



**TECHNOLOGY IS HERE TO STAY – STAY CONNECTED IN THE VIRTUAL WORLD -
LEARN TO CREATE & INNOVATE**

FROM THE DIRECTOR'S DESK

Greetings from SIES Institute of Comprehensive Education.



“If we teach today’s students as we taught yesterday’s, we rob them of tomorrow” said John Dewey. It is important for all of us to understand that technology has traversed our lives in a very big way. Our homes have changed and so have our classrooms.

Every learner, be it a young child or a student pursuing a professional course looks forward to an engaging learning environment and seems to prefer an ICT enabled classroom. How much is too much was the question that ran in our minds. An answer to this is the contents of this issue of our e newsletter Adhyaapanam focusing on **ICT in Education**. This issue emphasizes on ICT’s importance and usage in the early years. Our contributors have penned in their ideas as to how to ‘smartly’ use technology in urban Indian classrooms. The role and impact of ICT have been clearly stated along with guidelines for parents and educators. There are quick checklists that will help in optimal technology use, be it at home or at school. Technology we know is over-powering. But all is not well with its excessive usage too. Some articles clearly indicate the ill-effects of technology and tips for cyber safety. An interesting article on Fusion or Confusion will surely set all you readers into a think-mode. Screen time being the most debated area has also been given enough justice.

As George Couros states ‘Technology will not replace great teachers but technology in the hands of great teachers can be transformational’. So let us reboot our ideas and impressions towards technology and compliment the ‘hi-tech’ learners of today.

Happy reading.

Dr. Vidhya Satish

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Choosing the Right Technology Today: An Educator's Tool kit

Dr. Vidhya Satish
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How is technology in its broadest form relevant to the lives of children both inside and outside school or their homes? This is an important question especially for the children of the present age. The children of today, called the Generation Z live in a world that is almost completely digitalized. They are the children born from the mid-1990s to the late 2000s. They are **digital natives** having grown up with the knowledge that they can speak to anyone around the world almost instantaneously, to whom electronic devices that was a luxury for their parents and elder siblings is a necessity and for whom a non-digital world does not exist. The very young children of the Generation Z see their parents and even grandparents, relatives and friends, teachers and others in the community use technology most of the time. We have thus gone beyond the discussion whether technology usage is relevant or not. Technology is here to stay!

Urban Indian children of today get access to a wealth of knowledge, thanks to the use of technology. This knowledge is presented in diverse ways to suit the needs of myriad type of learners ranging from the gifted to the disabled. Today's Indian classrooms are witness to diverse types of technology being used. Classrooms are provided with smart board applications in the form of interactive whiteboards, individual computers, laptops, I Pads, touch screen computers and even hand held dictionaries (Rana, 2012).

The present day children experience digital childhoods where 'technology' or related words such as 'desktop computers', 'digital technologies', 'ICT', 'smart toys', 'screen based media', 'digital media', 'clever robotics', 'internet-enabled resources' and so on are evolving and changing. In this fast-paced digital evolutions definitions seem outdated and are soon becoming erroneous (Arnott, 2017). One of the problems with defining technologies is the tremendous volume and range of resources being covered. But 'digital media' and 'technology' are considered as inclusive terms to reflect the range of resources available in early years education (Plowman, 2016).

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India is a home to an estimated 430 million children in the age group of 0-18 years in the country. The population of children up to 8 years is 216 MM (Census 2011) with a 5% penetration in the preschool age group. By the year 2020 it has been estimated that 730 million people will use mobile internet services. This will lead to children being exposed to a rapidly changing digital arena (NASSCOM INDIA report). In the Union Budget 2018-19, Rs. 456 crore has been allocated for digital education (Kavishwar, 2018). Technology is thus shaping the trajectory of our society and our educational experiences.

The use of developmentally appropriate software at an early age is credited with encouraging a more holistic development of the child. Physical, emotional, social and cognitive skills can be fostered when appropriate software and appropriate facilitation is used. Eye-hand coordination, fine motor skill and rich language development can take place when children use computers along with development of self-expression and self-confidence. (<http://www.psych.westminster.edu/preschool/computer.htm>).

Children of today are not merely constructors of knowledge but rather contributors and co-constructors of experiences (Fisher & Konomi, 2007). The very nature of play is changing in this digital era (Marsh et al, 2016). Virtual experiences attract children's interest, alleviate motivation and foster problem-solving strategies, cooperation and collaboration (Gross, 2007).

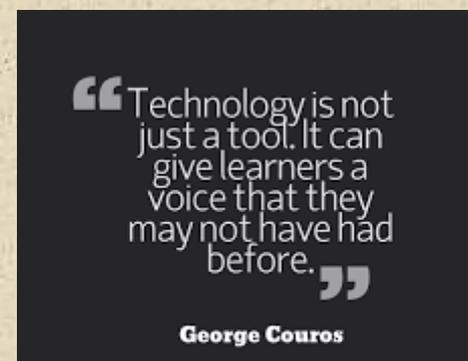
Guidelines for educators

It is important that educators follow the guidelines while using ICT in their classrooms:

- ❖ Whatever technology that is chosen needs to be appropriate to the developmental age and stage of the child.
- ❖ It has to be relevant to teaching, learning and objectives of the particular lesson.
- ❖ Use of digital media can be obvious and even overt at times. But it should **not** dominate the teaching objectives. Subject objectives come first; ICT objectives come second.
- ❖ It should **not** be used as an electronic version of teaching-learning material.
- ❖ What can be taught using a plastic counter need not be taught using technology?
- ❖ The software that is used must be user-friendly.
- ❖ Active participation of the child with sufficient time for individual exploration must be taken care of. Tasks should be short and focussed.
- ❖ There needs to be active involvement and this can be achieved by asking questions. Teacher needs to ask key questions preferably open-ended that will lead to thinking correctly.



- ❖ Focus on self-directed learning.
- ❖ The software must be rich in interesting, novel and varied activities and exercises that are relevant.
- ❖ The software used should promote active learning and should **not** be used as a **baby-sitting device**. Children must not be passive recipients of information displayed but must have control.
- ❖ Collaborative learning opportunities must be provided while using technology.
- ❖ The content used must help the educator extend the child's thinking through enquiry-based learning. Opportunities for higher-order thinking skills need to be provided by the teacher.
- ❖ There needs to be more emphasis on learning skills and reduction of teacher-based assistance.
- ❖ Constant and correct feedback given to the child at every step tremendously helps in reaching goals. Positive feedback needs to be given to the child. This will lead to enhancement of self-esteem.
- ❖ The software must be compatible with the nature of the experiences of the child at school, home and the community.
- ❖ The accent, narration and diction of the speaking voice must be clear and understandable.
- ❖ Bilingual or multi-lingual options to facilitate learning especially in the Indian context are strongly recommended.
- ❖ Educational software needs to be culturally appropriate.
- ❖ It is imperative to have appropriate content in the educational software. But it is extremely vital that the software should be devoid of inappropriate content.
- ❖ The software should *not* promote biased gender-specific roles, traits or behaviour in ways that devalue a particular gender.
- ❖ Respect for both the genders must be communicated .
- ❖ Equal prominence for both the genders must be given.
- ❖ The software should be devoid of violent content.
- ❖ Software should not foster any kind of anti-social behaviour (Satish, V, 2014).



INFORMATION AND COMMUNICATION TECHNOLOGY IN EARLY CHILDHOOD YEARS - ROLE AND IMPACT

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As a mother of a young child, I take pride in telling others whom I meet, that my little one outsmarts me and my husband in his proficiency to use Information and Communication Technology (ICT) aided gadgets. To my astonishment, excepting few, most of my peers sound no different. In the current digital age, those parents of children who are amateurs at using ICT either question their ability as parents in facilitating their children to be adept in using ICT on par with their counterparts or are perceived as laid back in their parenting skills in this regard by others. Few other parents underplay the indispensable need to be attuned to the modern demands of being tech-savvy by focusing unduly on the impending negative impact of ICT on their children. So observing closely, though there appears to be a mixed opinion concerning ICT and parenting, it is obvious that everyone is perplexed, confused and bombarded with a plethora of questions concerning ICT and its role in early childhood years; role of parents in augmenting their child's learning through ICT and their responsibility as a parent in exposing his/ her child to ICT.

Information and Communication Technology (ICT) is a diverse set of technological tools and resources used to create, communicate, disseminate, store and manage information. The role of ICT in early years was primarily confined to computers in the 1990s. Currently, use of ICT in early childhood years has evolved in multitude ways. Children of the present age are born into the world that is highly driven by ICT. They begin to manipulate ICT materials as soon as they grow old enough to manipulate things. There is need therefore to provide ICT-learning experiences that can aid their holistic development. This includes use of digital cameras, digital videos, digital picture frames, digital libraries, interactive white boards, closed circuit television, programmable toys, remote controlled toys, simulation games, puzzles, robotics, electronic musical instruments etc. In addition to these, young children can have the opportunity to experience ICT in real-life environments as well. Exposure to cash counter machines, traffic lights, electronic billboards, intercoms and automated doors during outings or food processor, microwave oven, karaoke machines, touch screen monitors, tablets, mobile phones, play stations at home environment are but few examples to highlight.

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Parents can use ICT with their children on their own to support and scaffold their child's early childhood experiences to enhance, improve, investigate and build learning experiences. Some soft wares can allow children to engage in self-directed exploration and can be tailored to children's individual needs.

Assistive/adaptive ICTs can reduce barriers to participation for children with special physical / learning needs. In early childhood education settings, teachers have integrated ICT in educational activities to make learning more stimulating, collaborative and engaging than a traditional classroom environment. In fact, ICT is influencing every aspect of early childhood education from teaching-learning to assessment and evaluation. Needless to say, disparities in the levels of ICT readiness and use could translate into disparities in levels of productivity by children. However, it is pivotal to understand that although ICT offers the opportunity to construct powerful learning experiences for children, it is pedagogically neutral. As a parent or teacher, it is imperative to realize that the possibilities by which ICT can be used for maximum profitability for the child is a human decision, not inherent in the technology itself.

Concerns raised by parents, teachers, child development specialists and practitioners with regard to the harmful effects of undue ICT dependency among children cannot be underestimated or overlooked. While most children are able to attain the Early Learning Goal for Technology much earlier than age five, it is important for parents to help their children build awareness of how technology influences their everyday life. Apart from the pressure of providing ergonomically designed workstations to access ICT enabled devices, the health concerns related to carpal tunnel damage, strain on eye sight, obesity and the possible risks of radiation exposure from monitors should also be taken into consideration by parents. Though evidences regarding the degree of risk associated with these hazards are well established among adults and remains unclear among children, limiting the time children spend at computers will avoid potential dangers. Evidence based researches have emphasized the negative impact on child's social development in terms of anti-social behavior, aggressive behavior and isolation in cases of ICT addiction. Inappropriate exposure to violent/sexual content and inapt cultural/social stereotypical roles would certainly displace other important learning opportunities provided by ICT if used irresponsibly. Parents have to act conscientiously and responsibly while they permit their children to toy with ICT devices especially while accessing social media or playing online games.



Adhering to the following guidelines is likely to help parents ensure their children's cyber safety.

- Place computer in the family room rather than in the child's room.
- Join/supervise children while they surf the net.
- Monitor the files that children store.
- Facilitate to choose applications that are transparent and intuitive.
- Ensure that all websites are vetted for appropriate use by children.
- Periodically check the websites that children browse.
- Review online gaming sites and terms of acceptable use.
- Familiarize oneself with the game ratings and privacy statements.
- Instruct children to conceal personal identity usually requested for registration.
- If interested to register for a contest, advise to seek prior permission from elders.
- Never entertain children to chat with strangers.
- Caution private entry into a private chat room.
- Prevent children from voice chatting with other players using headset.
- Oppose sharing of photographs with online strangers.
- Teach children to abstain from downloading attachments from strangers.
- Encourage children to confide uncomfortable feelings or online threats to parents.
- Persuade to report offensive/ abusive/ perverted pictures/ attachments.
- Warn children to be aware of cyber bullies.



References:

Olowe, P.K. & Kutelu, B.O. (2014). Perceived Importance of ICT in Preparing Early Childhood Education Teachers for the New Generation. *International Journal of Evaluation and Research in Education (IJERE)*. Vol.3, No.2, pp.119-124.

Rachel, B. (2004). *The Role and Potential of ICT in Early Childhood Education. A Review of New Zealand and International Literature*. New Zealand Council for Educational Research.

Siraj- Blatchford, I. & Siraj-Blatchford, J. (2003). *More than computers: Information and Communication Technology in the Early Years*. London: The British Association for Early Childhood Education.

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ICT in Education – Education Entangled in the Media Web Pros and Cons / e-learning

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Fusion powered learning or Con-fusion induced teaching?

It is interesting to note that we can discuss the two sides to a coin on any matter that impacts society. Be it on moral values or social etiquette; be it on consumer behaviour or economic divide, there is always a trade-off between benefits and the associated costs. These are not caused by discontinuities, but disruptions. One of the areas that is causing excitement as well as anxiety is the emergence of digital divides even among the educated sections of the society.

Alongside the changing demographics, the impact of digital technologies a.k.a. Information and Communication technology brings the subject of education, under spotlight. From the times of Gurukul to the modern-day online universities, content has been the dominant force of teaching, followed by the Guru and the Shishya's learning abilities. Even as late as the Nineties, the education systems laid emphasis on personal interaction between the teacher and the taught.

The premise of traditional education is that the teachers are knowledgeable, and this is valid, but whether they more informed in the digital era is to be introspected. Part of the issue is the static curriculum that focused on more on the fundamentals, than on the contemporary applications. Teachers have exceptional grasp of the core subjects for the most part and their teaching methods in a class room environment are standardized. The source of information is tribal knowledge and libraries, with efforts from the student and teacher to explore further. Tools like video streaming in virtual classrooms, thanks to use of ICT is a big leap forward in modernizing class rooms, but do they address the issue of quality learning?

Let us look at in the context of consumer (student) expectations in today's scenario – access to content through the web and use of mobile internet connectivity. There is so much content available in different media – documents, videos and illustrations. The ease of access to content and the virtual interactions have very little time boundaries. Class rooms force students, to a pattern of learning that ignores the learnability quotient of individuals.



Content from different sources, validated or not find the way to the web resulting in a Fusion of ideas, theories and experiments. Suddenly, the students get to consume more information on any subject from anywhere and anytime. Teachers are under pressure to update their content after reducing the noise or unsubstantiated facts as contents. Social media interactions make peer to peer teaching ecosystem with content, teacher, students and experts, actively participating.





ICT in Early Childhood

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Information and Communication Technology [ICT] in early childhood education provides a huge range of possibilities. Its existence cannot be ignored as it's there all around us in the form of mobiles, tablets, laptops, desktops, television, smart boards and we are spoilt for choices for content.

These facilities can be provided and accessed in schools both in rural and urban areas. Having worked and headed schools of both kinds, I have taken support for content, detailed planning, training, effective implementation in class. Students must get the right content and the best, as it is very important that nothing wrong is taught in the foundation years. Unlearning the wrong skill or concept is a much more tedious job than teaching the new, and I need to mention that they listen to and learn from the teachers only. Even if corrected, they say, "My teacher taught me this."

These days, teachers, good teachers, are a rare find- both in rural and urban areas. My experience has been that the teachers are dedicated, committed and have the drive to learn but lack the proper exposure and learning. Here the ICT will help the teachers to unlearn, evolve to be good teachers and bring the change for the teaching community too.

To be specific, in the preschool, students are empowered with skills of listening, speaking and reading. If the pronunciation of the teacher is not right, the students will also learn it wrong. So I have ensured the teachers use videos and smart boards to minimize errors.

Learning to communicate is the very essence of teaching. I get a better understanding of the errors through class observations. As all of us know, rhymes and music are an integral part of learning in preschool as they love the simple rhythm. Incorrect training results in "Teddy Bear, Teddy Bear" being pronounced as "Teddy Beer, Teddy Beer"!

Well, I don't blame the teacher at all. Learning English is complex with so many exceptions. If ear, hear, dear sound 'eer' why not 'bear'? Bear sounds like 'air' and heard 'ur'- very confusing indeed. The example is not to highlight the teacher's lack of capability, but to emphasize the difficulties the teacher faces. The teachers can use even apps, which are in plenty, to correct themselves, thereby ensuring children learn right the first time itself. It's not necessary to speak like the American or British but there is a necessity to pronounce correctly so that the meaning does not change.

The brain can be compared to the computer in the sense that it comprehends when taught step by step in a systematic, organized manner, and in the proper sequence, else it leaves the student in a state of confusion. Here again the ICT plays a pivotal role for the student and the teacher—for the student to grasp with ease and the teacher to teach the right way. It also helps maintain consistency and uniformity with regard to content and methodology used to deliver in every section of the particular grade. This eliminates the anxiety of the parents to a certain extent.

Story telling is an integral part of the pre-primary. When the story is just read aloud, it may be a little abstract as all the students are not at the same level of comprehending, and need not be, too. So, when videos are played, the students are able to appreciate the story as they are able to 'see'. I have also had the students use headphones to listen and learn to pause, for proper diction, intonation and expression- an add on value.

While I am talking about what the ICT can bring to a class, one also needs to be very careful as the students can just be 'hearing' and not 'listening'. To rule this out, the video has to be paused at regular intervals and questions should be asked to check for understanding. It can be the other way too- ask them a question or two, play the video, pause, and students watch, comprehend and answer.

What we as adults consider a normal environment is also changing for the students, and is something we need to keep in mind. For example, in a rural school, I had asked the milkman to bring his cows to show the students, and he talked about what he did to care for them. They also saw how the cow was milked. The same thing was taught in an international school in the city. The students need the same context to understand, but here there was no actual cow, but YouTube - not real but reel. The teachers were able to extend a little to show and talk to them about how cows are taken care of in India and other parts of the world.



The potential is vast but needs proper and careful planning, to see what skills are developed; and not at the cost of neglecting social skills and communication.

ICT is definitely not to keep them occupied but to engage the students in a meaningful manner. Using smart phones, students' activities can be recorded. Students love to see themselves. Parents also enjoy seeing their children's activities. Sharing activities such as recitation or singing a rhyme, or any hands-on activity, can be recorded and sent to them. This reduces their anxiety and parents are proud of their children's performances. As a parent, I would definitely like to know what my child does and learns in school.

Math can be 'learning with joy'. Patterns, spatial analysis, numeration, addition and subtraction can be taught through animation and students can be allowed to play and discover for themselves too. Introducing computers for the age group 4+ is a great idea. They can learn to use 'Paint' – they get to know the different shades, scribble and just paint and express their feelings and thoughts. Fine and gross motor skills are also developed.

I have had the opportunity to train the teachers of the pre-primary to use ICT in their classes. My experience is that many teachers are not comfortable using technology. Training, hand holding, walking them through the programme step by step and monitoring them continuously is very crucial; teachers also need to plan and prepare to teach effectively in class. ICT is an integral part of teaching and learning in the pre-primary and of course, it is there to stay for a long time.



Information and Communication Technology (ICT) in the Early Years / ICT support in teaching

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As an educator and a parent of two bright girls, I firmly believe that information technology and communication technology may not be used for the education of young children and it may not even be used for entertainment until the children are six at least. I would prefer 12 though.

Is it used for knowledge? What are the benefits of the screen and technology in this? What do the children need to learn?

The children before six years of age have a huge task of becoming independent. They have to master their motor coordination, refine their senses and develop concentration. When using technology all they can learn is lots of nouns, some more vocabulary and general knowledge. This can be achieved by actually working with real objects.

They can learn about fruits and vegetables while shopping and cooking with their parents. About animals from books or from visits to the farms and the National Parks. Books are available for all the topics.

Reading together with parents and grandparents is a great bonding time.

Is it used as a baby sitter?

Is it used as a distraction?

If the screens are used as a distraction or as a baby sitter, then it is scary. Children who are glued to the TV or other screens are least interested in making friends and socializing.

For holistic development of children, they need to use their bodies, play games, run, skip, jump etc.

If they work and help in the house instead of watching a screen or playing a video game, they are likely to have better self-esteem and are likely to be better human beings.

Initially when we involve them in our chores at home, it may be difficult and more time consuming but soon they will master these activities and be a helping hand. They will develop independence and better self worth apart from their physical development and improved motor control.

The activities the children can do depending on their ages are almost anything. They can

- clean
- dust
- sweep
- mop
- do the laundry
- chop fruits and vegetables
- put them in the fridge
- clean the greens
- wash the vegetables
- set the dining table
- wash the dishes and many more.

They love to do these chores if the parents and other adults around them are performing them.

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What are they missing out while they are engrossed in the games or shows provided by technology?

How about their social interactions?

Are they able to problem solve in real life situations?

The biggest issue is social development.

They will be experts in managing the electronics but what about the real relationships. There is a direct connection between the brain development and work of the hands. When the hands don't do anything, I wonder how the brain will develop further.

Is it right for their physical bodies? Do they get enough exercise when they spend time on media?

Each human being needs physical exercise, be it yoga, playing games, swimming etc.

Are they eating while watching TV or playing video games? Are they aware of what and how much they are eating? Are they enjoying their food?

Many parents introduce TV or iPad while feeding the children. As the child is being fed, the child is watching TV. So the child does not know how much he or she has eaten but the parent's goal is achieved. This child makes an association between TV and food. Each time he/ she eats TV is required. There is no idea what is eaten, how much is consumed etc. The interest shifts to the TV show from the food. The digestion is not proper when all the senses are not involved while eating.

When the nose gets the flavour of the food the juices are released to digest the food. The eyes see the food and the appetite is developed.

Why do you think great innovators like, Steve Jobs and Bill Gates didn't allow their children any screen time until they were about 12?

There are so many IT engineers from India in the USA, who have not exposed their children to screens. I am sure they know better.

These brilliant innovators didn't have the screens in their childhood and yet they achieved so much.

What about the radiation coming from the instruments and WiFi? It is worth looking into what the radiation does to our brains and especially the brains of young babies and children.

The screens are highly addictive. The number of message units received from a screen is very high compared to a book or nature viewing. The mind gets used to this high message units and gets bored when it's not bombarded by several messages.

So just sitting in front of a peaceful lake or a beach is not interesting enough.

Most of us have different learning styles. Some of us are high visual learners and some may be high auditory learners and some are high kinesthetic learners. But most of us have more or less all the three learning styles. For instance, I am a 35% auditory, 32.5% visual and 32.5% kinesthetic learner.

If I am learning from a TV, I will be using only 67.5% of my capacity to absorb. If I learn from listening to a radio I am using only 35% of my ability. But if I am working on a project where all my skills are used, I am employing 100% capacity.

Use of hands and bodies are significant for intellectual development, physical health and mental peace.

When we work on something we develop concentration, this concentration is very different from the child who is engrossed while watching TV. Most interestingly, happiness is the ultimate goal of most parents for their children. But due to lack of clarity, we tend to focus on unimportant things.



Left to their own “devices”

Information and Communication Technology (ICT) in the Early Years

*Monisha Singh Diwan,
ECD Good Practices Advocate,
Founder - Mighty Hearts and Executive Committee Member- AECED*



Look how smart she is, just 1 year old but knows already which button to press! She’s a budding Junior Bill Gates.

Here, you can play the game on my cell but let me talk to aunty!

Children, today I have something special, instead of going out to play, we will play with new I-pads in class, yayyyyyyy!

I am putting the cartoon on TV, you have to finish all the food on the plate if you want to watch it.

Sounds familiar???

Our young ones are being raised in a world invaded by technology. Television, tablets and cell phones, Computers and umpteen apps and programmes control the mind pervasively. Homes and schools are getting more and more “gadgety and techy” for children in the quest of raising tech savvy children right from the womb. Children are left to their own “devices” literally as technology becomes a teachers’ and parents most reliable “aide” as the adults go missing doing other stuff or think they are providing the 21st century advantage to children.

Let’s please wake up and take notice before a whole generations childhood gets lost in virtual space to a point of no return...

The early childhood community have known for years that for healthy development, young children need safety, food, belongingness, love and care; that for optimal learning, they need to explore with their whole bodies and their senses; that they need warm and positive interactions with caring adults and need to be held. Children flourish when they are spoken to, read to and played with; when they engage with hands-on play, both active and creative as well as interact with other children and adults. They blossom when they connect with nature and have opportunities to discover and explore their world in the care and guidance of caring and responsive adults. Modern science validates that and so do our observations and experiences as early years educators of how children learn.

In the last few decades, neuroscientific research evidence has reiterated why the early years of life are so critical. The human brain begins developing prior to birth and continues through life. Early experiences shape how the brain architecture develops. There is critical need therefore for a strong foundation in the first 8 years of a child’s life as that increases the chances for positive outcomes later. Babies begin life with loads of neurons, some connected to each other, some not.

Experiences decide which neuron gets connected to which other one. Repeated experiences strengthen these connections shaping habits, values, responses etc. The experiences children don't have also effect brain development. Neurons that are not used are pruned away. This means that how children spend their time has lifelong implications.

Information Communication Technology (ICT) in the 21st century is integrated into all aspects of our modern day life. I am looking at technology with children as end consumers and referring to Screen time in the form of television viewing, cell phone or tablet apps or computer games, this screen time that replaces those essential experiences. Studies have concluded that the quantity and quality of screen time play a major role in shaping the social, emotional, and “academic” learning experiences for children. Excess screen time for children time is linked with many of the health, social and emotional problems facing children some of the alarming ones being-

- **Lessening of essential creative play and time spent in interacting with caring adults:** Screen time erodes the chances of engaging in creative, hands on play and essential conversation with adults, two activities so essential to the early years.
- **Deteriorating learning and peer relationships:** For children under 3, research demonstrates that screen media are a poor tool for learning language and vocabulary and suggests that they are actually linked to delayed language acquisition. By the time children turn 10, every additional hour of television they watched as toddlers is associated with lower math and school achievement, reduced physical activity, and victimization by classmates in middle childhood.
- **Childhood obesity:** Right from the early years, time with screen media is an important risk factor for childhood obesity. The more time pre-schoolers spend watching television, the more junk food and fast food they are likely to eat. In fact, for each hour of television viewing per day, children, on average, consume an additional 167 calories.
- **Sleep Disturbance:** Hours with television are linked to irregular sleep patterns in infants and toddlers and to sleep disturbance in pre-schoolers and children ages 6 to 12.
- **Brain structure changes:** For children spending more than 7 hours screen time per day, brain scans show a thinning of the cortex — the outer layer of neural tissue responsible for processing information from each of the five senses.
- **Health issues in unborn children:** smart phone use and radiation exposure to health issues in young children and the unborn babies of pregnant women.
- Defining quantity and quality is imperative to accessing the benefits of using technology with children. American Academy of Pediatrics (AAP) guidelines focus on the quantity of programming and the environment in which its consumed as the key and can be a reference. They recommend
- Children under 2 years should avoid screen time, with the exception of video chatting with significant caregivers.
- For children ages 2-5 years, parents of children who want to introduce technology should choose high quality programming and parents should co-view to help their children understand content. Screen time should be limited to MAX 1 hour per day of high-quality programming. **Quality programming here is defined as intentional and developmentally appropriate.**

The National Association of Education of Young Children (NAEYC) highlights that technology and its application should be highly scrutinized for quality, and that **benefits of technology in learning are facilitated through the interactions facilitated by the educator, parent or other guiding person.**

class or school blog



radio or podcast



email



social media



apps



voice tools



There have also been some positives seen though with well-designed television programs, such as Sesame Street, which are shown to improve cognitive, literacy, and social outcomes for children 3 to 5 years of age. Unfortunately, most apps parents find under the “educational” category in app stores are ineffectual. Digital books, also called “eBooks,” books that can be read on a screen, often come with interactive enhancements that, research suggests, may decrease child comprehension of content or parent dialogic reading interactions when visual effects are distracting. **Important to note that higher-order thinking skills essential for school and life success, such as staying on task, impulse control, emotion regulation, and creative, flexible thinking, are best taught and learnt through unstructured social play, as well as responsive parent-child interactions.**

While we do need more research to be conducted on the effect of media and screen time and especially in the Indian context and in more adverse settings, looking at the research available, the need for intentional, activity based learning for children AND critical role of adults as MEDIA MENTORS remains paramount. Ten questions that could help examine a families or preschools use of technology in the Early Years and begin to define what, when and how to use technology at school and home are:

Checklist for use of technology in the Early Years

- 1.1. What's getting replaced when you have screen time (at what cost)?
- 1.2. Is screen time controlled?
- 1.3. Is screen quality checked and monitored?
- 1.4. Is screen time intentional?
- 1.5. Is screen time interactive ?
- 1.6. Does screen use interfere with what children need to do more importantly e.g., play, read, chat?
- 1.7. Does screen use interfere with sleep?
- 1.8. Is screen time associated with snacking?
- 1.9. Do adults co-view and discuss?
- 1.10. What example are the adults setting with their own screen time?

In summary, young children learn best when they are engaged in creative and active play, more interactions with caring adults and peers and time in nature and with “real” stuff instead of using screen media. There is no evidence that using technology will make them smarter or more tech savvy, however there is loads of evidence on the harmful implications of screen time and its overuse. Just as a butterfly takes its time to grow and forcing it out of its chrysalis damages it for life, so it is for children. In their cycle of development, technology really does not have any role to play to better their childhood so why go for it to the exclusion of what's most and more important to them. Common sensical isn't it!

Let's please wake up and take notice before a whole generations childhood gets lost in virtual space to a point of no return...



References

- www.naturalhealth365.com/cell-phone-radiation-brain-cancer-1936.html
- American Academy of Paediatrics (AAP). (2010, November). Media education (policy statement.). *Paediatrics*, 126(5). www.pediatrics.org/cgi/doi/10.1542/peds.2010-1636
- Boston University Medical Center. (2015, January 30). Mobile and interactive media use by young children: The good, the bad, and the unknown. *ScienceDaily*. Retrieved from www.sciencedaily.com/releases/2015/01/150130102616.htm
- Epstein, A., & Hohmann, M. (2012). *The High Scope preschool curriculum*. Ypsilanti, MI: High Scope Press.
- Rideout, V. (2013, October 28). Zero to eight: Children's media use in America 2013. (Research study by Common Sense Media). Retrieved from <https://www.commonsensemedia.org/zero-to-eight-childrens-media-use-in-2013>
- https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/resources/topics/PS_technology_WEB.pdf
- <https://www.childcarecanada.org/resources/issue-files/technology-early-childhood>
- AECED Engage Mumbai (2014, April). To screen or not to screen" Monisha Singh Diwan (AECED)

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Going Digital – The Information Hub

**Lakshmi Shivakumar, Co-ordinator,
SIES Institute of Comprehensive Education
Sion**



Gone are the days when education meant carrying huge bags sitting down with your books and paper for doing reading and writing.

Today education has moved out of the walls of the classroom. Learning in the virtual world gives a clear understanding because everything gets visual. Underwater or Solar System are places that you cannot fathom visiting. The digital world brings these into the realms of the classroom making learning interesting.

Let us compare the traditional method of teaching the life cycle of a butterfly viz-a-viz a movie or PPT presentation showing the transition. Use of technology in the teaching learning process would have a lasting impact on the child.

Technology can become the catalyst for change to help students to use higher order thinking skills. Children today use online technology e-books, e-journals, audio books, videos, for the purpose of education.

The enigma of learning from books, turning pages, will soon become a thing of the past. It is enchanting for students of today to just swipe the screen to access a wide range of material available via search engines at just the click of a button.

Toddlers can effortlessly work on the I Pad and figure out how to play games. They also learn to play cooperative games by waiting for each other's turn.

The teacher needs to have the ability of blended learning i.e. use the old age method and combine with the new age technology assisted learning.

Technology however cannot replace activities for overall development of the child viz. creative art and craft activities, games, helping with preparation of food – cooking, sweeping, mopping, setting the table etc. It is important to provide early learners with time to simply play, create and use their imaginations. Whatever has been done traditionally – the activities such as running, jumping, skipping, playing, kneading play dough, creating, laughing and playing with friends, dressing up, threading are core to learning and development in the early years. Technology and media cannot replace these activities. It can only be used to enhance the child's learning experience and make it exciting.



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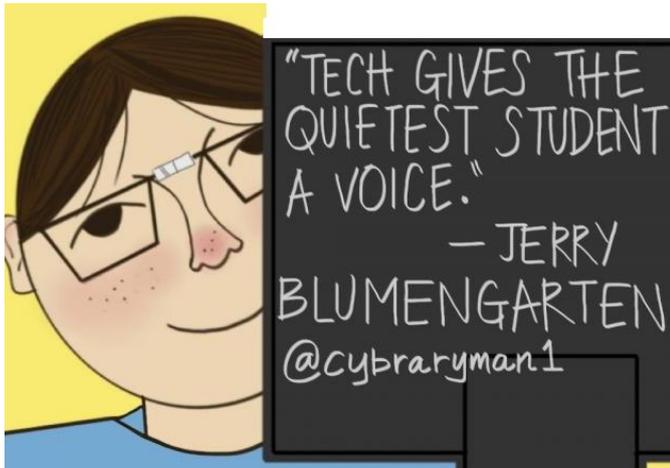


voice tools



Teacher's role to effectively use interactive technologies in preschool, NAEYC recommends:

- Allow children to freely explore touch screens loaded with a wide variety of developmentally appropriate interactive media experiences that are well designed and enhance feelings of success.
- Provide opportunities for children to begin to explore and feel comfortable using "traditional" mouse and keyboard computers to use Websites or look up answers with a search engine.
- Capture photos of block buildings or artwork that children have created; videotape dramatic play to replay for children.
- Celebrate children's accomplishments with digital media displayed on a digital projector or on a classroom Website.
- Incorporate assistive technologies as appropriate for children with special needs and/or developmental delays.
- Record children's stories about their paintings or their play; make digital audio or video files to document their progress.
- Explore digital storytelling with children. Co-create digital books with photos of the children's play or work; attach digital audio files with the child as the narrator. (Effective Classroom Practice: Preschoolers and Kindergarteners, 2012)



Poem on Technology

Technology is a piece of art
 It can also be very smart
 It can help you wake up
 Make you an addict and sit up
 Learning on the tab and computer is so much fun
 but I seldom do move about and run
 Play is gaming on the play station
 Where I get to use my imagination
 Mobile phones to communicate
 Anything you might want to state
 People linked up on the world wide web
 Digital world indeed the Technology hub.



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STUDENTS' SPEAK - OUR VOICES OUR VIEWS

ICT a boon
by Amrita Parmaj

ICT is a boon to a class which is big in size. Visual impact and auditory development is enhanced, which otherwise is left to natural elements as and when they occur. It creates a lasting impact of the lesson taught. It can be modified to create the age appropriate lesson.



No more drab boring lessons - ICT a boon
by Kavitha Krishnamurthy

Use of ICTs are the best thing that has happened in our Education System. There has been a significant change in the way children retain what they have learnt because of this new system. The drab book matter has become very interesting through visual aids. It is rightly said, what is seen has a better impact than what is only heard. Thanks to ICT, learning is more lively and not Boring.



ICT for Holistic development
by Nisha Amanna

ICT is extremely useful tool to be used with children. It not only helps in the development of their attention span, concentration, visual discrimination, enhances memory and language skills but also helps in developing their fine motor skills as they use the keyboard or mouse pad. It involves a variety of movements like catching the mouse, clicking at the same time while also looking at the scene on the monitor or screen. Hence it helps in developing eye-hand coordination. It also helps the teacher make the lesson interesting and effective as she uses the smart board. It helps her to get ideas and gives support to her id as in lesson planning.

My experiences - using ICT with children
by Rutam Sanghavi

ICT helps children to get involved in the topics and be more attracted to things. ICT visually attracts and improves the involvement and learning of the children. At The Somaiya School, during my internship, I could personally observe this since I had done a PPT lesson where lots of animation was involved because of which, all the children were concentrating so well and had a lot of inputs regarding the lesson. It was extremely amazing and interesting for all the children.



STUDENT SNIPPETS

It's a digital world by Niyati Gala

In today's digital world, use of ICT in teaching has emerged as a very useful tool as it provides a learning experience which is not only audio-visual but also integrated with motion. The topics which otherwise would be difficult to explain can now be beautifully illustrated in the form of videos having songs and cartoon characters making the process easier for teachers and enjoyable for the children.

However, teachers should not turn a blind eye to the harmful effects of illuminated screens on children's vision. The human touch in the teaching learning experience should not be lost at any cost.



Why ICT? by Raveena Dhodi, PGDECE

ICT is of great use in the class as children show more interest. It is something which can be used for the auditory and visual development of the child. It helps in settling the children in class.

ICT - Innovative and Smart education - by Ruchi Khanna

ICT introduced in the classroom are quite helpful as it helps to access the internet through which detailed additional information could be researched and shared. Relevant pictures can also be shown. Also it makes studying more fun and interesting.

ICT is indeed a great part of technology and useful in the current education scenario. It is indeed a very innovative and smart technique.

Importance of ICT by Bhavika Mehta

Nowadays, computers are used by each and every person in every walk of life. It is like we get handicapped without it.

At present, it has become the most common means of educating the children. The children see PPTs and message based movies on laptops. I think that computers and AV systems should be there in each and every classroom.

Teaching learning process by Preethi Aruldas

ICT is the best way to enhance, support and optimize information through communication technologies such as computer, televisions, smartphones etc.

It is a great medium between the Teacher and Children as they play a vital role in teaching and learning.

Recently, Preschool Organizations took over ICT as an important tool for teaching young children. The main aspect of using ICT in Preschool is that Children's are likely to be attracted to visual treats such as videos, pictures etc..

**Life surrounded by Technology
by Saachi Khandpur**

Ict has become a important part of our lives. Todays children are also surrounded by technology. The process of learning is more enjoyable and children have a better understanding and they get a live experience For eg. The live experience of Life cycle of a butterfly in video can give a better understanding instead of a chart



**ICT - Making learning enjoyable
by Manisha Gowda**

I Feel that ICT has a lot of impact in children's learning. As we are in the modern world children are more pron digitally.ICT helps in the holistic development of the child.I feel that ICT makes learning easy and fun where children can learn through visual and auditory aspects. Today as teachers we need to make learning an enjoyable process rather than following the traditional methods.

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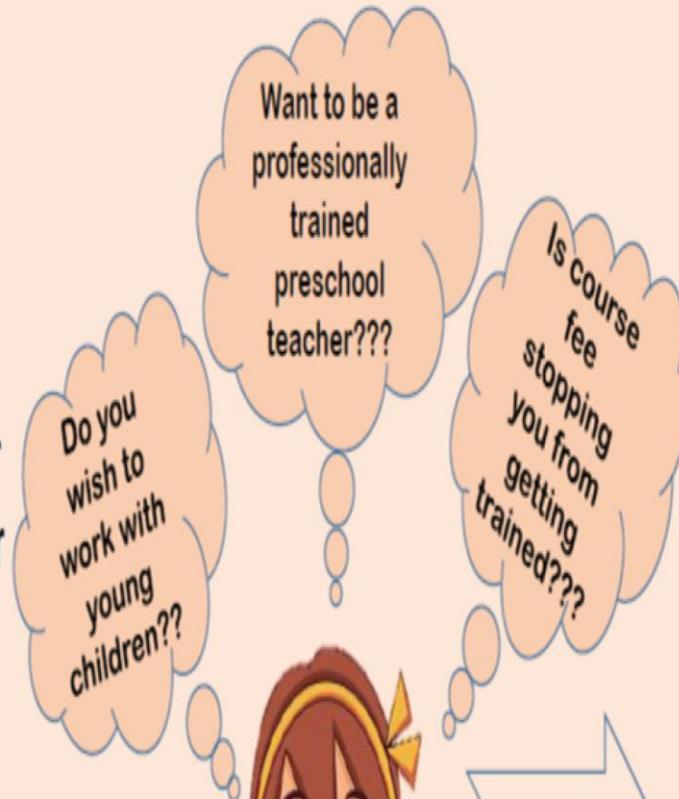
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ENABLING FOR INCLUSION

"Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has." — Margaret Mead

The rationale for inclusion is based on benefits to children with disabilities, children without disabilities, and to the school and greater community as a whole. The primary goal of inclusive education is to build a truly inclusive society that meets the needs of all students. This involves reworking traditional approaches to teaching and learning and avoiding the mistakes of the past when students from diverse backgrounds were left to live in the margins of society. Therefore, to support the holistic development of the child, we as educators, counsellors, parents and caregivers need to become learners first.

If you have the desire to learn about inclusion and special education needs....
If you want to be more engaged while working with the child in front of you....
But face the issue of time, convenience, or do not know where to go....

Online Courses would be the solution!

OVERVIEW

Drishti and SIES Institute of Comprehensive Education collaborate to present certificate courses aimed at enabling all stakeholders for inclusion and inclusive practices.

PROGRAM STRUCTURE

COURSE ONE

Mainstreaming Children with Special Education Needs (SEN) under Right to Education

COURSE OBJECTIVE: Develop a deeper understanding of inclusion and inclusive practices and equip yourself with knowledge and skills to address the needs of a mixed ability classroom

PROGRAM STRUCTURE

- 6 months Online Certificate Course
- 5 Contact Classes at SIES Sion (once a month);
Skype Interaction available for outstation candidates

Open to Educators, Parents, Caregivers and all other professionals who want to work with children

REGISTRATION FEES: ₹10,000/- per registration

COURSE TWO

SEN (Bridge Course): Special Education Needs—Teaching students with Learning & Behaviour Difficulties

COURSE OBJECTIVE: Develop competency to create remedial therapy plans (IEPs) and gain deeper understanding of strategies suitable for children with special education needs (academic and behaviour difficulties)

PROGRAM STRUCTURE

- 3 months Online Certificate Course
- Comprehensive Contact Program at the Drishti Centre;
Skype interaction available for outstation candidates

Open to Masters students (Psychology, Education and other related fields) or participants who have completed Course I (SEN)

REGISTRATION FEES: ₹10,000/- per registration

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BUILDING COMPETENCIES FOR MIXED ABILITY CLASSROOMS

"It's time we take our focus off disabilities and place it on capabilities, so we can see the person first." — Robert M Hensel

Drishti and SIES Institute of Comprehensive Education, Nerul Campus, Navi Mumbai are collaborating to offer capsule short term courses on subjects that are needed to ensure we are able to ACCEPT and SUPPORT all children in a Mixed Ability Classroom.

OPTION ONE

Self Learning Certificate Courses

- A. Understanding Emotional & Behaviour Difficulties
- B. Decoding the Autism Spectrum Disorder

PROGRAM STRUCTURE

- 30 hours Online Certificate Courses (Maximum Access: 60 days)
- Batches start every month

Open to Educators, Parents, Caregivers and all other professionals for self-learning

REGISTRATION FEES: ₹5,000/- per course registration

OPTION TWO

Professional Development Certificate Courses

- A. Differentiated Instruction for Inclusive Classrooms
- B. Positive Behaviour Management of children of all ages: A Caregiver's Toolkit

PROGRAM STRUCTURE

- 3 months Online Certificate Courses
- Batches: March-May & October-December
- Comprehensive Contact Program at SIES Nerul Campus

Open to Educators, Parents, Caregivers and all other professionals who want to work with children in inclusive environments

REGISTRATION FEES: ₹10,000/- per course registration

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SIES INDIAN INSTITUTE OF ENVIRONMENT MANAGEMENT

(Recognized by University of Mumbai)

M.Sc. in Sustainable Development and Environment Management

(M.Sc. SDEM)

(Affiliated to University of Mumbai's Garware Institute of Career Education and Development)

Academic year 2019-2020

Sustainable development refers to growth and development of the present generation without compromising the ability of future generations to fulfill their own needs. It has three major components - society, economy and environment. Confluence of these components is very important to achieve sustainable development goals for the prosperity of a country

Management of environment involves sustainable management of its resources in industry, agriculture, recreation, health, forestry, fisheries, education, urban development and protection of the environment. It also requires proper environmental planning, environmental status evaluation, environmental legislation and focus on implementation, monitoring and auditing practices. As a result, there is a rise in demand for professionals in this field. In fact, sustainability is expected to become the biggest job provider in near future.

Professionals with training in sustainable environment management would be required in public/ private sector for environmental planning, environmental status evaluation, environmental legislation and focus on implementation, monitoring and auditing practices.

M. Sc. Sustainable Development and Environment Management (SDEM) is a multidisciplinary job oriented course which addresses these requirements. It prepares students with the knowledge and skills to analyze environmental problems and issues, formulate potential resolutions and alternatives. The programme also aims to provide knowledge and skills to formulate, plan, implement and evaluate sustainable, sound and holistic development programmes and projects.

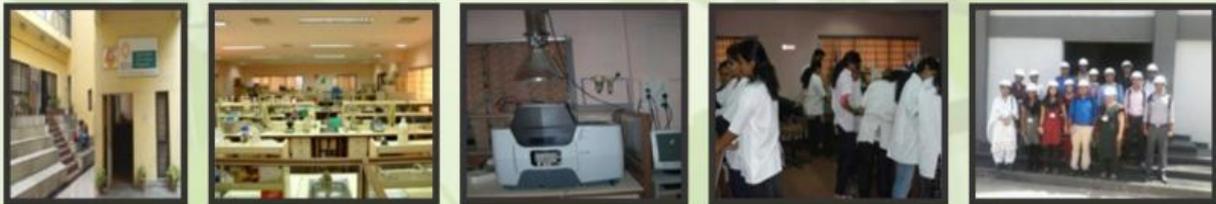
Eligibility: B. Sc. / B.E. degree or equivalent (Life Science, Microbiology, Biotechnology, Botany, Zoology, Environmental Science, Chemistry, Physics, Mechanical Engineering, Chemical Engineering, Bio-Chemistry, Civil Engineering, Sustainable Development, etc.)

Duration: Two year- Full Time

Subjects Taught: Sustainable Development, Corporate Social Responsibility, Environmental Impact Assessment, Environment Management Tools, Environmental Modeling, Risk Assessment, Industrial Health and Safety, Management of Solid Waste, Wastewater and Air Pollution.

- ### COURSE HIGHLIGHTS
- Highly experienced faculty and high faculty/ student ratio
 - State-of-the-art well equipped laboratory for practicals
 - Industry centered curriculum with emphasis to develop sustainability professionals
 - Interdisciplinary approach
 - Innovative pedagogy
 - Focus on innovation through project activities and industrial training
 - Linkages with various stakeholders like industry, NGOs, consultancy and government departments
 - Focus on improving individual skills
 - Specialized library
 - Placement assistance provided

- ### LEARNING
- After successful completion of this course, the students:
- Will have a deep understanding of the pertinent environmental issues and challenges
 - Will have knowledge and skills to tackle various environmental problems in industries
 - Will be able to work effectively as a member of an interdisciplinary team involving scientists, engineers, managers and administrators
 - Will be able to integrate technical knowledge and sustainability parameters to facilitate industrial sustainability and development of sustainable communities



The program includes Industrial Training, Dissertation, Industrial Visits and Placement Assistance

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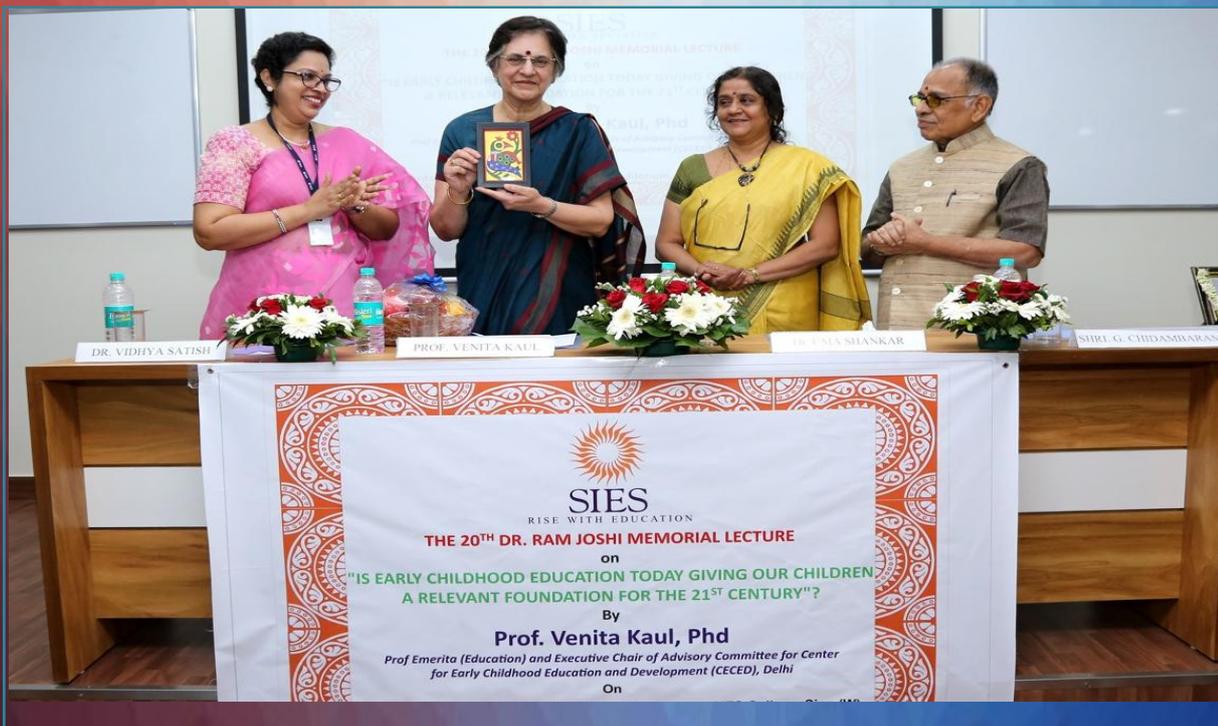
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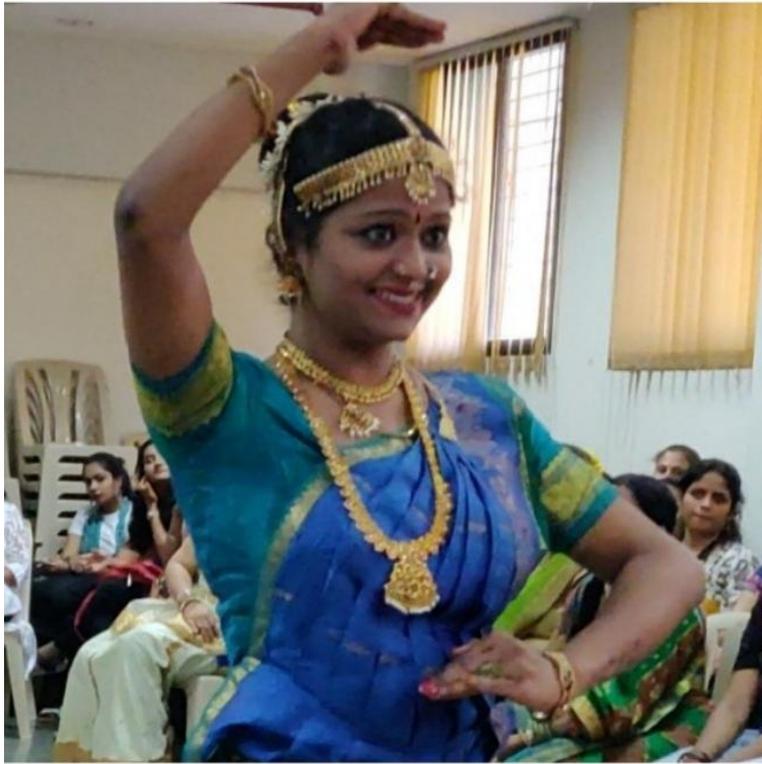


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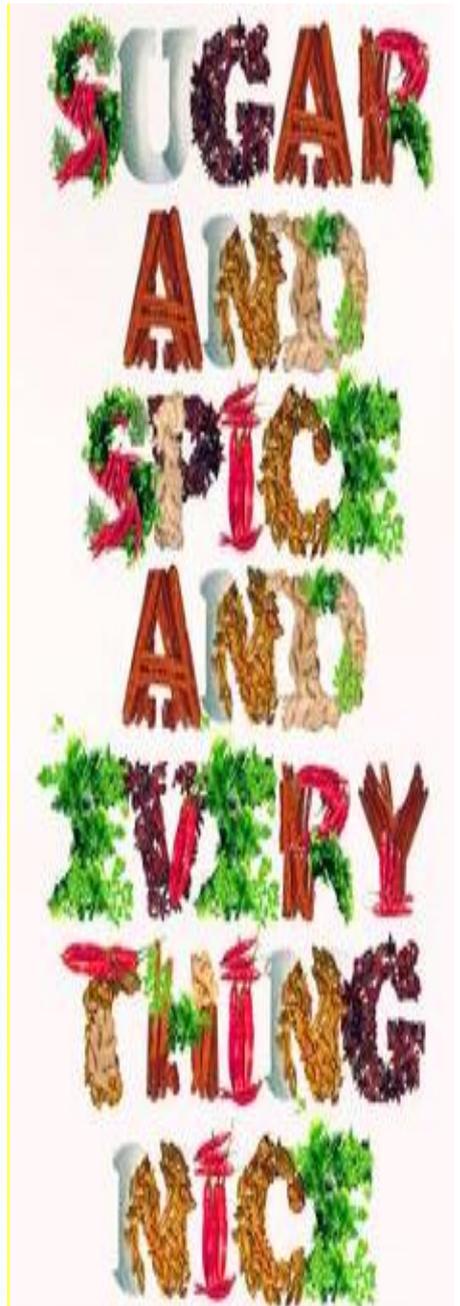
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