

PAPER

ECCE Quality and its impact on School and Higher Education

by

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The Pencil Power Report

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ECE QUALITY AND ITS IMPACT ON SCHOOL AND HIGHER EDUCATION

*My heart leaps up when I behold
A rainbow in the sky:
So was it when my life began;
So is it now I am a man;
So be it when I shall grow old,
Or let me die!
The Child is father of the Man;
And I could wish my days to be
Bound each to each by natural piety.*

'The child is the father of the man' William Wordsworth, 1802 poem 'My Heart Leaps Up', denotes that the human nature is intrinsically one that is shaped in the tender years.

The macro- context

Human development refers to the physical, cognitive, and psychosocial development of humans throughout the lifespan. Physical development involves growth and changes in the body and brain, the senses, motor skills, and health and wellness. Cognitive development involves learning, attention, memory, language, thinking, reasoning, and creativity. Psychosocial development involves emotions, personality, and social relationships.

Target 4.2 of the Sustainable Development Goal 4 aims 'By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education.' The indicators for this target are:

Global indicators

4.2.1 - Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being, by sex

4.2.2 - Participation rate in organized learning (one year before the official primary entry age), by sex

Thematic indicators

4.2.3 - Percentage of children under 5 years of age experiencing positive and stimulating home learning environments

4.2.4- Gross early childhood education enrolment ratio in (a) pre-primary education and (b) early childhood educational development

4.2.5- Number of years of (i) free and (ii) compulsory pre-primary education guaranteed in legal frameworks.

UNESCO's Global Education Monitoring Report 2020 examining the progress in target 4.2 observes: "Ensuring all children are prepared and not behind when entering school is an important part of reducing inequality. Continuity between the pre-primary and primary levels is important but should not mean pre-primary education becoming increasingly academic. Early childhood and primary education should be different in purpose, organization and structure" (UNICEF, 2019). The participation rate based on the global indicator 4.2.2 viz. *participation rate in organized learning (one year before the official primary entry age)* is 67% in 2018. The highest is 91% and the least is 41% in high income and low-income countries respectively. The Latin America and Caribbean countries record 96%, Sub-Saharan Africa is the lowest at 42% and South Asia is at 59%.

Significance of Early Childhood Care and Education (ECCE)

From the neuroscience standpoint, the significance of quality and stimulating environment is the fact that 80% of the human brain develops by the age of four years and 90% by the age of six. 700 new synaptic connections are formed every second during early childhood years through the interaction of genes and a child's environment and experiences, especially "serve and return" interaction with adults, (National Scientific Council of the Developing Child, 2007). Early childhood, spanning from birth to the age of six years, is the period that sees the maximum growth and development in the entire human lifespan. During this period, the foundations of cognitive, physical and socio-emotional development, language and personality are laid. Brain development is most rapid during this phase - 90% of brain growth takes place before the age of 5 years (Giedd, 2004). In order to develop the full potential of brain, the child requires a caring and stimulating environment. ECCE is not only essential for the self-growth, but is a tool which combats social inequalities by compensating for vulnerability and disadvantages resulting from factors such as poverty, gender, race, caste and religion, (World Bank, 2007). ECCE's significance is because the quality of environment provided during early years of life has a vital role to play in the process and pace of transformation in children. As they interact with the stimulating and enriched environment, they explore it, manipulate it and form new schemas by accommodating or assimilating the new information (Piaget, 1964). The latest neuroscience research indicates that the foundation for the skills required to face the challenges of the 21st century is laid during early childhood.

Why investing in Early Childhood Education counts

World over, there is a growing realisation that investing in young children has huge benefits as they are well-equipped to meet the future demands of a dynamic society as healthy, independent, and skilled adults. Early childhood is the most crucial period for children's holistic development, and the experiences have a profound lifelong

impact on children's future learning, health and earning potential. Losing an opportunity to maximize young children's development results in a huge loss in human capital caused by a weaker future workforce and skills deficits. Early childhood deficits can cause long-lasting harm to a wide array of outcomes, ranging from physical health to learning on one hand and on the other from chronic unemployment to criminal involvement, (World Bank, UNICEF and IDB 2018). The aging of populations also demands that tomorrow's workforce becomes capable of multiplying today's productivity levels. However, world over investments in early childhood are extremely low, as many countries, continue to invest disproportionately more in older children. Children who experience extreme stress during infancy, including chronic poverty, nutritional deprivation, or exposure to violence, can suffer from reduced brain cell connections in learning and emotional development areas. The failure to ensure that children start life with essential positive experiences can translate into an unhealthy and ill-prepared workforce, poor economic growth, and strained education, health, and social protection systems for society and the country. These leads to the economic drain and also can perpetuate intergenerational disadvantage. These vital facts justify greater investment in early childhood, more so when nations are now facing the pressures of demographic, migratory, and technological changes (G20 Development Working Group, 2018).

Early Learning and Foundational Literacy and Numeracy

The ability to read and write, and to perform basic operations with numbers, is a necessary foundation and indispensable prerequisite for all future school and lifelong learning. Foundational learning forms the cornerstone to successful academic development in later grades (Duncan et. al, 2007) and is considered to be the gateway to learning (World Bank, 2019). Furthermore, there are several associated long-term benefits from investing in foundational learning, such as better life outcomes (Graham and Kelly, 2018) and higher economic growth. The Draft National Education Policy, 2019 and the National Education Policy (NEP 2020) views ECCE as part of the Foundational Stage (three years of pre-primary and Grades 1 & 2), in a single curricular and pedagogical phase of play & discovery-based learning for 3-8 years old children. It underscores the criticality of ECCE and the persistence of its advantages throughout an individual's life.

Global Scenario

The concept of ECCE has been there since long across the globe, but it is during the 21st century that many more countries are delineating its efforts towards ECCE. The Universal Declaration of Human Rights 1948, United Nations Convention on the Rights of the Child (UNCRC) 1989 and Education for All (EFA) movement are the major signposts. The Jomtien World Conference on Education for All 1990 adopted

'World Declaration on Education for All' and 'Framework for Action to Meet Basic Learning Needs'; and World Education Forum 2000 adopted 'Dakar Framework for Action, Education for All', the major milestones in global EFA movement. According to EFA GMR 2008 "programmes for under-3s that include nutrition, health and cognitive components have a positive impact on child well-being. Yet, only 53% of the world's countries have an official ECCE programme targeting this age group". Currently, almost all countries are paying increasing attention to developing robust and quality ECCE programmes.

Developments in ECCE in the Asian region

ECCE progress in some Asian countries is encouraging:

Bangladesh has institutionalized ECCE and the Bangladesh ECD Network supports and encourages organizations to invest in child development. The National Education Policy, 2010 lays down the goal of promoting pre-primary education for the holistic development of children through joyful learning. Pre-primary curriculum was formulated in 2011, and in 2013 the ECCD policy framed. Since then, rapid progress has been made in the provisioning of one year ECCE in government and government-aided schools resulting in greater enrolments, addressing rural urban divides and gender equity. The Bangladesh Rural Advancement Committee (BRAC), an NGO is playing a critical role in ECD with effective involvement of parents (Yasmin & Nath, Das 2018).

China is committed to develop pre-school education in keeping with international declarations. Its 13th Five Year Plan (2016-2020) aims to speed up the development of pre-school education, continue expansion of the inclusive pre-school educational resources, ease the shortage of pre-schools, develop early education for 0-3 years' old children and promote pre-school education and care quality for all. It seeks to accelerate the three-year of GER in pre-school education to reach 85% and achieve a 80% coverage rate

India's Initiatives

India ratified UNCRC in 1992 and pledged to the Education for All, which extensively contributed to the efforts for ECCE. From 1951, ECCE in its holistic form i.e., child welfare, education, health and nutrition became an integral part of all the initiatives. These are in the form of policies, plans, constitutional amendments, acts and schemes of Government of India. Some of the significant ones are the Five-Year Plans; National Policy for Children, 1974; Integrated Child Development Services (ICDS), 1975; 86th Constitutional Amendment Act under Article 45 of the Directive Principles of State Policy; Right of Children to Free and Compulsory Education Act (RTE)-2009 -Section 11, Chapter III and National Policy for Children (NPC), 2013. The major initiatives of the Government for quality reforms in ECCE are driven by the Ministry of Women and Child Development (MWCD) which formulated the National ECCE Policy, 2013. The recent NEP 2020 includes preschool for children ages 3-6 years in the new school education 5+3+3+4 structure.

for inclusive KG programme. By 2035, it aims at universalisation of pre-school education (Du, 2018).

Malaysia provisions ECE both by public and private sectors which shows a significant increase in terms of quantity and quality. Originally, ECE was provided by Kemajuan Masyarakat (KEMAS) run by the Ministry of Rural and Regional Development; and also, JPNIN pre-schools, operated by the Department of National Unity and Integration. In 2003, the Ministry of Education (MoE) officially launched its pre-school education and was declared as the focal ministry overseeing pre-school education within the country. It is pertinent to note that the enrolment in private pre-schools outnumber public pre-schools. The MoE had targeted to achieve universal enrolment in pre-school education by 2020. All pre-schools are mandated to use the National Pre-school Curriculum as stipulated in the National Education Act' 1996, which emphasizes on communication skills, literacy and numeracy skills and social skills. Expanding access of ECE through increasing the number of pre-school classes, providing private pre-school launching grants, promoting private pre-school registration, providing private pre-school fee assistance, enhancing the delivery of teaching and learning in pre-schools, increasing the number of pre-schools for children with special needs and inclusive education, and up-skilling of pre-school teachers are some ongoing measures. The challenges are lack of finance and expertise for monitoring the quality of pre-school programmes and teachers, enhancing teacher competencies, physical facilities and safety (Lan & Baker, Abdullah 2018).

Pakistan could not implement ECE in all provinces/regions under the education policy, 2009. In the 1970's, ECE was formally organised as Katchi (pre-primary) Classes in primary schools, but discontinued during 1980s. Initially, provincial/regional Education Departments started ECE classes in public schools based on need assessment. The 18th constitutional amendment 2010 guarantees free and compulsory education for children of 5-16 years and it also gave devolution of education to provinces. Since then, Provincial Education Sector Plans, reflect provisions to promote ECE. There is a clear national policy, standards, curriculum and teacher training packages for pre-primary/ECE. In public sector schools, pre-primary is a part of primary school with a prescribed syllabus, while private sector follows child-centered teaching. ECE teacher training programmes and resource development are also receiving growing attention within private sector. An integrated, multi-sectoral approach involving stakeholders at all levels, including the government, civil society, academia, community, schools and home, is necessary to design, plan and implement quality ECCE. Capacity development of teachers, material development, knowledge production, child-friendly classrooms through caring and contextually relevant learning approaches are critical (Shah, Pardhan & Niyozov 2018).

South Korea follows a centralized curriculum for ECCE namely, Nuri Curriculum, which was initiated to provide quality education across socio-economic classes and by partially increasing expenses on child care. The Nuri Curriculum aims to develop children's character and behaviour in five core areas of physical education/health, communication, social relations, arts, and inquiry of nature. The common core curriculum has helped to enhance the quality of early childhood education and guarantee an equitable and also a level based starting point, which contributes to effectively alleviating discrepancies depending on locations/regions and income levels. Some success is achieved, but there are challenges of funding, lack of identified governmental body, appropriate teacher qualification etc. (Kim,2018).

Vietnam covers children from 3 months to 6 years of age through ECE, which is the first level of the national education system. The goal of universalisation of ECE for 5-year-old children has been completed in early 2017. Major focus has been on the 5-year-old children located in difficult areas, borderlands, high mountains, and islands, ethnic minority children, orphans, children with disabilities, or children living in poor households. The network of schools and classrooms has developed both in size and scale for meeting the growing demand for pre-school education and each commune/ward has its own kindergarten. Facilities and equipment, school building, classrooms have improved significantly, ECE teachers have the required qualifications and KG teachers/classrooms ratio is 1.7. The major challenge is the inequality in access to quality ECCE for children, and between public and non-public institutions. Lack of budget for the facilities and equipment, teacher shortages are also constraints, as also the lack of mechanisms for collecting information, monitoring and reporting of early childhood care education (My Trinh,2018).

What constitutes quality in ECCE?

In many countries in the Asia-Pacific region and beyond, there is a misconception that ECCE refers only to pre-school or pre-primary education. ECCE covers (and should address) the whole period from birth up to 8 years of age. Pre-school or pre-primary education can be a major portion of ECCE, but ECCE is much broader than that and correspondingly addresses issues specific to children younger than 3 years; in addition to the transitional period into a formal primary school. In a quality ECCE program, 'care' encapsulates health, nutrition, hygiene, affection, protection, safety and psychosocial support and 'education' goes beyond being just "downward extensions of a formal school system" (UNESCO, 2000) to the provision of opportunities to facilitate learning and to guide the process of acquiring new skills, knowledge and values. ECCE ideally consists of flexible, multi-faceted, multi-level, play-based, activity-based learning, comprising of alphabets, languages, numbers, counting, colours, shapes, indoor and outdoor play, puzzles and logical thinking, problem-solving, drawing, painting and other visual art, craft, drama and puppetry,

music and movement. It also includes a focus on developing social capacities, sensitivity, good behaviour, courtesy, ethics, personal and public cleanliness, teamwork, and cooperation. The overall aim of ECCE will be to attain optimal outcomes in the domains of: physical and motor development, cognitive development, socio-emotional-ethical development, cultural/artistic development, and the development of communication and early language, literacy, and numeracy (NEP,2020). It is widely accepted that for early years provision to improve children's outcomes it needs to be of high-quality (Cunha, Heckman, Lochner, & Masterov, 2006; Felfe & Lalive, 2014; OECD, 2015; Siraj -Blatchford, Taggart, Sylva, Sammons, & Melhuish, 2008; Smith, Grima, Gaffney, Powell, Masses, & Barnett, 2000; Sylva, Melhuish, Sammons, Siraj-Blatchford, & Taggart, 2011).

Any attempt to understand what constitutes quality within an ECCE programme can best be comprehended by examining the factors that impede its quality. Various studies indicate that there are a multitude of challenges which affects the non-negotiable quality standards of ECCE. These act as hinderances for enhancing the quality of ECCE across both at the government levels and at the individual functionaries. Some of these factors are inadequate funding, limited teaching-learning facilities, poor assessment mechanisms for measuring outcomes. A disproportionate /adverse teacher-child ratio is common in private and low funded ECCE centres results in low teacher -child interaction. The dearth of teaching-learning materials and inappropriate TLM across the centres, and if available they are underutilized and the children are not allowed to touch them. Also, the TLM are placed above the eye level which does not allow to even notice them let alone explore them (Dhingra & Sharma, 2011; Dixit et al., 2010; Kaul et al., 2014; NIPCCD, 2006; Planning Commission, 2013b; Rao, 2010). Negative factors that cause poor child health and nutrition are irregular health check-ups and immunization; infrequent visit of ANMs; wrong plotting of growth curve on Mother Child Protection (MCP) cards (Dixit et al, 2010); use of old Growth Chart; defective weighing machines; lack of skills for growth monitoring, filling and maintaining the Growth Charts.

An integrated effort of state, the implementing bodies and the community can make improvements in the gap areas. Four areas are essential for achieving and sustaining positive outcomes in early childhood: first is supporting families followed by the second, which is content and curriculum for early childhood programs and other two areas include staff capacities and schools' preparedness to respond flexibly to a diverse range of child abilities and backgrounds. Further, the government should also take serious efforts to provide safe and adequate infrastructure, large spaces for indoor and outdoor spaces, activity corners, clean drinking water and regular health facilities, provide picture dictionaries that stimulate brain development activities for children. Best practices for engaging parents include using simple instructional

method to make them understand about child's behavior and learning, supportive relationship between staff and parents, making the staff aware about the contexts, needs and interests of parents.

Early studies around 1980's on effective teaching in early childhood suggested a return to the basics in teaching methods, and in curriculum. These research findings supporting traditional teaching methods in basic skills come from major studies in the USA and in Great Britain. One of the traditional methods in early learning is the recitation method, with the three progressive steps of structuring, soliciting, and reacting. Initially, the teacher structures/presents the learning material followed by soliciting answers to questions. Finally, after observing the child's response, the teacher reacts with either positive reinforcement, or otherwise.

In recent times, the positive outcomes relate to developmentally appropriate practices and studies, which indicate that children in classrooms driven by child-initiated activities score higher on many factors, than do children in teacher-directed activities. These indicators include creativity, verbal skills, child's confidence, academic achievement in the first grade. Research also highlights that the teachers with higher levels of education and training have more positive interactions with children; and the children in their care have better outcomes (Whitebook et al. 1989).

Research on what are the universal elements of quality in ECCE has been evolving over the years. Initially, research was mainly about interventions directed at improving children's cognitive development and school achievement, and at reducing delinquency. A second wave of research moved onto the topic of quality of the early years' settings, from which a number of assessment tools emerged (Bonetti & Brown, 2018). The third wave of research advanced to acknowledge that there are other factors that contribute to children's outcomes beyond the early years setting, such as the family environment and the child characteristics (Fenech, 2011). Smith et al. (2000) define quality as 'the essential components of early childhood environments which are valued in our society, and which support the well-being, development and rights of children, and support effective family functioning' (p. 48). The recent literature has brought out the distinction between process quality and structural quality. Process quality involves 'social, emotional, physical, and instructional elements of interactions with young children, elements that are reflected at several levels of the classroom environment: moment-to-moment displays of discrete behaviors as well as global characterizations of the overall setting' (Pianta et al., 2005, p. 145). Structural quality relates to inputs that are more easily observed, measured and regulated (Slot, Leseman, Verhagen, & Mulder, 2015; Smith et al., 2000). In general, the elements of structural quality that have emerged are: Staff to child ratios; Group size; Staff training, education and experience; Staff wages and working conditions; and Staff stability. While process and structural quality are not strictly separable, studies have

shown that structural quality enables the elements of process quality to operate and have the fullest impact on children's outcomes (Fenech, 2011). Often from these elements, three are identified as the elements of 'the iron triangle', namely, workforce training and professional development, child to staff ratios and group/classroom size (Bonetti & Brown, 2018).

Since it is generally agreed that quality and efficacy of ECCE are related, it is essential to understand what are the general characteristics of its quality. Based on the available research, some of the characteristics that define the quality are: sensitive and responsive care-giving, secure social relationships, stimulating verbal interaction, a favourable staff-child ratio, a small group size, a richly equipped play room, high staff professionalism, and a reasonable staff salary level. Additionally, developmental psychology must determine the programme content or curriculum with appropriate pedagogies fostering co-operation with peers and teachers through activities that are culturally relevant e.g., language, literacy & numeracy, social skills, and strengthen the coherence between different activities and experiences. ECCE programmes should be built up so as to provide continuity and a gradual increase of richness and complexity of activities and experiences over several years, in order to support complex skill construction and its neurological consolidation (Leseman, 2002). The Opportunity Project (TOP) Early Learning Centers longitudinal study, 2007 revealed better social-emotional skills with greater emotional maturity, greater ability to behave appropriately, and greater social competence; school performance data show fewer absences on average from kindergarten through the 6th grade; lower percentage of special education placement that is intervention /remedial learning; lower discipline referrals for behavioral problems; better math and reading standards. Another dimension that negatively impacts early learning is poverty leading to under-nutrition, stunted growth and poor cognition in the critical 1000 days of a child's development. It is disconcerting that India has slipped to the 101st position from among 116 countries in the 2021 Global Hunger Index (GHI) as against 94th position in 2020 among 107 countries. Combating under-nutrition early is critical to school readiness and school performance in the primary years. Evidence from the Young Lives study in Ethiopia, India, Peru and Vietnam states "The association between early life under-nutrition and impaired cognitive development, as well as lower psychosocial wellbeing, indicates how early deprivation can set a child on a negative development cascade. As disadvantages tend to have cumulative effects, this trend becomes increasingly difficult to reverse as children grow older, hence the emphasis on interventions starting as early as possible, including through enhanced maternal health and wellbeing" (Boyden, Dawes, et al. 2019 p.69).

As shown earlier, defining quality in ECCE is not an easy task and some elements or factors that contribute to the quality of ECCE are:

Teacher-Student Interactions and Processes: The foremost element is teacher and student interaction on a daily basis, which actually fosters child development from pre-primary to third grade. However, the teachers generally focus on imparting the basic skills rather than engaging in activities that elicit analysis, reasoning, or problem-solving. The disadvantaged students and those with special needs suffer further assimilative deprivation. The process of interaction between teacher and the child combining features of interactions with aspects of instructional activities and curricula is equally important. Children's engagement in classroom tasks and activities forecasts greater achievement in preschool and in the early elementary grades. The length of the school day is a linked factor too.

Curriculum Planning and Content: A well planned curriculum and content can increase teacher-student interaction. For instance, if a teacher is adopting problem- or project-based activities for familiarizing mathematics curriculum, it develops children's thinking and analysis skills. This type of instruction can occur not only in academic content but also when it comes to teaching social, emotional, and self-regulatory skills.

Teacher capacities: Teacher's preparation to build their personal capacities will impact teacher child interactions in the ECCE settings. In order to implement high-quality pedagogical strategies and practices, teachers and teaching assistants require quality training in ECE.

Planning and Resource Allocation: To maintain and retain the quality in ECCE programmes, adequate funding is required. ECCE being a multi-sectoral programme requires integration and coordination across early childhood development services and related social sectors, called "convergence of interventions", which is more effective than compartmentalized policies and programmes.

Family and Community Engagement: The success of ECCE largely depends upon the family and community engagement because early learning starts from home. It is, therefore important for the teachers and local authorities to engage families and communities and strengthen child-focused partnerships. More involved parenting - active facilitation of responsive, and stimulating interactions and early nurturing care, which ensures health, nutrition, responsive caregiving, safety and security, social-emotional well-being, and early learning are all associated with children's cognitive, social, and emotional development, as well as their motivation to learn.

Quality Assurance and enhancement: Quality assessment and monitoring are the key aspects required for improvement. Without coherent and comprehensive data collection, it is difficult to know what is going on across and within country contexts. To overcome this, it is important to consider the country context in order to conceptualize and operationalize definitions and indicators of quality in their ECCE programs. The specific domains and indicators of ECCE quality which are the most

conducive for young children's holistic development, should vary from region to region.

Ideally ECCE programmes must be differentiated, adaptive, and both child- and family centred, coherent and of high quality within the different types of care, education and support that are provided, and marked by equal quality regulations for all sub-systems (Leseman,2002).

Private sector pre-school provisioning

The pre-school / child care market in India is forecasted to grow at a CAGR of around 23% during the period of 2017-22(Kaushal,2018). The absence of any regulatory mechanisms and legal requirements of registration, and the perception of low investment requirements need to be addressed to prevent long term damage to quality ECCE. The gravest challenge is of blatant commercialisation, coupled with a highly unsuitable learning, which is antithetical to joy based learning. It is the downward curricular exposure of Class/Grade I learning, which has severe detrimental effects on cognitive development. An aspiring population which looks for solutions to get admissions sent the young ones to these pre-schools, which focuses on formal learning which goes against the very grain of a good quality early childhood learning. These pre-schools also lack the desired activity spaces and a caring environment, so critical to developmentally appropriate growth of the young ones.

Benefits of ECCE in subsequent learning stages

There is a clear recognition that ECCE has a considerable impact on the overall holistic development of children during their formative years. Further, the immense benefits that yield from ECCE to both human and societal development are also gaining wider acceptance. Numerous researches have proved that children who received quality early childhood education are not only more likely to be healthy and ready for formal education, but also show better progress at the primary stage and thus it helps in reducing wastage and stagnation. Several case studies (Ramachandran, 2003), focuses on establishing backward and forward linkages in the educational structure so that benefits accrue in enhancing learning, developing school readiness, mitigating the learning divides among the vulnerable and disadvantaged sections, preventing dropouts, ensuring joyful learning, remedial interventions, instilling self-confidence and self-esteem, promote accelerated learning across the schooling stages contributing to holistic development. Those who participate in the early childhood educational system are able to improve their pedagogic understanding and improve their school achievement grades; maximize their wage incomes as they grow older and enter the labor force, even with lower levels of education (Shariff & Sharma, 2018). The student's exposure to quality ECCE has scaffolding and spiraling benefits into subsequent stages of schooling and further in higher education leading to acquisition of life skills that yield positive lifelong outcomes.

The early childhood phase both 0-3 and 3-6 ages have been acknowledged as the most significant in the life of an individual. There are the several reasons for this. First and the most critical is that there is overwhelming evidence to show that the learnings imbibed in the early years of life to a great extent influences one's later conduct, performance and behavior. Secondly, the rate of development in all areas of physical, cognitive, language, social and emotional, is the most rapid during these years. During this period, a child is able to learn skills which generally becomes difficult to acquire at a later age. Also, a substantial amount of learning takes place during this stage which prepares the child for adulthood. Children see adults in various relationships, such as, of father, mother, sister, brother, grandfather, grandmother, friends etc. and in roles, such as teacher, doctor, maid, helper and so on. Consequentially, the child imbibes partly as a result of direct teaching by the parents/family and to a great extent as a result of observation and imitation of adults. Thirdly, as the child undergoes development at a very fast rate, the unfavorable or negative expediencies, such as lack of proper food, nurturance and care, unhealthy living conditions, sickness, lack of interaction with adults or exploitative working conditions will hinder his/her development considerably. Similarly, favourable experiences will foster development. Since both the positive and negative experiences will have a strong impact; it is important that the child has minimum harmful or toxic experience. Development is a result of the feeling of total well-being that arises from growing up in an atmosphere of love and warmth with opportunities for learning. The foundations of the feelings of security and confidence resulting from positive experiences leads to building self-esteem and confidence, that are crucial as they influence the manner in which a person approaches a task, forms habits, and relationships, develops values and ethics leading to a good socially acceptable behaviour or otherwise.

There are other benefits also that accrue from exposure to a quality ECCE programme. The retention of children in schooling and the curtailing of dropouts that ensures universal access to education and bridging early learning divides. Since it is acknowledged that investments in early childhood are essential to create equal starting conditions, how can this actually be implemented by developing the social model of disability. It is impossible, and also not desirable, to deal separately with the problems of early child development, and early child development of disabled children. The UNICEF Innocenti Research Centre investigation on Early Childhood Development and on ECD and Disability and the OECD (2008) advocate the mainstreaming approach, which supports a universal method to access to Early Childhood Education and Care (ECEC), even though with particular attention to children with special needs (Parodi,2009).

Quality ECCE instils the higher order thinking skills (HOTS) which promotes critical thinking, cognitive abilities, scientific temper, analytical thinking and reasoning, crucial to better learning outcomes, improved performance and achievement in higher

education. The potential of students who have exposure to early learning often help in retention and progression beyond school into higher education. Quality higher education aims to develop good, thoughtful, well-rounded, and creative individuals, develop character, ethical values, and prepare students for more meaningful and satisfying lives and work roles and enable economic independence. With such expectations of higher education outcomes, these cannot be germinated in university life unless it was already seeded in the student's early learnings. The linkages between early childhood learning and greater employability stems from what the James Heckman has said, "Skill begets skill" (Heckman 2000, p. 3). ECCE helps children to develop some core skills, which are crucial for learning and development, and these skills help them in later life to make healthy choices for themselves and their families. Early childhood education investment appreciates over time rather than depreciates (Bartik, 2014). It results in improvements in the child's future course of life which has all round benefits to the individual, the society and the economy. The child is able to move into jobs that fetch better incomes leading to familial and social stability which then contributes to better productivity and to economic growth and development.

Why invest in ECCE- the positive economics?

A great deal of study is available on the cost-benefit analysis of a good and well-timed ECCE programme. The cost benefit analysis was conducted in different contexts, which vary from part-time or full-time programmes in local centres, general ECCE programs or specific at-risk children, national programmes or provincial/state specific ones. Studies have shown that the return on investment is relatively high as there are savings on several fronts. A look into the various researches indicate that the benefits of quality pre-primary education clearly outweigh the costs and include gains beyond improved learning outcomes and higher incomes. (Yoshikawa, 2015)

While examining the economic returns to early childhood education, (Karoly, 2016) maintains that the economic value of the resources invested in a high-quality preschool programme with the economic value associated with that programme's effects on children's outcomes is a useful decision-making tool for policy makers. These outcomes are school readiness, use of special education, rates of grade repetition, likelihood of school completion, employment rates, and earnings. Further, the long-term benefits include levels of social and economic problems in adolescence and adulthood, such as delinquency and crime, among others. Generally, the savings from reduced crimes and hence the societal burden on the legal system are long term tangible benefits. Health awareness also is an intrinsic value as children exposed to ECCE are more mentally stable and less prone to mental health issues of depression etc. which reduces their productive capabilities.

Investment on schemes aimed as corrective and remedial interventions are precluded if children have a good learner readiness. There is robust empirical evidence that the

foundational stage learning during the critical early years of brain/neural development greatly influences cognitive functioning, socio-emotional development, self-regulation and overall health (Sylva et al., 2010; Yoshikawa, 2013).

Exposure to early childhood education can compensate for developmental delays, boost earnings and reduce inequality as shown in the Jamaican study. The study demonstrated the effectiveness of home visiting programs, parent-child interactions and cognitive and social stimulation in closing the achievement gap and producing long-term economic gains. So also, extremely disadvantaged children earned 25% more as adults than disadvantaged children who received no ECCE intervention – and they earned as much as their more advantaged peers. (Heckman,2011). James Heckman’s 20-year study of children in Jamaica showed that ECCE intervention increased their future earnings by 25%. The Heckman Equation says that every dollar spent on ECCE yields a return on investment of 13% per annum. Further, a study in India conducted by Centre for Early Childhood Education and Development (CECED) and Annual Status of Education Report (ASER, 2015) found that, children attending a quality ECCE program gained significantly more even from just one year ECCE than children who attended poor quality ECCE centres. The cost-benefit analysis of Anganwadi Centres in Rajasthan and Andhra Pradesh shows that investments in early childhood education can reduce social costs involved for at-risk children (Shariff & Sharma, 2018).

Longitudinal studies for cost-benefit analysis to preschool programmes, such as the Perry Preschool Project published in 1984 showed the estimated return to society was nearly \$4 for every dollar spent on the program. Perry Preschool reduced the cost of K-12 education, raised lifetime earnings, lowered lifetime welfare use, and reduced lifetime costs from crime and delinquency. The Chicago Child Parent Centers (CPC) study indicated substantial benefit to cost ratios of \$7 (in savings) to \$1 (in cost) (Masse and Barnett, 2002). Estimates from the Abecedarian Project, another prominent preschool intervention, produced a ratio of 2.5:1 in favour of benefit.

Cost benefit and cost effectiveness analysis of investing in pre-primary education suggests significant benefits for both the government and the society. This stems from the data that good early education programme has long term advantages leading to skilled population, enhanced economic productivity, higher individual earnings; improved health and lower crime rates which is conducive for economic growth. A review cost benefit analysis studies indicate that while there may be variation in precise ratios of benefits to cost, the “best current evidence suggests that the impact of quality preschool per dollar spent on cognitive and achievement outcomes is larger than the average impact of well-known educational interventions per dollar spent, such as class-size reductions in elementary schools” (Yoshikawa et al, 2015).

A lot of research is available in India too which points towards higher returns from pre-primary education for disadvantaged populations, improved learning outcomes with improved test scores (Kaul et al, 2014). Another study shows that students were likely to have better educational attainments with 20% higher retention if exposed to preschool education and 17% less likely to drop out by Class IV (Kaul et al, 1993). Adding 2 years of pre-primary education in the government schooling system in India can generate a return as high as Rs. 25 for every Re. 1 invested (World Bank, 2015), mainly due to savings on the ICDS, remedial teaching, tuition dependency coupled with better returns accruing from skilled workforce contributing to greater productivity, lower subsidies, increased tax revenues that leads to GDP growth. What does this mean for us? India has one of the youngest populations in an ageing world. Around 90% of its population under the age of 60, of which ~35% is under 19 years old. Such a young population ensures a potential addition to the working age group in the coming years. Hence it makes good economic sense to invest in ECE as it can have a humungous benefit.

Recommendations -the way forward

There are several case studies both within India and globally that clearly suggest that vastly localized multiple models need to be followed. While a national curriculum may be an essential to ensure that all relevant elements of cognition, socio-emotional skills and psychomotor skills, as well nurturing factors are uniformly taken into consideration; the ways in which this curriculum is brought to bear on the young ones will have to vary according to the location, cultural milieu and the socio-economic contexts. Hence, a one size fits all is to be mandatorily desisted. Suggested recommendations to promote quality ECCE are:

Policy recommendations:

1. The convergence and cooperation of both the concerned ministries i.e. Ministry of Education and Ministry of Women and Child Development to ensure effective implementation of ECCE.
2. Provide adequate budgetary allocations for ECCE as priority funding and also as a one-time measure. The one-time investments in early childhood education will be on creating adequate infrastructure, developing learning resources, building teacher capacity and ensuring nutrition.
3. Implement NEP 2020 for integrating children in the age group of 3-6 years to school education. Eventually, extend RTE Act to pre-school education (3-6 years) to address the rights of all to the formal pre-school education.
4. Reinforce the organic linkages and interconnectedness of education across levels, which must be seen as one single continuum.

5. Redesign the curriculum and class schedules for Grades 1-5 aligned to the ECE Curricular and Pedagogical Framework, currently being formulated by NCERT jointly with the MWCD.
6. Focus on FLN by developing school preparation module and ensure that all Grade 1 students undergo it. MoE's National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN Bharat) aims that every child attains foundational literacy and numeracy by the end of Grade 3, by 2026-27.
7. Constitute a Joint Task Force of related GOI Ministries, viz, MWCD, MoE, MoHFW, MoTA, MSJE, MoMA to ensure seamless coordination and unity in action, as ECCE is a multi-sectoral programme.
8. ECCE is in the ambit and can best be addressed by State Governments, hence every State government with its district, block and village/town/municipal bodies can work out localized interventions and strategies for children in different contexts. All children in 0-3 and 3-6 must be identified in a database for ensuring better child services and ensuring that no child is left behind. Disaggregated data of children from various social categories, tribal, vulnerable, those with physical and learning disabilities must be identified for specific interventions.
9. Develop a multipronged approach to bring synergy between anganwadis, pre-primary schools, and ECCE centres with context-specific strategies. Mapping anganwadis, pre-primary and primary schools for co-locating them is necessary.
10. The Scheduled Caste Sub-Plan, Tribal Sub-Plan can earmark funds for ECCE.
11. Ensure inclusive ECCE to cater to the socially and economically marginalized and disadvantaged sections, including girls and those with learning disabilities and children with special needs.
12. Fix qualifications and skill standards for teachers and other core and ancillary staff.
13. Regulate private pre-schools/play schools for quality audit and lay down SOPs for activity spaces, teacher child ratios, assistants and other input requirements.

Strategies

- Use retired teachers in anganwadis / voluntary action team members to focus on the ECE component, wherever these cannot be merged or co-located with pre-primary/primary schools. Encourage volunteers, social workers to contribute in quality interventions, such as remedial /support-based learning.
- Integrate toy-based and art-based pedagogies in a multi-lingual approach to provide ECCE in different locations and geographies. Use child -friendly curriculum and pedagogies, with learning activities and appropriate assessment tools.

- Cash incentives to encourage children from most backward families to join either anganwadis or pre-schools.
- Create common spaces for children from vulnerable and disadvantaged families, mothers and community members to provide basic ECCE services. Greater roles to women as their efficacy in ECCE are well established.
- Foster the development of dynamic and flexible approaches and programmes in support of the children who are most vulnerable and likely to face exclusion from traditional public or private ECCE programmes
- Encourage collaborations between public and private, including NGOs, civil society and communities for better programmatic delivery of ECCE. Primary schools, pre-primary schools and anganwadis to forge deeper partnerships with families and community organizations.
- Create partnerships/collaborations between identified institutions in a mentor and mentee relationship. NGOs with proven track record can play a critical role. State governments can factor this arrangement in their Development Plans.
- Put in place a systematic mechanism for data collection, documentation relevant for effective implementation and monitoring of ECCE.
- Prepare a compendium of best practices to meet diverse and varied local contexts, based on clear quality metrics and indicators.
- Develop handbooks and modules as tool kits for ECCE trainers and teachers.
- Re-design pre-service teacher education programmes for ECCE alignment
- Conduct regular orientation and continuous capacity building through scientifically designed professional development programmes for teachers, trainers, teaching assistants, other child care staff and functionaries.
- Create communities of parents, teachers and local community for better parental management. These communities will foster a culture of developing positive, supportive and responsive relationships which will give impetus to socio - emotional skills in tender children alongwith their health and nutrition.
- Rationalise pay structures for all levels of ECE staff and teachers to recognize them as also to motivate and enhance their commitment.

Conclusion

"The first five years have so much to do with how the next 80 turn out" Bill Gates.

"If you want your children to be intelligent, read them fairy tales. If you want them to be more intelligent, read them more fairy tales." – Albert Einstein

The significance of ECCE for any society is colossal, as the benefits for children and families are well-established, including improved academic readiness in students and

enhanced life-skills, leading to better jobs and better lives. Higher labor force participation rates among parents, longer-term intergenerational effects contribute to the overall development and economic growth. These gains can be realized only if ECE programmes are of good quality and implemented effectively. The total number of children in the age-group 0-6 years (2011 census) is 164.5 million, constituting 13.59% share of the total population, which would be a much larger figure today. If quality ECCE is provided to this age cohort, it will lead to their improved learning outcomes at all developmental stages, and in their further life, thereby optimally leveraging our demographic dividend in the coming decades.

References

1. Annual Status of Education Report. (2013). Annual status of education report (Rural) 2013- Provisional. New Delhi
2. Barnett, W. S. (1995). Long-Term Effects of Early Childhood Programs on Cognitive and School Outcomes. *The Future of Children*, 5(3), 25–50. <https://doi.org/10.2307/1602366>
3. Bartik, T. J. (2014). Criticisms of the Research Evidence. In *From Preschool to Prosperity: The Economic Payoff to Early Childhood Education* (pp. 29–40). <http://www.jstor.org/stable/j.ctvh4zf67.8>
4. Blaney, R. (1980) *Effective Teaching in Early Childhood Education*. The Elementary School Journal, Jan., 1980, Vol. 80, No. 3 (Jan., 1980), pp. 128- 132. Retrieved <https://www.jstor.org/stable/1001637>
5. Boyden, J., Dawes, A., Dornan, P., & Tredoux, C. (2019). Early childhood: The essential foundation. In *Tracing the Consequences of Child Poverty: Evidence from the Young Lives study in Ethiopia, India, Peru and Vietnam* (1st ed., pp. 49–72). <https://doi.org/10.2307/j.ctvkjb390.9>
6. Bratti, M., McKnight, A., Naylor, R., & Smith, J. (2004). Higher Education Outcomes, Graduate Employment and University Performance Indicators. *Journal of the Royal Statistical Society. Series A (Statistics in Society)*, 167(3), 475–496. <http://www.jstor.org/stable/3559775>
7. Cameron, Noël & Bogin, Barry. (2012). Human Growth and Development. 10.1016/C2009-0-63445-0.
8. Campos, M. M. et al. (2011). *The Contribution of Quality Early Childhood Education and Its Impacts on the Beginning of Fundamental Education*. *Educação e Pesquisa*, 15-33.
9. Children in India 2018- A statistical Appraisal, Oct.2018 accessed http://mospi.nic.in/sites/default/files/publication_reports/Children%20in%20India%202018%20%E2%80%93%20A%20Statistical%20Appraisal_26oct18.pdf

10. Cunha, F., Heckman, J. J., Lochner, L., & Masterov, D. V. (2006). *Interpreting the evidence on life cycle skill formation*. Handbook of the Economics of Education, 1, 697-812.
11. Dhingra, R. & Sharma, I. (2011). *Assessment of preschool education component of ICDS scheme in Jammu district*. Global Journal of Human Social Science, 11(6), 12-18. Retrieved from https://globaljournals.org/GJHSS_Volume11/2-Assessment-of-Preschool-Education-Component-of-ICDS-Scheme-in.pdf
12. Dixit, S., Sakalle, S., Patel, G.S., Taneja, G. & Chourasiya, S. (2010). *Evaluation of functioning of ICDS project areas under Indore and Ujjain divisions of the state of Madhya Pradesh*. Online Journal of Health and Allied Sciences, 9(1), 1-5. Retrieved from <http://cogprints.org/6988/1/2010-1-2.pdf>
13. The Draft National Education Policy 2019, Committee to Draft NEP, https://mhrd.gov.in/sites/upload_files/mhrd/files/Draft_NEP_2019_EN_Revised.pdf
14. Felfe, C., & Lalive, R. (2014). *Does early child care help or hinder children's development?* IZA Discussion Paper, No. 8484. Bonn: Institute for the Study of Labor.
15. Fenech, M. (2011). *An analysis of the conceptualisation of 'quality' in early childhood education and care empirical research: Promoting 'blind spots' as foci for future research*. Contemporary Issues in Early Childhood, 12(2), 102-117.
16. G20 Development Working Group: investing in early childhood. March 2018 accessed <https://www.ecdan.org/assets/background-study---early-childhood-development.pdf>.
17. Gertler, Paul, James Heckman, Rodrigo Pinto, Arianna Zanolini, Christel Vermeersch, Susan Walker, Susan M. Chang, Sally Grantham McGregor. *Labor market returns to an early childhood stimulation intervention in Jamaica*. Science 344.6187 (2014): 998-1001.
18. Giedd, Jay, N (2004), *Structural Magnetic Resource Imaging of the Adolescent Brain*, Annals of the New York Academy of Sciences, 1021 (1)77-85, doc:0:1196/Annals, 1308.009
19. Harris-Van Keuren, Christine, Gómez, Diana Rodríguez. *Early childhood learning guidelines in Latin America and the Caribbean*. 136 p.
20. Headstart Impact Study: Final Report (January 2010) accessed <https://www.acf.hhs.gov/opre/report/head-start-impact-study-final-report-executive-summary>
21. <https://courses.lumenlearning.com/wmlifespandevelopment/chapter/defining-human-development/>

22. IECEI (2015) Quality and Diversity in Early Childhood Education. A View from Andhra Pradesh, Assam and Rajasthan. Available online: <http://ceced.net/wpcontent/uploads/2015/04/IECEI-Executive-Summary-Report.pdf>
23. Inclusion and Education, Global Education Monitoring Report accessed <https://gem-report-2020.unesco.org/>
24. Indian early childhood education impact study. Policy Brief. Centre for Early Childhood Education and Development & Annual Status of Education Report. (2015).
25. Karoly, L. (2016) *The Economic Returns to Early Childhood Education*. The Future of Children, Fall 2016, Vol. 26, No. 2, Starting Early: Education from Pre-Kindergarten to Third Grade (Fall 2016), pp. 37-55. Retrieved <https://www.jstor.org/stable/43940580>
26. Karoly, L.M., Kilburn, R. & Cannon. J.S., 2005. Early Childhood Interventions: Proven Results, Future Promise. Retrieved <https://www.rand.org/pubs/monographs/MG341.html>
27. Kartal, Huryal; Balantekin, Yakup; Bilgin, Asude. (2016). *The Importance of Early Childhood Education and School Starting Age in the Reading-Writing Learning Process*. Participatory Educational Research. Vol.3 (1),pp-79-101.
28. Kaul, V, AB Chaudhary, and S Sharma (2014). *Quality and Diversity in Early*
29. Kaul, V. (1991). Early childhood education programme. New Delhi: NCERT.
30. Kaul, V., Chaudhary, A. B. & Sharma, S. (2014). *Indian early childhood education impact study- 1, quality and diversity in early childhood education- A view from Andhra Pradesh, Assam and Rajasthan*. Centre for Early Childhood Education and Development, Ambedkar University Delhi.
31. Kaul, V; Ramachandran C. & Upadhyay, G.C. (1994). *Impact of ECE on Retention in Primary Grades: A longitudinal study*. NCERT, New Delhi.
32. Kumari, Archana (2016). *Impact of Quality of ECCE Programs on Cognitive Development and School Readiness of Children*. International Journal of Advanced Research, Volume 4, Issue 7, 1098-1104
33. Leseman, P.P.M. *Early childhood education and care for children from low-income or minority backgrounds*, OECD,2002
34. National Institute of Public Cooperation and Child Development. (2006). Three decades of ICDS- An appraisal.
35. National Plan of Action (NPA). Department of Women and Child Development (DWCD) (2005)., New Delhi.
36. NEP 2020: National Education Policy,2020 can be accessed at https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf

37. Parodi, G. (2009). Early childhood and disability, some preliminary reflections. *Rivista Internazionale Di Scienze Sociali*, 117(3/4), 571–592. <http://www.jstor.org/stable/41625244>
38. Piaget, Jean. (1964). *Cognitive development in children: Piaget development and learning*. Centre for genetic epistemology. Vol.2, pp-176-186.
39. Pianta, R & Downer, Jason & Hamer, Bridget. (2016). *Quality in early education classrooms: Definitions, gaps, and systems*. The future of Children. 26(2). 119-138.
40. Planning Commission. (2013a). Vol III, Social Sector. Twelfth five-year plan (2012-2017) Government of India.
41. Planning Commission. (2013b). Performance of Rajiv Gandhi national creche scheme for children of working mothers. Government of India. Retrieved http://planningcommission.nic.in/reports/sereport/ser/ser_RGNCreche.pdf
42. Ramachandran, V. (2003). Backward and Forward Linkages That Strengthen Primary Education. *Economic and Political Weekly*, 38(10), 959–968. <http://www.jstor.org/stable/4413309>
43. Rao, N. (2010). *Preschool quality and the development of children from economically disadvantaged families in India*. *Early Education and Development*, 21(2), 167-185. Retrieved <http://hub.hku.hk/bitstream/10722/125514/1/Content.pdf>
44. Reetu, Chandra; Renu, Gulati; Adarsh, Sharma (2017). *Quality Early Childhood Care and Education in India: Initiatives, Practice, Challenges and Enablers*. *Asia-Pacific Journal of Research in Early Childhood Education*, Vol. 11 Issue 1, p41-67.
45. Sammons, P., Sylva, K., Melhuish, E., Siraj-Blatchford, I., Taggart, B., Grabbe, Y., & Barreau, S. (2007). *Summary report. Influences on children's attainment and progress in Key Stage 2: Cognitive outcomes in Year 5*. *Research Report RR828*. London: Department for Education and Skills.
46. Shariff, A., & Sharma, A. (2018). Early Childhood Care and Education in India. In *Cost-Benefit Analysis of Incentives and Improved Quality of Pre-school Education at Anganwadi Centers in Rajasthan: Rajasthan Priorities An India Consensus Prioritization Project* (pp. 7–10). Copenhagen Consensus Center. <http://www.jstor.org/stable/resrep34202.6>
47. Shariff, A., & Sharma, A. (2018). Early Childhood Care and Education in India. In *Cost-Benefit Analysis of Incentives and Improved Quality of Pre-school Education at Anganwadi Centers in Andhra Pradesh: Andhra Pradesh Priorities An India Consensus Prioritization Project* (pp. 7–10). Copenhagen Consensus Center. <http://www.jstor.org/stable/resrep34184.6>
48. Siraj-Blatchford, I., Taggart, B., Sylva, K., Sammons, P., & Melhuish, E. (2008). *Towards the transformation of practice in early childhood education: The effective provision of pre-school education (EPPE) project*. *Cambridge Journal of Education*, 38(1), 23–36.
49. Slot, P. L., Leseman, P. P., Verhagen, J., & Mulder, H. (2015). *Associations between structural quality aspects and process quality in Dutch early childhood education and care settings*. *Early Childhood Research Quarterly*, 33, 64-76.

50. Smith, A. B., Grima, G., Gaffney, M., Powell, K., Masse, L., & Barnett, S. (2000). *Strategic research initiative literature review: Early childhood education*. Literature review for the Ministry of Education, Wellington
51. United Nation Educational, Scientific and Cultural Organization. (2007). EFA global monitoring report 2008: Education for all by 2015-Will we make it? Paris.
52. United Nation Educational, Scientific and Cultural Organization. (2012). The review of care, education and child development indicators in early childhood. Commissioned by UNESCO within the framework of holistic early childhood development index. Retrieved from <http://unesdoc.unesco.org/images/0021/002157/215729E.pdf>
53. Whitebook, M., Howes, C., & Phillips, D. (1989). *Who cares? Child care teachers and the quality of care in America: Final report, National Child Care Staffing Study*. Berkeley, CA: Child Care Employee Project.
54. World Bank, *Childhood Poverty in Latin America and the Caribbean: Poverty and Inequality Monitoring*, June 2016, Washington, D. C.
55. World Bank, *Value for Money from Public Education Expenditure on Elementary Education in India, Working Paper, April 2016* accessed <https://openknowledge.worldbank.org/handle/10986/24954>
56. Yasmin N, and Nath, S.R, Das, T K, Xiaoli Du, Bandyopadhyay M & Khandari M, Swain, R D, Kaushal, S, Gu Saw Lan and Bakar, M A, Abdullah A, Shah, D, Pardhan, A & Niyozov S, Eun Young Kim, My Trinh, Nguyen Thi. *Early Childhood Care and Education: Progress and Challenges*, Asian Network of Training and Research Institutions in Educational Planning (ANTRIEP), Newsletter, Vol. 24 No.1 January - June 2018, NIEPA.