Benefits that matter: Life-planning tools

Early Childhood Learning- A heading Start in Life

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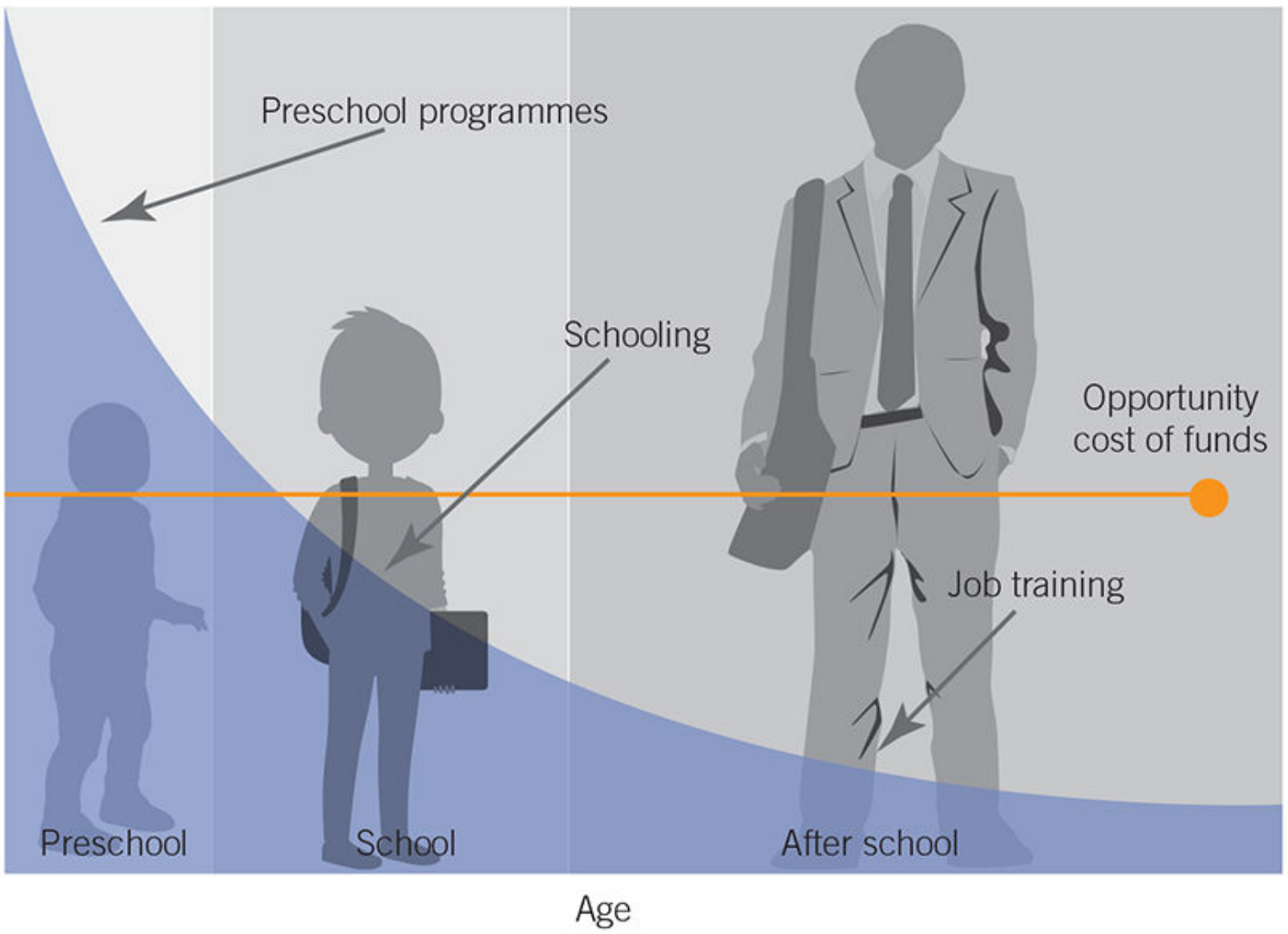
EARLY INVESTMENT IN CHILD DEVELOPMENT HAS HIGHEST RETURN

Nobel Prize-winning research conducted by the University of Chicago's Professor James Heckman demonstrated that early learning among disadvantaged preschool children (under age fi ve) yielded a 13% (ROI) per year. This finding underscores the benefi ts to companies, communities and countries of providing asset-class protection to employees' preschool children.

The Heckman Equation demonstrates the dramatic decline in ROI in learning as people age.



Source: Heckman and Carneiro (2003).

The first two years of life play a critical role in brain development

Brains are made, not born. The combination of nature and nurture determines how the brain is built. A biological embedding process known as epigenetics essentially 'wires' a person to instinctively behave in a way that will improve their chances of surviving and thriving in a given environment.

The molecular, cellular, anatomical and functional fabric of the brain become well established during the first two years of life. Thereafter, it is very difficult to reverse the brain architecture of this ingrained behaviour.

The Center on the Developing Child at Harvard University has worked with crossfunctional teams of experts in South Africa and other countries to expand popular understanding about brain architecture. Between birth and Grade R (age five), the architecture of a child's brain evolves into two basic models: top-down or bottom-up.

Top-down brains, slow-life history strategy: think now, act later
Individuals with top-down brains are programmed to think now and act later. The neocortex, the thinking part of the brain, is in control of top-down brains. These individuals adopt a 'slow-life' strategy that allows them to make judicious risk–reward calculations over a long period. This is known as self-regulation.

Bottom-up brains, fast-life strategy: act now, think later
People with bottom-up brains are programmed to act now and think later (and differently). The subcortex is in control of bottom-up brains. The subcortex asserts bottom-up self-regulation, immediate threat-avoiding and reward-taking behaviours that ensure short-term survival.

Under harsh, dangerous, unpredictable conditions where there are insufficient resources to go around, temporal discounting and risk discounting make strategic sense. Taking what you can get now instead of investing in what you may well not get later, and pursuing high-risk, high-reward opportunities, makes strategic sense, because without taking risks one will likely end up with nothing anyhow. For these people, too many things can and may go wrong before one reaps the benefits of a long-term, low-risk strategy[1].

Low parental investment a characteristic of fast-life strategy
A hallmark of a fast-life strategy is low parental investment. Asset class performance trends in this case are clear. Children with poor top-down self-regulation capacities at ages 3, 5, 7, 9 and 11 years have, at 32 years of age, significantly higher rates of substance dependence, criminality, financial problems and significantly lower income, financial planning skills, socio-economic status and physical health[2].

Figure 6:
Comparison of fast-life and slow-life history strategies which members of the same species adopt under adverse and favourable conditions.

Slow life-history strategy:
Think first, act later.

Fast life-history strategy:
Act first, think later (and quite differently)

FAST Strategy		SLOW Strategy
Physiology		
Faster	Rate of Development	Slower
Earlier	Onset of Puberty	Later
Faster	Biological Ageing	Slower
Mating		
Ealier	Sexual Debut	Later
More	Sexual Partners	Fewer
Casual	Relationships	Pair-Bond
Parenting		
Earlier	Age of Reproduction	Later
Higher	Number of Offspring	Lower
Lower	Investment in Offspring	Higher
Reward Orientation		
Short	Time Horizon	Long
High	Impulsivity	Low
Take	Risk for Reward	Avoid

How can parents with a fast-life strategy improve the likelihood of their children realising their full development potential? By investing more in their children. This includes investing more in nurturing their children with physical demonstrations of affection such as hugs, playing, reading, and singing that reduce the stress of adverse environments and separation during the workday.

How can employers and entrepreneurs facilitate working parents' investment in the next generation?

Employers can mitigate the harshness, unsafety and unpredictability of their employees' lives. Employers' increased investment in working parents will improve parental investment in their children. This will also serve to create an enabling environment to help more young South Africans grow up with the kind of slow-life strategy that's suited to thriving in the formal economy. Most critically, improving working parents' sense of job security, physical safety in the workplace, and safer commuting will lead to more predictable investment in their children.

Employer initiatives include:

- paid maternity and paternity leave
- breastfeeding policies for the workplace
- positive parenting programmes
- workplace-based early learning centres (ELC)
- support for community-based early childhood development (ECD) programmes

The future of workplace-based early learning centres

For those looking to give children access to development opportunities from an early age to improve their ROI in the children asset class, we believe safe, workplace-based ELCs offer tremendous potential.

This past year, Innovation Edge, an emerging markets ECD network, assessed workplace-based ELCs with a view to testing ways to make ELCs accessible to more employees, at more locations. New, scalable business models are evolving to create more affordable access to workplace-based ELCs. This could help raise children of the working poor out of poverty, improve social cohesion among employees, and develop a

business's ability to operate in a more inclusive economy.

Factors determining the success of early learning centres
Developing both social and emotional skills is essential to enabling a child's success in academic learning. The global shift towards focusing on emotional intelligence (EQ) alongside reasoning ability (IQ) in early childhood development is reflected in South African workplace-based ELCs.

Taking a more child-centred approach requires teaching staff to be alert to the individual needs of each learner. Low child-teacher ratios raise the effectiveness of early childhood interventions. High-quality ELCs have ratios of about four children to one teacher or carer for children aged between four and 12 months, and a ratio of between 1:10 and 1:15 for older children. Centralised curriculum development, and teacher and assistant training, contain the cost of delivery.

Workplace-based ELCs are uniquely positioned to use existing employee and family wellness benefits, such as on-site preventative health screenings, physical and mental health education, and medical attention to enable employees and their preschool children to realise their development potential. The convenience of, and positive peer pressure to participate in, health and well-being programmes that will measurably improve the lives of vulnerable children are compelling. **More focused work on systems integration between ELCs and employee wellness providers is required to unlock the value of this convergence**.

Case Study: A workplace-based Early Learning Centre

Case study/lesson

The following two case studies illustrate how employers have developed workplace-based ELCs to commercial advantage.

- An automotive manufacturer in South Africa
- A software company in India

An automotive manufacturer that helped to pioneer workplace-based ELC in South Africa more than 20 years ago has created a welcoming environment for the children of skilled, semi-skilled, and unskilled workers.

This inclusive ELC promotes consistent social, emotional and cognitive progress. Several graduates of this workplace-based ELC have gone on to win company bursaries for vocational training and university, and have secured employment with the firm.

Socio-economic mobility at this workplacebased ELC has not been limited to employees' children. The regular interaction of working parents from different divisions in the company has facilitated unlikely collaboration, better business decisions, and surprising opportunities for training and professional development. For example, a former manual labourer with a natural talent for childcare was given the opportunity to earn National Qualifications Framework (NQF) credentials in early learning, and received coaching support to grow into an effective member of the ELC teaching staff.

Other measurable business benefits to the company include:

- reduction in industrial actions
- improved employee productivity
- greater social cohesion

SAP Labs, a software company in Bangalore, India, partnered with WeCare to develop one of Bangalore's first office-park nursery schools in 2009.

Six years ago, SAP Labs opened a new ELC in its research facility. This initiative underscored the company's determination to become the market leader in gender diversity. The workplace-based ELC became an integral part of SAP Lab's campaign to #BRING WOMEN BACK TO WORK.

Headline results:

- The company has reduced the attrition rate of women of childbearing age from 66% to 4% during the past six years.
- It has improved its ROI in professional training and development by retaining skilled employees.
- More working mothers were able to breastfeed for longer.
- Employees could make better-informed decisions about nutrition and parenting, especially valued by professionals who are first-generation knowledge-economy workers.

What's common across workplace-based early learning centres?

- Companies provide real estate, maintenance and housekeeping. In South Africa, this could be part of a company's Black Economic Empowerment investment strategy.
- Employees – and their children – benefit from having a greater quality, convenience and value of childcare than is generally available in the marketplace.
- Education savings schemes could help parents meet monthly ELC fee payments.

Barriers to workplace-based early learning centres

- Concerns about corporate and personal liability. Companies can mitigate this risk by outsourcing the service to a certified ECD contractor.
- Space constraints.
- Misunderstanding about just how early brain architecture or self-regulation and its attendant social, emotional, cognitive and behavioural correlates start.
- Lack of knowledge about the growing professionalism in ECD.

- Regulatory requirements in South Africa
- Department of Social Development approval is required for setting up an ELC.
- Department of Health certification for handling breast milk is required.

The relationship between childcare, housing and wellness benefits

“Companies are encouraged to think more about how employee housing, transport, and childcare benefits can be designed to maximally mitigate the influence of harshness, lack of safety, and unpredictability/insecurity on parental investment in their workforce’s most important asset – their children. Employers’ return on investment in childcare benefits needs to be made with an understanding of the realities of employees’ home/ neighbourhood environments, employees’ often hazardous commute to work, and how these adverse factors drive life-history strategies,” South African neurobiologist Dr Barak Morgan observes.

References

1 Morgan, B. 2013. *Biological embedding of early adversity: toxic stress and the cycle of poverty in South Africa*. Ilifa Labantwana Resarch & Policy Brief.
2 Moffitt, TE et al. 2011. *A gradient of childhood self-control predicts health, wealth, and public safety.* Proceedings: National Academy Sciences, 108(7), pp. 2693–2698.

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