

Schooling Without Learning: Foundational Skills, Human Capital and Nigeria's Unfulfilled Demographic Dividend

Dr. Olufemi Jonathan Babalola

Abstract: *Nigeria's youthful population offers substantial potential for economic development, but realizing a demographic dividend depends on the human capital and productive capabilities acquired by young people. School participation alone cannot generate these capabilities when children progress through education without acquiring foundational literacy and numeracy. This paper examines Nigeria's education challenge from a learning rather than schooling perspective and develops a Foundational Learning-to-Productivity framework linking foundational learning with subsequent skill accumulation, labour productivity, and structural transformation. Drawing on existing research and national and international education evidence, the analysis highlights substantial inequalities in learning across geographical areas, household socioeconomic groups, and school contexts. The paper argues that foundational learning should be treated as an upstream component of economic capability while recognizing that learning improvements require complementary productive opportunities and effective institutions. It proposes a nationally consistent Foundational Learning Guarantee centred on common learning goals, structured pedagogy, continuous teacher support, targeted instruction, accelerated learning pathways, equity-sensitive financing, and stronger education data systems. The framework provides testable propositions for future empirical research and a policy basis for connecting foundational education reform with Nigeria's broader human-capital and development strategy.*

Keywords: Nigeria; foundational learning; human capital; education; productivity; demographic dividend; literacy; numeracy; inclusive growth

JEL Classification: I21; I25; J24; O15; O40

1. Introduction

The population structure of Nigeria offers great promise for and also great risk to economic development given its large youthful population who can augment labour supply to raise domestic consumption and also enhance innovation and entrepreneurship and increase the potential for growth. Whether or not the country's demographic potential is translated into real economic growth however largely depends on the capacities which young people acquire as they grow up in school. Schooling, however, is presently not achieving its intended goals in Nigeria as the major challenge in education currently is beyond enrolment in school. While more than 10 million children of primary school age are not in school as reported by UNICEF, learning outcomes among children in school are also poor. There is therefore urgent need to understand why many children not in school are missing out on schooling while children in school are also not learning enough in school to translate demographic structure into economic dividend. This paper therefore explores how schooling leads to learning and also how learning generates human capital and also how human capital leads to labour productivity and also how labour productivity leads to structural change in the economy and thus translates demographic potential into economic growth that is also inclusive. While increasing school enrolment without more will raise test scores in learning, that in itself will not raise economic growth significantly. It takes high quality learning in school to raise test scores and also to raise economic growth (Filmer et al, 2020). Moreover, research has shown that across countries, cognitive skills of workers are a much better predictor of earnings and also of economic growth than years of school attendance (Hanushek and Woessmann, 2008; 2012). The paper therefore uses human-capital theory, learning-adjusted years of schooling and also studies of

education systems around the world to develop a framework called Foundational Learning-to-Productivity (FLP) which outlines how early foundational learning influences skills acquisition, labour productivity and also structural change in the economy and thus translate demographic structure into economic growth that is also inclusive.

The framework is then used to analyse the learning crisis in Nigeria and also how inequalities in learning interact with also challenged institutions to inhibit productive employment and also to also consider how a Nigeria Foundational Learning Guarantee with 7 components could be implemented in a nationally consistent manner to ensure that children of school age acquire minimum foundational learning in school. The paper is largely conceptual and also analytical. It draws from a very large body of research on education around the world as well as from data from National Bureau of Statistics, UNICEF and also World Bank. The paper does not aim to add new causal estimates but rather sets out propositions for future study using a wide array of household, school and administrative data from Nigeria.

1.1. Methodological Approach and Evidence Base

The study employs a conceptual and policy analysis approach using purposive synthesis of relevant literature, data and institutional information on foundational learning, human capital development and economic productivity. The study draws from the body of evidence in education economics, human capital development and learning outcomes. Relevant national and international data and policy documents from National Bureau of Statistics (NBS), UNICEF and the World Bank among others are also used. The review particularly focuses on empirical studies including systematic reviews and meta-analysis, national surveys and institutional data. Special attention is also given to recent Nigerian data and information

where applicable to anchor the review to the country's specific context and draw from comparable low and middle-income countries.

Evidence was selected based on three main criteria: Relevance to the theory that underpins the Foundational Learning-to-Productivity (FLP) framework; methodological/empirical quality and institutional credibility; and applicability to Nigeria or similar low- to middle-income countries. First, priority was given to high quality empirical studies (including systematic reviews and meta-analyses), followed by other relevant studies using high quality data from national surveys and assessments, and from reputable public and multi-lateral institutions. Recent studies conducted in Nigeria were given preference over other international evidence in order to apply the international literature to the Nigerian context. The resulting purposive synthesis is therefore selective and based on the current theory rather than a systematic review to establish the average treatment effect from a pooled sample of interventions.

2. From Schooling to Human Capital

2.1 School attendance is not equivalent to education

Investments in education have typically been viewed through the lens of a human-capital approach and have been shown to enhance the productivity of an individual and to raise their earnings over time. Typically, therefore, education is treated as being equivalent to years of schooling completed by individuals. However, this measure is in itself an imperfect proxy for human capital, since schools of equivalent grade structure can deliver very different quality of education to their pupils.

Hanushek and Woessmann (2008) reported that, cognitive-skill measures are strongly associated with labour-market outcomes, income distribution, and economic growth. The relationship between countries' cognitive test scores and economic outcomes over time was analysed by these researchers in later work (Hanushek and Woessmann, 2012).

Indeed, Schoellman (2012) estimates the effect of differences in education quality on output per worker for a large cross-section of countries. Filmer et al. (2020) formalize the difference between years of schooling and learning in schools through the notion of Learning-Adjusted Years of Schooling, which integrates quantity of completed schooling with learning achievement of students. It follows that programs that focus on constructing classrooms and hiring teachers may incorrectly measure progress even when lots of effort is being devoted to developing these inputs, for these have a development value only if they actually increase learning. The World Bank's World Development Report 2018: Learning to Realize Education's Promise, similarly characterizes the global education challenge as a learning crisis rather than merely a schooling crisis and views measuring learning, acting on evidence, and aligning education systems to learner outcomes as the key to addressing it. Treatment of the international education problem as a learning crisis as opposed to a schooling crisis is central to the Report's policy framework (World Bank, 2018).

2.2 Foundational Skills Have a Compounding Effect

While other educational outcomes are largely different from literacy and numeracy, these two have a special characteristic: they are the outputs of early education and the inputs for subsequent education. Children who have acquired sufficient reading skills can use written materials on science, history, mathematics, and vocational training, as well as on information and communication technology. In contrast, children who progress through the grades without mastering reading are consistently challenged by a curriculum that assumes that they have a capacity that they do not possess.

The economic value of foundational learning can therefore be expressed as a cumulative relationship:

$$HC = f(FL, Q, S, H)$$

Human Capital = f (Foundational Learning, Education Quality, Years of Schooling, Individual and Household Factors)

where:

- (HC) represents subsequent human capital;
- (FL) represents foundational literacy and numeracy;
- (Q) represents the quality of later instruction;
- (S) represents subsequent schooling; and
- (H) captures household and individual characteristics.

There is also a significant effect of having basic skills such as reading a primary level reading passage and simple arithmetic on the ability to learn more complex skills.

Evidence on learning trajectories for children of school age further underpins this. Angrist et al. (2021) investigate 'learning losses' across African countries with respect to school age children, and reveal that losses in early learning are not 'left behind' as children progress through the grades.

Proposition 1: Improvements in Foundational Literacy and Numeracy Increase Productivity of Subsequent Schooling: Higher levels of Foundational Literacy and Numeracy (FLN) increase the productivity of subsequent years of schooling such that identical additional years of subsequent schooling led to different levels of Human Capital (HC).

3. Nigeria's Learning-Capability Bottleneck

3.1 The Access-Learning Distinction

The following briefing note looks at Nigeria, which is still struggling with access but for some time now, the learning problems have become so serious that simply increasing enrolment is not going to solve Nigeria's human capital problems. The prioritisation of foundational literacy and numeracy is also supported by evidence that these capabilities function as gateway skills for subsequent learning and can represent particularly consequential investments in education systems with severe learning deficits (Evans & Hares, 2021).

Studies on learning assessment in Nigeria had earlier revealed that there is a deep learning crisis in the country. The studies found out that children from poor households, from rural communities, from public schools and from northern regions of the country performed very poorly in learning assessments

conducted across the country. For example, in a study conducted on curriculum-matched learning assessments in Nigeria, Adeniran, Ishaku and Akanni (2020) found that there is a deep learning crisis in the country.

UNICEF (2026) developed a landscape analysis of foundational learning (FLN) in Nigeria that reports that about 45% of children in Nigeria are unable to achieve minimum literacy and numeracy learning outcomes for grade 5 by the end of primary education. While the report notes that there are large variations in Grade 5 functional literacy rates between states, it provides evidence of what these learning outcomes look like at the subnational level. For example, while Lagos State has a Grade 5 functional literacy rate of 89%, Sokoto State has a rate of 14% (UNICEF Nigeria, 2026).

So, while an average for the whole of Nigeria might suggest that progress has been made towards improving education, in reality the national figures mask a multitude of different systems within different states of the country.

Azubuikwe, Browne and Leckie (2024) find that through multilevel analyses of educational data from across Nigeria's states and districts, that there are strong inequities in children's learning of foundational literacy and numeracy skills across states and between households of different levels of wealth. Moreover, within households of similar levels of wealth, there are also significant variations in children's learning outcomes between communities and within communities.

The Nigerian learning crisis therefore presents two challenges: that of ensuring quality in basic education and that of addressing inequality in learning opportunities.

3.2 Educational Inequality Becomes Productivity Inequality

Children from wealthier households are able to 'compensate' for poor quality public education through their parents' ability to purchase a range of 'substitution' mechanisms including private education, additional tutoring, books, resources (digital and otherwise) and household support.

Poorer households have fewer substitution mechanisms.

The consequence is an intergenerational process:

Household disadvantage → weak foundational learning → lower advanced skill acquisition → lower productivity → lower lifetime earnings → household disadvantage.

Educational inequality is not only found in school performance, but can also be used to reproduce labour market and income inequalities.

Proposition 2: The highest returns in terms of economic value will come from increasing the foundational learning of children from low income households and low performing states because the constraint of poor early learning can be most easily removed in individuals and systems who have few alternative routes to develop advanced skills.

3.3 System Capability Matters

Nigeria's learning problems go deeper than identifying interventions that could work well in 200 odd schools. The far

greater challenge is to ensure that interventions that work well in 200 schools can be scaled up to be of national significance within the parameters of the normal government system.

Nigeria's FLN environment is highly fragmented and consists of various programs, development partners, methodologies and training approaches. According to the landscape analysis, fragmentation can lead to lack of government ownership, results not being generated where they are needed most, and the data being produced in parallel and not being used. Strong government leadership, harmonization, and leverage of middle tier officials are needed to ensure that the results are generated where they are needed most and that implementation is scaled up (UNICEF Nigeria, 2026).

This distinction separates programme effectiveness from system effectiveness.

The results of an intervention can be impressive in terms of numbers of schools reached (e.g. 200) but in reality be of little importance to the country as a whole if the intervention depends on external consultants, short-term funding, proprietary materials or even a specific structure of implementation that cannot be sustained by government in the long term.

Proposition 3: The long-run effect of foundational-learning interventions will depend on the extent to which interventions are able to be institutionalized within normal government structures to support teachers with learning materials, assessments and monitoring for example.

4. The Foundational Learning-to-Productivity Framework

The paper presents a Framework of Foundational Learning-to-Productivity, FLP for short, comprising four interrelated stages of human development as presented in Box 1 above.

Stage 1: Foundational capability: Learning at Foundation Stage enables children to acquire functional literacy, numeracy, communication and basic problem-solving skills as the foundation for subsequent learning in schools and life.

Stage 2: Learning accumulation. Foundational learning enables children to get more out of their subsequent education and to learn even more complex things on their own as they grow up.

Stage 3: Skills conversion. Later education converts the accumulated stock of knowledge into a set of occupational, technical, managerial, digital and entrepreneurial skills.

Stage 4: Productive utilization. This is to be achieved through the labour market and wider economy creating the right opportunities for these endowments to be utilized productively.

The relationship can be expressed as:

$Productivity(i) = f(FL(i), AS(i), LM(i), I)$

where FL = foundational learning; AS = advanced and occupational skills; LM = labour-market opportunity; and I = complementary institutions and infrastructure.

The framework avoids two common errors.

First, literacy does not generate economic transformation on its own! With inadequate employment opportunities in production even greater quantities of better educated individuals can become idle.

Again, do not conflate literacy with production. That is, while the skills of reading and arithmetic alone are not sufficient for production, production cannot continue for long without the skills of reading and arithmetic.

Foundational education and structural transformation therefore need to be tackled as two sides of the same coin rather than as alternatives.

Nigeria's demographic dividend consequently becomes conditional:

Demographic Dividend = Young Population x Human Capital x Productive Opportunity

In other words, if human capital is not developed, then even as the labour force grows, the number of individuals trying to make a living off of it will not translate into higher output per worker.

5. From Fragmented Interventions to a Nigerian Foundational Learning Guarantee

More broadly, systematic-review evidence from low- and middle-income countries indicates that educational interventions vary considerably in effectiveness, reinforcing the importance of directing resources towards approaches with demonstrable effects on learning rather than assuming that additional inputs alone will improve educational outcomes (Sniltstveit et al., 2015). Moving from interventions in education to ensuring that every child is equipped with minimum foundational learning skills to succeed in life is important.

This paper proposes a Nigerian Foundational Learning Guarantee (NFLG):

Every child should be able to read, write, count and problem solve at the level of primary school completion to the minimum standards as outlined in the NFLG, regardless of background or circumstance.

The Foundational Learning Guarantee is not to be delivered from the centre. For a country as diverse as Nigeria, it is imperative that states and local governments are allowed to implement the same national outcomes in the way that best suits their context.

5.1 Measure learning consistently

What governments measure influences what education systems prioritise.

Nigeria needs to progressively build a learning assessment system capable of measuring learning outcomes at the national level, state and LGDA. The assessment should measure learning outcomes of children and young people across different grade levels, gender groups, household

backgrounds, disability status, school types and urban/rural locations.

The learning measures introduced through the 2021 Multiple Indicator Cluster Survey (MICS) for Nigeria provide a set of nationally relevant measures to assess Foundational Learning. The Foundational Learning Skills Module (FLSM) developed by UNICEF assesses reading for accurate word recognition and for meaning as well as basic numerical competency (NBS and UNICEF, 2022; UNICEF, 2022).

These assessments do not aim to measure the potential of individual students. The purpose is to know where students stop learning and channel resources to address the problems.

5.2 Make Structured Pedagogy the Minimum Instructional Architecture

International experience on effective basic education also supports the use of structured pedagogy by combining lesson guides with learner and teacher materials, teacher development and support to teach.

Piper, Simmons Zuilkowski, Dubeck, Jepkemei and King (2018) investigated the impact of a set of education interventions designed to improve early literacy and numeracy. Teachers and their students were provided with a range of support including teacher professional development, coaching, student learning materials, and teacher learning guides. The findings indicated positive effects for reading, and for both reading and numeracy when all four components were integrated together.

The Global Education Evidence Advisory Panel for education also found that structured pedagogy and instruction at children's learning levels were cost-effective interventions that could work in low- and middle-income countries like Nigeria. Importantly, it cautioned against an overemphasis on technology hardware as well as other inputs for education and school management systems in the absence of change in teaching and learning in schools.

Although scripted systems of teaching have been found in several studies to improve reading performance, there is no reason why such an approach must entail the removal of teachers from classrooms. Instead, teachers can be supported by coherent learning materials, clear and long-term instructional sequences, formative assessment, and ongoing support.

5.3 Replace Episodic Training with Continuous Teacher Coaching

Workshops and training programs on teacher development are often organized as separated events from teachers' daily routines and school-year schedules.

The evidence base increasingly favours continuing instructional support.

In a meta-analysis of causal studies on teacher coaching, Kraft, Blazar and Hogan (2018) found positive effects on teachers' instructional practices and student learning

outcomes. However, the effects tended to decline in larger scale implementations than in small efficacy trials.

Training sessions should be on-going and be supported by School-Support Officers, Master Trainers and Peer-Supporters all embedded within the state education system and not confined to the trainers' external organizations.

5.4 Teach Pupils at their Actual Learning Level

A major weakness of the age- and grade-based curricula in use today is that teachers are locked into delivering content for Grade 5 students who read at the equivalent of a Grade 2 level. There is, however, no reason why targeted instruction cannot be temporarily organized around children's demonstrated levels of learning and behaviour rather than their age or grade. In the Global Education Evidence Map, teaching at the appropriate skill level is rated as highly cost-effective (GEEAP, 2023).

Nigeria should aim to carry out short diagnostic tests in order to determine if pupils have fallen behind and, if so, to give them the chance to make up for it in targeted learning situations. This is particularly important following prolonged absence, displacement, conflict or movement between schools.

5.5 Build Accelerated Pathways for Out-Of-School and Over-Age Children

Nigeria cannot treat its vast out-of-school population as if every child can simply return to the grade corresponding to his/her age if enrolled in school. An accelerated basic education that offers an accelerated pathway to formal education, Technical/Vocational Education and Training (TVET) or other recognized programs of study is required.

When it comes to out-of-school and over-age children, the country cannot just return them to the grade corresponding with their age. It is necessary to establish programs of accelerated basic education with compressed curricula of foundational literacy and numeracy, as well as further learning pathways leading to formal education, vocational training, or other programs and certifications recognized by society and the state.

According to emerging evidence from the country, although significant learning gains have been recorded in several of the accelerated education programs, challenges remain such as high dropout rates, low levels of inclusion, and poor transition into formal or non-formal education programs (UNICEF Nigeria, 2026).

There is a lot of learning going on in these programs and so they should form part of the overall education system in Nigeria rather than remaining as programs developed by individuals or funded by donors for humanitarian reasons.

5.6 Connect Federal Financing to Learning Improvement Without Penalising Poverty

Requiring states to perform in order to receive more funds could strengthen accountability, but simplistic performance-

based financing could again serve to transfer even more funds to the already advantaged states.

A better formula would combine:

Allocation = Need + Improvement + Equity + Implementation Quality

In terms of equal distribution of resources, States with deeper educational deprivation would receive greater base-line support. A further component could then be added which rewards independently verified learning improvement from that base-line for each State in turn. This way, schools in deeper despair can receive more baseline funding, while their relative performance is still rewarded.

5.7 Treat Technology as an Instructional Complement

Treat technology as an instructional complement, rather than as the solution in itself (hardware = intervention).

A learning solution therefore has the potential of adding value in teacher support, formative assessment, learners' practice, translation, data management and remedial education; more so if pedagogy, electricity, connectivity, teacher capacity and intervention design are effectively addressed.

As noted above, GEEAP research found that in most cases, "hardware investments alone are of poor value without related and complementary instructional reform" (GEEAP, 2023).

Technology should solve problems in learning and teaching and therefore be restricted to solving specific learning problems rather than becoming an end in itself for education.

6. HOPE-EDU and Nigeria's Opportunity to move from Pilots to Systems

There is an onus on Nigeria's current institutional framework to implement a national learning strategy currently under design.

Hope for Quality Basic Education for All (HOPE-EDU) received approximately \$500 million from the World Bank to be spent over the space of 5 years (March 2025 – March 2030) in support of a program focused on Foundational Learning, Access to Basic Education and Education System strengthening. Specifically, the funds would be used for the expansion of Universal Basic Education (UBEC) program, with more resources allocated to UBEC on a decentralised basis, improved and structured pedagogy in Basic Education, dealing with the problem of very large classes and more teacher support.

This could end up being even more important than the sum of its parts as the only viable means of establishing durable national education learning infrastructure in Nigeria.

- 1) **Minimum Foundational Proficiency:** Establish minimum foundational proficiency across levels, focusing on key competencies in reading, numeracy, and critical thinking.
- 2) **Data for Learning:** Develop and implement interoperable assessment and education-management data systems across various stakeholders to track learner progress.

- 3) **Teacher Support:** Put in place robust teacher-support systems, embedded within government institutions, to bolster and sustain teacher capacity.
- 4) **State-by-State Reporting:** Maintain transparent reporting of state-level learning improvement to foster accountability and compare performance across states.
- 5) **Program Evaluation:** Conduct rigorous, independent evaluation of key interventions, in real time, to enhance and optimize their impact.

At the present time there is some evidence from the recent PLANE evaluations that could be described as cautiously optimistic. Monitoring data from recent PLANE program evaluation at schools in the three states of Kano, Kaduna and Jigawa indicate that there were positive changes in literacy and mathematics, with marked reductions in the proportion of children at the 'beginner' end of the learning outcomes. (UKFIET, 2026). These outcomes will not translate into national causal effect sizes but are significant because they have been demonstrated within a Nigerian context using materials, language, pedagogy and teacher support of a particular kind within formal schooling.

One might say that in Nigeria today what is most important is no longer to search for new individual interventions which can make a difference for learning and therefore to add to the already existing array of such initiatives but rather to build a government-owned system that is capable of taking good practice and delivering it at scale.

7. Research Agenda and Empirical Test

A natural experimental approach using a difference-in-differences framework can be used to assess the effects of the timing of the introduction of foundational-learning programs in schools, in local government areas, or in states that introduce the program at different times. To assess the effects of the program, one would first need to identify a suitable comparison group that does not receive the same treatment at the time of the evaluation. Secondly, one would need to establish a plausible timeline of when treatment was administered, and assess the identifying assumptions underlying the design. This would include, for example, a plausible pre-intervention trend for the treated and comparison groups, no anticipation effects, no changes in sample composition, no other macro- or local policies or shocks that affect outcomes in the treated groups but not in the comparison groups, and no spillovers to schools not included in the treatment group in the same local government area or state. For cases in which treatment is not introduced simultaneously to all members of the same treatment group, it is important to move beyond the two-way fixed-effects approach that treats all individuals with the same timing of treatment equally, and instead consider various alternative estimators that can allow for differential treatment effects for individuals with different timings of treatment.

The FLP framework generates several empirically testable hypotheses.

H1: Pupils acquiring the same foundational literacy and numeracy in a FLP program earlier than others will have a higher learning progression and therefore also higher school-completion probabilities than their counterparts.

H2: Implementing structured pedagogy combined with continuous teacher coaching will record significantly greater improvements in standardised literacy and numeracy scores over one academic year than pupils in comparable schools receiving equivalent-value investments in physical educational inputs without structured pedagogy and coaching.

H3: The marginal effect of any foundational-learning intervention is greater for learners from low-income households and in jurisdictions with low-performing education systems.

H4: The effect of FLN programs will be moderated by state and local level factors which pertain to the ability to implement and sustain quality teaching and learning in schools including teacher support, availability of learning materials, assessment and administrative monitoring.

This will require combining data from existing household and school surveys (MICS, NLABE), school administrative data, States' education expenditure, and implementation data of FLN programs across different states.

For research into the same programs introduced sequentially in a number of states the researcher might use a difference-in-differences or a stepped-wedge design. The following is a simple representation of the first:

A simplest formulation is the following equation where i represents the individual learner, j the school, s the state and t time: $\text{Learning}(ijst) = \alpha + \beta * \text{Intervention}(st) + \gamma * X(ijst) + \mu(j) + \lambda(t) + \epsilon(ijst)$
 i = index for learner, j = index for school, s = index for state and t = index for time.

Studies should also move beyond the conventional short-term test score gains. Of greater relevance would be the ability of foundational learning to predict a host of subsequent complementary educational goals, including school completion at secondary school age, acquisition of relevant technical skills, transitions in employment, and eventual earnings.

This would be a direct test of the key hypothesis of the FLP framework, i.e. that the foundational human capital increases the productivity of subsequent human capital.

8. Discussion

The principal policy implication of the FLP framework is that foundational learning needs to move to the core of Nigeria's economic development strategy.

Industrialization, digital transformation, use of artificial intelligence, entrepreneurship, manufacturing for export, among other areas that the country is debating lately require workers with the needed capacity to contribute productively to the growth of the economy. Working to acquire skills that can be applied productively from childhood is the necessary cornerstone for achieving such ambition.

The sophisticated digital economy cannot be sustained on the back of poor literacy and numeracy across generations of learners; and the fact that most productive capacity is currently embedded in a small percentage of Nigerians with

high levels of human capital means that it will not be possible to sustain productivity growth on this basis for very long.

What Education Reform Cannot Do: The Other Priorities of Foundational Learning Note that FLN should not be allowed to crowd out other important educational goals such as fostering creativity, education for citizenship, and the development of social-emotional, cultural and individual skills. Moreover, while learning reform is underway, no amount of educational reform will compensate for the lack of nutrition, safe schools, health and disability-inclusive education, and household economic security that children need. These are issues currently affecting learning in Nigeria as discussed in a recent UNICEF Nigeria analysis (UNICEF Nigeria, 2026). Conflict, poverty, and climate change, as well as lack of school conditions, affect attendance and learning.

Learning at the foundational level is necessary but not sufficient for more education and greater economic capability.

The growth implication is equally important. No, a high working age population is not enough to usher in a demographic dividend. There will have to be a surge in economic activities with a higher and increasing productive capacity from a larger section of the population.

Education policy must also be connected to employment, industrial, technology and regional development policy.

In synthesis, a learning strategy for the national education system is useless for generating employment for educated but underemployed youth, while an industrialization strategy for generating employment for un- or under-skilled, low-productivity workers is useless for generating a critical mass of skilled and experienced young workers, needing to learn to work productively with new digital technologies, if school leavers lack basic literacy and numeracy skills.

9. Conclusion

Nigeria's education challenge extends beyond bringing children into school. The development value of schooling also depends on whether learners acquire foundational literacy, numeracy, and related capabilities that support subsequent learning and skill formation. This paper has conceptualized this relationship through the Foundational Learning-to-Productivity framework, which links early foundational capabilities with learning accumulation, advanced skill formation, productive employment, and broader economic transformation. The framework also emphasizes that foundational learning is necessary but not sufficient: its economic value depends on labour-market opportunities, institutional capacity, and complementary social and economic conditions. A Nigerian Foundational Learning Guarantee could provide a coherent policy architecture by establishing common learning expectations while allowing implementation to respond to state and local conditions. Structured pedagogy, continuous teacher support, targeted and accelerated instruction, reliable learning measurement, and equity-sensitive financing are central components of such an approach. Future empirical research should test whether improvements in foundational learning generate sustained gains in educational progression, skill acquisition,

employment, productivity, and earnings, and how these effects vary across socioeconomic groups and implementation contexts. Strengthening foundational learning should therefore be viewed as one important component of a broader strategy linking education quality, human-capital formation, productive opportunity, and Nigeria's capacity to realize the potential benefits of its demographic structure.

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