared to traditional classrooms. NLT provides the flexibility to learn from an array of resources, making it adaptable to different individuals. Here, it's the student's ability and knowledge that drive the entire process, an aspect that's lacking in today's education system," I pointed out, highlighting the gap in the current education landscape.



Equality

Equity

Figure 7.2

"Is it possible, then, to provide equitable education for all with Navigated Learning Technology?" Seenappa asked.

"When you implement this method of training in your Gram Panchayat, you make the course accessible to all the Elected Representatives, unlike many other methodologies that do not take into account an individual's unique needs. True, it may take longer for some learners, but ultimately, they all arrive at the same destination. In this way, you ensure that education or training is equitable for all Elected Representatives, regardless of their learning capabilities," I explained. "Suppose Rangappa and the other Elected Representatives are introduced to this learning method. Don't you think it best suits their needs? This method of learning gives students the flexibility to learn at their own pace, which is what learners require today. Only with inclusive learning can we fulfill the promise of equal opportunities in education," I asserted.

7.4. How NLT Works

"Shankranna, who initiated Navigated Learning Technology? Could you please explain what is so special about it?" Krishnappa questioned.

"Absolutely, here I will delve into NLT in detail, using visual aids to help you grasp it more fully," I said.

"Gooru, an American NGO, pioneered the use of GPS in learning for primary and middle school students. The initiative began with the understanding that you can't map out a learning path for a learner if you don't know where the learner is, where the learner wants to go, and what possible routes can lead the learner to their destination. Gooru (which provides a free personalized learning solution) has acknowledged that such ecosystems can greatly benefit from navigated learning tools," I explained.



Figure 7.3 How GPS for learning works.

"It's indeed a challenge to determine a learning path for learners like Rangappa unless we have a clear understanding of their current level, their learning goals, and the various pathways that can guide them towards their goals. Gooru addresses this by locating learners across numerous dimensions. It identifies their learning destination and suggests personalized routes based on their comprehension of the material. This personalized pathway includes open educational resources, tailored to suit each learner. We'll explore how Natural Language Translation (NLT) works by examining Rangappa's learning journey in 'Sampoorna NLT' on Gram Panchayats," I explained.

7.4.1. Navigator for Learners

"Sir, could you please elaborate on how NLT works?" Rangappa, who was attending the meeting, inquired.

"Absolutely, Rangappa. I anticipated such a question. The Gooru Navigator ensures that learners like Rangappa don't embark on a course only to find themselves lost early in the process. This step is crucial in NLT as it sets the stage for the rest of the learning journey. To access NLT, Rangappa would need to download the Gooru Navigator application, which is available on the Play Store or App Store, or it can be accessed directly via the website. If Rangappa faces any difficulties downloading the app, his mentor, Deepa, will assist him in setting up his device so that he can start learning immediately," I clarified.





"Once the app is downloaded on his smartphone, Deepa will assist Rangappa in signing up as a student. Then, Rangappa will select the course he wishes to study. For instance, if Rangappa wants to learn about Gram Panchayats through Gooru, he will choose that particular course as shown in Figures 7.3, 7.4, and 7.5. This is where Rangappa embarks on his learning journey."

"As I have previously mentioned, Rangappa will take a diagnostic test at the outset of the course. NLT administers this assessment, during which Rangappa will answer a series of questions. Utilizing these responses, the Navigator determines Rangappa's existing knowledge on the subject of Gram Panchayats, thereby creating a personalized learning path for him," I explained.

"As I mentioned earlier, Rangappa will undergo a diagnostic test at the beginning of the course. This assessment is administered by NLT, where Rangappa will answer a series of questions. Based on these responses, the Navigator will determine Rangappa's existing knowledge of the subject of Gram Panchayats, and subsequently create a personalized learning path for him," I explained.



Figure 7.6 Presentation of the learning journey

"Now that we know Rangappa's location and destination, the Navigator will give him a personalised roadmap. He can view the competency framework to look into the domains and competencies that he will be learning as shown in Figure 7.4."





Figure 7.7 and 7.8 A learner can check the answers after the assessment to reflect on his/her mistakes. He can check the marks and mastery he gained in the exam.

"After every lesson, Rangappa will answer a series of questions to assess his understanding of the concepts taught (refer to Figures 7.7 and 7.8). If he scores above the passing threshold, Rangappa proceeds to the next lesson. However, if he does not achieve the passing score, the Navigator will guide Rangappa through a learning path consisting of signature collections, allowing him to revisit and reinforce his learning. This approach ensures that Rangappa, along with all the elected representatives, comprehends the concepts thoroughly and can apply them in their work," I explained.

7.4.2. Navigator for Mentors:

"Then, how does a Mentor teach a lesson?" Paropakari Padmini inquired.

"NLT provides a separate Navigator for mentors or instructors. The mentor can create a virtual classroom environment to teach and

monitor the students. The Navigator for mentors offers real-time data about the learners, along with tools and recommendations to support their learning in the classroom. In the case of Manchanabele Gram Panchayat, Deepa served as the mentor for 17 elected representatives. This means Deepa had access to detailed learning data for each elected representative individually," I explained.



	Your Classrooms	anding page of <u>Mentors's</u> Login	<u>ه</u>
Can Create a New Classroom Here	Create a Classroom	ರಾಯವುರ 🗘	Classroom created for the Elected Representatives of 'Rayapura Grama
	Name Your Classroom	August Course Tracial alconnectional distance (but attractive enhances) and an and the attractive enhances of the and the attractive enhances of the attractive attra	Panchayat' Similarty, can create a separate Classroom for Each Grama Panchayat
	CREATE CLASS	Class Code 2ADSGV2	and con be controlled individually/independently.
	All four levels of Classrooms will b	e listed here, namely : 1) Basic,	



Figure 7.9 to 7.14 The member's learning profile in the class, marks obtained and other information can be seen by the Mentor on the mobile whenever he wants.



Figure 7.15 to 7.17. Performance Overview page which shows the real time progress of learners in a classroom. The instructor views the individual marks and skyline of all the members of the class on the Student Locator page.

"In the performance overview page, Mentor Deepa can access an overview of each Elected Representative's position in their learning journey, the progress they have made, and their overall performance. This allows her to view Rangappa's learning journey using the Navigator for instructors. "On the student locator page, Deepa can observe the individual skyline and learner's portfolio for each competency. This provides Deepa with detailed insights into the performance of each learner and helps her identify the specific difficulties they may be facing throughout their learning journey."

B O Carr	× +									- 0	ł.
- C G Https:	/gooru.org/teir	cher/class/96497.0	95-2538-4643	4544-6431.600	Heechtudent	-profidency		2.0	1. 10	9 8	
· Con P Lauring	• 1000	C Determent	**			shat asso	eoba			a 12	
		-		DAIDHOUR	IS ADVOID T						
			-						61	Agent 2020 - 1	0
tantil	GAND	COMPRIMENTS Automatic		thurbone.	THE BENT	104.	A00454004	Decision: 2016	\$403034468	AGGING	DAGE
O Part and some read	• 1		* 6	10×5x	\$10.246	Live Physics					
O manuagent and			+ 2	-	224	539	100				
2 magantation				-	(i)	-					
C may way a speed					81	10					
() my sin against						1					
D may may not war				10	1.	1					
() myanihite											
3 mg min nag					1	÷.					
0				100	10						
2 mg 4433 mith	-			-							
O may say man					-						
🗿 mija-taja mija			*3	26450	- 45	210	100				
2 many me					-	-					
much at atta											

Figure 7.18 Class Progress report

These features enable Deepa to have a comprehensive understanding of each learner's progress and challenges, allowing her to provide targeted support and guidance to the elected representatives.

In the class progress report page, Deepa can access detailed performance data for the entire class, including information on a daily, weekly, and monthly basis. This report provides comprehensive insights into the competencies gained by the learners, assessments taken, lessons studied, and the time spent on various activities. It allows Deepa to have a comprehensive view of the learners' progress and engagement over different time periods, enabling her to identify trends, track improvements, and provide targeted support as needed.



Figure 7.19 Learning Journey page on Gooru

"On the learning journey page, Deepa can view the complete course structure, including milestones and lessons for each competency. She has the ability to grade offline tasks, projects, and essays using Rubric's grading system, while multiple-choice and other objective questions can be machine graded. Based on Rangappa's performance, Deepa can also assign additional content to enhance his learning effectiveness," I further explained.

7.4.3. Navigator for Leaders:

"When I mentioned that there is a system that constantly monitors students' activities, learning, and problem-solving, everyone in the meeting became curious, and Simple Sudarshan asked how it works."

"Yes, the Navigator mission control is designed for educational leaders, providing them with detailed data to make informed decisions, monitor progress, and track the real-time impact they are making. Educational leaders with appropriate permissions can access relevant learning data. For example, leaders can review aggregate data and identify learning challenges to come up with effective solutions," I clarified.

"Mission control is one of the most crucial tools in NLT, used to track the learners' progress throughout the course. It can be accessed by teachers, mentors, course creators, and administrators such as GP Adhyaksha, SIRD Trainers, EOs at Taluk level, or CEOs at District level. It provides an overview of all the activities taking place in the course, allowing leaders to stay updated and make informed decisions," I concluded.



Figure 7.20 and 7.21 Mission Control screen showing the details of all the learner's activities in a month.



Minutes Cantored	REPC	MTS LEARNING RECISITINY LEARN		tampoorra _e . I
	ಎನ್.ದೇವರಹಳ್ಳಿ		STUDENT (14)	
	37	LINE FRACEWOOVELS F 680	QN X	
	Competencies Datest		SMORSTPustimeidutt.comm. 11	
		(p)	SCORECK Development BZ 10 SCORECRD 11	
	2 <u>8</u> 0 0		1.MPERC Verse Colochede: 1998.	
	1.000		SMORGENDesseduik 81. stor. 2	
	COMPETENCES 1 1 1		LENSET WRITE D. D. D. SCHOL	
	79.09 37	18m 10c Attes ticket inde 0	Learning Challenges	
	Performance Competencies Gamed	Aug Treespert Hauterte	Click on Sarith	a Bhai
	O Berlinson An		E D73.1 Able to understand the origin of the idea of D	
	U →0% errorbetjer		elentralization in India B HEP 5	
cu oatrol		PORTS (SARING RESISTIV LI	FARMERS	0.
cu atra	الم المحالة المحالة المحالة محالة المحالة محالة المحالة محالة محالة محالة محالة المحالة المحالة المحالة المحالة المحالة المحالة المحالة المحالة المحالة محالة محالة محالة محالة محالة محالة محالة محالة محالة محالة محا		FEB MAR APR MAY JUN JUL 2011 2011 2011 2011 2011 2011	0 ·
ru I	AU INDUA 2021 C AU DIST CACADOR CONTRACUERCA 3 COMPLANC Indu 3 Kommutaus 3 Cheffinacuerca 3 Complance 16	PORTS (2444/mid Segstay (14 G SEP OCT NOV DEC JAN 0 2000 2000 2000 2000 2000 2000 2000 2	EAN-BRS FEB MAR APR MAY JUN JUL 2021 2021 2021 2021 CANS Q. Saunt daws	0 •
CUL Control	RE INDIA 2021 (AU 2021 India > constanta > contractiona > contract India > constanta > contractiona > contractiona India > contractiona > contractiona > contractiona India > contractiona > co	RORTS (LANDING RECETTY (L G SEP OCT NOV DEC JAN 0 2000 2000 2000 2000 2000 2000 2000 2	PEB MAR APR MAY JUN JUL Stati stati stati stati CASS Q, Searth dass 222808.rddtstake:	2
ru atra	INDIA 2023 AU I	PORTS (2AURING RESISTIV (1)	EARNERS FEB MAR APR MAY JUN JUL 2011 ANT 2017 2017 2017 2017 CASS Q. Saurth class 222493. Gestistik 122493. Gestistik	0 s
nu Intro	INDIA 2021 (AU DIGI		EAN-ERS FEB MAR APR MAY JUN JUL Stati and 2027 2027 2027 C.ASS Q. Saurh diss 222693.ctdsta.alt: w 222653.6stata. w	8 8 8 8 7 10 7 2
Cattod	INDUA 2021 (AU INDUA 2021 (AU I		AANERS FEB MAR APR MAY JUN JUL 2017 2017 2017 2017 2017 CASS Q. Saurti dass 222803.0cdcala.akc 222803.0cdcala.kc 222803.0cdcala.kc 222803.0cdcala.kc 128805.0cdcala.kc 128805.0cdcala.kc 128805.0cdcala.kc 128805.0cdcala.kc 128805.0cdcala.kc 128805.0cdcala.kc 128805.0cdcala.kc 128805.0cdcala.kc 128805.0cdcala.kc 128805.0cdcala.kc 128805.0cdcala.kc 128805.0cdcala.kc 128805.0cdcala.kc 128805.0cdcala.kc 128805.0cdcala.kc 128805.0cdcala.kc 128805.0	8 5 8 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
Catrol	INDUA 2023 (AU DOD 2023 (AU DOD 2025 (AU DOD 2025 (AU AU AU AU AU AU AU AU AU AU		Activities FEB MAR APR MAY JUN JUL CASS CASS Q. Saurt data 222803.rtetati.alle 222803.rtetati.alle 222803.rtetati.alle 222803.rtetati.alle 222803.rtetati.alle	8 K 6 6 7 2 7 2 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5

Figure 7.22 to 7.25 Overview of performance from the National Level to GP level on Mission Control

In Figures 7.20 and 7.21, the Mission Control screen displays the detailed information of all the learners' activities over the course of a month.

Krishnappa then asked, "How does NLT benefit leaders?"

I responded, "Let's consider a scenario where elected representatives are taking a course on Gram Panchayats after their election. Mission

Control provides leaders with a comprehensive view of learners from across the country and their activities. This includes details such as lessons completed, lessons in progress, time spent on each lesson, scores achieved, and much more. It offers leaders valuable insights into the progress and engagement of learners, enabling them to monitor and support the learners effectively."

"If you look at Figures 7.22 to 7.25, you can see how learner data can be viewed from the national level down to the Gram Panchayat level. This capability is incredibly valuable in ensuring that candidates across the country are gaining competency and understanding in the subject of Gram Panchayats," I explained.

"The Minister of Rural Development & Panchayati Raj can utilize Mission Control to understand the status of elected representatives. Adhyakshas, bureaucrats at all three tiers, and other administrators can also use this tool to monitor the progress of elected representatives or learners. In the images, we can also observe the location of each learner in their learning journey," I continued.

"When you click on each student, as shown in Figures 7.23 and 7.24, it provides a detailed description of the learner's activities and their progress in the course. Based on our NLT implementation experience in Chitradurga, Karnataka, we have seen that Mission Control is effectively utilized by mentors to ensure that learners do not encounter any issues while using NLT," I mentioned.

Lakkamma raised a question, asking what happens if someone doesn't know how to proceed. I addressed her concern, saying, "For example, Tippeswamy, a mentor in Chitradurga, discovered that a candidate was unsure how to navigate within the app after completing the first lesson. In Mission Control, the candidate's progress was stuck on the learning path for a few days. The mentor noticed this situation and provided assistance to the candidate, guiding them in learning how to navigate the course. Regular tracking of learner data will be extremely helpful in ensuring that all candidates have the best learning experience with NLT."

7.4.4 Navigator for Guardians

Nanjamma then asked about the role of guardians in this system.

I explained, "Navigator for Guardians is an app that involves the participation of guardians in the learning process. In the case of NLT, since our elected representatives are the learners for the Gram Panchayat course, either the Adhyaksha or a mentor will serve as the guardian for all the elected representatives. The role of the guardian is to ensure that the elected representatives learn effectively throughout the training using NLT. For instance, if I am the guardian for all 19 elected members in the classroom, I would download the 'Navigator for Guardians' app, connect to the 19 accounts of the elected representatives from my Gram Panchayat, and be able to see various information about their activities on the app, such as classes enrolled, assignments completed, or those that are due."

7.4.5. Navigator for administrators

Furthermore, I addressed the role of administrators, stating, "Administrators of schools and learning providers are responsible for setting up the NLT system for their students. They can configure the Navigator to align with the curriculum standards of the school. In the case of Gram Panchayat education, administrators can be SIRD Trainers, administrators at the Taluk and Zilla Panchayat levels, or even the Minister of Rural Development & Panchayati Raj. Administrators have the ability to monitor the implementation progress and ensure that NLT meets the training and education needs of the elected representatives. It was surprising for many at the meeting to learn that administrators could also track learning progress."

7.4.6. Navigator for Researchers

"Not only that, there is also an application for researchers within this system," I stated and continued, "Researchers develop new tools, learning activities, practices, or curriculum and validate them through the participation of learners on the platform. They examine user interactions and experiences to compute real-time results, understand mindsets, and analyse how students' knowledge is reflected."

7.4.7. Navigator for Content Developers

Sudarshan raised a question, asking how the curriculum is prepared.

I responded, "The Gooru NLT library is where competency frameworks are developed. These frameworks are based on the requirements of organizations like SIRD and NIRD, as well as feedback from Gram Panchayat experts and elected representatives. In this library, educational materials such as curriculum, textbooks, YouTube videos, and online courses are mapped to those competencies. For example, Sampoorna Swaraj Foundation acts as a content developer for Gram Panchayat education using NLT. They develop the syllabus and curate resources from various open sources to create collections, assessments, and offline activities, enhancing the overall learning experience."

7.5. Advantages of Using Gooru to Train our Elected Representatives

Nanjamma inquired about the advantages of using Gooru to train our elected representatives. I proceeded to list the benefits and explain them to the meeting:

I elaborated on the advantages of using Gooru for training our elected representatives:

- A comprehensive syllabus on Gram Panchayats, along with resources and assessments, has already been developed by Sampoorna Swaraj Foundation. The course provides a complete framework covering all the domains that an elected representative needs to know about Gram Panchayats, including engaging activities.
- The course is available in multiple languages, enabling elected representatives from different states across the country to study using NLT. This language support makes it a feasible alternative for training elected representatives nationwide.
- NLT ensures that each learner's current knowledge is assessed at the beginning of their learning journey. Based on this assessment, the navigator guides the learner throughout the entire journey, tailoring the training to their individual needs and capabilities.
- With NLT, elected representatives and their teams can learn lessons systematically at their own pace, fostering a natural and comfortable learning process.
- Instructors have real-time data on all the learners in their classroom, allowing them to intervene and provide clarification when necessary. State trainers, for example, can monitor the growth of elected representatives through this feature.
- The navigator for guardians is another valuable feature that creates an engaged and supportive learning ecosystem. As discussed earlier, the Adhyaksha can serve as the guardian for all the elected representatives from their respective Gram

Panchayat, enabling them to assess the performance of their team effectively.

7.6. The Successful Implementation of Navigated Learning Technology for Gram Panchayat Elected Representatives in Karnataka

"Is NLT implemented in many Gram Panchayats", enquired Muniyappa.

"Muniyappa, NLT has been implemented by Sampoorna Swaraj Foundation for Gram Panchayat elected representatives. The foundation has developed a course in Kannada on Gram Panchayats, which is available on Gooru for anyone to register and learn. The course is based on a competency framework consisting of 16 domains that cover all the knowledge and skills required to enhance the competency of elected representatives or citizens. Domains within the course include subjects such as the history and evolution of Panchayats, functions of Gram Panchayats, Gram Sabha, finance and accounts, and more. Each domain is further divided into competencies, which are accompanied by resources such as videos, texts, images, PDFs, and assessments based on the provided resources. The course ensures that learners understand the concepts being taught. If a learner's performance is not satisfactory, the Navigator presents a personalized learning path for the same competency to ensure effective knowledge gain. The domains were carefully chosen, considering the knowledge and competencies expected from elected representatives," I explained.

"Using the NLT course on Gram Panchayats, elected representatives of Gram Panchayats in Chitradurga were able to study at their own pace from their homes. The course is designed to facilitate easy understanding of the content, starting from terms, definitions, concepts, and their application and execution. This systematic approach has made it much easier for them to learn the subject," I added.

"Sampoorna Swaraj Foundation has successfully implemented this solution in Gram Panchayats across multiple districts in Karnataka. The technology has been widely accepted in Karnataka Gram Panchayats. The objective of this project is to increase the domain competency and build the capacity of elected representatives. The course on Gram Panchayats will be made available in all Indian languages, allowing elected representatives to experience the Sampoorna Navigated Learning course on Gram Panchayats," I concluded.

7.7. How You Can Use GPS in Learning for Your Gram Panchayat

"How can we start using NLT in our Gram Panchayats?", posed Seenappa.

"Seenappa, the methodology of training or teaching is evolving rapidly. In recent years, training has been conducted using textbooks, videos, and satellite technologies. This evolution highlights the importance of ensuring that our elected representatives have a comprehensive understanding of Gram Panchayats to become leaders who can make a positive impact on rural India. Rural India needs adhyakshas and elected representatives like you to represent their interests and work effectively towards their upliftment. Competent leaders like you are essential in ending external pressures and establishing true local self-governance. Only when you, as an adhyaksha or elected representative, possess knowledge about your work, can you become catalysts for a new evolution, as we have discussed," I explained.

"Navigated Learning Technology has already been tested in Chitradurga district of Karnataka for elected representatives of Gram Panchayats, and we have received excellent feedback on this new learning method that meets their requirements. The major advantages include the ability to learn remotely, at their own pace, access a variety of materials in their local language, and have a mentor to guide them throughout the course. As an adhyaksha or elected representative, you too can try this training methodology at home. Remember, to become a Digital Gandhi, arming yourself with knowledge about local governance is one of the first steps. After that, we will explore the integration of various technologies to help your Gram Panchayats achieve comprehensive development," I concluded.

"In this chapter, we have discussed the importance of domain competency for elected representatives in achieving effective local governance. We have also emphasized the significance of providing accessible information in local languages, rather than relying solely on Hindi or English. Our ultimate goal is to make learning inclusive and equitable for all individuals. However, we still face the challenge of making learning accessible to citizens who have never attended school or who cannot read and write. How can we ensure that NLT is accessible to elected representatives with such limitations?" I posed the question to the gathering.

Curiosity filled the room as they awaited my response.

"Well, Adhyaksha, all the information you seek is available in our book. Not only that, in the next chapter of this book and in our upcoming meetings, we will delve into the realm of Natural Language Processing (NLP) technology. NLP provides a platform that ensures equal access to information and learning opportunities for all elected representatives and citizens. Additionally, the use of NLP will facilitate various transactions, open doors for businesses, establish relationships with other states, and enhance collaboration between your Gram Panchayat and other parties, as we discussed in the concept of a village republic. We will explore these ideas further in our future interactions," I concluded my talk.

 $\infty\infty\infty$