

Learning crisis at elementary school level in India: Need for systemic interventions

ABSTRACT

Developing countries have made tremendous progress in getting children into schools. But learning is not guaranteed. An estimated 617 million children and adolescents around the world are unable to reach minimum proficiency levels in reading and mathematics. This learning crisis is the greatest global challenge to preparing children and adolescents for life, work and active citizenship. In India also, where GER at elementary level is 100%, more than fifty percent of children are 'learning poor'. This paper is an attempt to highlight the dynamics of the learning crisis in India in terms of its antecedents and repercussions. Further, evidence based systemic interventions have been proposed to eliminate the present and future crises, and ensure that every child learns.

Keywords: Learning crisis, Elementary Education, India, Repercussions, Antecedents, Interventions

1 INTRODUCTION

The strength and development of a nation depends upon the educational foundation of its people and this foundation is built during school education. To achieve the goals of education, schools should aim at providing children with the knowledge, skills and interpersonal competencies required for their development, adult life and contributions to the economy and society. Schools can offer learning experiences that a child may not obtain at home, particularly if he or she is living in a disadvantaged environment (Heckman, 2008) and it starts at the elementary level. Elementary education is of utmost significance as it establishes the foundation for learning. It aims to provide fundamental skills in reading, writing and understanding core areas of knowledge and personal development. Children are prepared for further education as well as for life.

Despite the many cultural and political differences among nations, the objectives and curriculum at least of elementary education tend to be similar. Education aims to enable students not just to acquire knowledge but also to become capable and responsible citizens. Therefore, we must prepare students with more than basic reading and writing skills. Students need to be able to interpret information, form opinions, be creative, communicate well, collaborate, and be resilient (Encyclopedia Britannica). Nearly all nations are officially committed to mass education, which is viewed as eventually including a full elementary education for all. Thus, Education systems have two important functions: keeping children in school and making sure that they are learning.

The developing nations worked harder to ensure education for the masses. A series of events both at the international and national level translated the vision of education for all into legal obligations and commitments of the governments across the globe. The 'Education for All' programme launched at International level in 1990 demonstrated the responsibility to provide access to basic education to every child without ignoring the quality aspect of the education. Around 1500 delegates from 155 countries, 1990 met at the World Conference on Education for All in Jomtien, Thailand. The importance of universalization of basic education was shared by all the participant countries.

Near universal access in many developing nations has been achieved but the quality dimensions remained elusive. There was thus a linear sequencing of access first and quality later (Ramachandran, 2004). On the contrary, it has been established that access and quality are not sequential elements, and a number of international organizations have visualized the role of quality as being instrumental in improving access (UNESCO 2003, UNESCO 2005). Thus it has been realized that only education with sufficient quality can effectively fulfill the human development agendas i.e. development of the individual and society.

The UN has taken cognizance of this reality and has declared the Post -2015 agenda of Sustainable Development which is to be achieved by the year 2030. The 4th Sustainable Development Goal set by the UN states that the countries should 'ensure inclusive and quality education for all and promote lifelong learning'. UNICEF (2017) also advocated that to prepare today's young people for life in the 21st century, gains in access to education must be accompanied by improved quality of learning. This calls for a

sharper focus on quality to ensure improvement in learning outcomes and school attendance, and to help children develop cognitively, creatively and emotionally while they acquire the skills, knowledge, values and attitudes they need to become responsible, active and productive citizens.

An increasing agreement may therefore be found among nations to the effect that *'preparation for citizenship' is one of the major objectives of elementary education*. Ensuring that children attend school is essential but not sufficient to achieve the SDG goal of quality education. World Development Report (2018) mentioned that developing countries have made tremendous progress in getting children into the classroom and more children worldwide are now in school. But learning is not guaranteed. World Bank (2019) revealed that worldwide, hundreds of millions of children reach young adulthood without even the most basic skills like calculating the correct change from a transaction, reading a doctor's instructions, or understanding a bus schedule—let alone building a fulfilling career or educating their children. According to the World Bank, 53 percent of children in low- and middle-income countries are "learning poor" —they cannot read and understand a simple story by the end of primary school. The term 'learning poverty' is defined as the share of children who are unable to read a simple story by the age of 10. Just over half of all children in low- and middle-income countries are characterized by learning poverty. This is an astonishing and unacceptable number.

A similar situation has been reported by UNICEF. An estimated 617 million children and adolescents around the world are unable to reach minimum proficiency levels in reading and mathematics, even though two-thirds of them are in schools. This learning crisis is the greatest global challenge to preparing children and adolescents for life, work and active citizenship. Without skills for lifelong learning, children face greater barriers to earning potential and employment later in life. They are more likely to suffer adverse health outcomes and less likely to participate in the decisions that affect them – threatening their ability to build a better future for themselves and their communities (UNICEF, 2021).

Evidence reveals that we are in the midst of a global learning crisis that threatens countries' efforts to build human capital – the skills and know-how needed for the jobs of the future. Attaining the Sustainable Development Goals (SDGs) is also at risk – including the goal to end extreme poverty (World Bank, November 8, 2019). Thus, no challenge is greater than that of the learning crisis.

2. LEARNING CRISIS IN INDIA

In India also, learning assessments show that children who are in school are not learning the basics of literacy and numeracy or the additional knowledge and skills necessary for their all-round development as specified under the Right to Education Act. Children are not achieving class-appropriate learning levels (Sahni, 2015). Alcott & Rose (2017) find that students from the poorest households are 16 percentage points less likely to be able to subtract than those in the wealthiest households. Large-scale assessments show that learning varies by wealth, with the poor on average about 20 percentage points less likely to be numerate than the well-off.

Annual Status of Education Report(2018) conducted annually by NGO Pratham since year 2005, showed that in grade 5 after more than four years of schooling, only half of all children could read a grade 2 level text fluently. Low learning levels and dropout rates continue to be high for the state and central governments. Without urgent help, students cannot effectively progress in the education system, so improving the quality of learning in schools is the next big challenge. There are also disparities existing between states, with large gaps in learning levels. (ASER, 2018).

The National Achievement Survey(NAS) is conducted by the Ministry of Education triennially. In the year 2017, NAS was conducted for grades 3, 5 and 8 giving a similar picture with only 45.2 percent of students achieving the targeted performance levels across all subjects and classes at the national level. Again in 2021, NAS was conducted in which learning levels of 3.4 million students from 1,18,274 schools across 720 Districts in all 36 States/UTs were assessed. In this survey,the performance recorded a decline in almost all subjects. For instance, the mathematics score nationally was 57% in class third, dropping by almost 10 percentage points to 44% in fifth, and 36% in class eighth. For the language score, nationally it was 62% in class third, and dropped to 52% in class fifth, and to 53% in class eighth. For science, the national score declined from 39% in class eighth. The survey further highlighted that the average performance of schools in rural areas remained "significantly below" those of urban areas in the same states and union territories (UTs), and the performance of students from the schedule caste (SC)/ schedule tribe (ST)/ Other Backward Classes (OBC) categories remained lower than that of students from the general category.

However, achieving equality in learning across wealth quintiles would still leave more than 30% of the poor innumerate, as even the more economically advantaged have relatively low learning outcomes (Kaffenberger, 2019). This underscores the need to improve learning outcomes for all – not just equalize currently low rates of learning across the board.

UNICEF India (2021) reported that in rural India, nearly three-quarters of third graders cannot solve a two-digit subtraction problem such as 46 minus 17, and by grade five — half still cannot do so. According to a World Bank report also, more than fifty percent of Indian children are “learning poor” because they read below the minimum proficiency level while in school.

Further, in India, over 27% of the population is under the age of 14, and if they are not learning as expected at the elementary level then around 1/4th of Indians turn out to be unprepared or underprepared for the future. It's of grave concern. Therefore, it is crucial to find out how much students are learning in our schools. The learning outcome is the best indicator of learning because it shows what learners have actually learned after completion of the class.

From the above, it is evident that while countries have significantly increased access to education, being in school isn't the same thing as learning. Poor education outcomes have major costs for future prosperity, given that human capital is the most important component of wealth globally. Education that is hit or miss results in a waste of resources. More importantly, it results in wasted opportunities for children.

3. ANTECEDENTS OF LEARNING CRISIS

While exploring the causes of low performance of students, researchers (Rowe, 2003; Vyas, 2014; Wright, Horn, Sanders, 1997) posit that within factors that fall into the purview of education, the effectiveness of the teacher in the classroom is the most important factor that determines students learning. In India also since decades, many researchers (Batra, 2002; Sambhav, 2003) have discovered that classroom teaching practices as a cause of the deplorable performance of students. According to them, a large amount of time was spent on mechanical teaching.

Though many teachers are sincerely putting effort but not getting the desirable outcomes. The reason may be the use of 'one size fit model' in the classrooms with diverse kinds of learners, which falls flat. This one-size fit pedagogy was successful in the past before the 1990s, when one exclusive group of children reached schools and they constituted more or less a homogenous group, most of them being from 'well to do families' i.e. economically well-off. So it was easier for the teachers to teach such children. After the 1990s when the 'Education for All' programme was launched at the international level and subsequently adopted by India in the year 2000 with the Sarv Shiksha Abhiyan, children from different backgrounds got the opportunity to get into the schools. Most of them were first-generation learners. With vast background, heterogeneity increased in the classroom, thus the diversity in learners' needs. Now, teachers' responsibility has raised manifolds to cater to the diverse needs of learners. Since then, little or no change in pedagogical practices and methods has been noticed in Indian public schools. A report of the World Bank (2019), also delineates that a growing body of evidence suggests the learning crisis is, at its core, a teaching crisis. For students to learn, they need good teachers—but education systems pay little attention to what teachers know, what they do in the classroom, and in some cases whether they even show up. Saavedra (2019) also believed that teachers are the single most important driver of how much students learn in school thus addressing the learning crisis requires supporting teachers.

Further, teacher accountability remains a serious problem, and is perhaps the most important factor undermining the teaching-learning process (Mehrotra, 2006). The comparisons between learning outcomes of public and private school students also highlight this fact. Muralidharan and Sundararaman (2013) found that students of private schools outperformed public school students and the reasons for higher performance in private schools included a longer school day, a longer school year, lower teacher absenteeism, higher teaching activity, and better school hygiene.

Teachers' doubts about students' capabilities may be another reason for students' low learning. Teachers attempt to maintain a positive self-image by blaming students/parents/policies etc. for poor learners' outcomes and believe that these factors are beyond their control. As teachers do not like to take the onus of students' low learning, it necessitates making teachers realize their accountability because the situation would not change if teachers would remain on denial mode about their accountability. Many previous researches have revealed that teachers' positive judgments about students' academic achievement and intelligence had very large effects on their academic achievement (Kocak, Goksu & Goktas, 2021).

Some researchers blamed the curriculum and its progression from lower primary to upper primary as the cause of low outcomes. Banerji (2019) believed that much of the curriculum is not suited to the students' skill levels. She noted, "if you start with things people can't do, then the disinterest comes in much earlier. Furthermore, the curriculum transition from lower primary to upper primary level is not linear i.e. suddenly the complexity gets increased from 5th to 6th class in almost all the subjects and becomes overloaded. For example, till 5th, students have only EVS but in class 6th, Science and three textbooks of Social Studies are introduced. Similarly, in mathematics curriculum abruptly complexity increases. The students struggled during their lower primary classes as found in surveys (ASER-2018; NAS-2017, 2021), could not be able to cope with the loaded curriculum of upper primary, and thus may not be able to learn much. Therefore, it becomes imperative to revisit the curriculum of lower primary and upper primary levels and make these sequential in terms of content load as well as complexity.

In many public schools, at early stages, students' learning is not much cared about, due to which many of them lag in class-specific learning. If teachers do not intervene at an early stage, then as they progress from one class to the next, the learning gap keeps on increasing and eventually lose interest and refuse to learn further. It leads to disinterest in the studies that lead to low learning levels. This issue entails immediate attention and action.

Many studies (Alcott & Rose, 2017; Chaudhary & Roy, 2009; Drajea & O'Sullivan, 2014; Kingdon, 2007) also have suggested that poverty and low parental education have great influence on the learning outcomes of children in schools. But we have to understand the fact that these findings have been obtained by comparing children from poor and rich families and of low and high parental literacy wherein the former groups underscored as compared to the latter. On this basis, we should not assume that children from poorer families with lower parental education have lesser potential for learning; rather they may have more potential based on Normal Probability Curve. Moreover, Sarva Shiksha Abhiyan shows that notwithstanding the parents' low educational attainments, they are immensely supportive of their children attending school. It is parental support that helped achieve near-total enrolment. Efforts to improve learning have to build on this support (Economic Times Editorial, 2017).

Then to whom to give the onus of low learning among these students? Probably, the education system in general and teachers in specific. This calls for empowering teachers with effective pedagogies and attitudinal changes to cater to the educational needs of all types of learners and systemic intervention for overhauling of elementary education.

4. REPERCUSSIONS OF POOR LEARNING

UNICEF (2021) warned that without basic learning our children and adolescents would not be ready for life, work and active citizenship. They would face greater barriers to earning potential and employment later in life. They are more likely to suffer adverse health outcomes and less likely to participate in the decisions that affect them – threatening their ability to build a better future for themselves and their communities.

Several other research reports have emphasized the necessity to gain mastery in reading, writing and numerical operations at the early stages. If these are not mastered at the primary stages children encounter serious problems at the higher levels (Azim Premji Foundation Report, 2004). Similarly, Sinha (2003) stressed that children who complete the primary school with less than 60% marks at primary level are unlikely to complete middle/secondary school, as the academic load increases after this stage. Vyas (2014) also linked low learning outcomes at the primary level with dropout at higher levels. He mentions that significant dropout rates exist at the higher level of education, with only a fraction making it to the tertiary level. The low quality of education at the primary level threatens to leave a large part of India's future as uneducated and unproductive. The same findings have been observed by Puri, Garg & Kaur, (2020) in their phenomenological study of educational exclusion in Punjab. They have reported the major reason for dropout at the secondary school level is low achievement in previous classes. Thus, poor learning at the elementary level may lead to dropout at higher levels of education, which may jeopardize the goal of Universal Secondary Education and also to reach 50% GER in higher education as envisioned in National Education Policy-2020. NEP-2020 also anticipates that without foundational learning, the country could lose over 100 million students from the learning system and to illiteracy.

According to NITI Aayog, poor employability is a direct outcome of poor education. With 70% of India's workforce residing in rural areas, it is rural India that will form the majority of tomorrow's workforce—half of the total population is expected to be in rural India by 2050. The poor quality of education in rural

schools will surely affect the employability of rural youth. Handicapped with low employability skills and poor educational foundation and the resultant low productivity, their struggle to find better-paying opportunities will likely follow them wherever they go. Against this background, India's positioning to convert the benefits of the demographic dividend into increased national income is weak (Singh, 2018). Further, low achievement in mathematics in Indian schools was considered as a serious concern by Toor, et al. (2016). According to them, traditionally, we Indians have been having a comparative advantage in mathematics, even globally. Students, who are now in elementary classes and are not doing very well in mathematics, when they would grow up, they may not have the same advantage in the globalised job market. Moreover, mathematics is a bedrock and an indispensable tool for the scientific and economic advancement of a person and a nation at large (Nyaumwe & Makondo, 2013). It is a fundamental part of human thought and logic in his attempt to understand the worldview of the environment in which he lives (Lynn & Bracado, 2009). Thus, students with low learning outcomes in mathematics would remain at a disadvantage and would not be prepared for the future world. Anticipating the above-mentioned repercussions, it becomes obligatory to improve the learning outcomes. The first step in this process is to find out the reasons for poor outcomes and then work on eliminating these to enhance learning outcomes and minimize learning crisis.

5. INTERVENTIONS

Each child is born into circumstances over which he/she has no control. At birth, each child inherits different capabilities and different resources to capitalize on them. We can't change present family circumstances but we can definitely change their future by providing quality education and ensuring educational attainments. For this following interventions need to be made:

5.1 Immediate Corrective Measures

The first and foremost issue that requires immediate attention is to help these students who have passed the elementary education phase without learning much. They are most likely dropout after secondary or senior secondary level with an increase in the complexity of the curriculum. It calls for instant actions to aid these students in their learning process. Diagnostic and remedial teaching along with adjunctive programmes should be planned. Help can be sought from local communities, NGOs and other volunteers who may teach these students after school hours. State Government needs to work in mission mode to reduce the learning gaps of these students and enable them to complete school education with desirable outcomes.

5.2 Teacher and School Level Interventions

5.2.1 Changing teachers' perception about learners and their potential: The next utmost important concern is to change teachers' misconceptions about learners' capabilities. A large number of teachers believe that most of the students have low capabilities/IQ, due to which they do not learn. It's a proven fact that unless teachers have positive judgment about learners' capabilities, students' achievement remains low. For this, intelligence testing may be done across the state at class 5. This would serve dual purposes; teachers would get to know about the real potential of the students as well as it would improve the self-concept of underachievers who are generally labeled as 'useless'/'worthless'/'duffer' etc. This boosted confidence may lead to better learning.

5.2.2 Addressing Disinterest among students at early stages: Many teachers believe that low learning outcomes are due to the disinterest of the students. Let us understand, how this disinterest develops. At the early stages, students' learning is not much cared about, due to which many of them lag in class specific learning. If teachers do not intervene at the early stage, then as they progress from one class to next, the learning gap keeps on increasing and eventually such students lose interest and refuse to learn further. It leads to disinterest in the studies that lead to low learning levels. This issue entails immediate attention and action. Firstly, learning lags need to be addressed. It mandates pedagogical changes and diagnostic and remedial teaching w.e.f. class 1 or 2, so as to ensure that students do not lag behind.

5.2.3 Pedagogical changes: Our classrooms are teacher-centered. In teacher-led instruction, all the students are required to learn from the teacher in the same way at the same pace (Hwang et al. 2012). This one-size fit methodology does not work well with diverse learners, resulting into low learning levels among students. McBride (2004) stated that "Differentiated instruction' is vital to effecting positive change in student performance because the one-strategy-fits-all approach doesn't work in a real classroom". To differentiate instruction in the classroom, a teacher must

address three student characteristics, which Tomlinson (2001) identified as readiness, interest, and learning profiles. The Enrichment Triad Model also proved to be highly effective in improving student test scores for district and state assessments in every subject and every grade level. Another verified strategy that works well with all types of students is 'Experiential Learning'. Integrating 'Learning to learn strategies' in the curriculum: In classrooms, teachers focus on content learning but rarely teach them 'How to learn' it. Due to this, students may not be able to establish effective ways of learning. They may not be putting up efforts in the right direction as they lack the skill of learning. Therefore, teachers should facilitate learners in '*learning to learn strategies*' as these strategies help to generate meaning for the new information that is to be learned and to store the new information in memory in a manner that will facilitate integration with related knowledge and increase the probability of later recall and use, particularly in transfer contexts. It not only makes learning easier but also to retain it for a longer period.

5.3 Administrative Reforms

5.3.1 Single Public Education System till Class 2: Education till Class 2 is considered most crucial in NEP-2020 and it mandates ensuring Foundational Literacy among every child till class 2. This can be achieved by having only one type of school across the nation instead of different types i.e. public, private, government aided etc. It is generally argued that government schools do not perform up to the expected level because they are not answerable to the parents of the students studying there due to illiteracy or ignorance of parents.

5.3.2 Curricular reforms: The National Achievement Survey (2017, 2021) and other studies have depicted that there is a decline in learning levels as children move up the ladder i.e. from 5th to upper classes. One of the reasons is sudden jump in curricular complexity from class 5th to 6th. As mentioned earlier also, not only the volume of content (for example, EVS is replaced with three social science books and one science book), but also the difficulty level increases non-linearly (in class 5th students just do basic mathematic operations, but in class 6th it becomes complex as a number of new concepts are introduced abruptly). Consequently, students who are already struggling at primary level, find themselves in more bewildering situation at upper primary level thus cannot learn much. Thus, it calls for reorganizing the curriculum up to 8th class, making it more linear and transition from one phase to next should be smooth.

5.3.3 Subject specific teachers at upper primary level: Researchers (Adeyani, 2008; Armstrong, 2009) noted that teachers' specialization in the subject which they influence student performance. Thus, it necessitates the appointment of subject specific teachers for upper primary classes, unless such appointments are done, students' subject understanding may not be improved.

5.3.4 Community Involvement in assessment process: As per section 21 of RTE, one of the functions of School Management Committee is to monitor academic progress of students. It seems SMC are not empowered on this aspect, that's why students keep on progressing from one class to next without learning gains.

It is suggested that SMC should conduct periodic assessments of students and upload the results on a centralized portal that should be in public domain. For the purpose, it must be ensured that while constituting SMC, there must be good number of educated members. These members should be aware of the expected learning outcomes at each phase and be trained in assessment process. It should be mandatory to conduct open periodic assessment by SMC till class 2 without any interference of teacher/school. This periodic assessment (may after every 3 months) in each class would help in early diagnosis of learning problems, if any, and resolve these immediately. This would eliminate the chance of learning lags among students, thus assure learning of each and every child.

5.4 Revamping Elementary Teacher Education:

Presently, a candidate after passing 12th class and qualifying a diploma in elementary education is eligible to teach at elementary schools. One can imagine the disciplinary knowledge of a 12th class student from the our schools wherein learning levels of students are under question since 1994 as reported in Assessment studies and in SLAS, NAS as well as International surveys.

Therefore, Elementary Teacher Education should be revamped. Firstly, the minimum qualification should be at least Graduation. Besides, level of Elementary Teacher Education should be raised from diploma to Degree. The curriculum of Elementary Teacher Education should be designed in coherence with curricular shifts in the schools as well as diverse needs of our children.

While designing the Teacher Education Curriculum, teacher educators have to come out of their comfort zones and introduce new concepts, theories and practices which have relevance with the present context as well as meeting the local needs of the schools. Overhauling of Elementary Teacher Education is needed to prepare elementary teachers who may assure learning of every child in the school.

5.5 Encouraging Research on Pedagogical and other Interventions to enhance learning outcomes

Since three decades, a lot of evaluative studies have been conducted at *National level, State level and District levels*. It has now been accepted fact that most of the students lag far behind in expected learning outcomes. Now we have to move ahead to find the solution of the problem. Therefore, concerted researches should be conducted on finding the ways ahead. A lot of research work has been carried out at global level, but this issue has not been given much attention in India. Though we can start with the evidences forwarded by international studies, but our learners circumstances and needs may be different, therefore, we have to develop solutions keeping in mind our local needs. In this regard, NCERT and SCERTs should focus on promoting researches on pedagogic interventions and other mechanisms so as to devise indigenous approaches to enhance the learning levels of our students.

5.6 Sharing of Best Practices among teachers of different schools

Collaboration between teachers is powerful professional development activity that can help teachers improve teaching strategies. Some teachers may be using certain strategies or techniques which may be working well to enhance learning or dealing with disinterest of students or improving teacher- taught relation etc. These practices must be shared at a common platform so that other teachers may emulate. It provides a sense of trust because people can see evidence of value in the endorsement by a peer. Teachers should be given autonomy to experiment and devise their own techniques that suits to learners' needs. At State level, such online platform should be created where teachers may share their success stories of classrooms with fellow teachers.

5.7 Need for Political Intervention

Ding (2019) mentioned that Banerji, CEO Pratham, believed that education crisis is not a bigger political issue in India. Though education is sometimes prioritized by individual politicians, it “does not seem to seep into the parties at the moment.” Therefore, it's high time for Indian polity to take up systematic actions to bring in quality in public school education especially with regards to enhancing learning outcomes.

6. CONCLUSION

Our students are facing learning crisis which may hamper their ability to build a better future for themselves and their communities. Immediate concerted actions should be taken to deal with the crisis. To eliminate the present and future crisis, we need such schools where all teachers are competent and motivated, empowered with pedagogical skills and able to bring quality learning, and where all students learn at their best, acquires age and class appropriate content knowledge and understanding as well as skills which they may connect with their lives and further education. Children learn with joy, rigor, and purpose (World Bank, November 8, 2019). Governments, teachers, parents, community and the researchers have to work collectively to realize the promise of education for all students, in every part of the world, and ensure '*each and every child learns*'.

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